
A320 Family MEL

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ASIANA REV NO	APPROVED DATE	REVISION HIGHLIGHT	REMARKS
4	2001.08.04.	Established English Version of MEL including items for which special procedures are necessarily identified in the (M) and (O) procedures.	
5	2001.11.10.	Partially revised to comply with Corrective Action Report for AOC from KCASA (which was KCAB).	
6	2003.06.14.	Completely revised based on Airbus MMEL REV. 25 dated on 01 OCT 2002.	
7	2004.9.23.	Completely revised based on Airbus MMEL REV. 26 & 27 dated on 01 APR 2004.	
8	2005.4.20.	Partially revised with A320.MEL Manual size changed to A4.	
9	2006.11.14.	Completely revised based on Airbus MMEL REV. 28B dated on 24 APR 2006.	
10	2007.06.19.	Completely revised based on Airbus MMEL REV. 30a dated on 21 MAR 2007.	
11	2008.03.07.	Completely revised based on Airbus MMEL REV. 31 dated on 01 DEC 2007.	
12	2008.04.24.	Revised due to MEL KCASA Audit.	KCASA Notice(2008.4.3)
13	2009.05.15.	Completely revised based on Airbus MMEL REV. 32 dated on 09NOV2008.	
14	2011.11.15.	Revised To Customize MEL & CDL Based on A318/A319/A320/A321 MMEL_22FEB11 & AFM_08APR11.	Change numbering and format
15	2012.02.16.	Completely revised based on Airbus MMEL 22 NOV 2011. Remove AMM Procedures and CDL.	KCASA Notice 270(2012.02.06)
16	2012.05.02.	Completely revised based on Airbus MMEL 31JAN2012	
17	2012.09.03.	Completely revised based on Airbus MMEL 19JUL2012	
18	2013.07.26.	Completely revised based on Airbus MMEL 29MAY2013	
19	2014.02.28.	Completely revised based on Airbus MMEL 01JAN2014	
20	2014.04.18.	Completely revised based on Airbus MMEL 26MAR2014	
21	2014.09.24.	Completely revised based on Airbus MMEL 25JUN2014	
22	2014.12.23.	Completely revised based on Airbus MMEL 06NOV2014	
23	2015.06.16.	Completely revised based on Airbus MMEL 13MAY2015	

24	2015.09.04.	Completely revised based on Airbus MMEL 28JUL2015	
25	2015.11.30.	Completely revised based on Airbus MMEL 26OCT2015	
26	2016.02.19.	Completely revised based on Airbus MMEL 07DEC2016	

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- Insert this 'Record Of Temporary Revision' in front of 'List Of Effective Page'
- Replace the existing pages with the TR pages.
- Do not remove this TR until the regular revision distribution.

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THIS TABLE GIVES, FOR EACH AIRCRAFT INCLUDED IN THE MANUAL, THE CROSS REFERENCE BETWEEN :

- THE MANUFACTURING SERIAL NUMBER (MSN)
- THE FLEET SERIAL NUMBER (FSN) WHICH APPEARS IN THE AIRCRAFT MAINTENANCE MANUAL (AMM)
- THE REGISTRATION NUMBER OF THE AIRCRAFT.

Rev	MSN	FSN	Registration Number
	1356	101	HL7594
	1511	003	HL7703
	2226	252	HL7730
	2247	204	HL7731
	2290	205	HL7735
	2397	301	HL7737
	2459	302	HL7738
	3297	206	HL7763
	0802	102	HL7767
	3437	307	HL7769
	3483	308	HL7772
	3496	309	HL7773
	3641	310	HL7776
	3873	311	HL7788
	4112	351	HL7789
	4142	352	HL7790
	6299	364	HL8004
	6395	365	HL8018
	6768	366	HL8038
	6796	367	HL8039

Rev	MSN	FSN	Registration Number
	1174	402	HL8236
	5035	353	HL8255
	5169	356	HL8256
	5173	354	HL8257
	5287	355	HL8265
	5350	357	HL8266
	5382	358	HL8267
	5462	359	HL8277
	5500	360	HL8278
	5636	361	HL8279
	5767	362	HL8280
	5774	363	HL8281
A	7052	368	HL8059
A	7133	369	HL8060

SECTION 1

INTRODUCTION

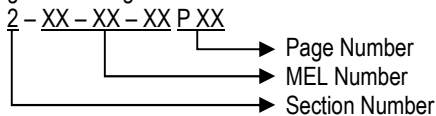
MEL INTRODUCTION

1. Certification & Document Purpose

- A. This MEL(Minimum Equipment List) instruct to dispatch the airplane with any deviation or defect. Also, this document is intended to assist flight operation and maintenance organization in developing the procedures required to operate the airplane in the various nonstandard configurations allowed by MOLIT(Ministry of Land , Infrastructure and Transport).
- B. This MEL(Minimum Equipment List) complies with Operations Specifications, D095(Minimum Equipment List Authorization) which is authorized by MOLIT.
- C. Also, MEL stipulate the flight dispatch requirements which is accordance with MPPM(Maintenance Polices & Procedures Manual) Chapter 12(Line Maintenance Procedures).

2. Document Content and Organization

- A. The MEL is divided into two sections as follows :
 - 1) Section 1 – Introduction & ECAM Messages.
 - 2) Section 2 – MEL(Minimum Equipment List).
- B. Section 1 provides a cross reference between ECAM messages and MEL items which may provide dispatch relief. The ECAM message list is in alphabetic order and includes all of the current ECAM messages. The ECAM messages applicable to airplane and the description of the condition or fault indicated by the messages can be found in the Trouble Shooting Manual (TSM).
- C. Section 2 contains all items of MEL(Minimum Equipment List) for dispatch. For ease of use, page numbering uses the MEL item number as follows :



- D. For example, MEL item 21-01-01-01 would be found on page 2-21-01-01 P 1 in Section 2.

3. Flight Dispatch Policies

- A. Definition of Deferral
 - 1) Defect on the aircraft found at the base or station should be corrected before the next flight. But, if the defect doesn't affect the airworthiness or the flight dispatch, the corrective action could be deferred and will be done as an unscheduled maintenance as soon as possible.
 - 2) The MEL procedures and guidance information are technically correct to the best of Asiana's knowledge and the MEL take precedence in the event of conflicting information.
- B. Condition for Deferral
 - 1) MEL Items: Deferral of MEL items are covered by this MEL instruction.
 - 2) Non-MEL Items: Deferral of the following Non-MEL Items that does not affect the

safety or airworthiness for flight is covered by MPPM, Chapter 12.2(Defer for Non-Significant Malfunction).

- C. An item without MAINTENANCE (M) is accomplished by 'Level A or higher' maintenance personnel or qualified and authorized personnel.
An item with MAINTENANCE (M) is accomplished by 'Level B1' maintenance personnel or qualified and authorized personnel.

4. MEL Operational Standard

- A. General & Purpose
- 1) The purpose of the MEL is to dispatch the aircraft functionally within acceptable safety level. Modern transport aircraft is equipped with duplicated systems, components, instruments, electrical/electronic communication facilities, structure, and important parts so that it may maintain its flight airworthiness and assure its reliability in spite of a malfunction of any parts.
 - 2) MEL is established for above reason, but MEL does not include items which are essentially required for the flight such as wing, rudder, engine, flap and landing gear, and non-airworthiness related items like cabin equipment, cargo loading items, minor airframe parts excluding major structure, etc.
- B. Establishment and Revision
- 1) The MEL is established/revised in compliance with JAA & Airbus 320 Family MMEL(Master MEL)which is approved by airworthiness authority of manufacturer/vendor.
 - 2) Asiana Airlines MEL should be approved by the MOLIT(Ministry of Land , Infrastructure and Transport). MEL should be separately established, maintained, and revised for each airplane type.
- C. Application and Limitation
- 1) When an abnormal condition covered by MEL occurs, the airplane could be dispatched by MEL. Items or components which are not installed on the aircraft are not applicable to MEL.
 - 2) For optional item for convenience, affected items or system can be removed or blocked/deactivated or can be converted to the alternative way which does not affect airworthiness and safety. Items and contents which are not prescribed in this MEL apply the FM or instruction from manufacturer or vendor.

5. MEL Application Process

- A. Decision of Departure
- 1) Departure of aircraft is decided in accordance with ECAM(Electronic Centralized Aircraft Monitoring) System. If there is not appeared status message or above level, it doesn't affect departure of flight.
 - 2) In the event of MEL application, flight crew, dispatcher, and the responsible maintenance crew must exchange views with one another regarding applicable defects. In case that malfunction may be satisfied on these standards and assured

the flight safety, the departure could be released. The responsible maintenance crew should explain information and corrective action to flight crew or dispatcher, if necessary.

- 3) Any failure which occurs between the start of push-back or taxi and takeoff brake release shall be dealt with as follows :
 - a. Flight crew in command should communicate with the dispatcher and maintenance crew to review and share the situation and determine whether the flight should;
 - (1) Return to the blocks for repairs (the failed equipment is a no-go item) or,
 - (2) Return to the blocks to accomplish an MAINTENANCE (M) procedure specified in the MEL before continuing the flight or,
 - (3) Continue using the alternate procedure (abnormal procedure) for operating with that failed item.
 - b. Flight crew in command may determine that the flight can be operated safely using the alternate procedure under the conditions of dispatch release, without communicating with the dispatcher and maintenance organizations.
- 4) In case of ferry flight, it could be released under the Operations Specification, D084 (Special Flight Permit With Continuous Authorization To Conduct Ferry Flights).
- 5) When necessary, other dispatch conditions of the same item can be applied successively if the MEL requirements are fully met and the starting point of the repair interval countdown is not modified.

Example) Even though 49-10-01A (Repair interval C: 10 Days) was applied, you can change MEL item to 49-10-01C (Repair interval D: 120 Days) if necessary.
 But the repair interval should be calculated from the next day from the day of discovery.

B. Responsibility of Maintenance Crew

- 1) Isolation of malfunction and Placard
 - a. Appropriate action should be performed to the defected part and other system or part related with defect should be ensured. Then, inoperative status or limited item about inoperative equipment must be placarded so that flight crew may not make the error of operation.
 - b. Maintenance crew must comply with MPPM 12.2(Defer for Non-Significant Malfunction) and Maintenance Operation Procedures [MEB 624(MEL/CDL Application Procedures)].
- 2) Recording or Reporting
 - a. The responsible maintenance crew should make a record the necessary items in the Flight & Maintenance Log in accordance with MPPM 12.2(Defer for Non-Significant Malfunction) and Maintenance Operation Procedures [MQB 506(Flight & Maintenance Log Recording Procedures)].
 - b. Thereafter, it shall be informed to flight crew or dispatcher and informed from each station to another station of applicable route including main base.
 However, if defect occurs after airplane's door close for departure, it is satisfied

with MEL, it could be recorded on Flight & Maintenance Log and placard at arrival station.

C. Repair Interval

- 1) Deferred defects should be corrected as soon as personnel, facility, equipment, property, and time are secured. If it is not possible to take a corrective action, it can be deferred and repair interval should be changed. But, repair interval should be changed within the time referred in Repair Interval designated as Category.
- 2) Repair Interval is designated as calendar day, the day is regarded as the term from midnight of the deferred date to midnight of the specified date. If the Repair Interval is designated as flight hour or cycle, Repair Interval should be accumulated from the moment of MEL application.
- 3) If the specified date of Repair Interval falls on any day during scheduled maintenance, it can be extended until the scheduled maintenance is completed.
- 4) Repair Interval could be extended as one-time extension of the applicable rectification interval B or C for the same duration as that specified in the MEL, provided the responsible MOLIT is notified within 24 hours of the operation exercise of extension authority. It is not allowed to extend the maximum repair time for category A or D items.
- 5) Asiana Airlines has chosen to apply Repair Intervals based on Korean local time. If the repair interval will expire during the flight, the dispatch of the aircraft is not permitted.
- 6) Day including "Flight Day" in MEL is based on Korean Time.
- 7) The day to record in the Flight & Maintenance Log is based on the local time of the airport where a malfunction was "signed off".
- 8) A procedure for each flight day has to be accomplished once in anytime of a flight day unless otherwise specified.

6. Document Contents & Organization

A sample format of MEL is as follows. A sample format is shown for information purpose and not used as a regular MEL item.

- A. A sample format and contents

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-06	Avionics Skin Exchanger Isolation Valve

Applicable to: AL

21-26-06A Valve inoperative in the open position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative in the open position provided that the avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

—Reference(s)—

(o) OpsProc 21-26-06A Avionics Skin Exchanger Isolation Valve

Applicable to: ALL

ON GROUND

- After application of the maintenance procedure:

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR p

(m) Refer to AMM 21-26-00-00-00/3

- 1) **SYSTEM** : System numbers are based on the Air Transport Association (ATA). Specification Number 100 and items are numbered sequentially.
 - 2) **ITEM** : It lists the equipment, components, systems or functions, for which dispatch conditions apply. System numbers are based on Air Transport Association (ATA) specification number 100.
 - 3) **REPAIR INTERVAL** : It indicates category A,B,C, and D that means the period of deferral. The limitation of correction for the item deferred is as followings.
 - a. **Category A** : Items in this category shall be repaired within the time interval specified in the "Remarks or Exceptions" column of the MEL. Whenever the proviso in the "Remarks or Exceptions" column of the MEL states cycles or flight time, the time interval begins with the next flight. Whenever the time interval is listed as calendar or flight days, the time interval begins on the calendar or flight day following the day of discovery.
 - b. **Category B** : Items in this category shall be rectified within three (3) consecutive calendar days, excluding the day of discovery. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.
 - c. **Category C** : Items in this category shall be rectified within ten (10) consecutive calendar days, excluding the day of discovery. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.
 - d. **Category D** : Items in this category shall be rectified within one hundred and twenty (120) consecutive calendar days, excluding the day of discovery.
- Note: A dash symbol replaces the repair interval in the following cases:
- For items that refer to another manual (Weight and Balance, CDL...). The MEL is not the appropriate manual for this item.
 - For items that refer to another MEL item. In this case, repair interval depends on the reference MEL item.
 - For NO-GO items.
- 4) **NUMBER INSTALLED**: It indicates, for a given item, the quantity of equipment, components, systems or functions, installed on the airplane. This quantity reflects the airplane type certificated configuration and, therefore required for all flight conditions, unless otherwise indicated in NUMBER REQUIRED FOR DISPATCH in conjunction with exceptions or remarks listed in REMARKS OR EXCEPTIONS, if necessary. Dash (-) symbol indicates that a variable quantity is installed.
 - 5) **NUMBER REQUIRED FOR DISPATCH** : It indicates, for a given item, the minimum quantity of equipment, components, systems or functions which must be operative for dispatch, under the conditions listed in REMARKS OR EXCEPTIONS column(if any). "Dash (-)" symbol indicates that a variable quantity is installed.
 - 6) **REMARKS AND/OR EXCEPTIONS** : It represents a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos(conditions and limitations) for such operation, and appropriate notes.

References are used in the following cases:

- To permit the aircraft dispatch, another item has to be considered inoperative, or
- Another source of information has to be reviewed and associated restrictions, and/or procedures must be applied (e.g. "Refer to FCOM", or "Refer to Weight and Balance Manual"),

or

- To redirect to the applicable MEL item. In that case, the referred relevant MEL item must be entered and the associated dispatch conditions must be applied, including the respective (o) and (m) procedures if any. In this case, the shorter interval should be applied. (e.g. "Refer to Item 36-22-03").

7) **APPLICABLE TO:** It indicates applicable aircraft.

8) **PROCEDURE:** It indicates the existence of (o) or (m) procedures. Applicable procedures are stated below Reference bar.

(o): The (o) symbol indicates that the dispatch condition requires a specific operational procedure to permit operation of the aircraft with the inoperative item.

Purpose of the operational procedure may be:

- To require the flight crew or cabin crew to perform action(s),
- To provide limitations or performance penalties,
- To provide useful information to the crew.

The flight crew must read the content of the operational procedure before each flight. The operational procedure must be applied before each flight. However, the dispatch condition might specify a different periodicity. In this case this operational procedure must be applied before the first MEL dispatch and must be repeated at the defined periodicity. The operational procedures are split and organized into specific flight phases. The flight crew has to apply the part of the operational procedure related to the relevant flight phase. Qualified flight crew or qualified cabin crew usually performs the operational procedures.

However other qualified personnel can also perform the operational procedures. But the flight crew must read the content of the operational procedure before each flight.

(m): The (m) symbol indicates that the dispatch condition requires a specific maintenance procedure to permit operation of the aircraft with the inoperative item.

Purpose of the maintenance procedure may be:

- To deactivate a system,
- To check a system.

The maintenance procedure is normally a one-time action that must be applied before the first MEL dispatch. However the dispatch condition may specify a periodicity for repetitive actions. In this case the maintenance procedure must be applied before the first MEL dispatch and must be repeated at the defined periodicity.

Qualified maintenance personnel usually perform the maintenance procedures.

However other qualified and authorized personnel can also perform some actions if qualified maintenance personnel provides advises. But only qualified maintenance personnel can perform procedures that require specialized knowledge or skill, or that

require the use of tools or test equipment.

The MEL maintenance procedures are published in the AMM.

B. Symbol & Definitions

- 1) **“A vertical bar (change bar)”** in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next MEL revision.
- 2) **“Centralized Fault Display System (CFDS)”** indicates the identity of faulty system for maintenance purpose and is not required for dispatch of the aircraft
- 3) **“Considered inoperative”** means that the item of equipment listed must be treated as inoperative. For example, MEL 36-11-05 Bleed Air Precooler indicates that associated bleed air supply system is considered inoperative and therefore MEL 36-11-01 Bleed Air Supply System must be applied. Therefore, the “considered inoperative” MEL must be entered and the associated dispatch conditions must be applied, including the associated (O) and (M) procedures if any. The shorter rectification interval between the initial inoperative item and the “considered inoperative” item shall be applied.
- 4) **“Contingency Fuel”** is an additional amount of fuel sufficient to provide for the increased consumption on the occurrence of any of the potential contingencies.
- 5) **“Day of Discovery”** is the calendar day on equipment/instrument malfunction was discovered. This day is excluded from the calendar days or flight days specified in the MEL for the repair of an inoperative item of equipment and is applicable to all MEL items in categories A, B, C, and D.
- 6) **“Day Operation”** – Any flight conducted from the point of take off to that of landing between 30 minutes before sunrise and 30 minutes after sunset.
- 7) **“Days”** – Some items have a time interval given in the remarks column of the MEL. Except if otherwise specified, “days” must be considered as “calendar days” excluding the calendar day the malfunction was recorded.
- 8) **“Deactivated”** and **“Secured”** means that the specified component must be into an acceptable condition for safe flight.
- 9) **“EDTO”** refers to operations according to “Extended Diversion Time Operations” requirements.
- 10) **“Excess Items”** means those items that have been installed that are redundant to the requirements of Regulation.
- 11) **“Extended Overwater Flight”** means airplanes operated over water at 120 minutes at cruising speed or 740 Km(400 nautical miles), whichever is the lesser, away from land suitable for making an emergency landing with one engine inoperative.
- 12) **“Flammable or combustible material”** means Material which is capable of catching fire and burning. Where loading of flammable or combustible material is prohibited, no material may be loaded except the following: cargo handling equipment (Unloaded, empty or with ballast), fly away kits (excluding e.g. cans of hydraulic fluid, cleaning solvents, batteries, capacitors, chemical generators,

etc.), and in-flight service material (Return catering – only closed catering trolleys/boxes, no newspapers, no alcohol or duty free goods).

Note: If serviceable tires are included, they should only be inflated to a minimum pressure that preserves their serviceability.

- 13) **"Flight(or Cabin) Attendant"** means a crewmember, other than a flight crewmember, who has been assigned duties to be performed in the interest of the passengers in a passenger-carrying aircraft.
- 14) **"Flight crewmember"** means a crewmember assigned to act as Captain, First Officer or Cruise Relief Pilot of an aircraft during flight time and is an authorized person for the purpose of some maintenance work.
- 15) **"Flight Cycle"** means a complete take off and landing sequence.
- 16) **"Flight Day"** means 24 hour period (from midnight of the day to next midnight), during which at least one flight is initiated for the affected aircraft.
- 17) **"Flight Hour"** means elapsed time between wheel lift off and touchdown.
- 18) **"FUEL PENALTY ITEM"** indicates the item has fuel penalty requirement.
- 19) **"Icing Conditions"** means an atmospheric environment that may cause ice to form on the airplane or powerplant.
- 20) **"Inoperative"** means that a listed item of equipment is unserviceable or malfunctioning to the extent that it does not accomplish its intended purpose, or is not consistently functioning within its designed operating limits or tolerances. Some systems have been designed to be fault tolerant and are monitored by digital computers which transmit fault messages to the CFDS. The presence of this category of fault messages does not mean that the system is inoperative.
- 21) **"Nonessential equipment and furnishings (NEF)"** are those items installed on the aircraft as part of the original certification, supplemental type certificate, or engineering order that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, crew rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator's NEF process shall not provide for deferral of items within serviceable limits identified in the manufacture's maintenance manual or operator's approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator's NEF process.
- 22) **"Notes"** in REMARKS OR EXCEPTIONS provides additional information for crewmember or maintenance consideration. Notes are used to identify

applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements.

- 23) **"OCTOPUS (Operational and Certified TakeOff and landing Performance Universal Software) program"** – This program enables to compute performance under regulatory constraints for a given aircraft and to optimize takeoff and landing performance for given runways. OCTOPUS is used for computations related to A320 family, A330, A340, A350 and A380.
- 24) **"Operative"** does not mean that its operational status must be verified ; it is to be considered operative unless reported or is known to be malfunctioning.
- 25) **"Passenger Convenience Items"** means those items related to passenger convenience, comfort or entertainment such as, but not limited to, galley equipment, movie equipment, ash trays, stereo equipment, overhead reading lamps.
- 26) **"Performance Limited Weight"**
 - Performance Limited Weights are the weights which meet all the performance requirements for each flight phase (takeoff, landing, enroute, quick turnaround).
 - For specific Performance Limited Weight under certain conditions, refer to Takeoff Chart (Takeoff Performance) and FPPM/Flight Handbook(Landing Enroute and Quick Turnaround Performance). The guidelines for the performance decrements are listed in the Engineering Information.NOTE : Takeoff Performance Limited Weight is not the MTOW(Maximum Takeoff Weight) or AGTOW(Allowable Gross Takeoff Weight).
- 27) **"Placarding"** - Each inoperative item must be placarded to inform and remind the crew members and maintenance personnel of the equipment condition. To the extent practical, placards should be located adjacent to the control or indicator for the item affected. Placard wording and location should be determined by the Maintenance personnel or PIC(Pilot In Command).
Note: **Temporary PLACARD**

If a defect occurs at a base or stations where maintenance personnel are not available, the flight or cabin crew may install a temporary placard as required by the MEL. The aircraft may continue on a planned itinerary to a base where maintenance will rectify or re-defer in accordance with the approved deferral system.
- 28) **"... Provided that system X is operative"**
 - The system X must not be reported to be inoperative in the logbook.
- 29) **"... Provided that system X is checked operative"**
 - The system X must be checked and confirmed operative via either an (o) and/or an (m) procedure.
- 30) **"Radio Nav aids"** – Radio Nav aids do not include GPS.
- 31) **"Required Cabin Attendant Seat"** is a seat in the airplane cabin which meets

the following conditions :

- Where the certification of the cabin requires this seat to be occupied by a qualified cabin crew member as specified in the Operations Manual ;
 - This seat is a part of the station to which a qualified cabin crew member is to be assigned for the flight ; and
 - The qualified cabin crew member assigned to the station is a member of the minimum cabin crew designated for the flight.
- 32) **“RNAV”**- Area Navigation(RNAV) is defined as a method of navigation which permits aircraft operation on desired flight path within the coverage of ground navigation facilities or within the capability of self-contained navigation aids or combination of these.
- a. RNAV 10(RNP 10) Operation Procedures: RNAV 10 is a navigation performance which is a required track-keeping accuracy of $\pm 10\text{NM}$ for at least 95% of flight time.
 - b. RNAV 5(B-RNAV) Operation Procedures: RNAV 5 is a navigation performance which is a required track-keeping accuracy of $\pm 5\text{NM}$ for at least 95% of flight time.
 - c. RNAV 1&2(P-RNAV) Operation Procedures : RNAV 1&2 is a navigation performance which is a required track-keeping accuracy of $\pm 1\&2\text{NM}$ for at least 95% of flight time.
- 33) **“RNP-X”** is requires aircraft performance to a track-keeping accuracy of $\pm \text{XNM}$ (1(Basic) :Terminal, 4 or 10 : Oceanic) for at least 95% of flight time. On-board performance monitoring and alerting are required.
- 34) **“X and later on”** means that it is also applicable to aircrafts which are manufactured later than X.
- 35) **“Verified”** means that a visual inspection or test is required to confirm unit or system operation or condition, as applicable.
- 36) **“VFR Flight Condition”** – Atmospheric conditions for the area of flight and does not pertain to the dispatch release, flight plan or clearance.
- 37) **“VMC (Visual Meteorological Conditions)”** - Under IFR or VFR the crew must maintain Visual Meteorological conditions.

ECAM MESSAGE INTRODUCTION

This section lists all the ECAM alerts. The ECAM monitors the condition of some systems. In the case of malfunction of one or more systems, the ECAM provides the flight crew with an associated ECAM alert.

For each ECAM alert, this section indicates the associated MEL item (if any) to be applied for the dispatch.

When an ECAM alert reports a system failure, the flight crew and the maintenance personnel should refer to this section as a user-friendly entry point in the MEL.

AIRCRAFT STATUS COLUMN

An ECAM alert may cover one or several failure modes of the monitored system.

For each failure mode, the AIRCRAFT STATUS column may indicate the following status:

- *NIL* : When there is only one failure mode, the AIRCRAFT STATUS column indicates *NIL*.
When there are several failure modes, the AIRCRAFT STATUS column might give a short description of each failure mode and/or a simple way to identify each failure mode. If the MEL does not give this information, the column displays *NIL*.
- Actual alert : This indicates that the monitored system is inoperative. The failure mode is the failure of the monitored system.
- False alert : This indicates that the monitoring system is inoperative. The failure mode is the failure of the monitoring system. The monitored system remains fully operative.

CONDITION OF DISPATCH COLUMN

For each failure mode, the CONDITION OF DISPATCH column gives the applicable MEL item(s) for dispatch. But the flight crew is responsible for checking that the condition of the aircraft systems/components complies with the MEL requirements. If not, the dispatch of the aircraft is not permitted.

The CONDITION OF DISPATCH column may also give the following alternate possibilities:

- NO DISPATCH : It is not permitted to dispatch the aircraft when the ECAM displays this alert.
- Not related to MEL : The ECAM alert does not report a system failure but a reversible abnormal condition such as the state of a system or an aircraft configuration or an external condition. This condition is not a system failure and is not related to MEL. The MEL shall not be used.
This is not a NO-GO situation. The corrective action to revert to normal condition is immediate, obvious or well known by flight crew and/or maintenance personnel.

Considerations for Dispatch with Displayed ECAM Messages

A. System faults displayed by ECAM message should be resolved by MEL compliance or maintenance action prior to engine start. After engine start, ECAM messages are the primary means of alerting the crew to non-normal conditions or improper configuration.

B. Display of any ECAM message requires accomplishment of the appropriate non-normal procedure by the flight crew or maintenance crew. Upon completion of the procedure and prior to takeoff, the MEL should be consulted to determine if relief is available for continued operation with system faults displayed.

C. HANDLING OF MAINTENANCE MESSAGES ON THE STATUS SD page

At the beginning of each ATA chapter of the "MMEL Item" section, the related MAINTENANCE messages which may be displayed on the STATUS SD page are listed in the Sub Chapter "00" with the associated dispatch status.

A MAINTENANCE message indicates the presence of a category of failure which can only be identified by interrogation of the CFDS.

Operator must implement procedures to manage the MAINTENANCE messages and associated CFDS messages, to handle fault recording and repair within the repair interval C (10 days).

All MAINTENANCE messages have a repair interval C except the following messages: DAR, DMU or ACMS, QAR and ICE DETECT (If Installed) which have a repair interval D.

Dispatch with MAINTENANCE messages displayed on the STATUS SD page is permitted without condition except for the following message:

AIR BLEED: Refer to Item 36-00-01 AIR BLEED MAINTENANCE Message.

LANDING CAPABILITIES (CAT 2, CAT 3 SINGLE, CAT 3 DUAL)

When the landing capability of the aircraft is impacted by an inoperative item, the associated MEL operational procedure provides the maximum landing capability.

The required equipment by certification for CAT 2, CAT 3 SINGLE and CAT 3 DUAL are also listed in the Flight Manual (Refer to AFM/NORM-22-PA Required Equipment for CAT II and CAT III Approach and Landing) and the QRH (Refer to QRH/OPS Required Equipment for CAT2 and CAT3).

The equipment to be operative to get CAT 2, CAT 3 SINGLE, or CAT 3 DUAL capability displayed on the FMAs are listed in the QRH (Refer to QRH/OPS Required Equipment for CAT2 and CAT3).

REQUIRED NAVIGATION PERFORMANCE (RNP)

The MEL does not include the minimum equipment required for RNP operations.

The minimum equipment/functions required to begin RNP operations are listed in the FCOM (Refer to FCOM/PRO-SPO-51).

REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

When the RVSM capability of the aircraft is impacted by an inoperative item, the associated MEL operational procedure provides the RVSM limitations.

The minimum equipment/functions required to begin RVSM operations are listed in the Flight Manual (Refer to AFM/NORM-34 Reduced Vertical Separation Minimum (RVSM)) and FCOM (Refer to FCOM/PRO-SPO-50 Reduced Vertical Separation Minimum (RVSM)).

FUTURE AIR NAVIGATION SYSTEM (FANS)

The MEL does not include the minimum equipment required for FANS operations. The minimum equipment/functions required to begin FANS operations are listed in the Airbus booklet "Getting to grips with FANS".

ABBREVIATIONS

A

Abbreviation	Term
A/C	Aircraft
A/THR	Autothrust
AAP	Additional Attendant Panel
AAT	Aircraft Allocation Table
ABCU	Alternate Braking Control Unit
AC	Alternating Current
ACARS	ARINC Communication Addressing and Reporting System
ACFT	Aircraft
ACMS	Aircraft Condition Monitoring System
ACOC	Air Cooled Oil Cooler
ACP	Audio Control Panel
ACT	Additional Center Tank
ADF	Automatic Direction Finder
ADIRS	Air Data Inertial Reference System
ADIRU	Air Data Inertial Reference Unit
ADR	Air Data Reference
ADS-B	Automatic Dependent Surveillance — Broadcast
AEVC	Avionic Equipment Ventilation Controller
AGL	Above Ground Level
AIP	Attendant Indication Panel
ALT	Altitude
AMM	Aircraft Maintenance Manual
AOA	Angle of Attack
AOC	Airline Operational Control
AP	Autopilot
APU	Auxiliary Power Unit
ARPT	Airport
ATA	Air Transport Association
ATC	Air Traffic Control
ATSAW	Airborne Traffic Situational Awareness
ATSU	Air Traffic Service Unit
ATT	Attitude
AUTO	Automatic
AVNCS	Avionics

B

Abbreviation	Term
B/UP	Backup
BAT	Battery
BCL	Battery Charge Limiter

Abbreviation	Term
BMC	Bleed Air Monitoring Computer
BSCU	Braking Steering Control Unit
BTMU	Brake Temperature Monitoring Unit

C

Abbreviation	Term
C/B	Circuit Breaker
CAM	Cabin Assignment Module
CAPT	Captain
CAT	Category
CCD	Cursor Control Device
CDL	Configuration Deviation List
CDLS	Cockpit Door Locking System
CDSS	Cockpit Door Surveillance System
CDU	Control Display Unit
CFDIU	Centralized Fault Data Interface Unit
CFDS	Centralized Fault Display System
CG	Center of Gravity
CIDS	Cabin Intercommunication Data System
CL	Climb
CLB	Climb
COND	Conditioning
CONF	Configuration
CPC	Cabin Pressure Controller
CTL	Control
CTR	Center
CVR	Cockpit Voice Recorder

D

Abbreviation	Term
DAC	Double Annular Combustor
DAR	Digital AIDS Recorder
DC	Direct Current
DDRMI	Digital Distance and Radio Magnetic Indicator
DEU	Decoder / Encoder Unit
DFDR	Digital Flight Data Recorder
DLRB	Data Loading Routing Box
DMC	Display Management Computer
DME	Distance Measuring Equipment
DMU	Data Management Unit
DU	Display Unit

E

Abbreviation	Term

Abbreviation	Term
EASA	European Aviation Safety Agency
ECAM	Electronic Centralized Aircraft Monitoring
ECAS	Emergency Cockpit Alerting System
ECP	ECAM Control Panel
ECU	Engine Control Unit
EDTO	Extended Diversion Time Operations
EEC	Engine Electronic Controller
EFB	Electronic Flight Bag
EFIS	Electronic Flight Instrument System
EGT	Exhaust Gas Temperature
EHS	Enhanced Surveillance System
EIU	Engine Interface Unit
ELAC	Elevator Aileron Computer
ELEC	Electric
ELT	Emergency Locator Transmitter
EMCD	Electronic Magnetic Chip Detector
ENG	Engine
EPR	Engine Pressure Ratio
ESS	Essential
EVMU	Engine Vibration Monitoring Unit
EWD	Engine Warning Display
EWDU	Engine Warning Display Unit

E

Abbreviation	Term
F/O	First Officer
FAC	Flight Augmentation Computer
FADEC	Full Authority Digital Engine Control
FANS	Future Air Navigation System
FAP	Flight/Forward Attendant Panel
FCDC	Flight Control Data Concentrator
FCOM	Flight Crew Operating Manual
FCU	Flight Control Unit
FD	Flight Director
FDIMU	Flight Data Interface and Management Unit
FDIU	Flight Data Interface Unit
FL	Flight Level
FLS	FMS Landing System
FMA	Flight Mode Annunciator
FMGC	Flight Management Guidance Computer
FMS	Flight Management System
FOB	Fuel on Board
FQI	Fuel Quantity Indication
FQIC	Fuel Quantity Indication Computer

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	ABBREVIATIONS

Abbreviation	Term
FSN	Fleet Serial Number
FU	Fuel Used
FWC	Flight Warning Computer
FWD	Forward

G

Abbreviation	Term
G/S	Glideslope
GAPCU	Ground and Auxiliary Power Control Unit
GCU	Generator Control Unit
GEN	Generator
GLS	GNSS Landing System
GND	Ground
GNSS	Global Navigation Satellite System
GPCU	Ground Power Control Unit
GPS	Global Positioning System
GPU	Ground Power Unit
GPWS	Ground Proximity Warning System
GW	Gross Weight

H

Abbreviation	Term
HF	High Frequency
HP	High Pressure
HUD	Head Up Display
HYD	Hydraulics

I

Abbreviation	Term
IAS	Indicated Airspeed
IDG	Integrated Drive Generator
IFE	In-Flight Entertainment
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IP	Intermediate Pressure
IR	Inertial Reference
IRS	Inertial Reference System
ISA	International Standard Atmosphere
ISB	Inspection Service Bulletin
ISIS	Integrated Standby Instrument System

J

Abbreviation	Term
JAA	Joint Aviation Authorities

L

Abbreviation	Term
L/G	Landing Gear
LAF	Load Alleviation Function
LED	Light Emitting Diode
LEDU	List of Effective Documentary Units
LESS	List of Effective Sections/Subsections
LGCIU	Landing Gear Control Interface Unit
LH	Left Hand
LOM	List of Modifications
LP	Low Pressure
LVDT	Linear Variable Differential Transformer
LVR CLB	Lever Climb

M

Abbreviation	Term
MAN	Manual
MCDU	Multipurpose Control and Display Unit
MCT	Maximum Continuous Thrust
MDDU	Multipurpose Disk Drive Unit
MEL	Minimum Equipment List
MES	Main Engine Start
MLS	Microwave Landing System
MMEL	Master Minimum Equipment List
MMI	Manual Magnetic Indicator
MMO	Maximum Operating Mach
MMR	Multi Mode Receiver
MOD	Modification
MP	Modification Proposal
MSN	Manufacturer Serial Number
MTO	Maximum Take-Off
MTOW	Maximum Takeoff Weight

N

Abbreviation	Term
NAV	Navigation
ND	Navigation Display
NDU	Navigation Display Unit
NWS	Nose Wheel Steering

O

Abbreviation	Term
OANS	On-board Airport Navigation System
OAT	Outside Air Temperature

Abbreviation	Term
OEB	Operations Engineering Bulletin
OEI	One Engine Inoperative
OP CLB	Open Climb

P

Abbreviation	Term
P/N	Part Number
PAX	Passenger
PCU	Power Control Unit
PDF	Portable Document Format
PF	Pilot Flying
PFD	Primary Flight Display
PFDU	Primary Flight Display Unit
PHC	Probes Heat Computer
PM	Pilot Monitoring
PRV	Pressure Regulation Valve
PSL	Product Structure Level
PTP	Programming and Test Panel
PTU	Power Transfer Unit (Hydraulic)
PVI	Paravirtual Indicator
PWR	Power

Q

Abbreviation	Term
QAR	Quick Access Recorder
QCCU	Quantity Calculation Control Unit
QNH	Sea Level Atmospheric Pressure
QRH	Quick Reference Handbook

R

Abbreviation	Term
RA	Radio Altitude
RAT	Ram Air Turbine
RH	Right Hand
RMI	Radio Magnetic Indicator
RMP	Radio Management Panel
RNP	Required Navigation Performance
ROP	Runway Overrun Protection
ROW	Runway Overrun Warning
RTO	Rejected Takeoff
RTOW	Regulatory Takeoff Weight
RVSM	Reduced Vertical Separation Minimum

S

Abbreviation	Term
SAC	Single Annular Combustor
SAT	Static Air Temperature
SATCOM	Satellite Communication
SB	Service Bulletin
SD	System Display
SDAC	System Data Acquisition Concentrator
SDCU	Smoke Detection Control Unit
SDF	Smoke Detection Function
SDU	System Display Unit
SEC	Spoiler Elevator Computer
SFCC	Slat/Flap Control Computer
SFCS	Slat/Flap Control System
SOH	Summary of Highlights
STBY	Standby

I

Abbreviation	Term
T/O	Takeoff
TAS	True Air Speed
TAT	Total Air Temperature
TAWS	Terrain Awareness and Warning System
TCA	Throttle Control Assy
TCAS	Traffic Alert and Collision Avoidance System
TCC	Turbine Case Cooling
TLC	Takeoff and Landing Chart Computation Program
TOC	Table of Contents
TOGA	Takeoff/Go Around
TOW	Takeoff Weight
TPIC	Tire Pressure Indicating Computer
TR	Transformer Rectifier Unit

U

Abbreviation	Term
UTC	Universal Coordinated Time

V

Abbreviation	Term
V1	Critical Engine Failure Speed
V2	Takeoff Safety Speed
VAPP	Approach Speed
VCC	Video Control Center
VENT	Ventilation
VFE	Maximum Speed for each Flap Configuration
VFR	Visual Flight Rules

Abbreviation	Term
VHF	Very High Frequency
VLE	Max Landing Gear Extended Speed
VMC	Visual Meteorological Conditions
VMCA	Minimum Control Speed in Flight
VMCG	Minimum Control Speed on Ground
VMO	Maximum Operating Speed
VMU	Minimum Unstick Speed
VOR	VHF Omnidirectional Range
VR	Rotation Speed
VS	Reference Stalling Speed
VSB	Vender Service Bulletin

W

Abbreviation	Term
WBS	Weight and Balance System
WTB	Wing Tip Brake

X

Abbreviation	Term
XML	Extensible Mark-up Language

Z

Abbreviation	Term
ZFW	Zero Fuel Weight
Zp	Pressure Altitude

ECAM MESSAGE INDEX

ECAM Alert: AIR AFT CRG VENT FAULT

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-28-03 AFT Cargo Extraction Fan

ECAM Alert: AIR COND CTL 1(2)-A(B)

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-63-04 Air Conditioning System Controller Channel (COND CTL 1(2)-A(B))

ECAM Alert: AIR PACK 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-52-01 Air Conditioning Pack

ECAM Alert: AIR PACK 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-52-01H Air Conditioning Pack

ECAM Alert: AIR PACK 1(2) OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-52-01 Air Conditioning Pack

ECAM Alert: AIR PACK 1(2) OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-52-01 Air Conditioning Pack

ECAM Alert: AIR PACK 1(2) REGUL FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
If pack ram air inlet flap is affected	Refer to Item 21-52-02 Air Conditioning Pack Ram Air Inlet Flap
If pack controller, pack anti-ice valve or water exchanger temperature sensor are affected	Refer to Item 21-61-02 Pack Controller Primary Channel
If turbine bypass valve is affected	Refer to Item 21-61-01 Pack Turbine Bypass Valve

ECAM Alert: AIR PACK 1(2) REGUL FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If pack outlet temperature is affected	Refer to Item 21-07-01-01 Pack Outlet Temperature Indication on the BLEED SD page
If pack compressor outlet temperature is affected	Refer to Item 21-07-01-03 Pack Compressor Outlet Temperature Indication on the BLEED SD page
If pack flow sensor is affected	Refer to Item 21-51-03 Pack Flow Sensor
If pack flow control valve is affected	Refer to Item 21-52-01 Air Conditioning Pack
If pack ram air inlet is affected	Refer to Item 21-52-02 Air Conditioning Pack Ram Air Inlet Flap
If turbine bypass valve is affected	Refer to Item 21-61-01 Pack Turbine Bypass Valve

ECAM Alert: CAB PR EXCESS CAB ALT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: CAB PR EXCES RESIDUAL PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Apply ECAM procedure

ECAM Alert: CAB PR LDG ELEV FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-31-04 Landing Elevation Selection AUTO Function

ECAM Alert: CAB PR LO DIFF PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: CAB PR OFV NOT OPEN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: CAB PR SAFETY VALVE OPEN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	Refer to FCOM/PRO-SPO-20-FLIGHT WITHOUT CABIN PRESSURIZATION
False alert	Refer to Item 21-09-03 CAB PR SAFETY VALVE OPEN Alert

ECAM Alert: CAB PR SYS 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-31-01 Automatic Cabin Pressure Control System (CPC, Outflow Valve AUTO Channel)

ECAM Alert: CAB PR SYS 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to FCOM/PRO-SPO-20-FLIGHT WITHOUT CABIN PRESSURIZATION

ECAM Alert: COND AFT CAB DUCT OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve

ECAM Alert: COND AFT CARGO DUCT OVHT

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-43-02 AFT Cargo Compartment Heating

ECAM Alert: COND AFT CRG HEAT FAULT

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-43-02 AFT Cargo Compartment Heating

ECAM Alert: COND AFT CRG ISOL VALVE

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-28-04 AFT Cargo Isolation Valve

ECAM Alert: COND CKPT DUCT OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve

ECAM Alert: COND FWD CAB DUCT OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve

ECAM Alert: COND HOT AIR FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the <u>COND</u> TRIM AIR SYS FAULT alert is not displayed on the EWD .	<i>Refer to Item 21-63-03 Hot Air Pressure Regulating Valve</i>
If the <u>COND</u> TRIM AIR SYS FAULT alert is displayed on the EWD .	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>

ECAM Alert: COND HOT AIR FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 21-63-03 Hot Air Pressure Regulating Valve</i>

ECAM Alert: COND L+R CAB FAN FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: COND LAV+GALLEY FAN FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 21-23-01 Lavatory and Galley Extraction Fan</i>

ECAM Alert: COND TRIM AIR SYS FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the trim air valves are closed	Not related to MEL
If associated with the AFT CAB TRIM VALVE subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>
If associated with the FWD CAB TRIM VALVE subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>
If associated with the CKPT TRIM VALVE subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>
If associated with the TRIM AIR HI PR subtitle	<i>Refer to Item 21-63-03 Hot Air Pressure Regulating Valve</i>

ECAM Alert: COND TRIM AIR SYS FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the trim air valves are closed	Not related to MEL
If associated with the AFT CAB TRIM VALVE subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>
If associated with the FWD CAB TRIM VALVE subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>
If associated with the CKPT TRIM VALVE subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>
If associated with the TRIM AIR HI PR subtitle	<i>Refer to Item 21-63-02 Cockpit and Cabin Trim Air Valve</i>

ECAM Alert: COND ZONE REGUL FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the CAB ZONE AT FIXED TEMP STATUS info is displayed on the <u>STATUS</u> SD page.	<i>Refer to Item 21-63-01A Zone Controller Channel</i>
If the PACKS AT FIXED TEMP STATUS info is displayed on the <u>STATUS</u> SD page.	<i>Refer to Item 21-63-01C Zone Controller Channel</i>

ECAM Alert: VENT AVNCS SYS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the <u>VENT</u> SKIN VALVE FAULT alert is displayed on the EWD due to the Avionics Skin Air Outlet valve.	<i>Refer to Item 21-26-04 Avionics Skin Air Outlet Valve</i>
If the VENT SKIN VALVE FAULT alert is displayed on the EWD due to the Avionics Skin Air Inlet valve.	<i>Refer to Item 21-26-05 Avionics Skin Air Inlet Valve</i>
<i>NIL</i>	<i>Refer to Item 21-26-03 Avionics Skin Exchanger Inlet Bypass Valve</i> or <i>Refer to Item 21-26-07 Avionics Skin Exchanger Outlet Bypass Valve</i> or <i>Refer to Item 21-26-08 Avionics Air Conditioning Inlet Valve</i> or <i>Refer to Item 21-26-06 Avionics Skin Exchanger Isolation Valve</i> or <i>Refer to Item 21-26-10 Avionics Equipment Ventilation Computer (AEVC)</i>

ECAM Alert: VENT BLOWER FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	<i>Refer to Item 21-26-01 Avionics Blower Fan</i>
False alert	<i>Refer to Item 21-09-01 VENT BLOWER FAULT Alert</i>

ECAM Alert: VENT EXTRACT FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	<i>Refer to Item 21-26-02 Avionics Extract Fan</i>
False alert	<i>Refer to Item 21-09-02 VENT EXTRACT FAULT Alert</i>

ECAM Alert: VENT SKIN VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Outlet valve determined faulty on the CAB PRESS SD page	<i>Refer to Item 21-26-04 Avionics Skin Air Outlet Valve</i>
Inlet valve determined faulty on the CAB PRESS SD page	<i>Refer to Item 21-26-05 Avionics Skin Air Inlet Valve</i>

ECAM Alert: AUTO FLT A/THR LIMITED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: AUTO FLT A/THR OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 22-30-01 Autothrust (A/THR)

ECAM Alert: AUTO FLT AP OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	Refer to Item 22-10-01 Autopilot (AP)
False alert	Refer to Item 22-10-06 AP Disengagement Warning

ECAM Alert: AUTO FLT FAC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 22-60-01 FAC 1

ECAM Alert: AUTO FLT FAC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 22-60-02 FAC 2

ECAM Alert: AUTO FLT FAC 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AUTO FLT FCU 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 22-81-03-01 FCU Channel

ECAM Alert: AUTO FLT FCU 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AUTO FLT REAC W/S DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 22-60-03 Reactive Windshear Detection Function

ECAM Alert: AUTO FLT RUD TRIM 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-22-01 Rudder Trim System

ECAM Alert: AUTO FLT RUD TRIM SYS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AUTO FLT RUD TRV LIM 1(2)

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-23-01 Rudder Travel Limiter System (Including Rudder and Pedals Travel Limiter Units)

ECAM Alert: AUTO FLT RUD TRV LIM SYS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AUTO FLT YAW DAMPER 1(2)

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 22-60-04 Yaw Damper System

ECAM Alert: AUTO FLT YAW DAMPER SYS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: WINDSHEAR DET FAULT

Applicable to: HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 22-60-03 Reactive Windshear Detection Function</i>

ECAM Alert: COM ACARS FAULT

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 23-20-01 Aircraft Communications Addressing Reporting System (ACARS)

ECAM Alert: COM ACARS FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 46-21-01 Air Traffic Service Unit (ATSU)

ECAM Alert: COM CIDS 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: COM HF 1(2) DATA FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 23-10-01 HF System

ECAM Alert: COM HF 1(2) EMITTING

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
If hand microphone PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-03 Hand Microphone</i>
If glareshield PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-07 Push to Talk sw on Glareshield</i>
If sidestick PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-06 Sidestick Radio selector</i>
If a transmission Key on one ACP is jammed in the transmitting position	<i>Refer to Item 23-52-05 ACP Transmission Key</i>
False alert	<i>Refer to Item 23-09-01 COM HF 1(2) EMITTING Alert</i>

ECAM Alert: COM HF 1(2) EMITTING

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If hand microphone PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-03 Hand Microphone</i>
If sidestick PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-06 Sidestick Radio selector</i>
If a transmission Key on one ACP is jammed in the transmitting position	<i>Refer to Item 23-52-05 ACP Transmission Key</i>
False alert	<i>Refer to Item 23-09-01 COM HF 1(2) EMITTING Alert</i>

ECAM Alert: COM SINGLE PTT STUCK

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
If hand microphone PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-03 Hand Microphone</i>
If sidestick PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-06 Sidestick PTT sw</i>
If glareshield PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-07 Glareshield PTT pb</i>
If a transmission Key on one ACP is jammed in the transmitting position	<i>Refer to Item 23-52-05 ACP Transmission Key</i>

ECAM Alert: COM SINGLE PTT STUCK

Applicable to: ALL EXCEPT HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
If hand microphone PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-03 Hand Microphone</i>
If sidestick PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-06 Sidestick PTT sw</i>
If a transmission Key on one ACP is jammed in the transmitting position	<i>Refer to Item 23-52-05 ACP Transmission Key</i>

ECAM Alert: COM VHF 3 DATA FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 23-10-02 VHF System</i>

ECAM Alert: COM VHF 1(2)(3) EMITTING

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If hand microphone PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-03 Hand Microphone</i>
If sidestick PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-06 Sidestick PTT SW</i>
If a transmission Key on one ACP is jammed in the transmitting position	<i>Refer to Item 23-52-05 ACP Transmission Key</i>
False alert	<i>Refer to Item 23-09-02 COM VHF 1(2)(3) EMITTING Alert</i>

ECAM Alert: COM VHF 1(2)(3) EMITTING

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
If hand microphone PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-03 Hand Microphone</i>
If glareshield PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-07 Glareshield PTT pb</i>
If sidestick PTT pb is jammed in the transmitting position	<i>Refer to Item 23-51-06 Sidestick PTT sw</i>
If a transmission Key on one ACP is jammed in the transmitting position	<i>Refer to Item 23-52-05 ACP Transmission Key</i>
False alert	<i>Refer to Item 23-09-02 COM VHF 1(2)(3) EMITTING Alert</i>

ECAM Alert: C/B TRIPPED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	Refer to affected systems
False alert	Refer to Item 24-09-02 C/B TRIPPED Alert

ECAM Alert: ELEC AC BUS 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC AC BUS 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC AC ESS BUS ALTN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC AC ESS BUS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC AC ESS BUS SHED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 24-09-01 ELEC AC ESS BUS SHED Alert

ECAM Alert: ELEC APU GEN FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-23-01 AC Auxiliary Generation (APU Generator, GCU, Line Contactor)

ECAM Alert: ELEC APU GEN OVERLOAD

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-26-01 Galley Automatic Load Shed System

ECAM Alert: ELEC BAT 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC BAT 1(2) OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ELEC BCL 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-38-02 Battery Charger Limiter (BCL)

ECAM Alert: ELEC DC BAT BUS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC DC BUS 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC DC BUS 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC DC BUS 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC DC EMER CONFIG

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC DC ESS BUS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC DC ESS BUS SHED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC EMER CONFIG

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC EMER GEN 1 LINE OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ELEC ESS BUSSES ON BAT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC GEN 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-22-01 AC Main Generation (IDG, GCU, Line Contactor)

ECAM Alert: ELEC GEN 1(2) OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ELEC GEN 1(2) OVERLOAD

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-26-01 Galley Automatic Load Shed System

ECAM Alert: ELEC IDG 1(2) DISCONNECTED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-22-01 AC Main Generation (IDG, GCU, Line Contactor)

ECAM Alert: ELEC IDG 1(2) OIL LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-22-01 AC Main Generation (IDG, GCU, Line Contactor)

ECAM Alert: ELEC IDG 1(2) OIL OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-22-01 AC Main Generation (IDG, GCU, Line Contactor)

ECAM Alert: ELEC STATIC INV FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ELEC TR 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 24-32-01 DC Main Generation (TR 1, TR 2)

ECAM Alert: APU FIRE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 49-10-01 Power Plant (APU)

ECAM Alert: APU FIRE DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-13-01 APU Fire Detection Loop

ECAM Alert: APU FIRE LOOP A(B) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-13-01 APU Fire Detection Loop

ECAM Alert: AVIONICS SMOKE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 26-15-01 Avionics Smoke Detection System

ECAM Alert: CARGO SMOKE AFT BTL SQUIB FAULT

Applicable to: HL7594, HL7703, HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-23-02 Squib of the Cargo Bottle 1

ECAM Alert: CARGO SMOKE AFT BTL SQUIB FAULT

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-23-02 Squib of the Cargo Bottle 1 or Refer to Item 26-23-03 Squib of the Cargo Bottle 2

ECAM Alert: CARGO SMOKE FWD BTL SQUIB FAULT

Applicable to: HL7594, HL7703, HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-23-02 Squib of the Cargo Bottle 1

ECAM Alert: CARGO SMOKE FWD BTL SQUIB FAULT

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-23-02 Squib of the Cargo Bottle 1 or Refer to Item 26-23-03 Squib of the Cargo Bottle 2

ECAM Alert: ENG 1(2) FIRE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FIRE DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FIRE LOOP A FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If engine 1 is affected	Refer to Item 26-12-01 Engine Fire Detection Loop A on the Engine 1
If engine 2 is affected	Refer to Item 26-12-02 Engine Fire Detection Loop A on the Engine 2

ECAM Alert: ENG 1(2) FIRE LOOP B FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If engine 1 is affected	Refer to Item 26-12-03 Engine Fire Detection Loop B on the Engine 1
If engine 2 is affected	Refer to Item 26-12-04 Engine Fire Detection Loop B on the Engine 2

ECAM Alert: SMOKE AFT CARGO SMOKE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: SMOKE AFT CRG BTL 1 FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the <u>SMOKE</u> FWD CRG BTL 1 FAULT alert is not displayed on the EWD	<i>Refer to Item 26-23-02 Squib of the Cargo Bottle 1</i>
If the <u>SMOKE</u> FWD CRG BTL 1 FAULT alert is displayed on the EWD	<i>Refer to Item 26-23-01 Cargo Agent Bottle</i>

ECAM Alert: SMOKE AFT CRG BTL 2 FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the <u>SMOKE</u> FWD CRG BTL 2 FAULT alert is not displayed on the EWD	<i>Refer to Item 26-23-03 Squib of the Cargo Bottle 2</i>
If the <u>SMOKE</u> FWD CRG BTL 2 FAULT alert is displayed on the EWD	<i>Refer to Item 26-23-01 Cargo Agent Bottle</i>

ECAM Alert: SMOKE AFT CRG DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 26-16-02 Smoke Detector in the AFT and the BULK Cargo Compartments</i>

ECAM Alert: SMOKE FWD CARGO SMOKE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: SMOKE FWD CRG BTL 1 FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the <u>SMOKE</u> AFT CRG BTL 1 FAULT alert is not displayed on the EWD	Refer to Item 26-23-02 Squib of the Cargo Bottle 1
If the <u>SMOKE</u> AFT CRG BTL 1 FAULT alert is displayed on the EWD	Refer to Item 26-23-01 Cargo Agent Bottle

ECAM Alert: SMOKE FWD CRG BTL 2 FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the <u>SMOKE</u> AFT CRG BTL 2 FAULT alert is not displayed on the EWD	Refer to Item 26-23-03 Squib of the Cargo Bottle 2
If the <u>SMOKE</u> AFT CRG BTL 2 FAULT alert is displayed on the EWD	Refer to Item 26-23-01 Cargo Agent Bottle

ECAM Alert: SMOKE FWD CRG DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-16-01 Smoke Detector in the FWD Cargo Compartment

ECAM Alert: SMOKE DET FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-17-02 Smoke Detection Control Unit (SDCU)

ECAM Alert: SMOKE DET FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

ECAM Alert: SMOKE LAVATORY DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 26-17-01 Lavatory Smoke Detection System

ECAM Alert: SMOKE LAVATORY SMOKE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 26-17-01 Lavatory Smoke Detection System

ECAM Alert: CONFIG L(R) SIDESTICK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: CONFIG PITCH TRIM NOT IN T.O. RANGE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: CONFIG RUD TRIM NOT IN T.O. RANGE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: CONFIG SLATS(FLAPS) NOT IN T.O. CONFIG.

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: CONFIG SPEED BRK NOT RETRACTED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL AIL SERVO FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-14-01 Left Aileron Blue Servo-Control (Controlled by ELAC 1) or Refer to Item 27-14-02 Left Aileron Green Servo-Control (Controlled by ELAC 2) or Refer to Item 27-14-03 Right Aileron Green Servo-Control (Controlled by ELAC 1) or Refer to Item 27-14-04 Right Aileron Blue Servo-Control (Controlled by ELAC 2)

ECAM Alert: F/CTL ALTN LAW

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL DIRECT LAW

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL ELAC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-93-01 ELAC 1

ECAM Alert: F/CTL ELAC 1 PITCH FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 27-93-01 ELAC 1</i>

ECAM Alert: F/CTL ELAC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: F/CTL ELAC 2 PITCH FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: F/CTL ELEV SERVO FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the servo-control is affected. If the servo-control position transducer is affected.	NO DISPATCH <i>Refer to Item 27-34-02 Elevator Servo-Control Position Transducer</i>

ECAM Alert: F/CTL FCDC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: F/CTL FCDC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-95-02 FCDC 2

ECAM Alert: F/CTL FCDC 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL FLAP ATTACH SENSOR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL FLAP LVR NOT ZERO

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: F/CTL FLAP SYS 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL If the maintenance check confirms that the <u>F/CTL</u> FLAP SYS 1 FAULT alert is displayed on the EWD due to a flap motor failure	NO DISPATCH Refer to Item 27-54-01 Flap Hydraulic Motor

ECAM Alert: F/CTL FLAP SYS 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 27-51-01 SFCC Flap Channel</i>
If the maintenance check confirms that the <u>F/CTL</u> FLAP SYS 2 FAULT alert is displayed on the EWD due to a flap motor failure.	<i>Refer to Item 27-54-01 Flap Hydraulic Motor</i>

ECAM Alert: F/CTL FLAP TIP BRK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 27-51-03 Flap Wing Tip Brakes Solenoid</i>

ECAM Alert: F/CTL FLAPS(SLATS) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL FLAPS(SLATS) LOCKED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL GND SPLR FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the braking system is affected	Refer to Item 32-42-06 Tachometer
If the braking system is not affected	Refer to Item 27-92-02 Ground Spoiler Control System

ECAM Alert: F/CTL GND SPLR 1+2(3+4) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-92-02 Ground Spoiler Control System

ECAM Alert: F/CTL GND SPLR 5 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-92-02 Ground Spoiler Control System

ECAM Alert: F/CTL GND SPLR NOT ARMED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Ground spoilers are not armed while on approach below 500 ft (150 m) AGL with the landing gears down.	Not related to MEL

ECAM Alert: F/CTL L(R) AIL FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL L(R) ELEV FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL L+R ELEV FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL L(R) SIDESTICK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: F/CTL PITCH TRIM/MCDU/CG DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: F/CTL SEC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-94-01 SEC 1

ECAM Alert: F/CTL SEC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-94-02 SEC 2

ECAM Alert: F/CTL SEC 3 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-94-03 SEC 3

ECAM Alert: F/CTL SIDESTICK PRIORITY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to FCOM/PRO-ABN-27 F/CTL SIDESTICK PRIORITY

ECAM Alert: F/CTL SLAT SYS 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL If the maintenance check confirms the <u>F/CTL</u> SLAT SYS 1 FAULT alert is displayed on the EWD due to a slat motor failure.	NO DISPATCH Refer to Item 27-84-01 Slats Hydraulic Motor

ECAM Alert: F/CTL SLAT SYS 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 27-51-02 SFCC Slat Channel</i>
If the maintenance check confirms the <u>F/CTL</u> SLAT SYS 2 FAULT alert is displayed on the EWD due to a slat motor failure.	<i>Refer to Item 27-84-01 Slats Hydraulic Motor</i>

ECAM Alert: F/CTL SLAT TIP BRK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 27-81-01 Slat Wing Tip Brakes Solenoid</i>

ECAM Alert: F/CTL SPD BRK DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 27-92-01 Speedbrake Control System</i>

ECAM Alert: F/CTL SPD BRK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 27-92-01 Speedbrake Control System</i>

ECAM Alert: F/CTL SPD BRK STILL OUT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: F/CTL SPD BRK 2(3+4) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-92-01 Speedbrake Control System

ECAM Alert: F/CTL SPLR FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 27-64-01 Spoiler 5 or Refer to Item 27-64-02 Spoiler 1 or 3 or Refer to Item 27-64-03 Spoiler 2 or 4 or Refer to Item 27-64-04 Spoilers 1 and 2 or Refer to Item 27-64-05 Spoilers 3 and 4

ECAM Alert: F/CTL STABILIZER JAM

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 28 - FUEL

ECAM Alert: FUEL ACT PUMP LO PR

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 28-28-03 ACT Transfer Pump</i>

ECAM Alert: FUEL ACT UNUSABLE

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Not related to MEL</i>

ECAM Alert: FUEL ACT XFR FAULT

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	<i>Refer to Item 28-12-05 Overpressure Protector in the ACT</i> or <i>Refer to Item 28-46-03 High Level Detection System in the Center Tank</i> or <i>Refer to Item 28-28-01 ACT Auto Transfer System</i> or <i>Refer to Item 28-28-02 ACT Transfer Valve</i> or <i>Refer to Item 28-28-04 ACT Air Shutoff Valve</i> or <i>Refer to Item 28-28-05 ACT Inward Pressure Relief Valve</i> or <i>Refer to Item 28-28-06 ACT Vent Valve</i> or <i>Refer to Item 28-28-09 ACT 1 Inlet Valve</i> or <i>Refer to Item 28-46-05 Low Level Detection System in the ACT</i>
False alert	<i>Refer to Item 28-09-03 FUEL ACT XFR FAULT Alert</i>

ECAM Alert: FUEL APU LP VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 28-29-01 APU LP Fuel Valve</i>

ECAM Alert: FUEL AUTO FEED FAULT

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-20-01 Automatic Fuel Feed System

ECAM Alert: FUEL AUTO TRANSFER FAULT

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-26-01 Center Tank Transfer Valve

ECAM Alert: FUEL CTR L(R) XFR FAULT

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-26-01 Center Tank Transfer Valve

ECAM Alert: FUEL CTR L+R XFR FAULT

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-26-01 Center Tank Transfer Valve

ECAM Alert: FUEL CTR TK PUMP 1(2) LO PR

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-21-02 Center Tank Pump

ECAM Alert: FUEL CTR TK PUMPS LO PR

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-21-02 Center Tank Pump

ECAM Alert: FUEL CTR TK PUMPS OFF

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: FUEL CTR TK XFR OFF

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: FUEL ENG 1(2) LP VALVE OPEN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert False alert	NO DISPATCH Refer to Item 28-07-04-01 Engine LP Fuel Valve Indication on the FUEL SD page

ECAM Alert: FUEL FQI CH 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-50-01 Fuel Quantity Indicating Computer (FQIC) Channel

ECAM Alert: FUEL F.USED/FOB DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: FUEL IDG 1(2) COOL FAULT

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 73-10-01 Fuel Return Valve

ECAM Alert: FUEL LO LVL DET FAULT

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: FUEL L(R) INNER(OUTER) TK HI TEMP

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert False alert	NO DISPATCH Refer to Item 28-09-01 FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert

ECAM Alert: FUEL L(R) WING TK HI TEMP

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 28-09-01 FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert

ECAM Alert: FUEL L(R) INNER(OUTER) TK LO TEMP

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 28-09-02 FUEL L(R) INNER(OUTER)/WING TK LO TEMP Alert

ECAM Alert: FUEL L(R) WING TK LO TEMP

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 28-09-02 FUEL L(R) INNER(OUTER)/WING TK LO TEMP Alert

ECAM Alert: FUEL L(R) OUTER XFR CLOSED

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 28-15-01 LH Wing Transfer Valve or Refer to Item 28-15-02 RH Wing Transfer Valve

ECAM Alert: FUEL L(R) OUTER XFR OPEN

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 28-15-01 LH Wing Transfer Valve or Refer to Item 28-15-02 RH Wing Transfer Valve</i>

ECAM Alert: FUEL L(R) TK PUMP 1(2) LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 28-21-01 Wing Tank Pump</i>

ECAM Alert: FUEL L(R) TK PUMP 1+2 LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: FUEL L(R) WING TK LO LVL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	<i>Refer to Item 28-46-04 Low Level Detection System in the Inner/Wing Tank</i>

ECAM Alert: FUEL L+R WING TK LO LVL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: FUEL L(R) WING TK OVERFLOW

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: FUEL X FEED VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: HYD B ELEC PUMP LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-01 HYD B(Y) ELEC PUMP LO PR Alert

ECAM Alert: HYD B ELEC PUMP OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-02 HYD B(Y) ELEC PUMP OVHT Alert

ECAM Alert: HYD B RSVR LO AIR PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-04 HYD G(B)(Y) RSVR LO AIR PR Alert

ECAM Alert: HYD B RSVR LO LVL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-05 HYD G(B)(Y) RSVR LO LVL Alert

ECAM Alert: HYD B RSVR OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-06 HYD G(B)(Y) RSVR OVHT Alert

ECAM Alert: HYD B SYS LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-09 HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

ECAM Alert: HYD B+G SYS LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-09 HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

ECAM Alert: HYD B+Y SYS LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-09 HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

ECAM Alert: HYD G ENG 1 PUMP LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-03 HYD G(Y) ENG 1(2) PUMP LO PR Alert

ECAM Alert: HYD G RSVR LO AIR PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-04 HYD G(B)(Y) RSVR LO AIR PR Alert

ECAM Alert: HYD G RSVR LO LVL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-05 HYD G(B)(Y) RSVR LO LVL Alert

ECAM Alert: HYD G RSVR OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-06 HYD G(B)(Y) RSVR OVHT Alert

ECAM Alert: HYD G SYS LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-09 HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

ECAM Alert: HYD G+Y SYS LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-09 HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

ECAM Alert: HYD PTU FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-07 HYD PTU FAULT Alert

ECAM Alert: HYD RAT FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-08 HYD RAT FAULT Alert

ECAM Alert: HYD Y ELEC PUMP LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	Refer to Item 29-24-01 Yellow System Electric Pump
False alert	Refer to Item 29-09-01 HYD B(Y) ELEC PUMP LO PR Alert

ECAM Alert: HYD Y ELEC PUMP OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	Refer to Item 29-24-01 Yellow System Electric Pump
False alert	Refer to Item 29-09-02 HYD B(Y) ELEC PUMP OVHT Alert

ECAM Alert: HYD Y ENG 2 PUMP LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-03 HYD G(Y) ENG 1(2) PUMP LO PR Alert

ECAM Alert: HYD Y RSVR LO AIR PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-04 HYD G(B)(Y) RSVR LO AIR PR Alert

ECAM Alert: HYD Y RSVR LO LVL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-05 HYD G(B)(Y) RSVR LO LVL Alert

ECAM Alert: HYD Y RSVR OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-06 HYD G(B)(Y) RSVR OVHT Alert

ECAM Alert: HYD Y SYS LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 29-09-09 HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

ECAM Alert: ANTI ICE ALL PITOT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ANTI ICE CAPT(F/O)(STBY) AOA

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-31-04 Angle of Attack (AOA) Probe Heating

ECAM Alert: ANTI ICE CAPT(F/O)(STBY) L(R) STAT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-31-03 Static Port Heater

ECAM Alert: ANTI ICE CAPT(F/O)(STBY) PITOT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-31-02 Pitot Heater

ECAM Alert: ANTI ICE CAPT+F/O PITOT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

MEL ENTRIES
 30 - ICE AND RAIN PROTECTION

ECAM Alert: ANTI ICE CAPT+STBY PITOT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ANTI ICE CAPT(F/O)(STBY) PROBES

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-31-01 Probe Heat Computer (PHC)

ECAM Alert: ANTI ICE CAPT(F/O) TAT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-31-05 TAT Probe Heating

ECAM Alert: ANTI ICE DETECT FAULT

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-81-01 Ice Detection System

ECAM Alert: ANTI ICE ENG 1(2) VALVE CLSD

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-21-01 Engine Anti-Ice Valve

ECAM Alert: ANTI ICE ENG 1(2) VALVE OPEN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-21-01 Engine Anti-Ice Valve

ECAM Alert: ANTI ICE F/O+STBY PITOT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ANTI ICE ICE DETECTED

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ANTI ICE L(R) WINDOW

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the Window Heat Computer is affected	Refer to Item 30-42-01 Window Heat Computer
NIL	Refer to Item 30-42-02 Fixed Lateral Window and Sliding Window Heating

ECAM Alert: ANTI ICE L(R) WINDSHIELD

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the Window Heat Computer is affected	Refer to Item 30-42-01 Window Heat Computer
NIL	Refer to Item 30-42-03 Windshield Heating

ECAM Alert: ANTI ICE L+R WINDSHIELD

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: SEVERE ICE DETECTED

Applicable to: HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: WING ANTI ICE L(R) HI PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-11-01B Wing Anti-Ice Control Valve

ECAM Alert: WING ANTI ICE L(R) VALVE OPEN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 30-11-01 Wing Anti-Ice Control Valve

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 30 - ICE AND RAIN PROTECTION

ECAM Alert: WING ANTI ICE OPEN ON GND

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 30-11-01 Wing Anti-Ice Control Valve</i>

ECAM Alert: WING ANTI ICE SYS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 30-11-01 Wing Anti-Ice Control Valve</i>

ECAM Alert: EIS DMC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 31-62-01 DMC 1</i>

ECAM Alert: EIS DMC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 31-62-02 DMC 2</i>

ECAM Alert: EIS DMC 3 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 31-62-03 DMC 3</i>

ECAM Alert: EIS DMC/FWC COM FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: FWS FWC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: FWS FWC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 31-53-01 Flight Warning Computer (FWC)

ECAM Alert: FWS FWC 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: FWS OEB/FWC DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: FWS SDAC 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: FWS SDAC 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 31-55-01 System Data Acquisition Concentrator (SDAC)

ECAM Alert: FWS SDAC 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: RECORDER DFDR FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 31-30-03 Digital Flight Data Recorder (DFDR)

ECAM Alert: RECORDER CVR FAULT

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 23-71-01 Cockpit Voice Recorder (CVR)

ECAM Alert: RECORDER SYS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 31-30-05 Flight Data Interface Unit (FDIU)

ECAM Alert: BRAKES ALTN BRK FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: BRAKES ALTN L(R) RELEASED

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: BRAKES A/SKID NWS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: BRAKES A/SKID NWS OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: BRAKES AUTO BRK FAULT

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

AIRCRAFT STATUS	CONDITION OF DISPATCH
If normal braking is lost (BRAKE RELEASED message is not displayed)	NO DISPATCH
If the autobrake function is affected (BRAKE RELEASED message is displayed)	Refer to Item 32-42-05 AUTO/BRK Function
If a tachometer is affected (BRAKE RELEASED message is displayed)	Refer to Item 32-42-06 Tachometer

ECAM Alert: BRAKES AUTO BRK FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 32-42-05 AUTO/BRK Function

ECAM Alert: BRAKES BRK Y ACCU LO PR

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 32-44-02 ACCU PRESS Indicator

ECAM Alert: BRAKES SYS 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 32-42-03 Braking/Steering Control Unit (BSCU) Channel 1 / System 1

ECAM Alert: BRAKES SYS 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 32-42-04 Braking/Steering Control Unit (BSCU) Channel 2 / System 2

ECAM Alert: BRAKES HOT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	<i>Refer to Item 32-07-01 Brakes Temperature Indication on the WHEEL SD page</i>

ECAM Alert: BRAKES NORM BRK FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: BRAKES NORM+ALT FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: BRAKES PARK BRK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If associated with the BRK PRESS STILL APPLIED subtitle	NO DISPATCH
If there is no subtitle	Apply ECAM procedure

ECAM Alert: BRAKES PARK BRK LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: BRAKES PARK BRK ON

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: BRAKES RELEASED

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
If green brake supply affected	Refer to Item 32-42-02 Green System Brake
If a tachometer is affected	Refer to Item 32-42-06 Tachometer

ECAM Alert: BRAKES-N/WS MINOR FAULT

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 32-09-01 WHEEL BRAKES-N/WS MINOR FAULT Alert

ECAM Alert: CONFIG PARK BRK ON

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: L/G DOORS NOT CLOSED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: L/G GEAR NOT DOWN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: L/G GEAR NOT DOWNLOCKED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: L/G GEAR NOT UNLOCKED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: L/G GEAR UNLOCK FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 32-31-02 Landing Gear Retracting System

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 32 - LANDING GEAR

ECAM Alert: L/G LGCIU 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: L/G LGCIU 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the LGCIU 2 is inoperative	<i>Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)</i>
If a RH L/G proximity detector associated with the LGCIU 2 is inoperative: apply the relevant item.	<i>Refer to Item 32-32-02 LGCIU 2 RH L/G Shock Absorber Proximity Detector</i> or <i>Refer to Item 32-32-05 LGCIU 2 RH L/G Down Lock Proximity Detector</i> or <i>Refer to Item 32-32-08 LGCIU 2 RH L/G Up Lock Proximity Detector</i> or <i>Refer to Item 32-32-11 LGCIU 2 RH L/G Doors Open Proximity Detector</i> or <i>Refer to Item 32-32-14 LGCIU 2 RH L/G Doors Closed Proximity Detector</i>
If a LH L/G proximity detector associated with the LGCIU 2 is inoperative: apply the relevant item.	<i>Refer to Item 32-32-03 LGCIU 2 LH L/G Shock Absorber Proximity Detector</i> or <i>Refer to Item 32-32-06 LGCIU 2 LH L/G Down Lock Proximity Detector</i> or <i>Refer to Item 32-32-09 LGCIU 2 LH L/G Up Lock Proximity Detector</i> or <i>Refer to Item 32-32-12 LGCIU 2 LH L/G Doors Open Proximity Detector</i> or <i>Refer to Item 32-32-15 LGCIU 2 LH L/G Doors Closed Proximity Detector</i>

If a Nose L/G proximity detector associated with the LGCIU 2 is inoperative: apply the relevant item.

*Refer to Item 32-32-04 LGCIU 2 Nose
 L/G Shock Absorber Proximity Detector
 or
 Refer to Item 32-32-07 LGCIU 2 Nose
 L/G Down Lock Proximity Detector
 or
 Refer to Item 32-32-10 LGCIU 2 Nose
 L/G Up Lock Proximity Detector
 or
 Refer to Item 32-32-13 LGCIU 2 Nose
 L/G Doors Open Proximity Detector
 or
 Refer to Item 32-32-16 LGCIU 2 Nose
 L/G Doors Closed Proximity Detector*

ECAM Alert: L/G LGCIU 1+2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: L/G SHOCK ABSORBER FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: L/G SYS DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 32 - LANDING GEAR

ECAM Alert: WHEEL HYD SEL FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: WHEEL N/W STRG FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 32-51-01 Nose Wheel Steering Control System

ECAM Alert: NAV ADR DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: NAV ADR 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-01 ADR 1

ECAM Alert: NAV ADR 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-02 ADR 2

ECAM Alert: NAV ADR 3 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-03 ADR 3

ECAM Alert: NAV ADR 1+2(1+3)(2+3) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: NAV ADR 1+2+3 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: NAV ALTI DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-01 ADR 1 or Refer to Item 34-10-02 ADR 2 or Refer to Item 34-10-03 ADR 3

ECAM Alert: NAV ATC/XPDR 1(2)(1+2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-50-01 ATC

ECAM Alert: NAV ATC/XPDR STBY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: NAV ATT DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-04 IR 1 or Refer to Item 34-10-05 IR 2 or Refer to Item 34-10-06 IR 3 (for aircraft without Honeywell 10 MCU ADIRU) or Refer to Item 34-10-07 IR 3 (for aircraft with Honeywell 10 MCU ADIRU)

ECAM Alert: NAV BARO REF DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: NAV CAPT(F/O)(STBY) AOA FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-11-01 Angle of Attack (AOA) Sensor

ECAM Alert: NAV L(R) CAPT(F/O) STATIC FAULT

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: NAV FM/GPS POS DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: NAV GPS 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-50-09 Global Positioning System (GPS)

ECAM Alert: NAV GPWS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

ECAM Alert: NAV GPWS TERR DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

ECAM Alert: NAV HDG DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-04 IR 1 or Refer to Item 34-10-05 IR 2 or Refer to Item 34-10-06 IR 3 (for aircraft without Honeywell 10 MCU ADIRU) or Refer to Item 34-10-07 IR 3 (for aircraft with Honeywell 10 MCU ADIRU)

ECAM Alert: NAV IAS DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-01 ADR 1 or Refer to Item 34-10-02 ADR 2 or Refer to Item 34-10-03 ADR 3

ECAM Alert: NAV ILS 1(2)(1+2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-30-04 Instrument Landing System (ILS)

ECAM Alert: NAV IR DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: NAV IR NOT ALIGNED

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-04 IR 1 or Refer to Item 34-10-05 IR 2 or Refer to Item 34-10-06 IR 3 (for aircraft without Honeywell 10 MCU ADIRU) or Refer to Item 34-10-07 IR 3 (for aircraft with Honeywell 10 MCU ADIRU)

ECAM Alert: NAV IR 1 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-04 IR 1

ECAM Alert: NAV IR 2 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-05 IR 2

ECAM Alert: NAV IR 3 FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-10-06 IR 3 (for aircraft without Honeywell 10 MCU ADIRU) or Refer to Item 34-10-07 IR 3 (for aircraft with Honeywell 10 MCU ADIRU)

ECAM Alert: NAV IR 1+2(1+3)(2+3) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: NAV LS TUNING DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: NAV PRED W/S DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-40-06 Weather Radar/Predictive Windshear Detection Function

ECAM Alert: NAV RA DEGRADED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
During the previous flight, both RAs disagreed. If the RA 1(2) is confirmed faulty by troubleshooting, the radio altimeter 1(2) must be considered inoperative	Refer to Item 34-40-03 Radio Altimeter System

ECAM Alert: NAV RA 1(2) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-40-03 Radio Altimeter System

ECAM Alert: NAV TCAS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 34-40-04 Traffic Collision Avoidance System (TCAS)

ECAM Alert: NAV TCAS STANDBY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: OVERSPEED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: AIR APU BLEED FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-12-02 APU Bleed Valve

ECAM Alert: AIR APU BLEED LEAK

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AIR BLEED 1(2) OFF

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-01 Engine Bleed Air Supply System

ECAM Alert: AIR ENG HP VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-07 Engine Bleed HP Valve

ECAM Alert: AIR ENG 1(2) BLEED ABNORM PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-01 Engine Bleed Air Supply System

ECAM Alert: AIR ENG 1(2) BLEED FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-01 Engine Bleed Air Supply System

ECAM Alert: AIR ENG 1(2) BLEED HI TEMP

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Apply ECAM procedure.

ECAM Alert: AIR ENG 1(2) BLEED LEAK

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 36-22-01 Pylon Leak Detection System

ECAM Alert: AIR ENG 1(2)(1+2) BLEED LO TEMP

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-04 Engine Bleed Fan Air Valve

ECAM Alert: AIR ENG 1(2) BLEED NOT CLSD

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-02 Engine Bleed Valve (PRV)

ECAM Alert: AIR ENG 1(2) LEAK DET FAULT

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-22-01 Pylon Leak Detection System

ECAM Alert: AIR L(R) WING LEAK

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AIR L(R) WING LEAK DET FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: AIR X BLEED FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the automatic control of the crossbleed valve is affected	Refer to Item 36-12-04 Automatic Control of the X Bleed Valve
If the manual control of the crossbleed valve is affected	Refer to Item 36-12-05 Manual Control of the X Bleed Valve

ECAM Alert: BLEED MONITORING FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 36 - PNEUMATIC

ECAM Alert: BLEED MONIT SYS 1(2) FAULT

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 36-11-08 Bleed Monitoring Computer (BMC)

ECAM Alert: DATA LINK ATC FAULT

Applicable to: ALL except HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 46-21-01 Air Traffic Service Unit (ATSU)

ECAM Alert: DATA LINK ATSU FAULT

Applicable to: ALL except HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 46-21-01 Air Traffic Service Unit (ATSU)

ECAM Alert: DATA LINK COMPANY FAULT

Applicable to: ALL except HL7767

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 46-21-01 Air Traffic Service Unit (ATSU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 47 - INERT GAS SYSTEM

ECAM Alert: FUEL INERTING SYS FAULT

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 47-10-01 Fuel Tank Inerting System

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 49 - AIRBORNE AUXILIARY POWER

ECAM Alert: <u>APU</u> AUTO(EMER) SHUT DOWN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 49-10-01 Power Plant (APU)</i>

ECAM Alert: DOOR AFT(BULK)(FWD) CARGO

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-05 Cargo Door Indication on the DOOR/OXY SD page

ECAM Alert: DOOR L(R) AFT AVIONICS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-06 Avionics Compartment Access Door Indication on the DOOR/OXY SD page

ECAM Alert: DOOR L(R) AFT CABIN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-01 Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page

ECAM Alert: DOOR L(R) AFT EMER EXIT

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-03 Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page

ECAM Alert: DOOR L(R) AFT EMER EXIT

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-01 Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page

ECAM Alert: DOOR L(R) FWD AVIONICS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-06 Avionics Compartment Access Door Indication on the DOOR/OXY SD page

ECAM Alert: DOOR L(R) FWD CABIN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 52-07-01 Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 52 - DOORS

ECAM Alert: DOOR L(R) FWD EMER EXIT

Applicable to: A320

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	<i>Refer to Item 52-07-03 Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page</i>

ECAM Alert: DOOR L(R) FWD EMER EXIT

Applicable to: A321

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	<i>Refer to Item 52-07-01 Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page</i>

ECAM Alert: ENG COMPRESSOR VANE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG DUAL FAILURE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ENG THR LEVERS NOT SET

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 73-20-01 Flex Takeoff Mode

ECAM Alert: ENG REV SET

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ENG THRUST LOCKED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ENG TYPE DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG VIB SYS FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 77-07-02-05 N1 Vibration Indication on the ENGINE SD page or Refer to Item 77-07-02-06 N2 Vibration Indication on the ENGINE SD page

ECAM Alert: ENG 1(2) A/C FADEC SUPPLY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 73-20-06 EEC ACFT 28V Power Supply

ECAM Alert: ENG 1(2) AIR EXCHANGR FAULT
 AIR VALVE CLOSED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) AIR EXCHANGR FAULT
 AIR VALVE OPEN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 79-20-01 Air Cooled Oil Cooler (ACOC) Modulating Valve

ECAM Alert: ENG 1(2) BEARING 4 OIL SYS
HI PRESS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) BEARING 4 OIL SYS
SCAVENGE VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 79-09-03 ENG 1(2) BEARING 4 OIL SYS Alert

ECAM Alert: ENG 1(2) COMPRESSOR VANE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) EGT(EPR)(FF)(N1)(N2) DISCREPANCY

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) EGT EXCEEDED DURING AIR START

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) EIU FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) EPR MODE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 73-20-04 EPR Control Mode

ECAM Alert: ENG 1(2) FADEC A(B) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FADEC ALTERNATOR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FADEC FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FADEC OVHT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FADEC PLUG FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FAIL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ENG 1(2) FUEL CTL FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FUEL FILTER CLOG

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 73-09-01 ENG 1(2) FUEL FILTER CLOG Alert

ECAM Alert: ENG 1(2) FUEL HEAT SYS

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) FUEL VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) HOT FUEL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) IGN A(B) FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	Refer to Item 74-31-01 Ignition System A Or
False alert	Refer to Item 74-31-02 Ignition System B Refer to Item 74-09-01 ENG 1(2) IGN A(B) FAULT Alert

ECAM Alert: ENG 1(2) IGN A+B FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 74-09-01 ENG 1(2) IGN A(B) FAULT Alert

ECAM Alert: ENG 1(2) N1(N2)(EGT) OVER LIMIT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ENG 1(2) OIL FILTER CLOG

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) OIL HI TEMP

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) OIL LO PR

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
Actual alert	NO DISPATCH
False alert	Refer to Item 79-09-01 ENG 1(2) OIL LO PR Alert

ECAM Alert: ENG 1(2) OIL LO TEMP

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Apply ECAM procedure.

ECAM Alert: ENG 1(2) ONE TLA FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 76-11-01 Thrust lever Position Sensor

ECAM Alert: ENG 1(2) OVSPD PROT FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) REV ISOL FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 78-30-03 Thrust Reverser Shutoff Valve

ECAM Alert: ENG 1(2) REV INHIBITED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Refer to Item 78-30-01 Thrust Reverser

ECAM Alert: ENG 1(2) REV PRESSURIZED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) REV SWITCH FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 78-30-02 Thrust Reverser Inhibition Relay sw</i>

ECAM Alert: ENG 1(2) REVERSE UNLOCKED

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: ENG 1(2) REVERSER FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	<i>Refer to Item 78-30-01 Thrust Reverser</i>

ECAM Alert: ENG 1(2) SENSOR FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	NO DISPATCH

ECAM Alert: ENG 1(2) SHUT DOWN

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
<i>NIL</i>	Not related to MEL

ECAM Alert: ENG 1(2) STALL

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ECAM Alert: ENG 1(2) START FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
If the associated THR LEVER NOT AT IDLE subtitle is displayed Dispatch is permitted if MAN start is successful, all engine parameters are normal and at least one auto start attempt is performed each day. This auto start attempt must show successful engine light-off (EGT rise).	Apply ECAM procedure. <i>Refer to FCOM/PRO-SUP-70 Manual Engine Start</i>

ECAM Alert: ENG 1(2) START VALVE FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	<i>Refer to Item 80-11-01 Start Valve</i>

ECAM Alert: ENG 1(2) SYSTEM FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) THR LEVER ABV IDLE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	Not related to MEL

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ENTRIES 70 - ENGINE

ECAM Alert: ENG 1(2) THR LEVER DISAGREE

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

ECAM Alert: ENG 1(2) THR LEVER FAULT

Applicable to: ALL

AIRCRAFT STATUS	CONDITION OF DISPATCH
NIL	NO DISPATCH

SECTION 2

MEL ITEMS

ATA 21 – AIR CONDITIONING			
Rev	ITEM	SUBJECT	PAGE
	21-00-01	PACK 1(2) <u>MAINTENANCE</u> Message	2-21-00 P1
	21-00-02	ZONE CONT <u>MAINTENANCE</u> Message	2-21-00 P2
	21-00-03	AFT CRG HEAT <u>MAINTENANCE</u> Message	2-21-00 P3
	21-00-04	TEMP CTL 1(2) <u>MAINTENANCE</u> Message	2-21-00 P4
	21-01-01-01	PACK pb-sw FAULT light	2-21-01-01 P1
	21-01-01-02	PACK pb-sw OFF light	2-21-01-01 P1
	21-01-01-03	HOT AIR pb-sw FAULT light	2-21-01-01 P1
	21-01-01-04	HOT AIR pb-sw OFF light	2-21-01-01 P1
	21-01-02-01	CABIN PRESS MODE SEL pb-sw FAULT light	2-21-01-02 P1
	21-01-03-02	AFT ISOL VALVE pb-sw FAULT light	2-21-01-03 P1
	21-01-04-01	CAB FANS pb-sw OFF light	2-21-01-04 P1
	21-01-04-02	BLOWER pb-sw FAULT light	2-21-01-04 P1
	21-01-04-03	EXTRACT pb-sw FAULT light	2-21-01-04 P1
	21-07-01-01	Pack Outlet Temperature Indication on the <u>BLEED</u> SD page	2-21-07-01 P1
	21-07-01-02	Pack Turbine Bypass Valve Position Indication on the <u>BLEED</u> SD page	2-21-07-01 P1
	21-07-01-03	Pack Compressor Outlet Temperature Indication on the <u>BLEED</u> SD page	2-21-07-01 P1
	21-07-01-04	Pack Flow Indication on the <u>BLEED</u> SD page	2-21-07-01 P2
	21-07-01-05	Pack Flow Control Valve Position Indication on the <u>BLEED</u> SD page	2-21-07-01 P2
	21-07-01-06	Emergency Ram Air Inlet Indication on the <u>BLEED</u> SD page	2-21-07-01 P2
	21-07-02-01	INLET and EXTRACT Indications on the <u>CAB PRESS</u> SD page	2-21-07-02 P1
	21-07-02-02	Pressure Safety Valves Position Indication on the <u>CAB PRESS</u> SD page	2-21-07-02 P1
	21-07-02-03	Pack 1 and 2 Indications on the <u>CAB PRESS</u> SD page	2-21-07-02 P1
	21-07-03-01	Indications on the <u>COND</u> SD page	2-21-07-03 P1
	21-07-04-01	Indications on the <u>CRUISE</u> SD page	2-21-07-04 P1
	21-09-01	<u>VENT</u> BLOWER FAULT Alert	2-21-09 P1
	21-09-02	<u>VENT</u> EXTRACT FAULT Alert	2-21-09 P2
	21-09-03	<u>CAB PR</u> SAFETY VALVE OPEN Alert	2-21-09 P3
	21-21-01	Cabin Fan	2-21-21 P1
	21-23-01	Lavatory and Galley Extraction Fan	2-21-23 P1
	21-26-01	Avionics Blower Fan	2-21-26 P1
	21-26-02	Avionics Extract Fan	2-21-26 P4
	21-26-03	Avionics Skin Exchanger Inlet Bypass Valve	2-21-26 P9
	21-26-04	Avionics Skin Air Outlet Valve	2-21-26 P10
	21-26-05	Avionics Skin Air Inlet Valve	2-21-26 P11
	21-26-06	Avionics Skin Exchanger Isolation Valve	2-21-26 P13
	21-26-07	Avionics Skin Exchanger Outlet Bypass Valve	2-21-26 P14
	21-26-08	Avionics Air Conditioning Inlet Valve	2-21-26 P15
	21-26-09	Avionics Ventilation Filter	2-21-26 P16
	21-26-10	Avionics Equipment Ventilation Computer (AEVC)	2-21-26 P18
	21-28-03	AFT Cargo Extraction Fan	2-28-03 P1
	21-28-04	AFT Cargo Isolation Valve	2-28-03 P2

ATA 21 – AIR CONDITIONING			
Rev	ITEM	SUBJECT	PAGE
	21-31-01	Automatic Cabin Pressure Control System (CPC , Outflow Valve AUTO Channel)	2-21-31 P1
	21-31-02	Manual Cabin Pressure Control System (MAN V/S CTL selector, Outflow Valve MAN Channel)	2-21-31 P3
	21-31-03	Pressure Safety Valve	2-21-31 P4
	21-31-04	Landing Elevation Selection AUTO Function	2-21-31 P5
	21-31-05	Landing Elevation Selection MAN Function	2-21-31 P6
	21-43-02	AFT Cargo Compartment Heating	2-21-43 P1
	21-51-01	Pack Flow Control Valve	2-21-51 P1
	21-51-02	Pack Flow Selection	2-21-51 P2
	21-51-03	Pack Flow Sensor	2-21-51 P3
	21-52-01	Air Conditioning Pack	2-21-52 P1
	21-52-02	Air Conditioning Pack Ram Air Inlet Flap	2-21-52 P6
	21-55-01	Emergency Ram Air Inlet	2-21-55 P1
	21-61-01	Pack Turbine Bypass Valve	2-21-61 P1
	21-61-02	Pack Controller Primary Channel	2-21-61 P2
	21-63-01	Zone Controller Channel	2-21-63 P1
	21-63-02	Cockpit and Cabin Trim Air Valve	2-21-63 P3
	21-63-03	Hot Air Pressure Regulating Valve	2-21-63 P6
	21-63-04	Air Conditioning System Controller Channel (COND CTL 1(2)-A(B))	2-21-63 P9

Rev : A=Added, R=Revised, D=Deleted

ATA 22 – AUTO FLIGHT			
Rev	ITEM	SUBJECT	PAGE
	22-01-01	FAC pb-sw FAULT light	2-22-01 P1
	22-01-02	FAC pb-sw OFF light	2-22-01 P2
	22-05-01	AP Related Indications on the FMA	2-22-05 P1
	22-05-02	A/THR Related Indications on the FMA	2-22-05 P2
	22-05-03	Approach and Landing Capabilities on the FMA	2-22-05 P3
	22-05-04	Special Messages on the FMA	2-22-05 P4
	22-10-01	Autopilot (AP)	2-22-10 P1
	22-10-02	Flight Director (FD)	2-22-10 P2
	22-10-03	Take-over pb Priority Function	2-22-10 P3
	22-10-04	Take-over pb AP Disconnection Function	2-22-10 P4
	22-10-05	AUTO LAND light	2-22-10 P5
	22-10-06	AP Disengagement Warning	2-22-10 P6
	22-10-07	Sticks and Rudder Pedals Locking Solenoid in AP Mode	2-22-10 P7
	22-10-08	Automatic landing capability	2-22-10 P8
	22-30-01	Autothrust (A/THR)	2-22-30 P1
	22-30-02	Autothrust Instinctive Disconnect pb	2-22-30 P2
	22-30-03	Autothrust Disengagement Warning	2-22-30 P4
	22-60-01	FAC 1	2-22-60 P1
	22-60-02	FAC 2	2-22-60 P2

ATA 22 – AUTO FLIGHT			
Rev	ITEM	SUBJECT	PAGE
	22-60-03	Reactive Windshear Detection Function	2-22-60 P3
	22-60-04	Yaw Damper System	2-22-60 P4
	22-70-01	Flight Management System (FMS)	2-22-70 P1
	22-70-02	Navigation Database	2-22-70 P3
	22-70-03	Performance Information	2-22-70 P4
	22-70-04	Fuel/Time Prediction	2-22-70 P5
	22-81-01-01	AP Engagement pb	2-22-81-01 P1
	22-81-01-02	A/THR Arming pb	2-22-81-01 P1
	22-81-01-03	Mode Engagement pb (LOC, APPR)	2-22-81-01 P1
	22-81-01-04	Selection knob (ALT, HDG-TRK, SPD-MACH)	2-22-81-01 P1
	22-81-01-05	V/S-FPA Selection knob	2-22-81-01 P2
	22-81-01-06	HDG-V/S/TRK-FPA Change Over pb	2-22-81-01 P2
	22-81-01-07	SPD/MACH Change Over pb	2-22-81-01 P2
	22-81-01-08	METRIC ALT pb	2-22-81-01 P2
	22-81-01-09	Selection Window (SPD-MACH, HDG-TRK, ALT, V/S-FPA)	2-22-81-01 P3
	22-81-01-10	AP1, AP2 and A/THR pb light Bars	2-22-81-01 P3
	22-81-01-11	Mode Engagement (LOC, APPR) pb light Bars	2-22-81-01 P3
	22-81-02-01	Baro Reference Display Window	2-22-81-02 P1
	22-81-02-02	Baro Reference selector Outer Ring (in Hg/hPa)	2-22-81-02 P1
	22-81-02-03	Baro Reference selector Inner knob	2-22-81-02 P1
	22-81-02-04	FD pb	2-22-81-02 P1
	22-81-02-05	ILS pb	2-22-81-02 P2
	22-81-02-05	LS pb	2-22-81-02 P2
	22-81-02-06	Optional Data (ARPT, NDB, VOR.D, WPT, CSTR) Display pb	2-22-81-02 P2
	22-81-02-07	ND Range selector	2-22-81-02 P3
	22-81-02-08	ND Mode selector	2-22-81-02 P3
	22-81-02-09	ADF/VOR sw	2-22-81-02 P3
	22-81-02-10	ILS and FD pb light Bars	2-22-81-02 P4
	22-81-02-10	LS and FD pb light Bars	2-22-81-02 P4
	22-81-02-11	Optional Data (ARPT, NDB, VOR.D, WPT, CSTR) Display pb light Bars	2-22-81-02 P4
	22-81-03-01	FCU Channel	2-22-81-03 P1
	22-82-01	MCDU 1	2-22-82 P1
	22-82-02	MCDU 2	2-22-82 P2
	22-82-04	MCDU Annunciator light	2-22-82 P3
	22-83-01	Flight Management and Guidance Computer (FMGC)	2-22-83 P1

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ATA 23 – COMMUNICATIONS			
Rev	ITEM	SUBJECT	PAGE
	23-00-01	CIDS 1(2) MAINTENANCE Message	2-23-00 P1
	23-01-01-01	RCDR GND CTL pb-sw ON light	2-23-01-01 P1
	23-01-01-31	RCDR GND CTL pb-sw	2-23-01-01 P1

ATA 23 – COMMUNICATIONS			
Rev	ITEM	SUBJECT	PAGE
	23-01-01-32	CVR ERASE pb	2-23-01-01 P2
	23-01-01-33	CVR TEST pb	2-23-01-01 P2
	23-01-02-31	CALLS ALL pb	2-23-01-02 P1
	23-01-02-32	CALLS EMER pb, CALLS FWD pb, CALLS MID, pb, CALLS EXIT, pb, CALLS AFT pb	2-23-01-02 P1
	23-01-03-31	AUDIO SWITCHING selector	2-23-01-03 P1
	23-09-01	COM HF 1(2) EMITTING Alert	2-23-09 P1
	23-09-02	COM VHF 1(2)(3) EMITTING Alert	2-23-09 P2
	23-10-01	HF System	2-23-10- P1
	23-10-02	VHF System	2-23-10- P2
	23-13-01	Radio Management Panel (RMP)	2-23-13 P1
	23-13-02	RMP Selection Key	2-23-13 P2
	23-20-01	Aircraft Communications Addressing Reporting System (ACARS)	2-23-20 P1
	23-31-01	Passenger Address System	2-23-31 P1
	23-31-02	PA IN USE light	2-23-31 P2
	23-40-01	Ground External Horn	2-23-40 P1
	23-40-02	Flight Crew Interphone System	2-23-40 P2
	23-40-03A	Flight Crew to Ground Communication System	2-23-40 P3
	23-40-04	Service Interphone Jack	2-23-40 P4
	23-51-01	SELCAL Function	2-23-51 P1
	23-51-02	Boomset	2-23-51 P2
	23-51-03	Hand Microphone	2-23-51 P3
	23-51-04	Cockpit Loudspeaker	2-23-51 P4
	23-51-05	Cockpit Loudspeaker Volume Control	2-23-51 P5
	23-51-06	Sidestick PTT sw	2-23-51 P6
	23-51-07	Glareshield PTT pb	2-23-51 P8
	23-52-01	CAPT and F/O ACP	2-23-52 P1
	23-52-02	ACP 3	2-23-52 P2
	23-52-05	ACP Transmission Key	2-23-52 P3
	23-52-06	ACP Reception knob	2-23-52 P4
	23-52-07	ACP Reception knob light	2-23-52 P5
	23-71-01	Cockpit Voice Recorder (CVR)	2-23-71-P1
	23-72-01	Cockpit Door Surveillance System (CDSS)	2-23-72-P1
	23-73-01-01	Cabin Intercommunication Data System (CIDS) Function	2-23-73-01 P1
	23-73-02-01	Cabin DEU A	2-23-73-02 P1
	23-73-02-02	Lavatory DEU A	2-23-73-02 P2
	23-73-03-01	Cabin DEU B	2-23-73-03 P1
R	23-73-04-01	Passenger Call	2-23-73-04 P1
	23-73-05-01	Cabin Loudspeaker	2-23-73-05 P1
	23-73-05-02	Lavatory Loudspeaker	2-23-73-05 P1
	23-73-06-01	Cockpit Handset	2-23-73-06 P1
	23-73-06-02	Cabin Handset	2-23-73-06 P1
	23-73-06-03	Cabin Handset Key	2-23-73-06 P1
	23-73-07-01	Prerecorded Announcement and Music Reproducer (PRAM)	2-23-73-07 P1
	23-73-08-01	Cabin Assignment Module (CAM)	2-23-73-08 P1

ATA 23 – COMMUNICATIONS			
Rev	ITEM	SUBJECT	PAGE
	23-73-10-01	Smoke Detection Function (CIDS - SDF)	2-23-73-10 P1
	23-74-01	Forward Attendant Panel	2-23-74 P1
	23-74-01	FAP Display Unit	2-23-74 P1
	23-74-02	EMER pb on Hardkey FAP Sub-panel	2-23-74 P3
	23-74-03	Other Controls on Hardkey FAP Sub-panel	2-23-74 P4
	23-74-04	PTP Display Unit	2-23-74 P5
	23-74-05	Door Bottle Pressure Monitoring on the PTP	2-23-74 P6
	23-74-06	Door Bottle Pressure Monitoring on the FAP	2-23-74 P7
	23-74-07	Slide Pressure Monitoring on the PTP	2-23-74 P8
	23-74-08	Slide Pressure Monitoring on the PTP	2-23-74 P9
	23-74-09	Area Call Panel	2-23-74 P10
	23-74-10	Attendant Information Panel (AIP)	2-23-74 P11
	23-74-11	Additional Attendant Panel (AAP)	2-23-74 P12
	23-74-12	CIDS Caution Light of the Forward Attendant Panel	2-23-74 P13
	23-74-13	Lighting Module of the Forward Attendant Panel	2-23-74 P14

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ATA 24 – ELECTRICAL POWER			
Rev	ITEM	SUBJECT	PAGE
	24-00-01A	DC BUS TIE <u>MAINTENANCE</u> Message	2- 24-00 P1
	24-00-03A	AC GEN <u>MAINTENANCE</u> Message	2- 24-00 P2
	24-01-01-01	BAT 1(2) pb-sw FAULT light	2-24-01-01 P1
	24-01-01-02	BAT 1(2) pb-sw OFF light	2-24-01-01 P1
	24-01-01-03	GEN pb-sw FAULT light and APU GEN pb-sw FAULT light	2-24-01-01 P1
	24-01-01-04	GEN pb-sw OFF light and APU GEN pb-sw OFF light	2-24-01-01 P1
	24-01-01-05	AC ESS FEED pb-sw FAULT light	2-24-01-01 P2
	24-01-01-06	AC ESS FEED pb-sw ALTN light	2-24-01-01 P2
	24-01-01-07	EXT PWR pb-sw AVAIL light	2-24-01-01 P2
	24-01-01-08	EXT PWR pb-sw ON light	2-24-01-01 P3
	24-01-01-09	GALLEY pb-sw FAULT light	2-24-01-01 P3
	24-01-01-10	GALLEY pb-sw OFF light	2-24-01-01 P4
	24-01-01-11	COMMERCIAL pb-sw OFF light	2-24-01-01 P5
	24-01-01-12	BUS TIE pb-sw OFF light	2-24-01-01 P5
	24-01-01-13	IDG pb-sw FAULT light	2-24-01-01 P6
	24-01-02-01	RAT & EMER GEN FAULT light	2-24-01-02 P1
	24-07-01	AC Generation Indications on the <u>ELEC</u> SD page	2-24-07 P1
	24-07-02	DC Generation Indications on the <u>ELEC</u> SD page	2-24-07 P2
	24-07-03	AC ESS BUS SHED Indication on the <u>ELEC</u> SD page	2-24-07 P3
	24-09-01	<u>ELEC</u> AC ESS BUS SHED Alert	2-24-09 P1
	24-09-02	C/B TRIPPED Alert	2-24-09 P3
	24-22-01	AC Main Generation (IDG , GCU , Line Contactor)	2-24-22 P1
	24-22-02	AC Bus Tie Control Function	2-24-22 P5

ATA 24 – ELECTRICAL POWER			
Rev	ITEM	SUBJECT	PAGE
	24-23-01	AC Auxiliary Generation (APU Generator, GCU or GAPCU Auxiliary Power Control function, Line Contactor)	2-24-23 P1
	24-24-01	Emergency Generator	2-24-24 P1
	24-24-02	RAT Extension Automatic Control	2-24-24 P2
	24-24-03	RAT Extension Manual Control	2-24-24 P3
	24-25-01	Manual Transfer to the AC BUS 2 (ALTN Function)	2-24-25 P1
	24-25-02	Automatic Transfer to the AC BUS 2	2-24-25 P2
	24-26-01	Galley Automatic Load Shed System	2-24-26 P1
	24-26-02	Galley Manual Load Shed System (GALLEY pb-sw)	2-24-26 P2
	24-26-03	Commercial Supply System	2-24-26 P4
	24-28-01	Static Inverter AC Generation	2-24-28 P1
	24-32-01	DC Main Generation (TR 1, TR 2)	2-24-32 P1
	24-34-01	DC Emergency Generation (ESS TR)	2-24-34 P1
	24-35-01	DC TIE Contactor 1PC1 (DC BUS 1-DC BAT BUS), 4PC (DC ESS BUS-DC BAT BUS)	2-24-35 P1
	24-35-02	DC TIE Contactor 1PC2 (DC BUS 2-DC BAT BUS)	2-24-35 P2
	24-38-01	BAT 1(2) Channel	2-24-38 P1
	24-38-02	Battery Charger Limiter (BCL)	2-24-38 P2
	24-38-03	Battery Voltmeter	2-24-38 P3
	24-41-01	Ground Power Control Unit (GPCU or GAPCU Ground Power Control function)	2-24-41 P1
	24-41-02	External Power Receptacle	2-24-41 P2

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ATA 25 – EQUIPMENT/FURNISHINGS			
Rev	ITEM	SUBJECT	PAGE
R	25-07-01	Passenger Door Slide Permanently Indicated Armed on the DOOR/OXY SD page	2-25-07 P1
R	25-07-02	Passenger Door Slide Permanently Indicated Not Armed on the DOOR/OXY SD page	2-25-07 P2
R	25-07-03	Overwing Emergency Exit Slide Permanently Indicated Armed on the DOOR/OXY SD page	2-25-07 P4
R	25-07-04	Overwing Emergency Exit Slide Permanently Indicated Not Armed on the DOOR/OXY SD page	2-25-07 P5
	25-11-01	Pilot Seat Manual Horizontal Adjustment	2-25-11 P1
	25-11-02	Pilot Seat Manual Vertical Adjustment	2-25-11 P2
	25-11-03	Pilot Seat Recline Adjustment	2-25-11 P3
	25-11-04	Pilot Seat Other Manual Adjustments	2-25-11 P4
	25-11-05	Pilot Seat Electrical Adjustment	2-25-11 P5
	25-11-06	Pilot Seat Shoulder Harness	2-25-11 P6
	25-11-07	Pilot Seat Fifth Strap	2-25-11 P7
	25-11-08	Pilot Sidestick Armrest Height Adjustment	2-25-11 P8
	25-11-09	Pilot Sidestick Armrest Pitch Adjustment	2-25-11 P9
	25-11-10	Pilot Sidestick Armrest Memory Position Display	2-25-11 P10

ATA 25 – EQUIPMENT/FURNISHINGS			
Rev	ITEM	SUBJECT	PAGE
	25-11-11	Pilot Inboard Armrest Vertical Adjustment	2-25-11 P11
	25-11-12	Pilot Seat Headrest	2-25-11 P12
	25-12-01	Third Occupant Seat	2-25-12 P1
	25-12-02	Third Occupant Seat Shoulder Harness	2-25-12 P2
	25-12-03	Third Occupant Seat Abdominal Belt	2-25-12 P3
	25-12-04	Third Occupant Seat Fifth Strap	2-25-12 P4
	25-12-05	Fourth Occupant Seat	2-25-12 P5
	25-12-05	Fourth Occupant Seat	2-25-12 P5
	25-12-06	Fourth Occupant Seat Shoulder Harness	2-25-12 P6
	25-12-07	Fourth Occupant Seat Abdominal Belt	2-25-12 P7
	25-12-08	Fourth Occupant Seat Fifth Strap	2-25-12 P8
	25-13-01	Pilot Sliding Table	2-25-13 P1
	25-13-02	Pilot Retractable Footrest	2-25-13 P2
	25-20-01	Passenger Seat	2-25-20 P1
	25-20-03	Cabin Attendant Seat	2-25-20 P3
	25-35-01	Galley Waste Compartment Flapper Door	2-25-35 P1
	25-40-01	Toilet Waste Compartment Flapper Door	2-25-40 P1
	25-40-02	Exterior Lavatory Ashtray	2-25-40 P2
	25-40-03	Interior Lavatory Ashtray	2-25-40 P3
	25-50-01	Cargo Loading System	2-25-50 P1
	25-50-02	Decompression Panels in the Cargo Compartments	2-25-50 P2
	25-50-03	Sidewall Linings and Ceiling Panels in the Cargo Compartments	2-25-50 P3
	25-50-04	Cargo Compartment Restraint Components (Nets, Attach Points, Stanchions)	2-25-50 P4
	25-50-05	Protection Panels of Decompression Panels at the FWD Partition Wall of FWD Cargo Compartment	2-25-50 P5
	25-62-01	Cabin Passenger Door Slide or Slide Raft	2-25-62 P1
	25-62-02	Overwing Emergency Exit Slide or Slide Raft	2-25-62 P2
	25-62-03	Emergency Exit Slide or Slide Raft	2-25-62 P3
	25-62-04	SLIDE ARMED light	2-25-62 P4
	25-62-05	Survival Kit	2-25-62 P5
	25-62-06	Passenger Door SLIDE PRESS LOW Message on Programming and Test Panel (PTP) STATUS Page	2-25-62 P6
	25-62-07	Emergency Exit SLIDE PRESS LOW Message on Programming and Test Panel (PTP) STATUS Page	2-25-62 P8
	25-62-08	Overwing Escape Life Line	2-25-62 P10
	25-63-01	Emergency Evacuation Signaling System (COMMAND pb-sw, HORN SHUT OFF pb, CAPT&PURS and CAPT sw)	2-25-63 P1
	25-64-01	First Aid Kit	2-25-64 P1
	25-64-02	Emergency Medical Kit	2-25-64 P2
	25-64-03	Automated External Defibrillator (AED)	2-25-64 P3
	25-64-04	Universal Precaution Kit (UPK)	2-25-64 P4
	25-65-01	Cockpit Flashlight	2-25-65 P1
	25-65-02	Cabin Flashlight	2-25-65 P2
	25-65-03	Crash Axe	2-25-65 P3

ATA 25 – EQUIPMENT/FURNISHINGS

Rev	ITEM	SUBJECT	PAGE
	25-65-04	Emergency Locator Transmitter (ELT)	2-25-65 P4
	25-65-05	Fireproof Gloves	2-25-65 P5
	25-65-06	Megaphone	2-25-65 P6
	25-66-01	Life Vest	2-25-66 P1
	25-66-02	Supplementary Life Raft	2-25-66 P2
	25-90-01	Non-Essential Equipment/Furnishing(NEF)	2-25-90 P1

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ATA 26 – FIRE PROTECTION

Rev	ITEM	SUBJECT	PAGE
	26-00-01	SDCU MAINTENANCE Message	2-26-00 P1
	26-01-01-01	Bulb/LED in the ENG FIRE-PUSH pb-sw	2-26-01-01 P1
	26-01-01-02	ENG AGENT pb DISCH light	2-26-01-01 P1
	26-01-01-03	ENG AGENT pb SQUIB light	2-26-01-01 P2
	26-01-01-04	Bulb/ LED in the APU FIRE-PUSH pb-sw	2-26-01-01 P2
	26-01-01-05	APU AGENT pb DISCH light	2-26-01-01 P3
	26-01-01-06	APU AGENT pb SQUIB light	2-26-01-01 P3
	26-01-01-31	ENG FIRE TEST pb	2-26-01-01 P4
	26-01-01-32	APU FIRE TEST pb	2-26-01-01 P4
	26-01-01-33	APU FIRE PUSH pb-sw	2-26-01-01 P5
	26-01-01-34	APU AGENT pb	2-26-01-01 P5
	26-01-02-01	CARGO SMOKE DISCH light	2-26-01-02 P1
	26-01-02-02	CARGO SMOKE DISCH AGENT 2 light	2-26-01-02 P1
	26-12-01	Engine Fire Detection Loop A on the Engine 1	2-26-12 P1
	26-12-02	Engine Fire Detection Loop A on the Engine 2	2-26-12 P2
	26-12-03	Engine Fire Detection Loop B on the Engine 1	2-26-12 P3
	26-12-04	Engine Fire Detection Loop B on the Engine 2	2-26-12 P4
	26-12-05	FIRE light on the ENG MASTER Panel	2-26-12 P5
	26-13-01	APU Fire Detection Loop	2-26-13 P1
	26-15-01	Avionics Smoke Detection System	2-26-15 P1
	26-16-01	Smoke Detector in the FWD Cargo Compartment	2-26-16 P1
	26-16-02	Smoke Detector in the AFT and the BULK Cargo Compartments	2-26-16 P4
	26-17-01	Lavatory Smoke Detection System	2-26-17 P1
	26-17-02	Smoke Detection Control Unit (SDCU)	2-26-17 P3
	26-22-01	APU Automatic Fire Extinguishing Control on Ground	2-26-22 P1
	26-22-02	APU Fire Extinguisher Overpressure Indication (Red Disc)	2-26-22 P2
	26-22-03	Squib of the APU Fire Extinguisher Bottle	2-26-22 P3
	26-22-04	APU Fire Extinguisher Bottle	2-26-22 P4
	26-22-05	APU AUTO EXTING TEST pb-sw on the Maintenance Panel	2-26-22 P5
	26-22-06	APU FIRE light on the External Power Panel	2-26-22 P6
	26-22-07	APU SHUT OFF pb on the External Power Panel	2-26-22 P7
	26-23-01	Cargo Agent Bottle	2-26-23 P1
	26-23-02	Squib of the Cargo Bottle 1	2-26-23 P5

ATA 26 – FIRE PROTECTION			
Rev	ITEM	SUBJECT	PAGE
	26-23-03	Squib of the Cargo Bottle 2	2-26-23-P6
	26-24-01	Portable Fire Extinguisher	2-26-24 P1
	26-25-01	Lavatory Waste Bin Fire Extinguishing System	2-26-25 P1

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ATA 27- FLIGHT CONTROLS			
Rev	ITEM	SUBJECT	PAGE
	27-00-01A	F/CTL MAINTENANCE Message	2-27-00 P1
	27-00-02A	SFCS MAINTENANCE Message	2-27-00 P2
	27-01-01-01	ELAC pb-sw FAULT light	2-27-01-01 P1
	27-01-01-02	ELAC pb-sw OFF light	2-27-01-01 P1
	27-01-01-03	SEC pb-sw FAULT light	2-27-01-01 P1
	27-01-01-04	SEC pb-sw OFF light	2-27-01-01 P1
	27-07-01	Aileron Actuator Indication on the F/CTL SD page	2-27-07 P1
	27-07-02	Aileron Position Indication on the F/CTL SD page	2-27-07 P2
	27-07-03	Elevator Actuator Indication on the F/CTL SD page	2-27-07 P4
	27-07-04	Elevator Position Indication on the F/CTL SD page	2-27-07 P5
	27-07-05	Pitch Trim Position Indication on the F/CTL SD page	2-27-07 P6
	27-07-06	Rudder Position Indication on the F/CTL SD page	2-27-07 P7
	27-07-07	Rudder Trim Position Indication on the F/CTL SD page	2-27-07 P8
	27-07-08	Rudder Travel Limiter Position Indication on the F/CTL SD page	2-27-07 P9
	27-07-09	ELAC Indication on the F/CTL SD page	2-27-07 P10
	27-07-10	SEC Indication on the F/CTL SD page	2-27-07 P11
	27-07-11	Spoilers/Speedbrakes Indication on the F/CTL SD page	2-27-07 P12
	27-07-12	Spoilers/Speedbrakes Indication on the WHEEL SD page	2-27-07 P13
	27-08-01	Flap Position Indication on the EWD	2-27-08 P1
	27-08-02	Slat Position Indication on the EWD	2-27-08 P2
	27-14-01	Left Aileron Blue Servo-Control (Controlled by ELAC 1)	2-27-14 P1
	27-14-02	Left Aileron Green Servo-Control (Controlled by ELAC 2)	2-27-14 P2
	27-14-03	Right Aileron Green Servo-Control (Controlled by ELAC 1)	2-27-14 P3
	27-14-04	Right Aileron Blue Servo-Control (Controlled by ELAC 2)	2-27-14 P4
	27-21-01	Rudder Pedal Adjustment System	2-27-21 P1
	27-22-01	Rudder Trim System	2-27-22 P1
	27-22-02	Manual Rudder Trim Reset Function	2-27-22 P2
R	27-22-03	Rudder Trim Position Indication on the Center Pedestal	2-27-22 P3
	27-23-01	Rudder Travel Limiter System	2-27-23 P1
	27-34-01	Elevator Servo-Control	2-27-34 P1
	27-34-02	Elevator Servo-Control Position Transducer	2-27-34 P2
	27-40-01	Stabilizer Mechanical Control	2-27-40 P1
	27-40-02	Stabilizer Actuator Electrical Motor	2-27-40 P2
	27-51-01	SFCC Flap Channel	2-27-51 P1
	27-51-02	SFCC Slat Channel	2-27-51 P2
	27-51-03	Flap Wing Tip Brakes Solenoid	2-27-51 P3

ATA 27- FLIGHT CONTROLS			
Rev	ITEM	SUBJECT	PAGE
	27-54-01	Flap Hydraulic Motor	2-27-54 P1
	27-54-02	Flap PCU Valve Block	2-27-54 P2
	27-54-03	Flap Pressure-Off Brake	2-27-54 P3
	27-64-01	Spoiler 5	2-27-64 P1
	27-64-02	Spoiler 1 or 3	2-27-64 P2
	27-64-03	Spoiler 2 or 4	2-27-64 P4
	27-64-04	Spoilers 1 and 2	2-27-64 P5
	27-64-05	Spoilers 3 and 4	2-27-64 P13
	27-81-01	Slat Wing Tip Brakes Solenoids	2-27-81 P1
	27-84-01	Slats Hydraulic Motor	2-27-84 P1
	27-84-02	Slat PCU Valve Block	2-27-84 P2
	27-84-03	Slat Pressure-Off Brake	2-27-84 P3
	27-92-01	Speedbrake Control System	2-27-92 P1
	27-92-02	Ground Spoiler Control System	2-27-92 P2
	27-92-03	SIDESTICK PRIORITY light	2-27-92 P10
	27-92-04	Sidestick Dual Input Visual Warnings	2-27-92 P11
	27-92-05	Sidestick Dual Input Aural Warning	2-27-92 P12
	27-93-01	ELAC 1	2-27-93 P1
	27-93-02	ELAC 2	2-27-93 P6
	27-93-03	Pitch Normal Law	2-27-93 P7
	27-94-01	SEC 1	2-27-64 P1
	27-94-02	SEC 2	2-27-64 P4
	27-94-03	SEC 3	2-27-64 P7
	27-95-01	FCDC 1	2-27-95 P1
	27-95-02	FCDC 2	2-27-95 P2

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ATA 28- FUEL			
Rev	ITEM	SUBJECT	PAGE
	28-00-01	FUEL MAINTENANCE Message	2-28-00 P1
	28-01-01-01	Wing TK PUMP pb-sw FAULT light	2-28-01-01 P1
	28-01-01-02	Wing TK PUMP pb-sw OFF light	2-28-01-01 P1
	28-01-01-03	X FEED pb-sw ON light	2-28-01-01 P1
	28-01-01-04	X FEED pb-sw OPEN light	2-28-01-01 P2
	28-01-01-05	CTR TK PUMP pb-sw FAULT light	2-28-01-01 P2
	28-01-01-06	CTR TK PUMP pb-sw OFF light	2-28-01-01 P3
	28-01-01-07	FUEL MODE SEL pb-sw FAULT light	2-28-01-01 P3
	28-01-01-08	ACT pb-sw FAULT light	2-28-01-01 P4
	28-01-01-09	ACT pb-sw FWD light	2-28-01-01 P5
	28-07-01-01	Fuel On Board (FOB) Indication on the FUEL SD page	2-28-07-01 P1
R	28-07-01-02	Fuel Quantity Indication (FQI) in Degraded Mode on the FUEL SD page	2-28-07-01 P1
R	28-07-01-03	Outer Tank Fuel Quantity Indication on the FUEL SD page	2-28-07-01 P4

ATA 28- FUEL			
Rev	ITEM	SUBJECT	PAGE
R	28-07-01-04	Inner Tank Fuel Quantity Indication on the <u>FUEL</u> SD page	2-28-07-01 P7
R	28-07-01-05	Center Tank Fuel Quantity Indication on the <u>FUEL</u> SD page	2-28-07-01 P9
	28-07-01-06	ACT Fuel Quantity Indication on the <u>FUEL</u> SD page	2-28-07-01 P12
	28-07-02-01	Fuel Temperature Indication on the <u>FUEL</u> SD page	2-28-07-02 P1
	28-07-03-01	Wing Tank Pump Indication on the <u>FUEL</u> SD page	2-28-07-03 P1
	28-07-03-02	Center Tank Pump Indication on the <u>FUEL</u> SD page	2-28-07-03 P1
	28-07-04-01	Engine LP Fuel Valve Indication on the <u>FUEL</u> SD page	2-28-07-04 P1
	28-07-04-02	APU LP Fuel Valve Indication on the <u>FUEL</u> SD page	2-28-07-04 P1
	28-07-04-03	Crossfeed Valve Indication on the <u>FUEL</u> SD page	2-28-07-04 P1
	28-07-04-04	Wing Transfer Valve Indication on the <u>FUEL</u> SD page	2-28-07-04 P2
	28-07-04-05	Center Tank Transfer Valve Indication on the <u>FUEL</u> SD page	2-28-07-04 P2
	28-07-04-06	ACT to CTR TK Transfer (Arrow) Indication on the <u>FUEL</u> SD page	2-28-07-04 P3
	28-07-05-01	Fuel Flow 1+2 Indication on the <u>FUEL</u> SD page	2-28-07-05 P1
	28-07-06-01	Fuel Used Indication on the <u>FUEL</u> SD page	2-28-07-06 P1
	28-07-06-02	Feul Used 1+2 Indication on the <u>FUEL</u> SD page	2-28-07-06 P1
	28-09-01	<u>FUEL</u> L(R) INNER(OUTER) TK HI TEMP Alert	2-28-09 P1
	28-09-02	<u>FUEL</u> L(R) INNER(OUTER) TK LO TEMP Alert	2-28-09 P4
	28-09-03	<u>FUEL</u> ACT XFR FAULT Alert	2-28-09 P7
	28-12-01	Overpressure Protector between Inner and Outer Tank	2-28-12 P1
	28-12-02	Overpressure Protector in Vent Surge Tank	2-28-12 P3
	28-12-03	Overpressure Protector in Inner Tank	2-28-12 P4
	28-12-04	Overpressure Protector between Center and Inner Tank	2-28-12 P5
	28-12-05	Overpressure Protector in ACT	2-28-12 P6
	28-15-01	LH Wing Transfer Valve	2-28-15 P1
	28-15-02	RH Wing Transfer Valve	2-28-15 P3
	28-20-01	Automatic Fuel Feed System	2-28-20 P1
	28-21-01	Wing Tank Pump	2-28-21 P1
	28-21-02	Center Tank Pump	2-28-21 P2
	28-21-03	Wing Tank Pump Sequence Valve	2-28-21 P4
	28-22-01	APU Fuel Pump	2-28-22 P1
	28-23-01	Crossfeed Valve	2-28-23 P1
	28-24-01	Engine LP Fuel Valve Electrical Motor	2-28-24 P1
	28-25-01	Fuel Quantity Preselector	2-28-25 P1
	28-25-02	Fuel Quantity on the Refuel/Defuel Control Panel	2-28-25 P2
	28-25-03	Refuel Valve	2-28-25 P3
	28-25-04	Transfer Defuel Valve	2-28-25 P4
	28-25-05	Exterior Refuel/Defuel Control Panel	2-28-25 P5
	28-26-01	Center Tank Transfer Valve	2-28-26 P1
R	28-28-01	ACT Auto Transfer System	2-28-28 P1
	28-28-02	ACT Transfer Valve	2-28-28 P3
	28-28-03	ACT Transfer Pump	2-28-28 P4
	28-28-04	ACT Air Shutoff Valve	2-28-28 P5
	28-28-05	ACT Inward Pressure Relief Valve	2-28-28 P6
	28-28-06	ACT Vent Valve	2-28-28 P9

ATA 28- FUEL			
Rev	ITEM	SUBJECT	PAGE
	28-28-07	ACT Refuel Valve	2-28-28 P11
	28-28-08	ACT Integrated Impact Wall	2-28-28 P12
	28-28-09	ACT 1 Inlet Valve	2-28-28 P13
	28-29-01	APU LP Fuel Valve	2-28-29 P1
	28-43-01	Manual Magnetic Indicators	2-28-43 P1
	28-43-02	Fuel Quantity Attitude Monitor	2-28-43 P4
	28-46-01	High Level Detection System in the Inner Tank	2-28-46 P1
	28-46-02	Level Detection System in the Center Tank	2-28-46 P2
	28-46-03	High Level Detection System in the ACT	2-28-46 P3
	28-46-04	Low Level Detection System in the Inner Tank	2-28-46 P4
	28-46-05	Low Level Detection System in the ACT	2-28-46 P5
	28-50-01	Fuel Quantity Indicating Computer (FQIC) Channel	2-28-50 P1

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ATA 29- HYDRAULIC POWER			
Rev	ITEM	SUBJECT	PAGE
	29-01-01-01	B(Y) ELEC PUMP pb-sw FAULT light	2-29-01-01 P1
	29-01-01-02	B ELEC PUMP pb-sw OFF light	2-29-01-01 P1
	29-01-01-03	Y ELEC PUMP pb-sw ON light	2-29-01-01 P1
	29-01-01-04	G(Y) ENG 1(2) PUMP pb-sw FAULT light	2-29-01-01 P2
	29-01-01-05	G(Y) ENG 1(2) PUMP pb-sw OFF light	2-29-01-01 P2
	29-01-01-06	PTU pb-sw FAULT light	2-29-01-01 P2
	29-01-01-07	PTU pb-sw OFF light	2-29-01-01 P3
	29-01-02-01	G(B)(Y) LEAK MEASUREMENT VALVES pb-sw OFF light	2-29-01-02 P1
	29-07-01	Yellow ELEC Pump Indication on the <u>HYD</u> SD page	2-29-07 P1
	29-07-02	Engine Driven Pump Indication on the <u>HYD</u> SD page	2-29-07 P2
	29-07-03	Fire Valve Indication on the <u>HYD</u> SD page	2-29-07 P3
	29-07-04	PTU Indication on the <u>HYD</u> SD page	2-29-07 P4
	29-07-05	Reservoir Quantity Indication on the <u>HYD</u> SD page	2-29-07 P5
	29-07-06	RAT Indication on the <u>HYD</u> SD page	2-29-07 P6
	29-07-07	System Label Indication on the <u>HYD</u> SD page	2-29-07 P7
	29-07-08	System Pressure Indication on the <u>HYD</u> SD page	2-29-07 P8
	29-09-01	<u>HYD</u> B(Y) ELEC PUMP LO PR Alert	2-29-09 P1
	29-09-02	<u>HYD</u> B(Y) ELEC PUMP OVHT Alert	2-29-09 P2
	29-09-03	<u>HYD</u> G(Y) ENG 1(2) PUMP LO PR Alert	2-29-09 P3
	29-09-04	<u>HYD</u> G(B)(Y) RSVR LO AIR PR Alert	2-29-09 P4
	29-09-05	<u>HYD</u> G(B)(Y) RSVR LO LVL Alert	2-29-09 P5
	29-09-06	<u>HYD</u> G(B)(Y) RSVR OVHT Alert	2-29-09 P6
	29-09-07	<u>HYD</u> PTU FAULT Alert	2-29-09 P7
	29-09-08	<u>HYD</u> RAT FAULT Alert	2-29-09 P8
	29-09-09	<u>HYD</u> G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert	2-29-09 P9
	29-10-01	Engine Driven Pump	2-29-10 P1
	29-10-02	Engine Driven Pump Depressurization Function	2-29-10 P2

ATA 29- HYDRAULIC POWER			
Rev	ITEM	SUBJECT	PAGE
	29-10-03	Blue System Electric Pump	2-29-10 P3
	29-10-04	Hydraulic System Accumulator	2-29-10 P4
	29-10-05	Yellow Brake Accumulator	2-29-10 P5
	29-10-07	Engine Pump Fire Valve	2-29-10 P6
	29-10-08	Hydraulic System Filter	2-29-10 P7
	29-10-09	Hydraulic Case Drain Filter	2-29-10 P8
	29-22-01	Ram Air Turbine	2-29-22-P1
	29-23-01	Power Transfer Unit (PTU)	2-29-23-P1
	29-24-01	Yellow System Electric Pump	2-29-24-P1

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ATA 30-ICE AND RAIN PROTECTION			
Rev	ITEM	SUBJECT	PAGE
	30-00-01	ICE DETECT MAINTENANCE Message	2-30-00 P1
R	30-01-01-01	ANTI ICE ENG 1(2) pb-sw FAULT light	2-30-01-01 P1
	30-01-01-02	ANTI ICE ENG 1(2) pb-sw ON light	2-30-01-01 P1
	30-01-01-03	ANTI ICE WING pb-sw FAULT light	2-30-01-01 P1
	30-01-01-04	ANTI ICE WING pb-sw ON light	2-30-01-01 P2
	30-01-02-01	Wiper High Speed Function (FAST Position)	2-30-01-02 P1
	30-01-02-02	Wiper Low Speed Function (SLOW Position)	2-30-01-02 P1
	30-01-02-03	Wiper Intermittent Speed Function (INTMT Position)	2-30-01-02 P1
	30-07-01	ANTI ICE Indication on the <u>BLEED</u> SD page	2-30-07 P1
	30-07-02	Arrow Indication on the <u>BLEED</u> SD page	2-30-07 P2
	30-11-01	Wing Anti-Ice Control Valve	2-30-11 P1
R	30-21-01	Engine Anti-Ice Valve	2-30-21 P1
	30-31-01	Probe Heat Computer (PHC)	2-30-31 P1
	30-31-02	Pitot Heater	2-30-31 P3
	30-31-03	Static Ports Heater	2-30-31 P5
	30-31-04	Angle of Attack (AOA) Probes Heating	2-30-31 P7
	30-31-05	TAT Probes Heating	2-30-31 P9
	30-42-01	Window Heat Computer	2-30-42 P1
	30-42-02	Fixed Lateral Window and Sliding Window Heating	2-30-42 P2
	30-42-03	Windshield Heating	2-30-42 P3
	30-42-04	PROBES/WINDOW HEAT pb-sw AUTO Control	2-30-42 P4
	30-42-05	PROBES/WINDOW HEAT pb-sw ON light	2-30-42 P5
	30-45-01	Windshield Wiper	2-30-45 P1
	30-45-02	Windshield Wiper PARK Function	2-30-45 P2
	30-45-03	Rain Repellent System	2-30-45 P3
	30-71-01	Waste Water Drain Mast Heating System	2-30-71 P1
	30-71-03	Cargo Compartment Drain Line and Drain Mast Ice Protection System	2-30-71 P2
	30-81-01	Ice Detection System	2-30-81 P1
	30-81-02	External Visual Icing Indicator	2-30-81 P2

ATA 30-ICE AND RAIN PROTECTION

Rev	ITEM	SUBJECT	PAGE
	30-81-03	Lighting of External Visual Icing Indicator	2-30-81 P3

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ATA 31- INDICATING/RECORDING SYSTEMS

Rev	ITEM	SUBJECT	PAGE
	31-00-01	QAR MAINTENANCE Message	2-31-00 P1
	31-00-02	ACMS MAINTENANCE Message	2-31-00 P2
	31-00-03	DAR MAINTENANCE Message	2-31-00 P3
	31-00-04	CFDIU MAINTENANCE Message	2-31-00 P4
	31-00-05	DMC 1/3 MAINTENANCE Message	2-31-00 P5
	31-00-06	DMC 2/3 MAINTENANCE Message	2-31-00 P6
	31-05-01	AP Related Indications on the FMA	2-31-05 P1
	31-05-02	A/THR Related Indications on the FMA	2-31-05 P2
	31-05-03	Approach and Landing Capabilities on the FMA	2-31-05 P3
	31-05-04	Special Messages on the FMA	2-31-05 P4
	31-05-05	Actual Airspeed Reference Line and Scale Indications on the PFD	2-31-05 P5
	31-05-06	Mach Number Indication on the PFD	2-31-05 P6
	31-05-07	VMO / MMO Characteristic Speed Indication on the PFD	2-31-05 P7
	31-05-08	Altitude Indication on the PFD	2-31-05 P8
	31-05-09	Vertical Speed Indication on the PFD	2-31-05 P9
	31-05-10	Other Air Data Related Indications on the PFD	2-31-05 P10
	31-05-11	Attitude Indication on the PFD	2-31-05 P11
	31-05-12	Heading Indication on the PFD	2-31-05 P12
	31-06-01	Ground Speed Indication on the ND	2-31-06 P1
	31-06-02	True Air Speed Indication on the ND	2-31-06 P2
	31-06-03	Wind Indication on the ND	2-31-06 P3
	31-06-04	Heading Indication on the ND	2-31-06 P4
	31-06-05	Position (Aircraft Symbol) Indication on the ND	2-31-06 P5
	31-06-06	Navigation Station Information on the ND	2-31-06 P6
	31-06-07	Chrono Indication on the ND	2-31-06 P7
	31-07-01	Indications on the System Display pages	2-31-07 P1
	31-07-02	Permanent Data Indications on the SD	2-31-07 P2
	31-08-01	Engine Parameter Indications on the EWD	2-31-08 P1
	31-08-02	Fuel On Board (FOB) Indication on the EWD	2-31-08 P2
	31-08-03	MEMO Messages on the EWD	2-31-08 P3
	31-08-04	Slats/Flaps Position Indications on the EWD	2-31-08 P4
	31-20-01	Electrical Clock Indicator	2-31-20 P1
	31-20-02	Flight Number Reminder	2-31-20 P2
	31-30-01	Centralized Fault Display System (CFDS)	2-31-30 P1
	31-30-02	Digital AIDS Recorder (DAR)	2-31-30 P2
	31-30-03	Digital Flight Data Recorder (DFDR)	2-31-30 P3
	31-30-04	Data Management (DMU or FDI MU Data Management function)	2-31-30 P4
	31-30-05	Flight Data Interface Unit (FDIU)	2-31-30 P5

ATA 31- INDICATING/RECORDING SYSTEMS			
Rev	ITEM	SUBJECT	PAGE
	31-30-06	Quick Access Recorder (QAR)	2-31-30 P6
	31-30-07	Printer	2-31-30 P7
	31-30-08	DFDR Recording Parameters	2-31-30 P8
	31-38-01	DATA LOADING selector	2-31-38 P1
	31-38-02	Data Loading Routing Box (DLRB)	2-31-38 P2
	31-38-03	Multipurpose Disk Drive Unit (MDDU)	2-31-38 P3
	31-53-01	Flight Warning Computer (FWC)	2-31-53 P1
	31-53-02	MASTER CAUT Cancel Function	2-31-53 P2
	31-53-03	MASTER WARN Cancel Function	2-31-53 P3
	31-53-04	MASTER CAUT light	2-31-53 P4
	31-53-05	MASTER WARN light	2-31-53 P5
	31-53-06	Altitude Alert	2-31-53 P6
	31-55-01	System Data Acquisition Concentrator (SDAC)	2-31-55 P1
	31-56-01	System Page Manual Call pb on the ECP	2-31-56 P1
	31-56-02	ALL pb on the ECP	2-31-56 P2
	31-56-03	CLR pb on the ECP	2-31-56 P3
	31-56-04	EMER CANC pb on the ECP	2-31-56 P4
	31-56-05	RCL pb on the ECP	2-31-56 P5
	31-56-06	STS pb on the ECP	2-31-56 P6
	31-56-07	T.O CONFIG pb on the ECP	2-31-56 P7
	31-62-01	DMC 1	2-31-62 P1
	31-62-02	DMC 2	2-31-62 P3
	31-62-03	DMC 3	2-31-62 P6
	31-63-01	PFDU 1	2-31-63 P1
	31-63-02	PFDU 2	2-31-63 P2
	31-63-03	NDU 1	2-31-63 P3
	31-63-04	NDU 2	2-31-63 P4
	31-63-05	SDU	2-31-63 P5
	31-63-06	EWDU	2-31-63 P6
	31-68-01	AIR DATA SWITCHING selector on the Center Pedestal	2-31-68 P1
	31-68-02	ATT HDG SWITCHING selector on the Center Pedestal	2-31-68 P2
	31-68-03	ECAM/ND XFR SWITCHING selector on the Center Pedestal	2-31-68 P3
	31-68-04	EIS DMC SWITCHING selector on the Center Pedestal	2-31-68 P4
	31-68-05	PFDD/ND XFR pb on the Lateral Instrument Panel	2-31-68 P5

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ATA 32- LANDING GEAR			
Rev	ITEM	SUBJECT	PAGE
R	32-07-01	Brakes Temperature Indication on the <u>WHEEL</u> SD page	2-32-07 P1
	32-07-02	L/G Position Indication on the <u>WHEEL</u> SD page	2-32-07 P17
	32-07-03	L/G Doors Position Indication on the <u>WHEEL</u> SD page	2-32-07 P18
	32-07-04	L/G CTL Indication on the <u>WHEEL</u> SD page	2-32-07 P19
	32-07-05	UP LOCK Indication on the <u>WHEEL</u> SD page	2-32-07 P20

ATA 32- LANDING GEAR			
Rev	ITEM	SUBJECT	PAGE
	32-07-06	[Y] NW STEERING Indication on the <u>WHEEL</u> SD page	2-32-07 P21
	32-07-08	ANTI SKID Indication on the <u>WHEEL</u> SD page	2-32-07 P22
	32-07-09	AUTO BRK Indication on the <u>WHEEL</u> SD page	2-32-07 P23
	32-07-10	[G] NORM BRK Indication on the <u>WHEEL</u> SD page	2-32-07 P24
	32-07-11	Release Brake Indication on the <u>WHEEL</u> SD page	2-32-07 P25
	32-07-12	ACCU PRESS/ACCU ONLY Indication on the <u>WHEEL</u> SD page	2-32-07 P26
	32-07-13	[Y] ALTN BRK Indication on the <u>WHEEL</u> SD page	2-32-07 P27
	32-09-01	BRAKES-NWS MINOR FAULT Alert	2-32-09 P1
	32-11-01	Main Gear Torque Link Damper	2-32-11 P1
	32-12-01	Ground Opening Cable	2-32-12 P1
	32-31-01	Landing Gear Control and Interface Unit (LGCIU)	2-32-31 P1
R	32-31-02	Landing Gear Retracting System	2-32-31 P4
	32-32-01	LGCIU 1 Proximity Detector	2-32-32 P1
	32-32-02	LGCIU 2 RH L/G Shock Absorber Proximity Detector	2-32-32 P2
	32-32-03	LGCIU 2 LH L/G Shock Absorber Proximity Detector	2-32-32 P4
	32-32-04	LGCIU 2 Nose L/G Shock Absorber Proximity Detector	2-32-32 P8
	32-32-05	LGCIU 2 RH L/G Down Lock Proximity Detector	2-32-32 P10
	32-32-06	LGCIU 2 LH L/G Down Lock Proximity Detector	2-32-32 P11
	32-32-07	LGCIU 2 Nose L/G Down Lock Proximity Detector	2-32-32 P12
	32-32-08	LGCIU 2 RH L/G Up Lock Proximity Detector	2-32-32 P13
	32-32-09	LGCIU 2 LH L/G Up Lock Proximity Detector	2-32-32 P14
	32-32-10	LGCIU 2 Nose L/G Up Lock Proximity Detector	2-32-32 P15
	32-32-11	LGCIU 2 RH L/G Doors Open Proximity Detector	2-32-32 P16
	32-32-12	LGCIU 2 LH L/G Doors Open Proximity Detector	2-32-32 P17
	32-32-13	LGCIU 2 Nose L/G Doors Open Proximity Detector	2-32-32 P18
	32-32-14	LGCIU 2 RH L/G Doors Closed Proximity Detector	2-32-32 P19
	32-32-15	LGCIU 2 LH L/G Doors Closed Proximity Detector	2-32-32 P20
	32-32-16	LGCIU 2 Nose L/G Doors Closed Proximity Detector	2-32-32 P21
R	32-33-01	Landing Gear Gravity Extension System	2-32-33 P1
	32-41-01	Nose Wheel Tie Bolt	2-32-41 P1
	32-41-02	Main Wheel Tie Bolt	2-32-41 P2
	32-42-01	Main Wheel Brake	2-32-42 P1
	32-42-02	Green System Brake	2-32-42 P11
	32-42-03	Braking/Steering Control Unit (BSCU) System 1	2-32-42 P12
	32-42-04	Braking/Steering Control Unit (BSCU) System 2	2-32-42 P13
	32-42-05	AUTO/BRK Function	2-32-42 P14
	32-42-06	Tachometer	2-32-42 P15
	32-42-08	AUTO/BRK (LO, MED, MAX) pb-sw DECEL light	2-32-42 P16
	32-42-09	AUTO/BRK (LO, MED, MAX) pb-sw ON light	2-32-42 P17
	32-44-01	Yellow System Brake	2-32-44 P1
R	32-44-02	ACCU PRESS Indicator	2-32-44 P2
	32-44-03	BRAKES Pressure Indicator	2-32-44 P3
	32-44-04	Alternate Braking Control Unit (ABCU)	2-32-44 P4
	32-45-01	Parking Brake Control Valve Electrical Motor	2-32-45 P1
	32-47-01	Brake Temperature Monitoring Unit (BTMU)	2-32-47 P1

ATA 32- LANDING GEAR			
Rev	ITEM	SUBJECT	PAGE
	32-48-01	Brake Fan System	2-32-48 P1
	32-48-02	BRK FAN pb-sw HOT light	2-32-48 P2
	32-48-03	BRK FAN pb-sw ON light	2-32-48 P3
	32-51-01	Nose Wheel Steering Control System	2-32-51 P1
	32-51-02	Rudder PEDALS DISC pb	2-32-51 P3
	32-51-03	NWS Electrical Deactivation Box	2-32-51 P4
	32-51-04	PARKING BRAKE light on the NWS Electrical Deactivation Box	2-32-51 P6
	32-61-01	LDG GEAR Indicator Panel	2-32-61 P1
	32-61-02	DOWN Red Arrow light on the Landing Gear lever	2-32-61 P2

Rev : A=Added, R=Revised, D=Deleted

ATA 33- LIGHTS			
Rev	ITEM	SUBJECT	PAGE
	33-01-01-01	TEST Function of ANN LT sw	2-33-01-01 P1
	33-01-01-02	DIM Function of ANN LT sw	2-33-01-01 P1
	33-01-01-03	BRT Function of ANN LT sw	2-33-01-01 P1
	33-01-02-01	EMER EXIT LT OFF light	2-33-01-02 P1
	33-01-02-02	AUTO Function of SEAT BELT SIGNS sw	2-33-01-02 P1
	33-01-02-03	AUTO Function of NO SMOKING SIGNS sw	2-33-01-02 P2
	33-10-01	Cockpit General Illumination (Center & Main Instrument Lighting, Console and Floor Lighting, Dome lights and Lighting Strips, Instrument and Panel Integral Lighting, Map Holder Lighting, Center Pedestal Lighting)	2-33-10 P1
	33-20-01	Cabin General Illumination	2-33-20 P1
	33-20-02	Cabin Signs (No Smoking/Fasten Seat Belt/Return to Seat)	2-33-20 P2
	33-20-03	Lavatory Sign (Return to seat)	2-33-20 P3
	33-30-01	Cargo and Service Compartment Lighting System	2-33-30 P1
	33-40-01	Navigation light System 1	2-33-40 P1
	33-40-02	Navigation light System 2	2-33-40 P2
	33-40-03	Landing light	2-33-40 P3
	33-40-04	Landing light Extension/Retraction System	2-33-40 P4
	33-40-05	Runway Turnoff light	2-33-40 P5
	33-40-06	Taxi and Takeoff light	2-33-40 P6
	33-40-07	Logo light	2-33-40 P7
	33-40-08	Beacon light	2-33-40 P8
	33-40-09	Wing Scan light	2-33-40 P9
	33-40-10	Strobe light	2-33-40 P5
	33-51-01	Exit Marking Sign	2-33-51 P1
	33-51-02	Exit Location Sign in the Main Aisle	2-33-51 P3
	33-51-03	Overhead Emergency Lighting System in the Main Aisle	2-33-51 P4
	33-51-04	Overhead Emergency Lighting System in the Door Vicinity	2-33-51 P5
	33-51-05	Floor Proximity Emergency Escape Path Marking System in the Main Aisle	2-33-51 P6

ATA 33- LIGHTS			
Rev	ITEM	SUBJECT	PAGE
	33-51-07	Floor Proximity Emergency Escape Path Marking System Exit Marker	2-33-51 P7
	33-51-08	Overwing Emergency light	2-33-51 P8
	33-51-09	Overwing Exit Handle light	2-33-51 P9
	33-51-10	Escape Slide Lighting	2-33-51 P10
	33-51-11	Lavatory Auxiliary light	2-33-51 P11
	33-51-12	BAT TEST pb on the PTP	2-33-51 P12
	33-51-13	SYS TEST pb on the PTP	2-33-51 P13

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ATA 34- NAVIGATION			
Rev	ITEM	SUBJECT	PAGE
	34-00-01	ADR (1)(2)(3) MAINTENANCE Message	2-34-00 P1
	34-00-02	IR MAINTENANCE Message	2-34-00 P2
	34-01-01-01	ADR pb-sw FAULT light	2-34-01-01 P1
	34-01-01-02	ADR pb-sw OFF light	2-34-01-01 P1
	34-01-01-03	IR FAULT light	2-34-01-01 P1
	34-01-01-04	IR ALIGN light	2-34-01-01 P2
	34-01-01-05	ON BAT light	2-34-01-01 P2
	34-01-01-31	ADR pb-sw	2-34-01-01 P3
	34-01-01-32	IR pb-sw	2-34-01-01 P3
	34-01-01-33	IR Mode selector	2-34-01-01 P4
	34-01-01-34	DATA DISPLAY selector of ADIRS CDU	2-34-01-01 P5
	34-01-01-35	SYS DISPLAY selector of ADIRS CDU	2-34-01-01 P5
	34-01-01-36	Display Unit of ADIRS CDU	2-34-01-01 P6
	34-01-01-37	Keyboard of ADIRS CDU	2-34-01-01 P6
	34-01-02-01	GPWS SYS FAULT light	2-34-01-02 P1
	34-05-01	Actual Airspeed Reference Line and Scale Indication on the PFD	2-34-05 P1
	34-05-02	Mach Number Indication on the PFD	2-34-05 P2
	34-05-03	VMO/MMO Characteristic Speed Indication on the PFD	2-34-05 P4
	34-05-04	Altitude Indication on the PFD	2-34-05 P5
	34-05-05	Baro Reference Indication on the PFD	2-34-05 P6
	34-05-06	Vertical Speed in Inertial Mode Indication on the PFD	2-34-05 P7
	34-05-07	Other Air Data Related Indications on the PFD	2-34-05 P8
	34-05-08	Attitude Indication on the PFD	2-34-05 P9
	34-05-09	Heading Indication on the PFD	2-34-05 P10
	34-06-01	Ground Speed Indication on the ND	2-34-06 P1
	34-06-02	True Air Speed Indication on the ND	2-34-06 P2
	34-06-03	Wind Indication on the ND	2-34-06 P3
	34-06-04	Heading Indication on the ND	2-34-06 P4
	34-06-05	Position (Aircraft Symbol) Indication on the ND	2-34-06 P5
	34-06-06	Radio Nav aids Indications on the ND	2-34-06 P6
	34-06-07	Chrono Indication on the ND	2-34-06 P7

ATA 34- NAVIGATION			
Rev	ITEM	SUBJECT	PAGE
	34-10-01	ADR 1	2-34-10 P1
	34-10-02	ADR 2	2-34-10 P2
	34-10-03	ADR 3	2-34-10 P4
	34-10-04	IR 1	2-34-10 P5
	34-10-05	IR 2	2-34-10 P7
	34-10-06	IR 3 (aircraft without Honeywell 10 MCU ADIRU)	2-34-10 P11
	34-11-01	Angle of Attack (AOA) Sensor	2-34-11 P1
	34-11-02	CAPT Total Air Temperature (TAT) Sensor Element Connected to ADR 1	2-34-11 P2
	34-11-03	CAPT Total Air Temperature (TAT) Sensor Element Connected to ADR 3	2-34-11 P3
	34-11-04	F/O Total Air Temperature (TAT) Sensor Element Connected to ADR 2	2-34-11 P4
	34-21-01	Standby ALT Indicator	2-34-21 P1
	34-21-02	Bugs on the Standby ALT Indicator	2-34-21 P2
	34-21-03	Standby IAS Indicator	2-34-21 P3
	34-21-04	Bugs on the Standby IAS Indicator	2-34-21 P4
	34-22-01	Standby Compass Indicator	2-34-22 P1
	34-22-02	Standby Compass Lighting	2-34-22 P3
	34-22-03	Standby Horizon Indicator	2-34-22 P4
	34-23-01	ISIS Baro-Altitude Function	2-34-23 P1
	34-23-02	ISIS Airspeed Function	2-34-23 P2
	34-23-03	ISIS Bugs Function	2-34-23 P3
	34-23-04	ISIS Horizon Function	2-34-23 P4
	34-23-05	ISIS ILS Function	2-34-23 P5
	34-23-06	ISIS Mach Number Function	2-34-23 P6
	34-30-04	Instrument Landing System (ILS)	2-34-30 P1
	34-40-01	Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)	2-34-40 P1
	34-40-02	Radio Altimeter Automatic Callout	2-34-40 P3
	34-40-03	Radio Altimeter System	2-34-40 P4
	34-40-04	Traffic Collision Avoidance System (TCAS)	2-34-40 P7
	34-40-05	Weather Radar System	2-34-40 P8
	34-40-06	Predictive Windshear Detection Function	2-34-40 P9
	34-40-07	PULL UP-GPWS pb-sw	2-34-40 P10
	34-50-01	ATC	2-34-50 P1
	34-50-03	ADF	2-34-50 P2
	34-50-04	DME	2-34-50 P3
	34-50-05	VOR	2-34-50 P4
	34-50-06	MARKER	2-34-50 P5
	34-50-07	DDRMI	2-34-50 P6
	34-50-09	Global Positioning System (GPS)	2-34-50 P7
	34-50-10	ADS-B OUT Function	2-34-50 P8

Rev : A=Added, R=Revised, D=Deleted

ATA 35- OXYGEN			
Rev	ITEM	SUBJECT	PAGE
	35-01-01-01	CREW SUPPLY pb-sw OFF light	2-35-01-01 P1
	35-01-01-02	PASSENGER SYS ON light	2-35-01-01 P1
	35-01-01-31	MANUAL Control of the MASK MAN ON pb	2-35-01-01 P1
	35-01-01-32	AUTO Control of the MASK MAN ON pb	2-35-01-01 P2
	35-07-01	Crew OXY High Pressure Indication on the <u>DOOR/OXY</u> SD page	2-35-07 P1
	35-07-02	Crew Oxygen REGUL LO PR Indication on the <u>DOOR/OXY</u> SD page	2-35-07 P2
	35-10-01	Crew Oxygen Mask	2-35-10 P1
	35-10-02	Crew Oxygen Mask Microphone	2-35-10 P2
	35-10-03	Exterior Crew Oxygen Overpressure Indicator Disc (Green Disc)	2-35-10 P3
	35-20-01	Passenger Oxygen Unit	2-35-20 P1
	35-20-02	Cabin Attendant Oxygen Unit	2-35-20 P1
	35-20-03	Lavatory Oxygen Unit	2-35-20 P3
	35-20-04	Galley Oxygen Unit	2-35-20 P4
	35-20-05	Manual Release Tool	2-35-20 P6
	35-30-01	Flight Crew Portable Device	2-35-30 P1
	35-30-02	Cabin Attendant Portable Device	2-35-30 P2
	35-30-03	PROTECT. BREATHING EQPT(PBE)	2-35-30 P3

Rev : A=Added, R=Revised, D=Deleted

ATA 36- PNEUMATIC			
Rev	ITEM	SUBJECT	PAGE
	36-00-01	AIR BLEED MAINTENANCE Message	2-36-00 P1
	36-01-01	ENG BLEED pb-sw FAULT light	2-36-01 P1
	36-01-02	ENG BLEED pb-sw OFF light	2-36-01 P2
	36-01-03	APU BLEED pb-sw FAULT light	2-36-01 P3
	36-01-04	APU BLEED pb-sw ON light	2-36-01 P4
	36-07-01	APU Bleed Valve Indication on the <u>BLEED</u> SD page	2-36-07 P1
	36-07-02	Engine Bleed Valve Indication on the <u>BLEED</u> SD page	2-36-07 P2
	36-07-03	Engine Bleed HP Valve Indication on the <u>BLEED</u> SD page	2-36-07 P3
	36-07-04	Engine Bleed Precooler Inlet Pressure Indication on the <u>BLEED</u> SD page	2-36-07 P4
	36-07-05	Engine Bleed Precooler Outlet Temperature Indication on the <u>BLEED</u> SD page	2-36-07 P5
	36-07-06	X Bleed Valve Indication on the <u>BLEED</u> SD page	2-36-07 P6
R	36-11-01	Engine Bleed Air Supply System	2-36-11 P1
	36-11-02	Engine Bleed Valve (PRV)	2-36-11 P8
	36-11-03	Engine Bleed Overpressure Valve	2-36-11 P9
	36-11-04	Engine Bleed Fan Air Valve	2-36-11 P10
	36-11-05	Engine Bleed Air Precooler	2-36-11 P11
R	36-11-06	Engine Bleed IP Check Valve	2-36-11 P12
	36-11-07	Engine Bleed HP Valve	2-36-11 P13
	36-11-08	Bleed Monitoring Computer(BMC)	2-36-11 P14

ATA 36- PNEUMATIC			
Rev	ITEM	SUBJECT	PAGE
	36-12-01	APU Bleed Air Supply System	2-36-12 P1
	36-12-02	APU Bleed Valve	2-36-12 P2
	36-12-03	APU Bleed Check Valve	2-36-12 P3
	36-12-04	Automatic Control of the X Bleed Valve	2-36-12 P4
	36-12-05	Manual Control of the X Bleed Valve	2-36-22 P5
	36-22-01	Pylon Leak Detection System	2-36-22 P1
	36-22-02	Wing Leak Detection System	2-36-22 P3
	36-22-03	APU Leak Detection Loop	2-36-22 P4

Rev : A=Added, R=Revised, D=Deleted

ATA 38- WATER/WASTE			
Rev	ITEM	SUBJECT	PAGE
	38-10-01	POTABLE WATER SYSTEM	2-38-10 P1
	38-11-01	LAVATORY WASTE SYSTEMS(INCLUDING WHEELCHAIR ACCESSIBLE LAVATORIES)	2-38-11 P1

Rev : A=Added, R=Revised, D=Deleted

ATA 46- INFORMATION SYSTEMS			
Rev	ITEM	SUBJECT	PAGE
	46-21-01	Air Traffic Service Unit (ATSU)	2-46-21 P 1
	46-21-02	Datalink Control and Display Unit (DCDU)	2-46-21 P 2
	46-21-03	ATC MSG	2-46-21 P 3

Rev : A=Added, R=Revised, D=Deleted

ATA 47 – INERT GAS SYSTEM			
Rev	ITEM	SUBJECT	PAGE
	47-00-01	FUEL INERT MAINTENANCE Message	2-47-00 P 1

Rev : A=Added, R=Revised, D=Deleted

ATA 49 – APU(AUXILIARY POWER UNIT)			
Rev	ITEM	SUBJECT	PAGE
	49-00-01	APU MAINTENANCE Message	2-49-00 P1
	49-01-01	APU MASTER SW pb-sw FAULT light	2-49-01 P1
	49-01-02	APU MASTER SW pb-sw ON light	2-49-01 P2
	49-01-03	APU START pb-sw AVAIL light	2-49-01 P3
	49-01-04	APU START pb-sw ON light	2-49-01 P4
	49-07-01	Indications on the APU SD page	2-49-07 P1

ATA 49 – APU(AUXILIARY POWER UNIT)

Rev	ITEM	SUBJECT	PAGE
	49-10-01	Power Plant (APU)	2-49-10 P1
	49-10-02	APU Air Intake Flap	2-49-10 P3

Rev : A=Added, R=Revised, D=Deleted

ATA 52 – DOORS

Rev	ITEM	SUBJECT	PAGE
	52-01-01-01	CHAN (1, 2) LEDs on the CKPT DOOR CONT Overhead Panel	2-52-01-01 P1
	52-01-01-02	STRIKE (TOP, MID, BOT) LEDs on the CKPT DOOR CONT Overhead Panel	2-52-01-01 P1
	52-01-01-03	Pressure Rate Sensor on the CKPT DOOR CONT Overhead Panel	2-52-01-01 P2
	52-07-01	Passenger Door Permanently Indicated Open on the <u>DOOR/OXY</u> SD page	2-52-07 P1
	52-07-02	Passenger Door Permanently Indicated Closed on the <u>DOOR/OXY</u> SD page	2-52-07 P7
	52-07-03	Overwing Emergency Exit Permanently Indicated Open on the <u>DOOR/OXY</u> SD page	2-52-07 P10
	52-07-04	Overwing Emergency Exit Permanently Indicated Closed on the <u>DOOR/OXY</u> SD page	2-52-07 P13
	52-07-05	Cargo Door Indication on the <u>DOOR/OXY</u> SD page	2-52-07 P14
	52-07-06	Avionics Compartment Access Door Indication on the <u>DOOR/OXY</u> SD page	2-52-07 P15
	52-10-01	Cabin Passenger Door	2-52-10 P1
	52-10-02	Overwing Emergency Exit	2-52-10 P11
	52-10-03	Passenger Exit Stop Fitting	2-52-10 P13
	52-10-04	Door Damper Function	2-52-10 P14
	52-10-05	Door Emergency Opening Function	2-52-10 P15
	52-10-06	DOOR PRESS LOW Message on the Programming and Test Panel (PTP) STATUS Page	2-52-10 P16
	52-10-07	Passenger Door Stay Mechanism	2-52-10 P18
	52-10-08	CABIN PRESSURE light (on Doors)	2-52-10 P19
	52-30-01	Cargo Door (FWD, AFT and BULK)	2-52-30 P1
	52-30-02	Cargo Door Actuator	2-52-30 P2
	52-30-03	Cargo Door Electrical Control	2-52-30 P3
	52-30-04	Cargo Door Locking Hooks and Spools (Rollers)	2-52-30 P4
	52-30-05	Cargo Door Hand Pump	2-52-30 P5
	52-30-06	Cargo Door Drift Pin	2-52-30 P6
	52-30-07	Cargo Doors Open/Locked Indicator light	2-52-30 P7
	52-33-01	Cargo Door Balance Mechanism	2-52-33 P1
	52-51-01	CDLS Normal System (Normal Control Unit, Switch and Lights on the CKPT DOOR Panel, Buzzer, Keypad)	2-52-51 P1
	52-51-03	CDLS Buzzer	2-52-51 P2
	52-51-04	CDLS Keypad	2-52-51 P3

ATA 52 – DOORS			
Rev	ITEM	SUBJECT	PAGE
	52-51-05	CDLS Keypad Green and Red LEDs	2-52-51 P4
	52-51-06	CDLS Door Release Strike (Catch, Spring, Solenoid, Bolt)	2-52-51 P5
	52-51-07	CDLS Deadbolt	2-52-51 P6
	52-53-01	COCKPIT DOOR FAULT light	2-52-53 P1
	52-53-02	COCKPIT DOOR OPEN light	2-52-53 P2
	52-53-03	LOCK Function of the COCKPIT DOOR sw	2-52-53 P3
	52-53-04	UNLOCK Function of the COCKPIT DOOR sw	2-52-53 P4

Rev : A=Added, R=Revised, D=Deleted

ATA 56 – WINDOWS			
Rev	ITEM	SUBJECT	PAGE
	56-10-01	Front Windshield	2-56-10 P1
	56-10-02	Lateral Fixed/Sliding Window	2-56-10 P3
	56-10-03	Sliding Window Opening/Closing Mechanism	2-56-10 P4
	56-20-01	Cabin Window	2-56-20 P1

Rev : A=Added, R=Revised, D=Deleted

ATA 70 – ENGINE			
Rev	ITEM	SUBJECT	PAGE
	70-00-01	ENG FADEC MAINTENANCE Message	2-70-00 P1
	70-00-02	ENG EIU MAINTENANCE Message	2-70-00 P2
	70-00-03	ENG EVMU MAINTENANCE Message	2-70-00 P3

Rev : A=Added, R=Revised, D=Deleted

ATA 73 – ENGINE FUEL & CONTROL			
Rev	ITEM	SUBJECT	PAGE
	73-07-01	F. USED Indication on the <u>ENGINE SD</u> page	2-73-07 P 1
	73-07-02	Fuel Filter Clog Indication on the <u>ENGINE SD</u> page	2-73-07 P 2
	73-08-01	F. F. (Fuel Flow) Indication on the EWD	2-73-08 P 1
	73-09-01	<u>ENG 1(2)</u> FUEL FILTER CLOG Alert	2-73-09 P 1
	73-10-01	Fuel Return Valve	2-73-10 P1
	73-10-03	Fuel Metering Valve	2-73-10 P2
	73-10-04	Engine HP Fuel Valve	2-73-10 P3
	73-20-01	Flex Takeoff Mode	2-73-20 P1
R	73-20-04	EPR Control Mode	2-73-20 P2
	73-20-05	Minimum Idle on Ground	2-73-20 P15
	73-20-06	EEC ACFT 28V Power Supply	2-73-20 P17

Rev : A=Added, R=Revised, D=Deleted

ATA 74 – ENGINE IGNITION

Rev	ITEM	SUBJECT	PAGE
	74-07-01A	Selected Igniter Indication on the <u>ENGINE</u> SD page	2-74-07 P 1
	74-09-01A	ENG 1(2) IGN A(B)(A+B) FAULT Alert	2-74-09 P 1
	74-31-01A	Ignition System A	2-74-31 P 1
	74-31-02A	Ignition System B	2-74-31 P 2

Rev : A=Added, R=Revised, D=Deleted

ATA 76 – ENGINE CONTROLS

Rev	ITEM	SUBJECT	PAGE
	76-11-01	Thrust lever Position Sensor	2-76-11 P 1

Rev : A=Added, R=Revised, D=Deleted

ATA 77 – ENGINE INDICATION

Rev	ITEM	SUBJECT	PAGE
	77-07-01-01	N1 Vibration Indication on the <u>CRUISE</u> SD page	2-77-07-01 P1
	77-07-01-02	N2 Vibration Indication on the <u>CRUISE</u> SD page	2-77-07-01 P1
	77-07-01-03	F. USED (Fuel Used) Indication on the <u>CRUISE</u> SD page	2-77-07-01 P1
	77-07-01-04	OIL QT (Oil Quantity) Indication on the <u>CRUISE</u> SD page	2-77-07-01 P1
	77-07-02-01	Engine Bleed Pressure Indication on the <u>ENGINE</u> SD page	2-77-07-02 P1
	77-07-02-02	Fuel Filter Clog Indication on the <u>ENGINE</u> SD page	2-77-07-02 P1
	77-07-02-03	Fuel Used Indication on the <u>ENGINE</u> SD page	2-77-07-02 P1
	77-07-02-04	Nacelle Temperature Indication on the <u>ENGINE</u> SD page	2-77-07-02 P1
	77-07-02-05	N1 Vibration Indication on the <u>ENGINE</u> SD page	2-77-07-02 P2
	77-07-02-06	N2 Vibration Indication on the <u>ENGINE</u> SD page	2-77-07-02 P2
	77-07-02-07	Oil Filter Clog Indication on the <u>ENGINE</u> SD page	2-77-07-02 P3
	77-07-02-08	Oil Pressure Indication on the <u>ENGINE</u> SD page	2-77-07-02 P3
	77-07-02-09	Oil Quantity Indication on the <u>ENGINE</u> SD page	2-77-07-02 P3
	77-07-02-10	Oil Temperature Indication on the <u>ENGINE</u> SD page	2-77-07-02 P3
	77-07-02-11	Selected Igniter Indication on the <u>ENGINE</u> SD page	2-77-07-02 P4
	77-07-02-12	Start Valve Position Indication on the <u>ENGINE</u> SD page	2-77-07-02 P4
	77-08-01	EGT Indication on the EWD	2-77-08 P1
	77-08-02	EPR Indication on the EWD	2-77-08 P2
	77-08-03	F.F. (Fuel Flow) Indication on the EWD	2-77-08 P3
	77-08-04	N1 Indication on the EWD	2-77-08 P4
	77-08-05	N2 Indication on the EWD	2-77-08 P5

Rev : A=Added, R=Revised, D=Deleted

ATA 78 – ENGINE EXHAUST

Rev	ITEM	SUBJECT	PAGE

ATA 78 – ENGINE EXHAUST			
Rev	ITEM	SUBJECT	PAGE
	78-08-01	REV Indication on the EWD	2-78-08 P1
R	78-30-01	Thrust Reverser	2-78-30 P1
	78-30-02	Thrust Reverser Inhibition Relay sw	2-78-30 P6
	78-30-03	Thrust Reverser Shutoff Valve	2-78-30 P7

Rev : A=Added, R=Revised, D=Deleted

ATA 79 –OIL			
Rev	ITEM	SUBJECT	PAGE
	79-07-01	CLOG Indication on the <u>ENGINE</u> SD page	2-79-07 P1
	79-07-02	Oil Pressure Indication and Advisory on the <u>ENGINE</u> SD page	2-79-07 P2
	79-07-03	Oil Quantity Indication on the <u>ENGINE</u> SD page	2-79-07 P3
	79-07-04	Oil Temperature Indication on the <u>ENGINE</u> SD page	2-79-07 P4
	79-09-01	<u>ENG 1(2)</u> OIL LO PR Alert	2-79-09 P1
	79-09-03	<u>ENG 1(2)</u> BEARING 4 OIL SYS Alert	2-79-09 P2
	79-20-01	Air Cooled Oil Cooler (ACOC) Modulating Valve	2-79-20 P1

Rev : A=Added, R=Revised, D=Deleted

ATA 80 – ENGINE STARTING			
Rev	ITEM	SUBJECT	PAGE
	80-01-31	ENG MAN START pb-sw	2-80-01 P 1
	80-07-01	Start Valve Position Indication on the <u>ENGINE</u> SD page	2-80-07 P 1
	80-11-01	Start Valve	2-80-11 P 1
	80-12-01	FAULT on the ENG MASTER Panel	2-80-12 P 1

Rev : A=Added, R=Revised, D=Deleted

ATA 21

Air Conditioning

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-00 - MAINTENANCE Messages on the STATUS SD page

21-00-01	PACK 1(2) <u>MAINTENANCE</u> Message

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	-	-	

PACK 1(2) MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-00 - MAINTENANCE Messages on the STATUS SD page

21-00-02	ZONE CONT <u>MAINTENANCE</u> Message

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-00-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	-	-	

ZONE CONT MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-00 - MAINTENENCE Messages on the STATUS SD page

21-00-03	AFT CRG HEAT <u>MAINTENANCE</u> Message

Applicable to: HL7767

21-00-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	-	-	

AFT CRG HEAT MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-00 - MAINTENANCE Messages on the STATUS SD page

21-00-04	TEMP CTL 1(2) <u>MAINTENANCE</u> Message

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

21-00-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	-	-	

TEMP CTL 1(2) MAINTENANCE message may be displayed on the STATUS SD page.

21-01-01-01

PACK pb-sw FAULT light

Applicable to: ALL

21-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

21-01-01-02

PACK pb-sw OFF light

Applicable to: ALL

21-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

21-01-01-03

HOT AIR pb-sw FAULT light

Applicable to: ALL

21-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that all zone duct temperature indications are operative on the COND SD page.

21-01-01-04

HOT AIR pb-sw OFF light

Applicable to: ALL

21-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-01 - Overhead Panels 21-01-02 - CABIN PRESS Overhead Panel

21-01-02-01	CABIN PRESS MODE SEL pb-sw FAULT light

Applicable to: ALL

21-01-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-01 - Overhead Panels 21-01-03 - CARGO VENT Overhead Panel

21-01-03-02	AFT ISOL VALVE pb-sw FAULT light

Applicable to: HL7767

21-01-03-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-01 - Overhead Panels 21-01-04 – VENTILATION Overhead Panel

21-01-04-01	CAB FANS pb-sw OFF light

Applicable to: ALL

21-01-04-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

21-01-04-02	BLOWER pb-sw FAULT light

Applicable to: ALL

21-01-04-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

21-01-04-03	EXTRACT pb-sw FAULT light

Applicable to: ALL

21-01-04-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

21-07-01-01

Pack Outlet Temperature Indication on the BLEED SD page

Applicable to: ALL

21-07-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

21-07-01-02

Pack Turbine Bypass Valve Position Indication on the BLEED SD page

Applicable to: ALL

21-07-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

21-07-01-03

Pack Compressor Outlet Temperature Indication on the BLEED SD page

Applicable to: ALL

21-07-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

MEL ITEMS

21 - AIR CONDITIONING

21-07 - Indications on SD pages

21-07-01 - Indications on the BLEED SD page

21-07-01-04

Pack Flow Indication on the BLEED SD page

Applicable to: ALL

21-07-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

21-07-01-05

Pack Flow Control Valve Position Indication on the BLEED SD page

Applicable to: ALL

21-07-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

21-07-01-06

Emergency Ram Air Inlet Indication on the BLEED SD page

Applicable to: ALL

21-07-01-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

21-07-02-01

INLET and EXTRACT Indications on the CAB PRESS SD page

Applicable to: ALL

21-07-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

Note: During ground operations, correct avionics ventilation should be provided.

21-07-02-02

Pressure Safety Valves Position Indication on the CAB PRESS SD page

Applicable to: ALL

21-07-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

Pressure safety valves may be indicated open provided that both valves are visually checked closed.

_____Reference(s)_____

(m) Refer to AMM 21-31-00-040-004

21-07-02-03

Pack 1 and 2 Indications on the CAB PRESS SD page

Applicable to: ALL

21-07-02-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-07 - Indications on SD pages 21-07-03 - Indications on the COND SD page

21-07-03-01	Indications on the <u>COND</u> SD page

Applicable to: ALL

21-07-03-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	15	0	

One or more indications may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-07 - Indications on SD pages 21-07-04 - Indications on the CRUISE SD page

21-07-04-01	Indications on the <u>CRUISE</u> SD page

Applicable to: ALL

21-07-04-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	13	0	

Cabin and cockpit zone indications may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-09 - ECAM Alerts

21-09-01	<u>VENT</u> BLOWER FAULT Alert

Applicable to: ALL

21-09-01A Blower fan operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be displayed provided that:

- 1) The blower fan is checked operative before each flight, and
- 2) The VENT AVNCS SYS FAULT alert is checked operative before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

(o) OpsProc 21-09-01A VENT BLOWER FAULT Alert

Applicable to: ALL

DURING COCKPIT PREPARATION

Disregard the VENT BLOWER FAULT alert displayed on the EWD.

Disregard the BLOWER pb-sw FAULT light illuminated on the VENTILATION Overhead panel.

Note: If the ground horn sounds:

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

(m) Refer to AMM 21-26-00-040-010

21-09-01B Blower fan inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be displayed provided that the avionics blower fan is considered inoperative.

Refer to Item 21-26-01 Avionics Blower Fan

Note: During ground operations, correct avionics ventilation should be provided.

21-09-02

VENT EXTRACT FAULT Alert

Applicable to: ALL

21-09-02A Extract fan operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be displayed provided that:

- 1) The extract fan is checked operative before each flight, and
- 2) The VENT AVNCS SYS FAULT alert is checked operative before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-09-02A VENT EXTRACT FAULT Alert

Applicable to: ALL

DURING COCKPIT PREPARATION

Disregard the VENT EXTRACT FAULT alert displayed on the EWD.

- (m) Refer to AMM 21-26-00-040-011

21-09-02B Extract fan inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be displayed provided that the avionics extract fan is considered inoperative.

Refer to Item 21-26-02 Avionics Extract Fan

Note: During ground operations, correct avionics ventilation should be provided.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-09 - ECAM Alerts

21-09-03	<u>CAB PR</u> SAFETY VALVE OPEN Alert

Applicable to: ALL

21-09-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be displayed provided that both safety valves are visually checked closed.

_____Reference(s)_____

(m) Refer to AMM 21-31-00-040-005

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-21 - Air Distribution and Recirculation

21-21-01	Cabin Fan

Applicable to: ALL

21-21-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-23 - Lavatory and Galley Ventilation

21-23-01	Lavatory and Galley Extraction Fan

Applicable to: ALL

21-23-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that all duct temperatures indications for the cabin are operative on the COND SD page.

Reference(s)

(o) *OpsProc 21-23-01B Lavatory and Galley Extraction Fan*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

GENERAL INFORMATION

Two amber crosses replace the cabin zone temperature indications on the COND SD page.
Refer to Item 21-07-03-01 Indications on the COND SD page

The INOP SYS column on the STATUS SD page may display the LAV DET message.

The cabin zone temperature regulation is lost.

The Zone Controller commands fixed FWD and AFT cabin ducts temperature (set to 15 °C or 59 °F).

To recover the cockpit temperature regulation:

- HOT AIR pb-sw OFF
- To control cockpit temperature, use the COCKPIT selector on the AIR COND overhead panel.

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

Two amber crosses replace the cabin zone temperature indications on the COND SD page.
Refer to Item 21-07-03-01 Indications on the COND SD page

The INOP SYS column on the STATUS SD page may display the LAV DET message.

The cabin zone temperature regulation is lost.

The Air Conditioning System Controller commands FWD and AFT cabin ducts temperature using the position of the FWD CABIN selector and the AFT CABIN selector on the AIR COND overhead panel.

Slight effect on cabin comfort may occur.

The cockpit temperature regulation is still operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-01	Avionics Blower Fan

Applicable to: ALL

21-26-01A VENT AVNCS SYS FAULT not displayed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The BLOWER pb-sw is set to OVRD, and
 - 2) Both air conditioning packs are operative, and
 - 3) The VENT AVNCS SYS FAULT alert is not displayed.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

(o) OpsProc 21-26-01A Avionics Blower Fan (VENT AVNCS SYS FAULT Alert not displayed)

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
 - Check that the air conditioning correctly operates with both air conditioning packs set to on.
 - BLOWER pb-sw OVRD
 - AVNCS VENT/BLOWER/FAN (123VU AD10) C/B.....Pull
 - Check that the VENT AVNCS SYS FAULT and VENT EXTRACT FAULT alerts are not displayed on the EWD.
- If the VENT EXTRACT FAULT alert is displayed on the EWD, the blower fan may be seized. In that case:
- Contact the maintenance personnel to exchange the blower fan and the extract fan.
Only the VENT EXTRACT FAULT alert must then be displayed on the EWD.
 - When the blower and extract fans are exchanged, Refer to Item 21-26-02 Avionics Extract Fan

21-26-01B Air conditioning inlet valve checked open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

- May be inoperative provided that:
- 1) The BLOWER pb-sw is set to OVRD, and
 - 2) Both air conditioning packs are operative, and

- 3) The air conditioning inlet valve is checked open before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-01B Avionics Blower Fan (Air conditioning inlet valve checked open before each flight)

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning correctly operates with both air conditioning packs set to on.
- BLOWER pb-sw OVRD
- AVNCS VENT/BLOWER/FAN (123VU AD10) C/B Pull
- Check that the VENT EXTRACT FAULT alert is not displayed on the EWD
- If the VENT EXTRACT FAULT alert is displayed on the EWD, the blower fan may be seized. In that case:
 - Contact the maintenance personnel to exchange the blower fan and the extract fan.
 Only the VENT EXTRACT FAULT alert must then be displayed on the EWD.
 - When the blower and extract fans are exchanged, Refer to Item 21-26-02 Avionics Extract Fan

- (m) Refer to AMM 21-26-00-040-006

21-26-01C Avionics ventilation system checked

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The BLOWER pb-sw is set to OVRD, and
- 2) Both air conditioning packs are operative, and
- 3) The air conditioning inlet valve is secured in the open position, and
- 4) The avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-01C Avionics Blower Fan (Avionics ventilation system checked before each flight)

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that air the conditioning correctly operates with both air conditioning packs set to on.
- BLOWER pb-sw OVRD
 AVNCS VENT/BLOWER/FAN (123VU AD10) C/B.....Pull
- Check that the VENT EXTRACT FAULT alert is not displayed on the EWD

● **After application of the maintenance procedure:**

Clear the VENT AVNCS SYS FAULT alert using the CLR pb.

The VENT AVNCS SYS FAULT alert will be displayed after landing

● **If the VENT EXTRACT FAULT alert is displayed on the EWD, the blower fan may be seized. In that case:**

- Contact the maintenance personnel to exchange the blower fan and the extract fan.
Only the VENT EXTRACT FAULT alert must then be displayed on the EWD.
- When the blower and extract fans are exchanged, *Refer to Item 21-26-02 Avionics Extract Fan*

(m) Refer to AMM 21-26-00-040-013

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-02	Avionics Extract Fan

Applicable to: ALL

21-26-02A VENT AVNCS SYS FAULT **not displayed**

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The blower fan is operative, and
 - 2) The EXTRACT pb-sw is set to OVRD, and
 - 3) Both air conditioning packs are operative, and
 - 4) The VENT AVNCS SYS FAULT alert is not displayed.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-02A Avionics Extract Fan (VENT AVNCS SYS FAULT Alert not displayed)

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Time limitation on ground with electrical network supplied:

OAT (°C)	≤ 38	≤ 45	≤ 55
Max time	No limit	3 h	35 min

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that he air conditioning correctly operates with both air conditioning packs set to on.
- EXTRACT pb-sw OVRD
- Clear the VENT EXTRACT FAULT alert using the CLR pb.
- AVNCS VENT/EXTC/FAN (123VU AE2) C/B Pull
- Check that the VENT AVNCS SYS FAULT alert is not displayed on the EWD.

Note: If the ground horn sounds:

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

FLIGHT PREPARATION/LIMITATIONS

Time limitation on ground with electrical network supplied:

OAT (°C)	≤ 38	≤ 45	≤ 55
Max time	No limit	3 h	35 min

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning correctly operates with both air conditioning packs set to on.
- EXTRACT pb-sw..... OVRD
- Clear the VENT EXTEACT FAULT alert using the CLR pb.
- AVNCS VENT/EXTC/FAN (123VU AC4) C/B.....Pull
- Check that the VENT AVNCS SYS FAULT alert is not displayed on the EWD.

Note: If the ground horn sounds:

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

21-26-02B Air conditioning inlet valve checked open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The blower fan is operative, and
- 2) The EXTRACT pb-sw is set to OVRD, and
- 3) Both air conditioning packs are operative, and
- 4) The air conditioning inlet valve is checked open before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

—Reference(s)—

- (o) OpsProc 21-26-02B Avionics Extract Fan (Air conditioning inlet valve checked open before each flight)

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Time limitation on ground with electrical network supplied:

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

OAT (°C)	≤ 38	≤ 45	≤ 55
Max time	No limit	3 h	35 mi

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning correctly operates with both air conditioning packs set to on.
 - EXTRACT pb-sw OVRD
 - Clear the VENT EXTRACT FAULT alert using the CLR pb.
 - AVNCS VENT/EXTC/FAN (123VU AE2) C/B Pull

Note: *If the ground horn sounds:*

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Time limitation on ground with electrical network supplied:

OAT (°C)	≤ 38	≤ 45	≤ 55
Max time	No limit	3 h	35 min

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning correctly operates with both air conditioning packs set to on.
 - EXTRACT pb-sw OVRD
 - Clear the VENT EXTRACT FAULT alert using the CLR pb.
 - AVNCS VENT/EXTC/FAN (123VU AC4) C/B Pull

Note: *If the ground horn sounds:*

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

(m) Refer to AMM 21-26-00-040-007

21-26-02C Avionics ventilation system checked

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The blower fan is operative, and
- 2) The EXTRACT pb-sw is set to OVRD, and
- 3) Both air conditioning packs are operative, and
- 4) The air conditioning inlet valve is secured in the open position, and
- 5) The avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-02C Avionics Extract Fan (Avionics ventilation system checked before each flight)

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Time limitation on ground with electrical network supplied:

OAT (°C)	≤ 38	≤ 45	≤ 55
Max time	No limit	3 h	35 min

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning correctly operates with both air conditioning packs set to on.
- EXTRACT pb-sw OVRD
- Clear the VENT EXTRACT FUT alert using the CLR pb.
- AVNCS VENT/EXTC/FAN (123VU AE2) C/B Pull

● **After application of the maintenance procedure:**

Clear the VENT AVNCS SYS FAULT alert using the CLR pb.

The VENT AVNCS SYS FAULT alert will be displayed after landing.

Note: If the ground horn sounds:

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Time limitation on ground with electrical network supplied:

OAT (°C)	≤ 38	≤ 45	≤ 55
Max time	No limit	3 h	35 min

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning correctly operates with both air conditioning packs set to on.
- EXTRACT pb-sw OVRD
- Clear the VENT EXTRACT FAULT alert using the CLR pb.
- AVNCS VENT/EXTC/FAN (123VU AC4) C/B Pull

- **After application of the maintenance procedure:**

Clear the VENT AVNCS SYS FAULT alert using the CLR pb.

The VENT AVNCS SYS FAULT alert will be displayed after landing.

Note: *If the ground horn sounds:*

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

(m) Refer to AMM 21-26-00-040-015

21-26-03

Avionics Skin Exchanger Inlet Bypass Valve

Applicable to: ALL

21-26-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The avionics skin exchanger inlet bypass valve is manually secured in the closed position, and
- 2) The avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-03A Avionics Skin Exchanger Inlet Bypass Valve

Applicable to: ALL

ON GROUND

● **After application of the maintenance procedure:**

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.

The VENT AVNCS SYS FAULT alert will be displayed after landing.

(m) Refer to AMM 21-26-00-040-001

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-04	Avionics Skin Air Outlet Valve

Applicable to: ALL

21-26-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The internal flap is manually secured in the open position, and
- 2) The skin air outlet valve is displayed in a partially open position amber or green on the CAB PRESS SD page , and
- 3) Both air conditioning packs are operative, and
- 4) The skin exchanger isolation valve is secured in the open position, and
- 5) The avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-04A Avionics Skin Air Outlet Valve

Applicable to: ALL

ON GROUND

• After application of the maintenance procedure:

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.

The VENT AVNCS SYS FAULT alert will be displayed after landing.

Note: Avionics smoke may be not perceptible from the cockpit due to the opening of the internal flap of the valve.

In the case of AVIONICS SMOKE alert:

Apply the ECAM procedure even if the smoke is not perceptible.

- (m) Refer to AMM 21-26-00-040-002

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-05	Avionics Skin Air Inlet Valve

Applicable to: ALL

21-26-05A Air Conditioning Inlet Valve open on ground

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

- May be inoperative provided that:
- 1) The avionics skin air inlet valve is manually secured in the closed position, and
 - 2) The air conditioning inlet valve is open on ground, and
 - 3) The avionics ventilation system is checked before each flight.

Note: *During ground operations, correct avionics ventilation should be provided.*

Reference(s)

- (o) *OpsProc 21-26-05A Avionics Skin Air Inlet Valve (Air conditioning inlet valve open on the ground)*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning is operating with one or two air conditioning packs set to on.
- EXTRACT pb-sw..... OVRD
- Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.

Note: *With only one air conditioning pack operative, operating time on ground is limited to 1 h.*

AFTER TAKEOFF

EXTRACT pb-sw AUTO

AFTER LANDING

EXTRACT pb-sw OVRD

(m) *Refer to AMM 21-26-00-040-004*

21-26-05B Air Conditioning Inlet Valve Secured Open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The avionics skin air inlet valve is manually secured in the closed position, and
- 2) The air conditioning inlet valve is secured in the open position, and
- 3) The avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-05B Avionics Skin Air Inlet Valve (Air conditioning inlet valve secured in the open position)

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning is operating with one or two air conditioning packs set to on.
- EXTRACT pb-sw OVRD

● **After application of the maintenance procedure:**

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.

The VENT AVNCS SYS FAULT alert will be displayed after landing.

Note: With only one air conditioning pack operative, operating time on ground is limited to 1 h.

AFTER TAKEOFF

EXTRACT pb-sw AUTO

AFTER LANDING

EXTRACT pb-sw OVRD

(m) Refer to AMM 21-26-00-040-014

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-06	Avionics Skin Exchanger Isolation Valve

Applicable to: ALL

21-26-06A Valve inoperative in the open position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative in the open position provided that the avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

_____Reference(s)_____

(o) OpsProc 21-26-06A Avionics Skin Exchanger Isolation Valve

Applicable to: ALL

ON GROUND

• After application of the maintenance procedure:

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.

(m) Refer to AMM 21-26-00-040-008

21-26-06B Valve secured open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

1) The avionics skin exchanger isolation valve is secured in the open position, and

Note: If the valve cannot be secured in the open position, it can be interchanged with the skin exchanger outlet bypass valve.

2) The avionics ventilation system is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

_____Reference(s)_____

(o) OpsProc 21-26-06B Avionics Skin Exchanger Isolation Valve

Refer to item 21-26-06A (o)procedure

(m) Refer to AMM 21-26-00-040-016

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-07	Avionics Skin Exchanger Outlet Bypass Valve

Applicable to: ALL

21-26-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

Note: During ground operations, correct avionics ventilation should be provided.

21-26-08

Avionics Air Conditioning Inlet Valve

Applicable to: ALL

21-26-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The avionics air conditioning inlet valve is manually secured in the open position, and
- 2) Both air conditioning packs are operative, and
- 3) The avionics ventilation is checked before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

(o) OpsProc 21-26-08A Avionics Air Conditioning Inlet Valve

Applicable to: ALL

ON GROUND

- **After application of the maintenance procedure:**

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.

(m) Refer to AMM 21-26-00-040-003

21-26-09

Avionics Ventilation Filter

Applicable to: ALL

21-26-09A VENT AVNCS SYS FAULT not displayed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative (clogged) provided that:

- 1) The blower and extract fans are operative, and
- 2) The EXTRACT pb-sw is set to OVRD, and
- 3) Both air conditioning packs are operative, and
- 4) The VENT AVNCS SYS FAULT alert is not displayed.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-09A Avionics Ventilation Filter (VENT AVNCS SYS FAULT Alert not displayed)

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the air conditioning is operating with both air conditioning packs set to on.
- EXTRACT pb-sw OVRD
- Check that the VENT AVNCS SYS FAULT alert is not displayed on the EWD.

21-26-09B Valve checked open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative (clogged) provided that:

- 1) The blower and extract fans are operative, and
- 2) The EXTRACT pb-sw is set to OVRD, and
- 3) Both air conditioning packs are operative, and
- 4) The air conditioning inlet valve is checked open before each flight.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

- (o) *OpsProc 21-26-09B Avionics Ventilation Filter (Air conditioning inlet valve checked open before each flight)*
- Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
 - Check that the air conditioning is operating with both air conditioning packs set to on.
 - EXTRACT pb-sw..... OVRD
-

(m) *Refer to AMM 21-26-00-040-009*

21-26-09C Valve secured open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

- May be inoperative (clogged) provided that:
- 1) The blower and extract fans are operative, and
 - 2) The EXTRACT pb-sw is set to OVRD, and
 - 3) Both air conditioning packs are operative, and
 - 4) The air conditioning inlet valve is secured in the open position, and
 - 5) The avionics ventilation system is checked before each flight.

Note: *During ground operations, correct avionics ventilation should be provided.*

Reference(s)

- (o) *OpsProc 21-26-09C Avionics Ventilation Filter (Avionics ventilation system checked before each flight)*
- Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
 - Check that the air conditioning is operating with both air conditioning packs set to on.
 - EXTRACT pb-sw..... OVRD
- **After application of the maintenance procedure:**
Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb.
The VENT AVNCS SYS FAULT alert will be displayed after landing.
-

(m) *Refer to AMM 21-26-00-040-017*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-26 - Avionics Equipment Ventilation

21-26-10	Avionics Equipment Ventilation Computer (AEVC)

Applicable to: ALL

21-26-10A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

- May be inoperative provided that:
- Both air conditioning packs are operative, and
 - The BLOWER pb-sw and the EXTRACT pb-sw are set to OVRD, and
 - The air conditioning inlet valve and the skin air outlet valve are checked in the correct position before each flight, and
 - The extract fan is checked operative before each flight, and
 - The skin air inlet valve is secured in the closed position.

Note: During ground operations, correct avionics ventilation should be provided.

Reference(s)

- (o) OpsProc 21-26-10A Avionics Equipment Ventilation Computer (AEVC)

Applicable to: ALL

DURING COCKPIT PREPARATION

- Supply the aircraft electrical network.
- Check that the conditioning is operating with both air conditioning packs set to on.
- BLOWER pb-sw OVRD
- EXTRACT pb-sw OVRD

Note: If the ground horn sounds:

EIS/HORN/SPLY (121VU P09) C/B Pull

The C/B must be closed again after first engine start

If the ground horn sounds after landing when engines are off, it can be silenced again. In this case, the ADIRS must be set to OFF before leaving the aircraft.

Note: In the case of a low pressure in the avionics compartment ventilation ducts, the weather radar image may not be displayed on the ND on ground.

Clear the VENT AVNCS SYS FAULT alert displayed on the EWD using the CLR pb

IN FLIGHT

- In the case of an air conditioning pack failure:**
 - The cabin altitude may reach about 9 700 ft (3 00 m), and
 - The CAB PR EXCESS CAB ALT alert may be displayed on the EWD.

(m) Refer to AMM 21-26-00-040-005

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-28 - Cargo Compartment Ventilation

21-28-03	AFT Cargo Extraction Fan

Applicable to: HL7767

21-28-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 21-28-03A AFT Cargo Extraction Fan*

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

For live animal transportation, use the Live Animal Transportation Calculation Tool.

21-28-04

AFT Cargo Isolation Valve

Applicable to: HL7767

21-28-04A AFT ISOL VALVE pb-sw FAULT light operative

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(o)

One or both may be inoperative provided that:

- 1) Both valves are checked closed, and
- 2) AFT ISOL VALVE pb-sw FAULT light is checked operative.

Reference(s)

- (o) Refer to OpsProc 21-28-04A AFT Cargo Isolation Valve (Valves checked closed)

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

For live animal transportation, use the Live Animal Transportation Calculation Tool.

DURING COCKPIT PREPARATION

- ANN LT selector TEST
- Check that the AFT ISOL VALVE pb-sw FAULT light comes on
- ANN LT selector BRT or DIM
- AFT ISOL VALVE pb-sw OFF
- Check that the AFT ISOL VALVE pb-sw FAULT light does not come on.

Note: • If the AFT ISOL VALVE pb-sw FAULT light comes on:

The AFT cargo isolation valve must be secured in the closed position. Refer to Item 21-28-04B AFT Cargo Isolation Valve

21-28-04B Both valves secured closed

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(o)(m)

One or both may be inoperative provided that both valves are secured in the closed position.

Reference(s)

- (o) OpsProc 21-28-04B AFT Cargo Isolation Valve (Valves secured closed)

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

For live animal transportation, use the Live Animal Transportation Calculation Tool.

(m) Refer to AMM 21-28-00-040-002

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-31 - Pressure Control and Monitoring

21-31-01	Automatic Cabin Pressure Control System (CPC , Outflow Valve AUTO Channel)

Applicable to: ALL

21-31-01A Automatic CPC 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

Automatic cabin pressure control system 1 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) It is deactivated, and
- 3) The cabin pressure indications on the CAB PRESS SD page are checked operative in manual mode, and
- 4) The LDG ELEV selector MAN function is operative.

Reference(s)

(o) *OpsProc 21-31-01A Automatic Cabin Pressure Control System (CPC, Outflow Valve AUTO Channel)*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

DURING COCKPIT PREPARATION

- **If CPC 1 is affected:**
AIR COND/CAB/PRESS/CTL 1 (49VU D09) C/B Pull
- **If CPC 2 is affected:**
AIR COND/CAB/PRESS/CTL 2 (122VU Y22) C/B Pull
- MODE SEL pb-sw.....MAN
- On the CAB PRESS SD page, check that the cabin differential pressure, the cabin vertical speed, the cabin altitude, and the outflow valve position are available.
- MAN V/S CTL sw DN
- On the CAB PRESS SD page, check outflow valve movement.
- MODE SEL pb-sw.....AUTO

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

- **If CPC 1 is affected:**
AIR COND/CAB/PRESS/CTL 1 (49VU D09) C/B Pull
- **If CPC 2 is affected:**
AIR COND/CAB/PRESS/CTL 2 (122VU Y22) C/B Pull

- RPCU (122VU X23) C/B Pull
- MODE SEL pb-sw MAN
- On the CAB PRESS SD page, check that the cabin differential pressure, the cabin vertical speed, the cabin altitude, and the outflow valve position are available.
- MAN V/S CTL sw DN
- On the CAB PRESS SD page, check outflow valve movement.
- RPCU (122VU X23) C/B Push
- MODE SEL pb-sw AUTO

21-31-01B Automatic CPC 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

Automatic cabin pressure control system 2 may be inoperative provided that:

- 1) It is deactivated, and
- 2) The cabin pressure indications on the CAB PRESS SD page are checked operative in manual mode, and
- 3) The LDG ELEV selector MAN function is operative.

Reference(s)

(o) *OpsProc 21-31-01B Automatic Cabin Pressure Control System (CPC, Outflow Valve AUTO Channel)*

Refer to item 21-31-01A (o)procedure

21-31-01C Both automatic CPCs inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that:

- 1) The manual cabin pressure control system is operative, and
- 2) The flight is not pressurized.

Refer to FCOM/PRO-SPO-20 Flight Without Cabin Pressurization

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-31 - Pressure Control and Monitoring

21-31-02	Manual Cabin Pressure Control System (MAN V/S CTL selector, Outflow Valve MAN Channel)

Applicable to: ALL

21-31-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The LDG ELEV selector MAN function is operative, and
- 2) Both automatic cabin pressure control systems are checked operative before each flight.

_____Reference(s)_____

(m) Refer to AMM 21-31-00-040-002

MEL ITEMS
21 - AIR CONDITIONING
21-31 - Pressure Control and Monitoring

21-31-03

Pressure Safety Valve

Applicable to: ALL

21-31-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative in the closed position provided that:

- 1) Both automatic cabin pressure control systems are operative, and
- 2) The three outflow valve motors are checked operative.

Reference(s) _____

(m) Refer to AMM 21-31-00-040-001

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-31 - Pressure Control and Monitoring

21-31-04	Landing Elevation Selection AUTO Function

Applicable to: ALL

21-31-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 21-31-04A Landing Elevation Selection AUTO Function*

Applicable to: ALL

BEFORE TAKEOFF

- Set the LDG ELEV selector on the CABIN PRESS panel at the destination airport altitude.
- On the CAB PRESS SD page, check that the LDG ELEV MAN message is displayed.

MEL ITEMS
21 - AIR CONDITIONING
21-31 - Pressure Control and Monitoring

21-31-05

Landing Elevation Selection MAN Function

Applicable to: ALL

21-31-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The landing elevation selection AUTO function is operative, and
- 2) Both FMGC s are operative.

Reference(s)

(o) *OpsProc 21-31-05A Landing Elevation Selection MAN Function*

Applicable to: ALL

DURING COCKPIT PREPARATION

On the CAB PRESS SD page, check that the LDG ELEV AUTO message is displayed to confirm correct position of the LDG ELEV selector.

Note: *The landing field elevation of the destination airport may not be correctly displayed on the CAB PRESS SD page. It is automatically corrected after first engine start.*

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-43- Cargo Compartment Heating

21-43-02	AFT Cargo Compartment Heating

Applicable to: HL7767

21-43-02A HOT AIR pb-sw OFF

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

Hot air pressure regulating valve or trim air valve may be inoperative provided that:

- 1) The HOT AIR pb-sw on the CARGO HEAT overhead panel is set to OFF, and
- 2) The operative valve is indicated closed on the COND SD page.

_____Reference(s)_____

- (o) *OpsProc 21-43-02A AFT Cargo Compartment Heating (Heating system set to OFF)*

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

For live animal transportation, use the Live Animal Transportation Calculation Tool.

DURING COCKPIT PREPARATION

- HOT AIR pb-sw (on the CARGO HEAT overhead panel).....OFF
- On the COND SD page, check that the operative valve (either the hot air pressure regulating valve or the trim air valve) is indicated closed.

21-43-02B Valves secured closed

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)(m)

Hot air pressure regulating valve or trim air valve may be inoperative provided that one of these valves is secured in the closed position.

_____Reference(s)_____

- (o) *OpsProc 21-43-02B AFT Cargo Compartment Heating (Inoperative valve secured in the closed position)*

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

For live animal transportation, use the Live Animal Transportation Calculation Tool.

- (m) *Refer to AMM 21-43-00-040-002 and(or) 21-43-00-040-003*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-51 - Pack Flow Control

21-51-01	Pack Flow Control Valve

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-51-01A One inoperative in the closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The affected pack flow control valve is secured in the closed position, and
- 3) The associated air conditioning pack is considered inoperative.

Refer to Item 21-52-01 Air Conditioning Pack

_____Reference(s)_____

(m) *Refer to AMM 21-51-00-040-001*

21-51-01B Non pressurized flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that:

- 1) The manual cabin pressure control system is operative, and
- 2) The flight is not pressurized.

Refer to FCOM/PRO-SPO-20 Flight Without Cabin Pressurization

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-51 - Pack Flow Control

21-51-02	Pack Flow Selection

Applicable to: ALL

21-51-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-51 - Pack Flow Control

21-51-03	Pack Flow Sensor

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

21-51-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

_____Reference(s)_____

(o) Refer to OpsProc 21-51-03A Pack Flow Sensor

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

The hot air pressure regulating valve automatically closes.

The Flow Control Valve on the affected side operates in pneumatic backup mode.

FLIGHT PREPARATION/LIMITATIONS

- **If the FWD cargo heating is installed:**

For live animal transportation, use the Live Animal Transportation Calculation Tool.

DURING COCKPIT PREPARATION

AIR COND HOT AIR pb-sw OFF

- Note:
- Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 - The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-52 - Air Cooling System

21-52-01	Air Conditioning Pack

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-52-01A With speedbrakes available for 'C' repair interval			
Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The COND ZONE REGUL FAULT alert is not displayed, and
- 3) The affected PACK 1(2) pb-sw is set to OFF, and
- 4) The speedbrakes are operative, and
- 5) The associated pack flow control valve is checked closed on the BLEED SD page.

Note: This proviso does not apply if the pack flow control valve has been secured in the closed position as per item 21–51–01.

_____Reference(s)_____

(o) OpsProc 21-52-01A Air Conditioning Pack(One Air Conditioning Pack Inoperative for 'C' Repair Interval))

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

DURING COCKPIT PREPARATION

PACK FLOW selector HI

IN FLIGHT

- If **BLOWER pb-sw** and **EXTRACT pb-sw** are set to **OVRD**:
 - The cabin altitude may reach about 9 700 ft, and
 - The CAB PR EXCESS CAB ALT alert may be displayed on the EWD

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

ECON FLOW pb-sw Off

IN FLIGHT

- If **BLOWER pb-sw** and **EXTRACT pb-sw** are set to **OVRD**:
 - Th cabin altitude may reach about 9 700 ft, and
 - The CAB PR EXCESS CAB ALT alert may be displayed on the EWD

21-52-01B Limitation to 31 500 ft for 'C' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The flight altitude is limited to 31 500 ft (9 600 m), and
- 3) The COND ZONE REGUL FAULT alert is not displayed on the EWD , and
- 4) The affected PACK 1(2) pb-sw is set to OFF, and
- 5) The associated pack flow control valve is checked closed on the BLEED SD page.

Note: This proviso does not apply if the pack flow control valve has been secured in the closed position as per item 21-51-01.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

- (o) OpsProc 21-52-01B Air Conditioning Pack (One Air Conditioning Pack Inoperative for 'C' Repair Interval)

Refer to item 21-52-01A (o)procedure

21-52-01G Air cycle machine failed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be operated on heat exchanger cooling only (air cycle machine failure) provided that:

- 1) The corresponding pack controller is operative, and
- 2) The affected pack outlet temperature indication is operative on the BLEED SD page.

Reference(s)

- (o) OpsProc 21-52-01G Air Conditioning Pack (One Air Conditioning Pack in Heat Exchanger Cooling Mode only)

Applicable to: ALL

DURING COCKPIT PREPARATION

PACK 1(2) pb-sw in "heat exchanger cooling only" OFF

IN FLIGHT

- When the TAT is equal to or less than 12°C:

PACK 1(2) pb-sw in "heat exchanger cooling only" On

● **If the non affected air conditioning pack fails:**

Maximum flight altitude 31 500 ft (9 600 m)

DURING DESCENT

● **If the TAT is above 12°C:**

PACK 1(2) pb-sw in "heat exchanger cooling only" OFF

AT THE END OF THE DESCENT, BEFORE LANDING

PACK 1(2) pb-sw in "heat exchanger cooling only" OFF

21-52-01H Non pressurized flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that:

1) The flight is not pressurized

Refer to FCOM/PRO-SPO-20 Flight Without Cabin Pressurization, and

2) The flight is performed with no passengers on board.

21-52-01	Air Conditioning Pack

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

21-52-01D With speedbrakes available for 'C' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

1) EDTO is not conducted, and

2) The following alerts:

AIR PACK 1(2) REGUL FAULT

AIR COND CTL 1(2)-A FAULT

AIR COND CTL 1(2)-B FAULT

associated with the operative pack are not displayed on the EWD , and

3) The affected PACK 1(2) pb-sw is set to OFF, and

4) The speedbrakes are operative, and

5) The associated pack flow control valve is secured in the closed position.

_____Reference(s)_____

- (o) *OpsProc 21-52-01D Air Conditioning Pack (One Air Conditioning Pack Inoperative for 'C' Repair Interval)*

Refer to item 21-52-01A (o)procedure

- (m) *Refer to AMM 21-51-00-040-002*
-

21-52-01E Limitation to 31 500 ft for 'C' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The flight altitude is limited to 31 500 ft (9 600 m), and
- 3) The following alerts:
AIR PACK 1(2) REGUL FAULT
AIR COND CTL 1(2)-A FAULT
AIR COND CTL 1(2)-B FAULT
associated with the operative pack are not displayed on the EWD , and
- 4) The affected PACK 1(2) pb-sw is set to OFF, and
- 5) The associated pack flow control valve is secured in the closed position.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

- (o) *OpsProc 21-52-01E Air Conditioning Pack (One Air Conditioning Pack Inoperative for 'C' Repair Interval)*

Refer to item 21-52-01A (o)procedure

- (m) *Refer to AMM 21-51-00-040-002*
-

21-52-01G Air cycle machine failed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be operated on heat exchanger cooling only (air cycle machine failure) provided that:

1) The following alerts:

AIR COND CTL 1(2)-A FAULT

AIR COND CTL 1(2)-B FAULT

associated with the operative pack are not displayed on the EWD , and

2) The affected pack outlet temperature indication is operative on the BLEED SD page.

Reference(s)

(o) *OpsProc 21-52-01G Air Conditioning Pack (Pack in heat exchanger cooling only)*

Applicable to: ALL

DURING COCKPIT PREPARATION

PACK 1(2) pb-sw in "heat exchanger cooling only" OFF

IN FLIGHT

• **When the TAT is equal to or less than 12°C:**

PACK 1(2) pb-sw in "heat exchanger cooling only" On

• **If the non affected air conditioning pack fails:**

Maximum flight altitude 31 500 ft (9 600 m)

DURING DESCENT

• **If the TAT is above 12°C:**

PACK 1(2) pb-sw in "heat exchanger cooling only" OFF

AT THE END OF THE DESCENT, BEFORE LANDING

PACK 1(2) pb-sw in "heat exchanger cooling only" OFF

21-52-01H Non pressurized flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that:

1) The flight is not pressurized

Refer to FCOM/PRO-SPO-20 Flight Without Cabin Pressurization, and

2) The flight is performed with no passengers on board.

MEL ITEMS
21 - AIR CONDITIONING
 21-52 - Air Cooling System

21-52-02

Air Conditioning Pack Ram Air Inlet Flap

Applicable to: ALL

21-52-02A Flap deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the affected flap is deactivated in the open position.

Reference(s) _____

(m) Refer to AMM 21-61-00-040-002

21-52-02B Only one inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative in the closed position provided that the associated air conditioning pack is considered inoperative.

Refer to Item 21-52-01 Air Conditioning Pack

21-52-02C Non pressurized flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative in the closed position provided that the flight is not pressurized.

Refer to FCOM/PRO-SPO-20 Flight Without Cabin Pressurization

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-55 - Emergency Ram Air Inlet

21-55-01	Emergency Ram Air Inlet

Applicable to: ALL

21-55-01A Ram air inlet deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided:

- 1) The emergency ram air inlet is deactivated in the closed position, and
- 2) Both air conditioning packs are checked operative.

_____Reference(s)_____

(m) Refer to AMM 21-55-00-040-002

21-55-01B Non pressurized flight

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative in the open position provided that:

- 1) EDTO and extended overwater flight is not conducted, and
- 2) The flight is not pressurized.

Refer to FCOM/PRO-SPO-20 Flight Without Cabin Pressurization

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-61 - Pack Temperature Control

21-61-01	Pack Turbine Bypass Valve

Applicable to: ALL

21-61-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

21-61-02

Pack Controller Primary Channel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-61-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

Reference(s)

(o) *OpsProc 21-61-02A Pack Controller Primary Channel*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

GENERAL INFORMATION

● **If primary channel is failed:**

Pack flow is fixed at the value reached at the time of failure.

● **If primary and secondary channels are failed:**

The air conditioning pack outlet temperature is controlled by the anti-ice valve to a nominal value of 15°C.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-63 - Cockpit and Cabin Temperature Control

21-63-01	Zone Controller Channel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-63-01A Primary channel inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

Primary channel may be inoperative provided that the hot air pressure regulating valve is checked closed on the COND SD page.

- Note:
1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

_____Reference(s)_____

(o) OpsProc 21-63-01A Zone Controller Channel (Primary channel inoperative)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

DURING COCKPIT PREPARATION

- HOT AIR pb-sw.....OFF
- On the COND SD page page, check that the hot air pressure regulating valve is closed.

21-63-01B Secondary channel inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

Secondary channel may be inoperative provided that the minimum idle on ground is considered inoperative.

Refer to Item 73-20-05A Minimum Idle on Ground

21-63-01C Both channels inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

Primary and secondary channel may be inoperative provided that:

- 1) The hot air pressure regulating valve is secured in the closed position, and
- 2) The minimum idle on ground is considered inoperative.

Refer to Item 73-20-05A Minimum Idle on Ground

Note: 1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

Reference(s)

(o) OpsProc 21-63-01C Zone Controller Channel (Both channels inoperative)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF

(m) Refer to AMM 21-63-00-040-004

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 21 - AIR CONDITIONING 21-63 - Cockpit and Cabin Temperature Control

21-63-02	Cockpit and Cabin Trim Air Valve

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-63-02C Hot air pressure valve checked closed

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)

One or more may be inoperative provided that:

- 1) The HOT AIR pb-sw is set to OFF, and
- 2) The hot air pressure regulating valve is checked closed on the COND SD page.

Note: 1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

_____Reference(s)_____

- (o) OpsProc 21-63-02C Cockpit and Cabin Trim Air Valve (Hot air pressure regulating valve checked closed/operative)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

DURING COCKPIT PREPARATION

- HOT AIR pb-sw.....OFF
- On the COND SD page, check that the hot air pressure regulating valve is closed amber.

21-63-02D Affected valve secured closed

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)(m)

One or more may be inoperative provided that the affected valve is secured in the closed position.

Note: 1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

_____Reference(s)_____

- (o) OpsProc 21-63-02D Cockpit and Cabin Trim Air Valve (Affected valve checked closed)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

DURING COCKPIT PREPARATION

- When one trim air valve is secured in the closed position:

The zone controller closes all trim air valves and the hot air pressure regulating valve at each power up.

To recover normal operation of the operative valves, apply the following procedure after air conditioning pack start:

- If the COND HOT AIR FAULT alert is displayed on the EWD , reset the following C/B s:
 - AIR COND/ZONE TEMP CTL/115 VAC/SYS 1 (122VU V17) C/B
 - AIR COND/ZONE TEMP CTL/115 VAC/SYS 2 (122VU V18) C/B
 - AIR COND/ZONE EMP CTL/28 VDC/SYS 1 (122VU V19) C/B
 - AIR COND/ZONE TEMP CTL/28 VDC/SYS 2 (122VU V20) C/B
- If the COND HOT AIR FAULT alert is still displayed on the EWD :
 Refer to Item 21-63-03 Hot Air Pressure Regulating Valve

IN FLIGHT

- If the affected zone temperature becomes uncomfortable:
 HOT AIR pb-sw OFF

(m) Refer to AMM 21-63-00-040-001

21-63-02	Cockpit and Cabin Trim Air Valve
Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on	

21-63-02A Affected valve checked closed

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)

One or more may be inoperative provided that the affected valve is checked closed on the COND SD page.

_____Reference(s)_____

- (o) OpsProc 21-63-02A Cockpit and Cabin Trim Air Valve (Affected valve checked closed)
 Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

On the COND SD page page, check that the affected trim air valve is closed.

IN FLIGHT

- If the affected zone temperature becomes uncomfortable:
 HOT AIR pb-sw OFF

21-63-02B Hot air pressure valve checked operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)

One or more may be inoperative provided that the hot air pressure regulating valve is checked operative on the COND SD page.

Reference(s) _____

- (o) *OpsProc 21-63-02B Cockpit and Cabin Trim Air Valve (Hot air pressure regulating valve checked operative)*

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF then on
- On the COND SD page, check that the hot air pressure regulating valve follows the HOT AIR pb-sw command.

IN FLIGHT

- If affected zone temperature becomes uncomfortable:
 HOT AIR pb-sw OFF

21-63-02E Hot air pressure valve considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative provided that the hot air pressure regulating valve is considered inoperative.

Refer to Item 21-63-03 Hot Air Pressure Regulating Valve

21-63-03

Hot Air Pressure Regulating Valve

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

21-63-03A Valve checked closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The HOT AIR pb-sw is set to OFF, and
- 2) The hot air pressure regulating valve is checked closed on the COND SD page.

Note: 1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

Reference(s)

- (o) OpsProc 21-63-03A Hot Air Pressure Regulating Valve (Hot air pressure valve checked closed)

Applicable to: ALL

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF
- On the COND SD page, check that the hot air pressure regulating valve is closed amber.

21-63-03C Hot air pressure valve secured closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that the hot air pressure regulating valve is secured in the closed position.

Note: 1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

Reference(s)

- (o) OpsProc 21-63-03C Hot Air Pressure Regulating Valve (Affected valve secured in the closed position)

Applicable to: ALL

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF

(m) Refer to AMM 21-63-00-040-002

21-63-03	Hot Air Pressure Regulating Valve

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on.

21-63-03A Hot air pressure valve checked closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative in the closed position provided that:

- 1) HOT AIR pb-sw is set to OFF, and
- 2) Hot Air Pressure Regulating Valve is checked closed on the COND SD page.

Note: 1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

Reference(s) _____

- (o) OpsProc 21-63-03A Hot Air Pressure Regulating Valve (Hot air pressure valve checked closed)

Applicable to: ALL

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF
 - On the COND SD page page, check that the hot air pressure regulating valve is closed amber.

21-63-03B All trim valve checked closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative in the open position provided that:

- 1) HOT AIR pb-sw is set to OFF, and
- 2) All Trim Air Valves are checked closed on the COND SD page.

MEL ITEMS
21 - AIR CONDITIONING
 21-63 - Cockpit and Cabin Temperature Control

- Note:
1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

Reference(s)

- (o) OpsProc 21-63-03B Hot Air Pressure Regulating Valve (Trim air valve checked closed)

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

On the COND SD page, the hot air pressure regulating valve is displayed amber open.

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF
- On the COND SD page, check that all the trim air valves are closed.

21-63-03C Hot air pressure valve secured closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that the hot air pressure regulating valve is secured in the closed position.

- Note:
1. Unequal passengers distribution may cause high temperature in the rear cabin when the hot air pressure regulating valve is closed.
 2. The temperature in the cockpit may be low when the hot air pressure regulating valve is closed combined with single pack operation.

Reference(s)

- (o) OpsProc 21-63-03C Hot Air Pressure Regulating Valve (Affected valve secured in the closed position)

Applicable to: ALL

DURING COCKPIT PREPARATION

- HOT AIR pb-sw OFF

(m) Refer to AMM 21-63-00-040-002

21-63-04

Air Conditioning System Controller Channel (COND CTL 1(2)-A(B))

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

21-63-04A Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

One may be inoperative on each side provided that EDTO is not conducted.

21-63-04B EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

For EDTO, one may be inoperative on each side provided that the AIR COND CTL 1-B FAULT alert is not displayed on the EWD.

ATA 22

Auto Flight

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-01 - FLT CTL Overhead Panel

22-01-01	FAC pb-sw FAULT light

Applicable to: ALL

22-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

22-01-02

FAC pb-sw OFF light

Applicable to: ALL

22-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-05 - FMA Indications on the PFD

22-05-01	AP Related Indications on the FMA

Applicable to: ALL

22-05-01A Inoperative on one FMA

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more indications may be inoperative on one FMA .

22-05-01B Inoperative on both FMAs

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or more indications may be inoperative on both FMA s provided that:

- 1) EDTO is not conducted, and
- 2) The AP is not used.

_____Reference(s)_____

(o) *OpsProc 22-05-01B AP Related Indications on the FMA*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

RVSM operations are not permitted.

Maximum landing capability is CAT 1.

22-05-02

A/THR Related Indications on the FMA

Applicable to: ALL

22-05-02A Inoperative on one FMA

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more indications may be inoperative on one FMA .

22-05-02B Inoperative on both FMAs

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more indications may be inoperative on both FMA s provided that the autothrust (A/THR) is considered inoperative.

Refer to Item 22-30-01 Autothrust (A/THR)

22-05-03

Approach and Landing Capabilities on the FMA

Applicable to: ALL

22-05-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or more may be inoperative on one or both FMA s.

Reference(s)

(o) *OpsProc 22-05-03A Approach and Landing Capabilities on the FMA*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- When one FMA is affected:
Maximum landing capability is CAT 2.
- When both FMAs are affected:
Maximum landing capability is CAT 1.

22-05-04

Special Messages on the FMA

Applicable to: ALL

22-05-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

"MAN PITCH TRIM ONLY" is required on one side.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-10 - Autopilot/Flight Director (AP/FD)

22-10-01	Autopilot (AP)

Applicable to: ALL

22-10-01A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

_____Reference(s)_____

(o) *OpsProc 22-10-01A Autopilot (AP)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- When one AP is inoperative:
Maximum landing capability is CAT 2.

22-10-01B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

Both may be inoperative provided that EDTO is not conducted.

_____Reference(s)_____

(o) *OpsProc 22-10-01B Autopilot (AP)*

FLIGHT PREPARATION/LIMITATIONS

- When both APs are inoperative:
RVSM operations are not permitted.
Maximum landing capability is CAT 1.

22-10-02

Flight Director (FD)

Applicable to: ALL

22-10-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative.

Note: For RNAV 1 & 2 and RNP 1 operations, one FD must be operative.

Reference(s)

(o) OpsProc 22-10-02A Flight Director (FD)

Applicable to: ALL

FOR TAKEOFF

- For a takeoff without FD s:

Refer to FCOM/PRO-NOR-SRP-01-30 No Flight Director Takeoff.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-10 - Autopilot/Flight Director (AP/FD)

22-10-03	Take-over pb Priority Function

Applicable to: ALL

22-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

22-10-04

Take-over pb AP Disconnection Function

Applicable to: ALL

22-10-04A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

Reference(s) _____

(o) *OpsProc 22-10-04A Take-over pb AP Disconnection Function (One inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1.

BEFORE ENGINE START

- AP 1 On
- Operative take-over pb Press
- Check that the red AP OFF message is displayed on the EWD.
- AP 2 On
- Operative take-over pb Press
- Check that the red AP OFF message is displayed on the EWD.

BEFORE APPROACH

- If the AP is used for approach:

The operative AP disconnect pb must be assigned to the PF.

22-10-04B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

Both may be inoperative provided that the AP is not used for approach.

Reference(s) _____

(o) *OpsProc 22-10-04B Take-over pb AP Disconnection Function (Both inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-10 - Autopilot/Flight Director (AP/FD)

22-10-05	AUTO LAND light

Applicable to: ALL

22-10-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative.

Reference(s)

(o) *OpsProc 22-10-05A AUTO LAND light*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- When both lights are inoperative:
Maximum landing capability is CAT 1.

22-10-06

AP Disengagement Warning

Applicable to: ALL

22-10-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The AP is not engaged.

Reference(s)

(o) *OpsProc 22-10-06A AP Disengagement Warning*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

RVSM operations are not permitted.

Maximum landing capability is CAT 1.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-10 - Autopilot/Flight Director (AP/FD)

22-10-07	Sticks and Rudder Pedals Locking Solenoid in AP Mode

Applicable to: ALL

22-10-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	1	(o)

One or two may be inoperative unlocked provided that no autoland is performed.

Reference(s)

(o) *OpsProc 22-10-07A Sticks and Rudder Pedals Locking Solenoid in AP Mode*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1

22-10-08

Automatic landing capability

Applicable to: ALL

22-10-08A CAT 3 DUAL inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided no CAT III approach is conducted.

Reference(s)

(o) *Operational NOTE*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

When CAT 3 DUAL is shown on ECAM STATUS (INOP SYS): Maximum landing capability is CAT 2.

22-10-08B CAT 3 Single inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided no CAT III approach is conducted.

Reference(s)

(o) *Operational NOTE*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

When CAT 3 SINGLE is shown on ECAM STATUS (INOP SYS): Maximum landing capability is CAT 2.

22-10-08C CAT 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided no CAT II and CAT III approaches are conducted.

Reference(s)

(o) *Operational NOTE*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

When CAT 2 is shown on ECAM STATUS (INOP SYS): Maximum landing capability is CAT 1.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-30 - Autothrust

22-30-01	Autothrust (A/THR)

Applicable to: ALL

22-30-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the autothrust (A/THR) is disconnected before each flight.

_____Reference(s)_____

(o) *OpsProc 22-30-01A Autothrust (A/THR)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

AFTER ENGINE START

- Press and hold either autothrust instinctive disconnect pb for at least 15 s.
The A/THR system is permanently disconnected for the entire flight.
- Check that A/THR INOP SYS is displayed on the STATUS SD page.

All A/THR functions including ALPHA FLOOR protection are lost.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-30 - Autothrust

22-30-02	Autothrust Instinctive Disconnect pb

Applicable to: ALL

22-30-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that the ability to disconnect the autothrust (A/THR) via the remaining Instinctive Disconnect pb and by the FCU A/THR pb is checked before each flight.

_____Reference(s)_____

(o) *OpsProc 22-30-02A Autothrust Instinctive Disconnect pb*

Applicable to: ALL

The purpose of the procedure is to check the A/THR disconnection via the remaining Instinctive Disconnect pb and via the A/THR pb on the FCU.

AFTER IRS ALIGNMENT

Note: *Disregard alerts during the test. Use the EMER CANCEL pb on the ECAM control panel as necessary.*

Aircraft configuration for the check via the FMS 1:

- ENG/FADEC GND PWR 1 and 2 ON
- Both thrust levers MCT
- FD Off
- AUTO FLT/FMGC/2 (121 VU M17) C/B Pull
- A/THR On
- Check that green SPEED and white A/THR indications appear on the PFD.
- Check that A/THR pb light bars are ON.

Check of the A/THR disconnection via the remaining Instinctive Disconnect pb:

- A/THR instinctive disconnect pb (non affected autothrust) Push
- Check that the A/THR pb light bars are OFF.
- Check that green SPEED and white A/THR indications are no more displayed on the PFD.
- A/THR On
- Check that the A/THR pb light bars are ON.
- Check that green SPEED and white A/THR indications are displayed on the PFD.

Check of the A/THR disconnection via the A/THR pb on the FCU:

- A/THR pb (on the FCU) Off
- Check that the A/THR pb light bars are OFF.
- Check that green SPEED and white A/THR indications are no more displayed on the PFD.

- A/THR On

Aircraft configuration for the check via the FMS 2:

- AUTO FLT/FMGC/2 (121VU M17) C/B Push
- AUTO FLT/FMGC/1 (49VU B02) C/B Pull
- Wait 2 min.

Check of the A/THR disconnection via the remaining Instinctive Disconnect pb:

- A/THR instinctive disconnect pb (non affected autothrust) Push
- Check that the A/THR pb light bars are OFF.
- Check that green SPEED and white A/THR indications are no more displayed on the PFD.
- A/THR On
- Check that the A/THR pb light bars are ON.
- Check that green SPEED and white A/THR indications are displayed on the PFD.

Check of the A/THR disconnection via the A/THR pb on the FCU:

- A/THR pb (on the FCU) Off
- Check that the A/THR pb light bars are OFF.
- Check that green SPEED and white A/THR indications are no more displayed on the PFD.
- A/THR On

Restore normal aircraft configuration:

- A/THR Off
- AUTO FLT/FMGC/1 (49VU B02) C/B Push
- ENG/FADEC GND PWR 1 and 2 Off
- Both thrust levers IDLE
- RCL pb (on the ECAM control panel) Push
- Wait 2 min before using the MCDU and the FD.

22-30-03

Autothrust Disengagement Warning

Applicable to: ALL

22-30-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the autothrust (A/THR) is considered inoperative.
Refer to Item 22-30-01 Autothrust (A/THR)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-60 - Flight Augmentation (FAC)

22-60-01	FAC 1

Applicable to: ALL

22-60-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	(m)

Must be operative.

Note: The *AUTO FLT FAC 1 FAULT* alert may be displayed with the associated *AUTO FLT/FAC1/28VDC C/B* tripped.

This may be due to a short circuit within either rudder trim actuator channel 1 or rudder travel actuator channel 1.

In this case, the FAC 1 may be recovered provided that the affected part of the faulty actuator is deactivated using the associated maintenance procedure.

Refer to AMM 27-22-00-040-001, or

Refer to AMM 27-23-00-040-001.

Refer to Item 27-22-01 Rudder Trim System , or

Refer to Item 27-23-01 Rudder Travel Limiter System

Reference(s)

(m) Refer to AMM 27-22-00-040-001 and (or) 27-23-00-040-001

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-60 - Flight Augmentation (FAC)

22-60-02	FAC 2

Applicable to: ALL

22-60-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) All ADIRS s, ELAC s, SEC s, SFCC s, LGCIU s and RA s are operative, and
- 2) The Rudder Travel Limiter System 2 is considered inoperative.
Refer to Item 22-60-04 Yaw Damper System, and
Refer to Item 27-22-01 Rudder Trim System,, and
Refer to Item 27-23-01 Rudder Travel Limiter System

_____Reference(s)_____

- (o) *OpsProc 22-60-02A FAC 2*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

ON GROUND

- If the AUTO FLT FAC 2 FAULT alert is displayed on the EWD
or
If erroneous speeds are displayed:
 - AUTO FLT/FAC 2/28VDC (121VU M19) C/B Pull
 - FAC 2 pb-sw OFF

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-60 - Flight Augmentation (FAC)

22-60-03	Reactive Windshear Detection Function

Applicable to: ALL

22-60-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

NOTE : If required, it is not allowed to dispatch with the predictive windshear detection system operative only.

22-60-04

Yaw Damper System

Applicable to: ALL

22-60-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

_____Reference(s)_____

(o) *OpsProc 22-60-04A Yaw Damper System*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

22-70-01

Flight Management System (FMS)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

22-70-01C FMS 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

The FMS 1 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The flight remains within radio navaids coverage.

Note: 1. The aircraft must receive radio navaids data during the entire flight.

2. RNAV 10, RNP 4 operation should not be conducted.

22-70-01D FMS 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

The FMS 2 may be inoperative provided that the flight remains within radio navaids coverage.

Note: 1. The aircraft must receive radio navaids data during the entire flight.

2. RNAV 10, RNP 4 operation should not be conducted.

22-70-01

Flight Management System (FMS)

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

22-70-01A FMS 1 inoperative with IR 1 (NAV mode) or GPS 1 operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

The FMS 1 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) Two MCDU s are operative, and
- 3) The IR 1 NAV mode or GPS 1 is operative.

Note: For RNAV 10, RNP 4 operation, two MCDUs operated with Back up NAV function are required and two FMCs must be operative from Gimpo and Incheon airport.

Reference(s)

(o) OpsProc 22-70-01A Flight Management System (FMS)

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later

on

IN FLIGHT

- In the case of FMS 1+2 failure:
 MCDU NAV B/UP Use
 Refer to FCOM/DSC-22_20-60-130 MCDU Back Up Navigation.

22-70-01B FMS 2 inoperative with IR 1 (NAV mode) or GPS 1 operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

The FMS 2 may be inoperative provided that the IR 1 NAV mode or GPS 1 is operative.

Note: For RNAV 10, RNP 4 operation, two MCDUs operated with Back up NAV function are required and two FMCs must be operative from Gimpo and Incheon airport.

Reference(s)

(o) OpsProc 22-70-01B Flight Management System (FMS)

Refer to 22-70-01A (o)procedure

22-70-01C FMS 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

The FMS 1 may be inoperative provided that:

- EDTO is not conducted, and
- The flight remains within radio navaids coverage.

Note: 1. The aircraft must receive radio navaids data during the entire flight.
 2. For RNAV 10, RNP 4 operation, two MCDUs operated with Back up NAV function are required and two FMCs must be operative from Gimpo and Incheon airport.

22-70-01D FMS 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

The FMS 2 may be inoperative provided that the flight remains within radio navaids coverage.

Note: 1. The aircraft must receive radio navaids data during the entire flight.
 2. For RNAV 10, RNP 4 operation, two MCDUs operated with Back up NAV function are required and two FMCs must be operative from Gimpo and Incheon airport.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-70 - Flight Management System (FMS)

22-70-02	Navigation Database

Applicable to: ALL

22-70-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

May be out of currency provided:

- 1) Current aeronautical charts are used to verify navigation fixes prior to dispatch,
- 2) Verify status and suitability of navigation facilities used to define route of flight,
- 3) Approach navigation radios are manually tuned and identified, and

Note: For RNAV 10, 5, 1 & 2 and RNP 4, 1 operations, NDB of operative FMGCs must be valid.
Refer to Item 22-70-01 Flight Management System (FMS)

_____Reference(s)_____

(o) Refer to followings

1. Cross check FMCS waypoints using current flight crew navigation charts.
 - Check NOTAMS and charts against the out-of-date navigation database.
 - Prior to flight, identify recent changes on the intended route, with the navigation charts and manuals. Some "strategic" new waypoints, not in the navigation database, may be worth entering ad DEFINED WAYPOINT on MCDU.
 - Check SID, STAR, and approach procedures of departure, destination and required alternates for recent changes. Do not attempt to modify, or manually construct, terminal instrument procedures or approaches.
 - Fly terminal instrument procedures, and approaches with managed guidance, that are in the navigation database and that have been checked for accuracy. Otherwise, fly the procedure, or the approach, in selected guidance with conventional radio navaid raw data.
2. Flying with outdated database, in an airspace that was recently restructured with numerous new waypoints, should be avoided.
3. Manually tune and identify approach navigation radios.
4. Manually input route structure, if needed.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-70 - Flight Management System (FMS)

22-70-03	Performance Information

Applicable to: ALL

22-70-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-70 - Flight Management System (FMS)

22-70-04	Fuel/Time Prediction

Applicable to: ALL

22-70-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-81 - Flight Control Unit (FCU) 22-81-01 - Auto Flight Control Panel (FCU)

22-81-01-01	AP Engagement pb

Applicable to: ALL

22-81-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated autopilot (AP) is considered inoperative.

Refer to Item 22-10-01 Autopilot (AP)

22-81-01-02	A/THR Arming pb

Applicable to: ALL

22-81-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the autothrust (A/THR) is considered inoperative.

Refer to Item 22-30-01 Autothrust (A/THR)

22-81-01-03	Mode Engagement pb (LOC, APPR)

Applicable to: ALL

22-81-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

22-81-01-04	Selection knob (ALT, HDG-TRK, SPD-MACH)

Applicable to: ALL

22-81-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
-	3	3	

Must be operative.

22-81-01-05

V/S-FPA Selection knob

Applicable to: ALL

22-81-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	

May be inoperative provided that operations do not required its use.

22-81-01-06

HDG-V/S/TRK-FPA Change Over pb

Applicable to: ALL

22-81-01-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the HDG-V/S selection is operative.

22-81-01-07

SPD/MACH Change Over pb

Applicable to: ALL

22-81-01-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the SPD selection is operative.

22-81-01-08

METRIC ALT pb

Applicable to: ALL

22-81-01-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

22-81-01-09	Selection Window (SPD-MACH, HDG-TRK, ALT, V/S-FPA)

Applicable to: ALL

22-81-01-09B

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative provided that the associated indications are operative on both PFDs and both NDs.

22-81-01-10	AP1, AP2 and A/THR pb light Bars

Applicable to: ALL

22-81-01-10A

Repair interval	Nbr installed	Nbr required	Procedure
D	3	0	

One or more may be inoperative provided that the associated indication is operative on both PFDs.

22-81-01-11	Mode Engagement (LOC, APPR) pb light Bars

Applicable to: ALL

22-81-01-11A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative.

22-81-02-01

Baro Reference Display Window

Applicable to: ALL

22-81-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

22-81-02-02

Baro Reference selector Outer Ring (in Hg/hPa)

Applicable to: ALL

22-81-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the unit required for the intended flight is operative on both EFIS control panels.

22-81-02-03

Baro Reference selector Inner knob

Applicable to: ALL

22-81-02-03A

Repair interval	Nbr installed	Nbr required	Procedure
—	2	2	

Both must be operative.

22-81-02-04

FD pb

Applicable to: ALL

22-81-02-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated FD is considered inoperative.
 Refer to Item 22-10-02 Flight Director (FD)

MEL ITEMS
22 - AUTO FLIGHT
22-81 - Flight Control Unit (FCU)
22-81-02 - EFIS Control Panel (FCU)

22-81-02-05

ILS pb

Applicable to: HL7767

22-81-02-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	0	

One or both may be inoperative provided that the associated ILS is considered inoperative.

Refer to Item 34-30-04 Instrument Landing System (ILS)

22-81-02-05

LS pb

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

22-81-02-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	0	

One or both may be inoperative provided that the associated ILS is considered inoperative.

Refer to Item 34-30-04 Instrument Landing System (ILS)

22-81-02-06

Optional Data (ARPT, NDB, VOR.D, WPT, CSTR) Display pb

Applicable to: ALL

22-81-02-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	10	0	

One or more may be inoperative.

22-81-02-07

ND Range selector

Applicable to: ALL

22-81-02-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the ND unit associated with the operative ND range selector is operative.

22-81-02-08

ND Mode selector

Applicable to: ALL

22-81-02-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the ND unit associated with the operative ND mode selector is operative.

22-81-02-09

ADF/VOR sw

Applicable to: ALL

22-81-02-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative provided that the associated ADF / VOR indication on ND is considered inoperative.

Refer to Item 34-06-06 Radio Nav aids Indications on the ND

22-81-02-10

ILS and FD pb light Bars

Applicable to: HL7767

22-81-02-10A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative provided that the associated indication is operative on both PFDs.

22-81-02-10

LS and FD pb light Bars

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

22-81-02-10A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative provided that the associated indication is operative on both PFDs.

22-81-02-11

Optional Data (ARPT, NDB, VOR.D, WPT, CSTR) Display pb light Bars

Applicable to: ALL

22-81-02-11A

Repair interval	Nbr installed	Nbr required	Procedure
D	10	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-81 - Flight Control Unit (FCU) 22-81-03 - FCU Channel

22-81-03-01	FCU Channel

Applicable to: HL7594, HL7703, HL7767, HL8236

22-81-03-01A Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) Two RMPs, all DUs, both RAs, both LGCIUs, both FACs, both Automatic Cabin Pressure Control Systems, all ADIRUs and the Standby ALT Indicator are operative.

22-81-03-01B EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	

For EDTO, one may be inoperative for one flight provided that two RMPs, all DUs, both RAs, both LGCIUs, both FACs, both Automatic Cabin Pressure Control Systems, all ADIRUs and the Standby ALT Indicator are operative.

22-81-03-01	FCU Channel

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

22-81-03-01A Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One channel may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) Two RMPs, all DUs, both RAs, both LGCIUs, both FACs, both Automatic Cabin Pressure Control Systems, all ADIRUs and the ISIS altitude indication are operative.

22-81-03-01B EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	

For EDTO, one channel may be inoperative for one flight provided that two RMPs, all DUs, both RAs, both LGCIUs, both FACs, both Automatic Cabin Pressure Control Systems, all ADIRUs and the ISIS altitude indication are operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-82 - Multipurpose Control and Display Unit (MCDU)

22-82-01	MCDU 1

Applicable to: ALL

22-82-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

- May be inoperative provided that:

 - 1) EDTO is not conducted, and
 - 2) The MCDU 2 is operative, and
 - 3) The flight remains within radio navaids coverage.

Note: *The aircraft must receive radio navaids data during the entire flight.*

22-82-02

MCDU 2

Applicable to: ALL

22-82-02B Flight within nav aids coverage

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the flight remains within radio nav aids coverage.

Note: The aircraft must receive radio nav aids data during the entire flight.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-82 - Multipurpose Control and Display Unit (MCDU)

22-82-04	MCDU Annunciator light

Applicable to: ALL

22-82-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	52	0	

One or more may be inoperative.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 22 - AUTO FLIGHT 22-83 - Flight Management and Guidance Computer (FMGC)

22-83-01	Flight Management and Guidance Computer (FMGC)

Applicable to: HL7594, HL7703, HL7767, HL8236

22-83-01A FMGC 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

- FMGC 1 may be inoperative provided that:
- 1) EDTO is not conducted, and

2) FMGC 1 is deactivated, and

3) FMS 1 is considered inoperative. Refer to Item 22-70-01 Flight Management System (FMS)
- Reference(s)

(o) OpsProc 22-83-01A Flight Management and Guidance Computer (FMGC)

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

DURING COCKPIT PREPARATION

- If FMGC 1 is affected:

AUTO FLT/FMGC/1 (49VU B02 or 121VU M16) C/B.....Pull

● If ADS-B (if installed) or EHS (if installed) is required for the intended flight:

ATC selector.....2
- If FMGC 2 is affected:

AUTO FLT/FMGC/2 (121VU M17) C/B Pull
- Note:

During IR alignment, when the FMGC 2 is deactivated, IRS IN ALIGN memo cannot be displayed until the FD 1 is engaged.
- If ADS-B (if installed) or EHS (if installed) is required for the intended flight:

ATC selector.....1
-

22-83-01B FMGC 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

- FMGC 2 may be inoperative provided that:
- 1) FMGC 2 is deactivated, and

2) FMS 2 is considered inoperative. Refer to Item 22-70-01 Flight Management System (FMS)

Reference(s)

(o) *OpsProc 22-83-01B Flight Management and Guidance Computer (FMGC)*

Refer to item 22-83-01A (o)procedure

22-83-01	Flight Management and Guidance Computer (FMGC)

Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

22-83-01A FMGC 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

FMGC 1 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) FMGC 1 is deactivated, and
- 3) FMS 1 is considered inoperative.

Refer to Item 22-70-01 Flight Management System (FMS)

Note: *If GPS 2 is inoperative, the ADS-B OUT Function (if installed) is also inoperative.
Refer to Item 34-50-10 ADS-B OUT Function*

Reference(s)

(o) *OpsProc 22-83-01A Flight Management and Guidance Computer (FMGC)*

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

DURING COCKPIT PREPARATION

- If FMGC 1 is affected:
AUTO FLT/FMGC/1 (49VU B02 or 121VU M16) C/B Pull
 - If ADS-B (if installed) or EHS (if installed) is required for the intended flight:
ATC selector 2
- If FMGC 2 is affected:
AUTO FLT/FMGC/2 (121VU M17) C/B Pull

Note: *During IR alignment, when the FMGC 2 is deactivated, IRS IN ALIGN memo cannot be displayed until the FD 1 is engaged.*

- If ADS-B (if installed) or EHS (if installed) is required for the intended flight:
ATC selector 1

22-83-01B FMGC 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

FMGC 2 may be inoperative provided that:

- 1) FMGC 2 is deactivated, and
- 2) FMS 2 is considered inoperative.

Refer to Item 22-70-01 Flight Management System (FMS)

Note: *If GPS 1 is inoperative, the ADS-B OUT Function (if installed) is also inoperative.*

Refer to Item 34-50-10 ADS-B OUT Function

_____Reference(s)_____

(o) *OpsProc 22-83-01B Flight Management and Guidance Computer (FMGC)*

Refer to item 22-83-01A (o) procedure

ATA 23

Communications

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-00 - MAINTENANCE Message on the STATUS SD page

23-00-01	CIDS 1(2) <u>MAINTENANCE</u> Message

Applicable to: ALL

23-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

CIDS 1(2) MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-01 - Overhead Panels 23-01-03 - AUDIO SWITCHING Overhead Panel

23-01-01-01	RCDR GND CTL pb-sw ON light

Applicable to: ALL

23-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

23-01-01-31	RCDR GND CTL pb-sw

Applicable to: ALL

23-01-01-31A AUTO position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative in the AUTO position.

Reference(s)

- (o) Refer to OpsProc 23-01-01-31A RCDR GND CTL pb-sw (Inoperative in the AUTO position)
- Applicable to: ALL

ON GROUND

CVR can only be tested through the CVR test pb-sw during the first 5 minutes after supply of the aircraft electrical network.

23-01-01-31B ON position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative in the ON position.

Reference(s)

- (o) Refer to OpsProc 23-01-01-31B RCDR GND CTL pb-sw (Inoperative in the ON position)
- Applicable to: ALL

AFTER LANDING

- To stop CVR recording, if needed:
COM/CVR/SPLY (49 VU E14) C/B PULL

23-01-01-31C CVR considered inoperative

Repair interval	Nbr installed	r required	Procedure
A	1	0	

May be inoperative provided that the CVR is considered inoperative.
Refer to Item 23-71-01 Cockpit Voice Recorder (CVR)

23-01-01-32	CVR ERASE pb

Applicable to: ALL

23-01-01-32A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

23-01-01-33	CVR TEST pb

Applicable to: ALL

23-01-01-33A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative provided that the Cockpit Voice Recorder (CVR) is considered inoperative.
Refer to Item 23-71-01 Cockpit Voice Recorder (CVR)

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-01 - Overhead Panels 23-01-02 - CALLS Overhead Panel

23-01-02-31	CALLS ALL pb

Applicable to: ALL

23-01-02-31A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

23-01-02-32	CALLS EMER pb, CALLS FWD pb, CALLS MID, pb, CALLS EXIT, pb, CALLS AFT pb

Applicable to: ALL

23-01-02-32A Use of passenger address system

Repair interval	Nbr installed	Nbr required	Procedure
C	5	0	

One or more may be inoperative provided that the passenger address system is used for communication between the cockpit and the cabin.

23-01-02-32B Use of cockpit handset interphone

Repair interval	Nbr installed	Nbr required	Procedure
C	5	0	

One or more may be inoperative provided that the cockpit handset interphone is used for communication between the cockpit and the cabin.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-01 - Overhead Panels 23-01-03 - AUDIO SWITCHING Overhead Panel

23-01-03-31	AUDIO SWITCHING selector

Applicable to: ALL

23-01-03-31A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-09 - ECAM Alerts

23-09-01	<u>COM</u> HF 1(2) EMITTING Alert

Applicable to: ALL

23-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	2 ~ 1	0	(o)

- One or both may be displayed provided that :
- 1) The alert is confirmed to be false by troubleshooting, and
 - 2) The affected HF is deactivated and considered inoperative.
- Refer to Item 23-10-01 HF System*

_____Reference(s)_____

(o) *OpsProc 23-09-01A COM HF 1(2) EMITTING Alert (If Installed)*

Applicable to: ALL

GENERAL INFORMATION

To make troubleshooting easier, *Refer to FCOM/PRO-ABN-23 COM VHF 1(2)(3)/HF 1(2) EMITTING.*

DURING COCKPIT PREPARATION

- To deactivate the HF1 system, apply:
COM HF1 (49 VU HA14) C/B PULL
or
COM NAV/HF1 (121 VU L10) C/B PULL
- To deactivate the HF2 system, apply:
COM NAV/HF2 (121 VU L13) C/B PULL

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-09 - ECAM Alerts

23-09-02	<u>COM</u> VHF 1(2)(3) EMITTING Alert

Applicable to: ALL

23-09-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)

- One or more may be displayed provided that :
- 1) The alert is confirmed to be false by troubleshooting, and
 - 2) The affected VHF is deactivated and considered inoperative.
Refer to Item 23-10-02 VHF System

Reference(s)

(o) *OpsProc 23-09-02A COM VHF 1(2)(3) EMITTING Alert*

Applicable to: ALL

GENERAL INFORMATION

To make troubleshooting easier, *Refer to FCOM/PRO-ABN-23 COM VHF 1(2)(3)/HF 1(2)*

EMITTING.

DURING COCKPIT PREPARATION

- To deactivate the VHF1 system, apply:
COM/VHF/1 (49 VU G09) C/B PULL
- To deactivate the VHF2 system, apply:
COM NAV/VHF/2 (121 VU L04) C/B PULL
- To deactivate the VHF3 system, apply:
COM NAV/VHF/3 (121 VU L05) C/B PULL

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-10 - Speech Communication

23-10-01	HF System

Applicable to: ALL

23-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	2 ~ 1	0	

For domestic flight, Both HF may be inoperative.

For international flight, Both HF must be operative where VHF communication system can not be used.

Note: For EDT0, if HF is required, HF1 voice mode must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-10 - Speech Communication

23-10-02	VHF System

Applicable to: HL7767

23-10-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)

For EDTO, VHF 1 must be operative.

Note: . The VHF 3 may be used as one of the VHF s provided that the ACARS is deactivated using the associated operational procedure.
Refer to Item 23-20-01 Aircraft Communications Addressing Reporting System (ACARS)

_____Reference(s)_____

(o) OpsProc 23-10-02A VHF System

Applicable to: HL7767

DURING COCKPIT PREPARATION

To deactivate ACARS (if required), apply:

ACARS MU (121 VU L6) C/B..... PULL

23-10-02	VHF System

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-10-02B

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

For EDTO, VHF 1 must be operative.

Note: The VHF 3 may be used as one of the VHF s provided that the VHF 3 is set to VOICE mode before each flight.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-13 - Radio Management

23-13-01	Radio Management Panel (RMP)

Applicable to: ALL

23-13-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

RMP 2 or RMP 3 may be inoperative.

23-13-02

RMP Selection Key

Applicable to: ALL

23-13-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	12	11	

One may be inoperative on each RMP provided that :

- 1) VHF 1 selection key is operative on RMP 1, and
- 2) If HF is required, HF 1 selection key is operative on RMP 1.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-20 - Data Transmission and Automatic Calling

23-20-01	Aircraft Communications Addressing Reporting System (ACARS)

Applicable to: HL7767

23-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-31 - Passenger Address System

23-31-01	Passenger Address System

Applicable to: ALL

23-31-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

- Note:
1. In the case of partial failure of the passenger address system, refer to the item(s) of the affected system(s).
 2. Total failure of the passenger address system (indicated by the COM CIDS 1+2 FAULT alert displayed on the EWD) is not permitted.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-31 - Passenger Address System

23-31-02	PA IN USE light

Applicable to: HL7767

23-31-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-40 - Interphone

23-40-01	Ground External Horn

Applicable to: ALL

23-40-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 23-40-01A Ground External Horn*

Applicable to: ALL

ON GROUND

- When the aircraft electrical network is supplied:
Monitor the avionics equipment ventilation in the cockpit.

BEFORE LEAVING THE AIRCRAFT

Set the three ADIRS Mode selectors to OFF.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-40 - Interphone

23-40-02	Flight Crew Interphone System

Applicable to: ALL

23-40-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative for each person on cockpit duty.

23-40-03

Flight Crew to Ground Communication System

Applicable to: ALL

23-40-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 23-40-03A Flight Crew to Ground Communication System*

Applicable to: ALL

Provide proper communication devices such as wireless handset between flight deck and ground crew members.

If communications still cannot be established, use hand signals for “ok to start engine”, “gear pins out”, “shut down”, and etc. Confirm with ground crew for required hand signal based on ICAO rule (refer to ATC section of the Jeppesen) and if necessary, closely consult with ground crew for exceptional hand signal. There must be no other inoperative system required to contact ground crew by using flight interphone.

23-40-04

Service Interphone Jack

Applicable to: ALL

23-40-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	(o)

One or more may be inoperative.

_____Reference(s)_____

(o) *OpsProc 23-40-04A Service Interphone Jack*

Applicable to: ALL

- 1) Follow marshalling signals, refer to Jeppesen.
- 2) Contact control agency for communication relay between cockpit and ground, if required

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-51 - Audio Management

23-51-01	SELCAL Function

Applicable to: ALL

23-51-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

23-51-02

Boomset

Applicable to: ALL

Note: One headset without microphone is installed in the cockpit and not applicable to MEL. The headset may be inoperative without condition and deferred by MPPM 12.2.2.2.

23-51-02A Two boomsets are operative

Repair interval	Nbr installed	Nbr required	Procedure
D	3	2	

Any boomset in excess of each person on flight deck duty may be inoperative.

23-51-02B Two boom microphones are operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	1	

One or two may be inoperative provided:

- 1) Either Captain's or First Officer's headphones may be inoperative provided associated flight deck speaker operates normally, and
- 2) Boom Microphones are operative for each captain and F/O.

23-51-02C Boom Microphones are inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	3	0	

One or more may be inoperative provided:

- 1) Associated hand microphone is installed and operates normally, and
- 2) Flight Data Recorder (FDR) operates normally, and
- 3) Repairs are made within three flight days, and
- 4) Either Captain or First Officer has an operative headphone. Inoperative headphone side's flight deck speaker operates normally.

Note: The operative headset without microphone installed in the cockpit can be used as an operative headphone.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-51 - Audio Management

23-51-03	Hand Microphone

Applicable to: ALL

23-51-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative, or missing, or removed.

23-51-04

Cockpit Loudspeaker

Applicable to: ALL

23-51-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

Only F/O loudspeaker may be inoperative provided that at least one crewmember on cockpit duty wears a boomset for the entire flight.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-51 - Audio Management

23-51-05	Cockpit Loudspeaker Volume Control

Applicable to: ALL

23-51-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that the affected crewmember on cockpit duty wears a boomset for the entire flight.

_____Reference(s)_____

(o) *OpsProc 23-51-05A Cockpit Loudspeaker Volume Control*

Applicable to: ALL

Alternate procedures for monitoring communications during the flight must be established.

23-51-06

Sidestick PTT sw

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-51-06B

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative in the open position (non transmitting position) provided that the INT/RAD sw on CAPT ACP, on F/O ACP and on ACP 3 are operative.

Note: Apply the maintenance procedure only when the inoperative sidestick PTT sw is failed in the closed position (transmitting position).

Reference(s)

(m) Refer to AMM 23-51-00-040-001

23-51-06

Sidestick PTT sw

Applicable to: HL7767

23-51-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

F/O sidestick PTT sw may be inoperative in the open position (non transmitting position) provided that the glareshield PTT pb is operative.

Note: Apply the maintenance procedure only when the inoperative sidestick PTT sw is failed in the closed position (transmitting position).

Reference(s)

(m) Refer to AMM 23-51-00-040-001

23-51-06B

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative in the open position (non transmitting position) provided that the INT/RAD sw on CAPT ACP, on F/O ACP and on ACP 3 are operative.

Note: Apply the maintenance procedure only when the inoperative sidestick PTT sw is failed in the closed position (transmitting position).

_____Reference(s)_____

(m) Refer to AMM 23-51-00-040-001

23-51-07

Glareshield PTT pb

Applicable to: HL7767

23-51-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(m)

May be inoperative in the open position (non transmitting position).

Note: Apply the maintenance procedure only when the Glareshield PTT pb is failed in the closed position (transmitting position).

Reference(s)

(m) Refer to AMM 23-51-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-52 - Audio Control Panel (ACP)

23-52-01	CAPT and F/O ACP

Applicable to: ALL

23-52-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(O)

One may be inoperative provided that :

- 1) ACP 3 is operative, and
- 2) The AUDIO SWITCHING selector is operative.

Reference(s)

(o) *OpsProc 23-52-01A CAPT and F/O ACP*

Applicable to: ALL

DURING COCKPIT PREPARATION

To recover the audio channel on the affected side:

AUDIO SWITCHING selector CAPT 3 (F/O 3)

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-52 - Audio Control Panel (ACP)

23-52-02	ACP 3

Applicable to: ALL

23-52-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-52 - Audio Control Panel (ACP)

23-52-05	ACP Transmission Key

Applicable to: ALL

23-52-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	7	6	

One may be inoperative on each ACP provided that :

- 1) VHF 1 transmission key is operative either on CAPT ACP or on F/O ACP, and
- 2) If HF is required, HF 1 transmission key is operative either on CAPT ACP or on F/O ACP.

23-52-06

ACP Reception knob

Applicable to: ALL

23-52-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	14	13	

One may be inoperative on each ACP provided that :

- 1) VHF 1 reception knob is operative either on CAPT ACP or on F/O ACP, and
- 2) If HF is required, HF 1 reception knob is operative either on CAPT ACP or on F/O ACP, and
- 3) If ILS is required for approach, one ILS reception knob is operative either on CAPT ACP or on F/O ACP.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-52 - Audio Control Panel (ACP)

23-52-07	ACP Reception knob light

Applicable to: ALL

23-52-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	45	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-71 - Cockpit Voice Recorder (CVR)

23-71-01	Cockpit Voice Recorder (CVR)

Applicable to: ALL

23-71-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

- May be inoperative provided:
- 1) Flight Data Recorder(FDR) operates normally,
 - 2) Repairs are made within three flight days.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-72 - Cockpit Door Surveillance System (CDSS)

23-72-01	Cockpit Door Surveillance System (CDSS)

Applicable to: HL7763, HL7769, HL7772, HL7773, HL8004, HL8018, HL8059, HL8060, HL8236, HL8255, HL8277, HL8278, HL8279

23-72-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

23-73-01-01

Cabin Intercommunication Data System (CIDS) Function

Applicable to: HL7737, HL7738

23-73-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

The CIDS function must be operative.

- Note:
1. This MEL item relates to complete failure of the CIDS function (Failure of both CIDS Directors).
 2. Failure of one CIDS Director is indicated by a CIDS 1(2) MAINTENANCE message on the STATUS SD page.
Refer to Item 23-00-01 CIDS 1(2) MAINTENANCE Message.
 3. In the case of disturbance of the CIDS function, removal of the affected CIDS Director may recover normal operation of the CIDS function.
Refer to AMM TASK 23-73-00-040-001.

23-73-01-01

Cabin Intercommunication Data System (CIDS) Function

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-73-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

The CIDS function must be operative.

- Note:
1. This MEL item relates to complete failure of the CIDS function (Failure of both CIDS Directors).
 2. Failure of one CIDS Director is indicated by a CIDS 1(2) MAINTENANCE message on the STATUS SD page.
Refer to Item 23-00-01 CIDS 1(2) MAINTENANCE Message.
 3. In the case of disturbance of the CIDS function, removal of the affected CIDS Director may recover normal operation of the CIDS function.
Refer to AMM TASK 23-73-00-040-001.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-02 - DEU A

23-73-02-01	Cabin DEU A

Applicable to: ALL

23-73-02-01A Affected seat occupied

Repair interval	Nbr installed	Nbr required	Procedure
C	16 ~ 32	–	(o)

One or more may be inoperative and affected passenger seat may be occupied provided that :

- 1) The passenger announcement can be heard throughout the cabin during the flight, and
- 2) The passenger address system is used to alert the passengers when "Return to Seat / Fasten Seat Belt / No Smoking" signs are requested.

_____Reference(s)_____

(o) *OpsProc 23-73-02-01A Cabin DEU A*

Applicable to: ALL

GENERAL INFORMATION

On the affected cabin area:

- general cabin illumination is set to full brightness,
- Passenger Call is not available,
- The (No Smoking/Fasten Seat Belt/No Portable Electric Device) Signs are not available.

IN FLIGHT

- When return to seat is requested,
or
When seat belts should be fasten,
or
When smoking is prohibited,
or
When portable electric device use is prohibited,
Use the passenger address system to alert cabin attendants and passengers.

23-73-02-01B Affected seat not occupied

Repair interval	Nbr installed	Nbr required	Procedure
C	16 ~ 32	–	

One or more may be inoperative provided that the affected seats are blocked and placarded inoperative.

Note: A random of 60% of passenger seats may be inoperative.

23-73-02-02	Lavatory DEU A

Applicable to: ALL

23-73-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	2	

One or more may be inoperative provided that the affected lavatory is closed and placarded inoperative.
Refer to item 38-11-01B Lavatory Not Used.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-03 - DEU B

23-73-03-01	Cabin DEU B

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

23-73-03-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4 ~ 6	A321: 4 A320 : 2	(o)

One or more may be inoperative provided that :

- 1) One DEU B and the associated handset are operative at each pair of floor level exit doors, and
- 2) The slide bottle pressure and door bottle pressure associated with each affected DEU B are checked on the associated direct reading pressure gauge before the first flight of each day.
*Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP , and
Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP*

_____Reference(s)_____

(o) OpsProc 23-73-03-01A Cabin DEU B

Applicable to: ALL

Set up the alternate normal procedures and emergency procedures before departure for the use of one handset per pair of floor level exit door. To define the handset location to be used by the Purser, if necessary.

23-73-03-01	Cabin DEU B

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-73-03-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	4 ~ 6	A321: 4 A320 : 2	(o)

One or more may be inoperative provided that:

- 1) One DEU B and the associated handset are operative at each pair of floor level exit doors, and
- 2) The slide bottle pressure and door bottle pressure associated with each affected DEU B are checked on the associated direct reading pressure gauge before the first flight of each day, and
- 3) The associated lavatory fire extinguisher system is checked operative, and

- 4) The absence of smoke in the affected lavatory is periodically checked.
Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP , and
Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the
PTP/FAP , and
Refer to Item 26-17-01 Lavatory Smoke Detection System.

____Reference(s)_____

(o) *OpsProc 23-73-03-01B Cabin DEU B*

Refer to item 23-73-03-01A (o) procedure

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-04 - Cabin Individual Call

23-73-04-01	Passenger Call

Applicable to: ALL

23-73-04-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	135 ~ 200	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-05 - Cabin Loudspeaker

23-73-05-01	Cabin Loudspeaker

Applicable to: ALL

23-73-05-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

One or more may be inoperative provided that no seat is occupied from which a passenger cannot hear a passenger announcement.

23-73-05-02	Lavatory Loudspeaker

Applicable to: ALL

23-73-05-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	(o)

One or more may be inoperative.

_____Reference(s)_____

(o) *OpsProc 23-73-05-02A Lavatory Loudspeaker*

Applicable to: ALL

Alternate normal procedures and emergency procedures have to be established before departure to alert the passenger in the lavatory, if necessary.

23-73-06-01

Cockpit Handset

Applicable to: ALL

23-73-06-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the cockpit audio control panel (ACP) is used for the communication between the cockpit and the cabin.

23-73-06-02

Cabin Handset

Applicable to: ALL

23-73-06-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 – 6	–	(o)

One or more may be inoperative provided that one handset is operative at each pair of floor level exit doors.

_____Reference(s)_____

(o) *OpsProc 23-73-06-02A Cabin Handset*

Applicable to: ALL

Set up the alternate normal procedures and emergency procedures before departure for the use of one handset per pair of floor level exit door. To define the handset location to be used by the Purser, if necessary.

23-73-06-03

Cabin Handset Key

Applicable to: ALL

23-73-06-03A Passenger address and Cabin to cockpit interphone operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3 – 6	–	

One or more may be inoperative provided that:

- 1) Passenger address from the affected handset is operative, and
- 2) Cabin to cockpit interphone from affected handset is operative.

23-73-06-03B Affected handset considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3 – 6	–	

One or more may be inoperative provided that the affected handset is considered inoperative.

Refer to Item 23-73-06-02 Cabin Handset

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-07 - Prerecorded Announcement and Music Reproducer (PRAM)

23-73-07-01	Prerecorded Announcement and Music Reproducer (PRAM)

Applicable to: ALL

23-73-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 23-73-07-01A Prerecorded Announcement and Music Reproducer (PRAM)*

Applicable to: ALL

Brief cabin attendant prior to flight of the procedure to replace the prerecorded announcement.
Necessary demonstration equipment must be provided onboard.
Refer to cabin attendant In-flight Announcement Manual.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-08 - Cabin Assignment Module (CAM)

23-73-08-01	Cabin Assignment Module (CAM)

Applicable to: ALL

23-73-08-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative or missing.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-73 - Cabin Intercommunication Data System 23-73-10 - Smoke Detection Function

23-73-10-01	Smoke Detection Function (CIDS - SDF)

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-73-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The cargo compartments are empty or do not contain flammable or combustible materials, and
- 2) The lavatory smoke detection system is considered inoperative.

Refer to Item 26-17-01 Lavatory Smoke Detection System

Note: Failure of a single CIDS - SDF channel is indicated by a MAINTENANCE message on the STATUS SD page.

Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

23-73-10-01	Smoke Detection Function (CIDS - SDF)

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

23-73-10-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the restrictions concerning lavatory smoke detection system and cargo smoke detection system are applied.

Refer to Item 26-17-01 Lavatory Smoke Detection System , and

Refer to Item 26-16-01 Smoke Detector in the FWD Cargo Compartment and

Refer to Item 26-16-02 Smoke Detector in the AFT and the BULK Cargo Compartments.

Note: Failure of a single CIDS - SDF channel is indicated by a MAINTENANCE message on the STATUS SD page.

Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-01	Forward Attendant Panel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

23-74-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that associated Forward Attendant Panel functions are considered inoperative.

Refer to Item 23-73-07-01 Prerecorded Announcement and Music Reproducer (PRAM) and

Refer to Item 23-74-12 CIDS Caution Light of the Forward Attendant Panel, and

Refer to Item 23-74-13 Lighting Module of the Forward Attendant Panel

23-74-01	FAP Display Unit

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

23-74-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the safety related messages on the FAP are considered inoperative.

Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP , and

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP (If Installed), and

Refer to Item 25-62-07 Overwing Emergency Exit Slide Pressure Message on the PTP/FAP

Reference(s)

(o) OpsProc 23-74-01A FAP Display Unit

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

The cabin lighting may be dimmed through the Additional Attendant Panel (AAP)

23-74-01

FAP Display Unit

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-74-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the safety related messages on the FAP are considered inoperative.

Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP , and

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP

Reference(s)

(o) *OpsProc 23-74-01A FAP Display Unit*

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

The cabin lighting may be dimmed through the Additional Attendant Panel (AAP)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-02	EMER pb on the Hardkey FAP Sub-panel

Applicable to: ALL

23-74-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-03	Other Controls on the Hardkey FAP Sub-panel

Applicable to: ALL

23-74-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	6	0	

One or more may be inoperative.

23-74-04

PTP Display Unit

Applicable to: HL7737, HL7738

23-74-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that the display of the safety related messages on PTP are considered inoperative.

Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP , and

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP , and
Refer to Item 25-62-07 Emergency Exit Slide Pressure Message on the PTP/FAP

23-74-04

PTP Display Unit

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

23-74-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that the display of the safety related messages on PTP are considered inoperative.

Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP , and

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-05	Door Bottle Pressure Monitoring on the PTP

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

23-74-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-06	Door Bottle Pressure Monitoring on the FAP

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-74-06A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-07	Slide Pressure Monitoring on the PTP

Applicable to: HL7737, HL7738

23-74-07A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP
(If Installed)
Refer to Item 25-62-07 Emergency Exit Slide Pressure Message on the PTP/FAP
(If Installed)

Note: Apply both MEL Items.

23-74-07	Slide Pressure Monitoring on the PTP

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

23-74-07A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-08	Slide Pressure Monitoring on the FAP

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

23-74-08A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

*Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP
(If Installed)*

*Refer to Item 25-62-07 Overwing Emergency Exit Slide Pressure Message on the PTP/FAP
(If Installed)*

Note: Apply both MEL Items.

23-74-08	Slide Pressure Monitoring on the FAP

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

23-74-08A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-09	Area Call Panel

Applicable to: ALL

23-74-09A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-10	Attendant Information Panel (AIP)

Applicable to: ALL

23-74-10A

Repair interval	Nbr installed	Nbr required	Procedure
D	3	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 23 - COMMUNICATIONS 23-74 - Cabin Crew Panel

23-74-11	Additional Attendant Panel (AAP)

Applicable to: ALL

23-74-11A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

One or more may be inoperative.

23-74-12

CIDS Caution Light of the Forward Attendant Panel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

23-74-12A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that PTP messages are checked before each flight.

Reference(s)

(o) Refer to OpsProc 23-74-12A CIDS Caution Light of the Forward Attendant Panel

Applicable to: HL7737, HL7738

ON GROUND

- If the DOOR PRESS LOW message is displayed on the PTP status page:
Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP
- If the Passenger Door SLIDE PRESS LOW message is displayed on the PTP status page:
Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP
- If the Emergency Exit SLIDE PRESS LOW message is displayed on the PTP status page:
Refer to Item 25-62-07 Overwing Emergency Exit Slide Pressure Message on the PTP/FAP

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

ON GROUND

- If the DOOR PRESS LOW message is displayed on the PTP status page:
Refer to Item 52-10-06 DOOR PRESS LOW/CHECK DOOR PRESSURE Message on the PTP/FAP
- If the Passenger Door SLIDE PRESS LOW message is displayed on the PTP status page:
Refer to Item 25-62-06 Passenger Door Slide Pressure Message on the PTP/FAP

23-74-13

Lighting Module of the Forward Attendant Panel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

23-74-13A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

(o) Refer to OpsProc 23-74-13A Lighting Module of the Forward Attendant Panel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

GENERAL INFORMATION

The cabin lighting may be dimmed through the Additional Attendant Panel (AAP)

ATA 24

Electrical Power

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-00 - MAINTENANCE Messages on the STATUS SD page

24-00-01	DC BUS TIE <u>MAINTENANCE</u> Message

Applicable to: ALL

24-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

DC BUS TIE MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-00 - MAINTENANCE Messages on the STATUS SD page

24-00-03	AC GEN <u>MAINTENANCE</u> Message

Applicable to: ALL

24-00-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

AC GEN MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-01 - Overhead Panels 24-01-01 - ELEC Overhead Panel

24-01-01-01	BAT 1(2) pb-sw FAULT light

Applicable to: ALL

24-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

24-01-01-02	BAT 1(2) pb-sw OFF light

Applicable to: ALL

24-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

24-01-01-03	GEN pb-sw FAULT light and APU GEN pb-sw FAULT light

Applicable to: ALL

24-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	1	

One GEN pb-sw FAULT light and/or the APU GEN pb-sw FAULT light may be inoperative provided that the associated generator indications are operative on the ELEC SD page.

24-01-01-04	GEN pb-sw OFF light and APU GEN pb-sw OFF light

Applicable to: ALL

24-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

24-01-01-05

AC ESS FEED pb-sw FAULT light

Applicable to: ALL

24-01-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the AC ESS bus indication is operative on the ELEC SD page.

24-01-01-06

AC ESS FEED pb-sw ALTN light

Applicable to: ALL

24-01-01-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the AC ESS bus indication is operative on the ELEC SD page.

24-01-01-07

EXT PWR pb-sw AVAIL light

Applicable to: ALL

24-01-01-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

(o) OpsProc 24-01-01-07A EXT PWR pb-sw AVAIL light

Applicable to: ALL

BEFORE PUSHBACK

Confirm the external power disconnection either on the ELEC SD page or with the ground crew.

PARKING

- If the APU is not available:
 - EXT PWR pb-sw..... ON

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-01 - Overhead Panels 24-01-01 - ELEC Overhead Panel

- Confirm the external power connection either on the ELEC SD page or with ground crew before engine shutdown.

24-01-01-08	EXT PWR pb-sw ON light

Applicable to: ALL

24-01-01-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

24-01-01-09	GALLEY pb-sw FAULT light

Applicable to: HL7767

24-01-01-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) For each generator, the AC load indication is operative on the ELEC SD page , and
- 2) The galley automatic load shed system is checked operative.

Reference(s)

(o) *OpsProc 24-01-01-09A GALLEY/GALY & CAB pb-sw FAULT light*

Applicable to: HL7767

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- Supply the electrical network from the APU or the external power.
- GALLEY pb-sw AUTO
- ELEC/GALLEY/GND/FLT/LOGIC (122VU S24) C/B Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALLEY/GND/FLT/LOGIC (122VU S24) C/B Push

Note: *Disregard this procedure if main galleys are not connected.*

24-01-01-09

GALY & CAB pb-sw FAULT light

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-01-01-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) For each generator, the AC load indication is operative on the ELEC SD page , and
- 2) The GALY & CAB automatic load shed system is checked operative.

Reference(s)

(o) *OpsProc 24-01-01-09A GALLEY/GALY & CAB pb-sw FAULT light*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- Supply the electrical network from the APU or the external power.
- GALY & CAB pb-sw AUTO
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Push

Note: *Disregard this procedure if main galleys are not connected.*

24-01-01-10

GALLEY pb-sw OFF light

Applicable to: HL7767

24-01-01-10A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-01 - Overhead Panels 24-01-01 - ELEC Overhead Panel

24-01-01-10	GALY & CAB pb-sw OFF light

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-01-01-10A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

24-01-01-11	COMMERCIAL pb-sw OFF light

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-01-01-11A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

24-01-01-12	BUS TIE pb-sw OFF light

Applicable to: ALL

24-01-01-12A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

24-01-01-13

IDG pb-sw FAULT light

Applicable to: ALL

24-01-01-13A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the frequency and the temperature indications of the affected generator are operative on the ELEC SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-01 - Overhead Panels 24-01-02 - EMER ELEC PWR Overhead Panel

24-01-02-01	RAT & EMER GEN FAULT light

Applicable to: ALL

24-01-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	

May be inoperative.

	MEL ITEMS 24 - ELECTRICAL POWER 24-07 - Indications on the ELEC SD page

24-07-01	AC Generation Indications on the <u>ELEC</u> SD page

Applicable to: ALL

24-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(o)

- One or more indications related to the AC generation may be inoperative provided that:
- 1) The load, voltage, and frequency indications are operative on one engine driven generator , and
 - 2) The associated ELEC GEN 1(2) FAULT alert is operative, and
 - 3) The galley automatic load shed system is checked operative.

Reference(s)

(o) *OpsProc 24-07-01A AC Generation Indications on the ELEC SD page*

Applicable to: HL7767

DURING COCKPIT PREPARATION

Check that GEN 1(2) pb-sw FAULT light is on (with the GEN 1(2) pb-sw in the on position).

Check of the galley automatic load shed system:

- Supply the electrical network from the APU or the external power.
- GALLEY pb-sw AUTO
- ELEC/GALLEY/GND/FLT/LOGIC (122VU S24) C/B Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALLEY/GND/FLT/LOGIC (122VU S24) C/B Push

Note: *Disregard this procedure if main galleys are not connected.*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

Check that GEN 1(2) pb-sw FAULT light is on (with the GEN 1(2) pb-sw in the on position).

Check of the galley automatic load shed system:

- Supply the electrical network from the APU or the external power.
- GALY & CAB pb-sw AUTO
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Push

Note: *Disregard this procedure if main galleys are not connected.*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-07 - Indications on the ELEC SD page

24-07-02	DC Generation Indications on the <u>ELEC</u> SD page

Applicable to: ALL

24-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more indications related to the DC generation may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-07 - Indications on the ELEC SD page

24-07-03	AC ESS BUS SHED Indication on the <u>ELEC</u> SD page

Applicable to: ALL

24-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be displayed.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-09 - ECAM Alerts

24-09-01	<u>ELEC</u> AC ESS BUS SHED Alert

Applicable to: HL7703

24-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be displayed provided that:
- 1) The alert is confirmed to be false by troubleshooting, and
 - 2) The AC ESS BUS SHED is checked operative before each flight.

Reference(s)

(o) *OpsProc 24-09-01A ELEC AC ESS BUS SHED Alert*

Applicable to: HL7703

GENERAL INFORMATION

When the ELEC AC ESS BUS SHED alert is displayed on the EWD:

- The AC ESS BUS SHED message may appear on the ELEC SD page,
- The CAPT AOA message may be displayed in the INOP SYS column on the STATUS SD page,
- The ELEC/AC BUS/8XP/MONG (49VU H11) C/B may trip.

DURING COCKPIT PREPARATION

Check of the AC ESS BUS SHED:

- Supply the electrical network from the APU or the external power
- Check that the CAPT right DU is operative.

IN FLIGHT

- If either the ANTI ICE F/O AOA alert or the ANTI ICE F/O PROBES alert is displayed on the EWD, and icing conditions cannot be avoided:
 - ADR 2 pb-sw OFF
 - AIR DATA sw F/O 3

Note: If the ADR 2 pb-sw is set to OFF, takeoff in CONF 1+F is not permitted.

- If either the ANTI ICE STBY AOA alert or the ANTI ICE STBY PROBES alert is displayed on the EWD, and icing conditions cannot be avoided:
 - ADR 3 pb-sw OFF

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-09 - ECAM Alerts

24-09-01	<u>ELEC AC ESS BUS SHED</u> Alert

Applicable to: HL7594, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be displayed provided that:

- 1) The alert is confirmed to be false by troubleshooting, and
- 2) The AC ESS BUS SHED is checked operative before each flight, and
- 3) HF 1 is deactivated. Refer to Item 23-10-01 HF System

Reference(s)

(o) OpsProc 24-09-01A ELEC AC ESS BUS SHED Alert

Applicable to: HL7594, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

When the ELEC AC ESS BUS SHED alert is displayed on the EWD:

- The AC ESS BUS SHED message may appear on the ELEC SD page,
- The CAPT AOA message may be displayed in the INOP SYS column on the STATUS SD page,
- The ELEC/AC BUS/8XP/MONG (49VU H11) C/B may trip.

DURING COCKPIT PREPARATION

COM/HF1 (49VU HA14) C/B Pull

Check of the AC ESS BUS SHED:

- Supply the electrical network from the APU or the external power.
- Check that the CAPT right DU is operative.

IN FLIGHT

- If either the ANTI ICE F/O AOA alert or the ANTI ICE F/O PROBES alert is displayed on the EWD, and icing conditions cannot be avoided:
 - ADR 2 pb-sw OFF
 - AIR ATA sw F/O 3

Note: If the ADR 2 pb-sw is set to OFF, takeoff in CONF 1+F is not permitted.

- If either the ANTI ICE STBY AOA alert or the ANTI ICE STBY PROBES alert is displayed on the EWD, and icing conditions cannot be avoided:
 - ADR 3 pb-sw OFF

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-09 - ECAM Alerts

24-09-02	<u>C/B</u> TRIPPED Alert

Applicable to: ALL

24-09-02A

Repair interval	Nbr installed	Nbr e	Procedure
C	1	0	(m)

May be displayed provided that the alert is confirmed to be false by troubleshooting.

_____Reference(s)_____

(m) *Refer to AMM 24-50-00-040-001*

24-22-01

AC Main Generation (IDG , GCU , Line Contactor)

Applicable to: ALL

24-22-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The flight altitude is limited to 33 500 ft , and
- 3) The APU and AC auxiliary generation are operative and used throughout the flight, and
- 4) The APU fuel pump is operative, and
- 5) The APU oil consumption is checked adequate for the intended flight, and
- 6) The fuel recirculation system associated with the operative IDG is checked operative before each flight, and
- 7) All busses have power, and
- 8) The indications and alerts for the remaining AC main generation and the AC auxiliary generation are operative, and
- 9) The galley automatic load shed system is checked operative.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) *OpsProc 24-22-01A AC Main Generation (IDG, GCU, Line Contactor)*

Applicable to: HL7594, HL7703

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

APU fuel consumption with APU GEN pb-sw On:

FL	GND	200	250	300	335	390
KG/H	100	63	57	54	49	42
LB/H	220	139	126	119	108	93

Note: When the External Power is disconnected, the IFE is lost until the APU supplies the electrical network.

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC).....Push
- Supply the electrical network from the APU or the external power.
- GALY & CAB pb-sw AUTO

- 2 - ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Pull
 - Check that a part of the operative galley equipment does not operate.
 - ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Push

Note: Disregard this procedure if main galleys are not connected.

BEFORE ENGINE START

- If the IDG 1(2) associated with the inoperative AC main generation 1(2) has been disconnected:

Check that the DISC message is displayed on the ELEC SD page.

CAUTION	For economical reason, the IDG should not operate for more than 50 flight hours in the disconnected mode.

AFTER ENGINE START

Check that the electrical busses have power:

- APU MASTER SW pb-sw..... ON
- APU GEN pb-sw..... On
- GEN 1 pb-sw..... OFF
- GEN 2 pb-sw..... OFF
- On the ELEC SD page, check that all AC busses have power.
- GEN pb-sw (operative)..... On
- APU GEN pb-sw..... OFF
- On the ELEC SD page, check that all AC busses have power.
- APU GEN pb-sw..... On
- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC)..... Push

IN FLIGHT

- If the SMOKE/FUMES/AVNCS SMOKE QRH's procedure is applied
 - If the GEN 1 is inoperative:

When the GEN 2 is set to OFF, the aircraft reverts to the ELEC EMER configuration.
 Apply the ELEC EMER CONFIG procedure of the SMOKE/FUMES/AVNCS SMOKE QRH's procedure.

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

APU fuel consumption with APU GEN pb-sw On:

FL	GND	200	250	300	335	390
KG/H	100	63	57	54	49	42

	MEL ITEMS 24 - ELECTRICAL POWER 24-22 - AC Main Generation

5 LB/H	220	139	126	119	108	93

Note: When the External Power is disconnected, the IFE is lost until the APU supplies the electrical network.

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC).....Push
- Supply the electrical network from the APU or the external power.
- GALY & CAB pb-sw AUTO
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B.....Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B.....Push

Note: Disregard this procedure if main galleys are not connected.

BEFORE ENGINE START

- If the IDG 1(2) associated with the inoperative AC main generation 1(2) has been disconnected:

Check that the DISC message is displayed on the ELEC SD page.

CAUTION	For economical reason, the IDG should not operate for more than 50 flight hours in the disconnected mode.

AFTER ENGINE START

Check that the electrical busses have power:

- APU MASTER SW pb-sw ON
- APU GEN pb-sw On
- GEN 1 pb-sw.....OFF
- GEN 2 pb-sw.....OFF
- On the ELEC SD page, check that all AC busses have power.
- GEN pb-sw (operative) On
- APU GEN pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- APU GEN pb-sw On
- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC).....Push

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

APU fuel consumption with APU GEN pb-sw On:

7 FL	GND	200	250	300	335	390
KG/H	100	63	57	54	49	42
LB/H	220	139	126	119	108	93

Note: When the External Power is disconnected, the IFE is lost until the APU supplies the electrical network.

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC) Push
- Supply the electrical network from the APU or the external power.
- GALLEY pb-sw AUTO
- ELEC/GALLEY/GND/FLT/LOGIC (122VU S24) C/B Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALLEY/GND/FLT/LOGIC (122VU S24) C/B Push

Note: Disregard this procedure if main galleys are not connected.

BEFORE ENGINE START

- If the IDG 1(2) associated with the inoperative AC main generation 1(2) has been disconnected:

Check that the DISC message is displayed on the ELEC SD page.

CAUTION	For economical reason, the IDG should not operate for more than 50 flight hours in the disconnected mode.

AFTER ENGINE START

Check that the electrical busses have power:

- APU MASTER SW pb-sw ON
- APU GEN pb-sw On
- GEN 1 pb-sw OFF
- GEN 2 pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- GEN pb-sw (operative) On
- APU GEN pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- APU GEN pb-sw On
- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC) Push

BEFORE TAKE-OFF

- If OAT is at or below -40 °C,

Check on the ENG SD page that oil temperature is at or above 60 °C.

IN FLIGHT

- If the SMOKE/FUMES/AVNCS SMOKE QRH's procedure is applied
 - If the GEN 1 is inoperative:

When the GEN 2 is set to OFF, the aircraft reverts to the ELEC EMER configuration.
Apply the ELEC EMER CONFIG procedure of the SMOKE/FUMES/AVNCS SMOKE QRH's procedure.

Applicable to: HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

APU fuel consumption with APU GEN pb-sw On:

FL	GND	200	250	300	335	390
KG/H	100	63	57	54	49	42
LB/H	220	139	126	119	108	93

Note: When the External Power is disconnected, the IFE is lost until the APU supplies the electrical network.

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC).....Push
- Supply the electrical network from the APU or the external power.
- GALY & CAB pb-sw AUTO
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B.....Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B.....Push

Note: Disregard this procedure if main galleys are not connected.

BEFORE ENGINE START

- If the IDG 1(2) associated with the inoperative AC main generation 1(2) has been disconnected:

Check that the DISC message is displayed on the ELEC SD page.

CAUTION	For economical reason, the IDG should not operate for more than 50 flight hours in the disconnected mode.

AFTER ENGINE START

Check that the electrical busses have power:

- APU MASTER SW pb-sw ON
- APU GEN pb-sw On

- GEN 1 pb-sw OFF
- GEN 2 pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- GEN pb-sw (operative) On
- APU GEN pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- APU GEN pb-sw On
- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC) Push

BEFORE TAKE-OFF

- If OAT is at or below -40 °C,

Check on the ENG SD page that oil temperature is at or above 60 °C.

IN FLIGHT

- If the SMOKE/FUMES/AVNCS SMOKE QRH's procedure is applied

- If the GEN 1 is inoperative:

When the GEN 2 is set to OFF, the aircraft reverts to the ELEC EMER configuration.

Apply the ELEC EMER CONFIG procedure of the SMOKE/FUMES/AVNCS SMOKE QRH's procedure.

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

APU fuel consumption with APU GEN pb-sw On:

FL	GND	200	250	300	335	390
KG/H	100	63	57	54	49	42
LB/H	220	139	126	119	108	93

Note: When the External Power is disconnected, the IFE is lost until the APU supplies the electrical network.

DURING COCKPIT PREPARATION

Check of the galley automatic load shed system:

- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC) Push
- Supply the electrical network from the APU or the external power.
- GALY & CAB pb-sw AUTO
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Pull
- Check that a part of the operative galley equipment does not operate.
- ELEC/GALY & CAB/GND/FLT/LOGIC (122VU S24) C/B Push

11 Note: Disregard this procedure if main galleys are not connected.

BEFORE ENGINE START

- If the IDG 1(2) associated with the inoperative AC main generation 1(2) has been disconnected:
Check that the DISC message is displayed on the ELEC SD page.

CAUTION	For economical reason, the IDG should not operate for more than 50 flight hours in the disconnected mode.

AFTER ENGINE START

Check that the electrical busses have power:

- APU MASTER SW pb-sw ON
- APU GEN pb-sw On
- GEN 1 pb-sw OFF
- GEN 2 pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- GEN pb-sw (operative) On
- APU GEN pb-sw OFF
- On the ELEC SD page, check that all AC busses have power.
- APU GEN pb-sw On
- PAX SYS pb-sw (If Installed) in the Video Control Center (VCC).....Push

BEFORE TAKE-OFF

- If OAT is at or below -40 °C,
Check on the ENG SD page that oil temperature is at or above 60 °C.

(m) Refer to AMM 24-20-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-22 - AC Main Generation

24-22-02	AC Bus Tie Control Function

Applicable to: ALL

24-22-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

24-23-01

AC Auxiliary Generation (APU Generator, GCU or GAPCU
 Auxiliary Power Control function, Line Contactor)

Applicable to: ALL

24-23-01A Non EDTO flight and APU GEN pb-sw set to OFF

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The APU GEN pb-sw is set to OFF.

Note: When the GPCU/GAPCU Auxiliary Power Control function and the APU Generator are both inoperative, the engines cannot be started.

24-23-01B EDTO flight and APU GEN pb-sw set to OFF

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

For EDTO, may be inoperative for four flights provided that:

- 1) The APU GEN pb-sw is set to OFF.

Note: When the GPCU/GAPCU Auxiliary Power Control function and the APU Generator are both inoperative, the engines cannot be started.

24-23-01C Non EDTO flight and AC auxiliary generation deactivated or removed

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The AC auxiliary generation is deactivated or removed.

Note: When the GPCU/GAPCU Auxiliary Power Control function and the APU Generator are both inoperative, the engines cannot be started.

Reference(s)

(m) Refer to AMM 24-23-00-040-001 and (or) 24-23-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-24 - AC Emergency Generation

24-24-01	Emergency Generator

Applicable to: ALL

24-24-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-24 - AC Emergency Generation

24-24-02	RAT Extension Automatic Control

Applicable to: ALL

24-24-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

- May be inoperative provided that:
- 1) EDTO is not conducted, and

2) The RAT extension manual control is checked operative every day.

Reference(s)

(m) Refer to AMM 24-20-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-24 - AC Emergency Generation

24-24-03	RAT Extension Manual Control

Applicable to: ALL

24-24-03A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	

May be inoperative provided that EDTO is not conducted.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-25 - AC Essential Generation Switching

24-25-01	Manual Transfer to the AC BUS 2 (ALTN Function)

Applicable to: ALL

24-25-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The AC ESS FEED pb-sw is set to NORM, and
- 2) It is checked on the ELEC SD page that the AC BUS 1 supplies the AC ESS BUS, and
- 3) The TR 2 is operative.

_____Reference(s)_____

(o) *OpsProc 24-25-01A Manual Transfer to the AC BUS 2 (ALTN Function)*

Applicable to: ALL

DURING PRELIMINARY COCKPIT PREPARATION

On the ELEC SD page, check that the AC BUS 1 supplies the AC ESS BUS.

24-25-02

Automatic Transfer to the AC BUS 2

Applicable to: ALL

24-25-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative provided that:

- 1) The AC ESS FEED pb-sw is set to NORM, and
- 2) It is checked on the ELEC SD page that the AC BUS 1 supplies the AC ESS BUS, and
- 3) The TR 2 is operative.

Reference(s)

(o) *OpsProc 24-25-02A Automatic Transfer to the AC BUS 2*

Applicable to: ALL

DURING PRELIMINARY COCKPIT PREPARATION

On the ELEC SD page, check that the AC BUS 1 supplies the AC ESS BUS.

24-26-01

Galley Automatic Load Shed System

Applicable to: HL7767

24-26-01A Manual load shed system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the manual load shed system and the GALLEY pb-sw FAULT light are operative.

24-26-01B All galley loads disconnected

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that all galley loads are disconnected.

_____Reference(s)_____

(m) Refer to AMM 24-56-00-040-001

24-26-01

GALY & CAB Automatic Load Shed System

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-26-01A Manual load shed system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the manual load shed system and the GALY & CAB pb-sw FAULT light are operative.

24-26-01B All GALY & CAB loads disconnected

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that all GALY & CAB loads are disconnected.

_____Reference(s)_____

(m) Refer to AMM 24-56-00-040-001

24-26-02

Galley Manual Load Shed System (GALLEY pb-sw)

Applicable to: HL7767

24-26-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that all galley loads are disconnected.

Reference(s)

(m) Refer to AMM 24-56-00-040-003

24-26-02

GALY & CAB Manual Load Shed System (GALY & CAB pb-sw)

Applicable to: HL7594, HL7703, HL8236

24-26-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that all GALY & CAB loads are disconnected.

Reference(s)

(m) Refer to AMM 24-56-00-040-003

24-26-02

GALY & CAB Manual Load Shed System (GALY & CAB pb-sw)

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-26-02A All GALY & CAB loads disconnected

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that all GALY & CAB loads are disconnected.

Reference(s)

(m) Refer to AMM 24-56-00-040-002

	MEL ITEMS 24 - ELECTRICAL POWER 24-26 - Galley and Commercial Supply System

24-26-02B COMMERCIAL supply system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that the COMMERCIAL supply system is checked operative.

Reference(s)

(o) *OpsProc 24-26-02B Galley Manual Load Shed System (GALLEY/GALY & CAB pb-sw)*

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- If the AVNCS SMOKE emergency procedure is applied or if the AVIONICS SMOKE alert is displayed on the EWD replace the action to set the GALY & CAB pb-sw to OFF by the following actions:
 - EMEREXIT LT selector As required
 - COMMERCIAL pb-sw OFF

Note: When the COMMERCIAL pb-sw is set to OFF, the normal cabin lighting goes off.
Minimum cabin lighting is recovered when the EMER EXIT LT selector is set to ON.

(m) Refer to AMM 24-51-00-040-001

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-26 - Galley and Commercial Supply System

24-26-03	Commercial Supply System

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-26-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)_____

(o) *OpsProc 24-26-03A Commercial Supply System*

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- If the AVNCS SMOKE emergency procedure is applied or if the AVIONICS SMOKE alert is displayed on the EWD replace the action to set the COMMERCIAL pb-sw to OFF by the following actions:
 - BUS TIE pb..... OFF
 - GEN 2 -s OFF

The F/O PFDU, the F/O NDU, and the ECAM lower display are lost.

- If the smoke persists:
 - GEN 2 pb-sw On
When the GEN 2 pb-sw is set to on, all the electrical busses are recovered but the TR 2 remains inoperative
 - BUS TIE pb AUTO

Before the landing gear extension:

- GEN 2 pb-sw On
When the GEN 2 pb-sw is set to on, all the electrical busses are recovered but the TR 2 remains inoperative
- BUS TIE pb..... AUTO

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-28 - Static Inverter AC Generation

24-28-01	Static Inverter AC Generation

Applicable to: ALL

24-28-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-32 - DC Main Generation (TR 1, TR 2)

24-32-01	DC Main Generation (TR 1, TR 2)

Applicable to: HL7594, HL7703, HL7767, HL8236

24-32-01A TR 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

TR 1 may be inoperative provided that EDTO is not conducted.

_____Reference(s)_____

(o) *OpsProc 24-32-01A DC Main Generation (TR 1 inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING PRELIMINARY COCKPIT PREPARATION

TR 1/CNTOR/SPLY (125VU CF01) C/B Pull

On the ELEC SD page, disregard the indications related to the deactivated TR 1.

On the ELEC SD page, check that the TR 2 and the ESS TR voltages are both equal to or above 27 V.

The batteries must be set to OFF for the following check : On the battery voltage indicator, check that the BAT 1 and the BAT 2 voltages are both equal to or above 25.5 V.

24-32-01B TR 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

TR 2 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The AC ESS FEED control is checked operative every day, and
- 3) The standby IAS indicator is operative, and
- 4) The standby altimeter is operative, and
- 5) The standby horizon is operative, and
- 6) The standby compass is operative.

_____Reference(s)_____

(o) *OpsProc 24-32-01B DC Main Generation (TR 2 inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING PRELIMINARY COCKPIT PREPARATION

TR 2/CNTOR/SPLY (124VU BC01) C/B..... Pull

On the ELEC SD page, disregard the indications related to the deactivated TR 2.

On the ELEC SD page, check that the TR 1 and the ESS TR voltages are both equal to or above 27 V.

On the battery voltage indicator, check that the BAT 1 and the BAT 2 voltages are both equal to or above 25.5 V.

The batteries must be set to OFF during this check.

AC ESS FEED pb-sw..... ALTN

IN FLIGHT

- In the case of failure of the AC BUS 2, all DUs are lost. In this case:
AC ESS FEED pb-sw Norm
- In the case of failure of the AC BUS 1:
RAT MAN ON pb-sw (on HYD overhead panel) Set

(m) Refer to AMM 24-30-00-040-002

24-32-01	DC Main Generation (TR 1, TR 2)

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

24-32-01A TR 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

TR 1 may be inoperative provided that EDTO is not conducted.

Reference(s)

(o) OpsProc 24-32-01A DC Main Generation (TR 1 inoperative)

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

DURING PRELIMINARY COCKPIT PREPARATION

TR 1/CNTOR/SPLY (125VU CF01) C/B Pull

On the ELEC SD page, disregard the indications related to the deactivated TR 1.

On the ELEC SD page, check that the TR 2 and the ESS TR voltages are both equal to or above 27 V.

The batteries must be set to OFF for the following check : On the battery voltage indicator, check that the BAT 1 and the BAT 2 voltages are both equal to or above 25.5 V.

24-32-01B TR 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

TR 2 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The AC ESS FEED control is checked operative every day, and
- 3) The ISIS airspeed indication is operative, and
- 4) The ISIS altitude indication is operative, and
- 5) The ISIS attitude indication is operative, and
- 6) The standby compass is operative.

Reference(s)

(o) *OpsProc 24-32-01B DC Main Generation (TR 2 inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING PRELIMINARY COCKPIT PREPARATION

TR 2/CNTOR/SPLY (124VU BC01) C/B Pull

On the ELEC SD page, disregard the indications related to the deactivated TR 2.

On the ELEC SD page, check that the TR 2 and the ESS TR voltages are both equal to or above 27 V.

On the battery voltage indicator, check that the BAT 1 and the BAT 2 voltages are both equal to or above 25.5 V.

The batteries must be set to OFF during this check.

AC ESS FEED pb-sw ALTN

IN FLIGHT

- In the case of failure of the AC BUS 2, all DUs are lost. In this case:

- AC ESS FEED pb-sw Norm
- In the case of failure of the AC BUS 1:

RAT MAN ON pb-sw (on HYD overhead panel) Set

(m) Refer to AMM 24-30-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-34 - DC Emergency Generation (ESS TR)

24-34-01	DC Emergency Generation (ESS TR)

Applicable to: ALL

24-34-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-35 - DC Essential and Normal Generation Switching

24-35-01	DC TIE Contactor 1PC1 (DC BUS 1-DC BAT BUS), 4PC (DC ESS BUS-DC BAT BUS)

Applicable to: ALL

24-35-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative in the open position.

24-35-02

DC TIE Contactor 1PC2 (DC BUS 2-DC BAT BUS)

Applicable to: ALL

24-35-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-38 - DC Battery Generation

24-38-01	BAT 1(2) Channel

Applicable to: ALL

24-38-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-38 - DC Battery Generation

24-38-02	Battery Charger Limiter (BCL)

Applicable to: ALL

24-38-02A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)(m)

- One may be inoperative for 10 flights provided that:
- 1) EDTO is not conducted, and
 - 2) No APU start is attempted neither on ground nor in flight, and
 - 3) Both AC main generations are operative, and
 - 4) The refueling is made with an external power unit connected, and
 - 5) The battery associated with the inoperative BCL is charged before each flight.

_____Reference(s)_____

(o) *OpsProc 24-38-02A Battery Charger Limiter (BCL)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Do not start the APU.

Use a ground power unit to start the engines on ground.

DURING PRELIMINARY COCKPIT PREPARATION

- If BAT 1 is affected:
BAT 1 pb-sw..... OFF
- If BAT 2 is affected:
BAT 2 pb-sw..... OFF

(m) *Refer to AMM 24-30-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-38 - DC Battery Generation

24-38-03	Battery Voltmeter

Applicable to: ALL

24-38-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated voltage indication is operative on the ELEC SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 24 - ELECTRICAL POWER 24-41 - AC External Power Control

24-41-01	Ground Power Control Unit (GPCU or GAPCU Ground Power Control function)

Applicable to: ALL

24-41-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

Note: When the GPCU/GAPCU Ground Power Control function and the APU Generator are both inoperative, the engines cannot be started.

24-41-02

External Power Receptacle

Applicable to: ALL

24-41-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the receptacle is placarded inoperative and not used.

Note: When the GPCU/GAPCU Ground Power Control function and the APU Generator are both inoperative, the engines cannot be started.

Reference(s)

(m) Refer to AMM 24-41-00-040-001

ATA 25

Equipment / Furnishings

25-07-01

Passenger Door Slide Permanently Indicated Armed on the DOOR/OXY SD page

Applicable to: A320

25-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be permanently indicated in the armed position provided that the associated slide is visually checked to be armed before each flight.

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

Reference(s)

- (o) OpsProc 25-07-01A Passenger Door/Cabin Passenger Door - Emergency Exit Slide Permanently Indicated Armed on the DOOR/OXY SD page

Applicable to: A320

ON GROUND

Cabin crew must confirm before each flight that the associated slide is armed.

25-07-01

Cabin Passenger Door / Emergency Exit Slide Permanently Indicated Armed on the DOOR/OXY SD page

Applicable to: A321

25-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	(o)

One or more may be permanently indicated in the armed position provided that the associated slide is visually checked to be armed before each flight.

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

Reference(s)

- (o) Refer to OpsProc 25-07-01A Passenger Door/Cabin Passenger Door - Emergency Exit Slide Permanently Indicated Armed on the DOOR/OXY SD page

Applicable to: A321

ON GROUND

Cabin crew must confirm before each flight that the associated slide is armed.

25-07-02

Passenger Door Slide Permanently Indicated Not Armed on the
DOOR/OXY SD page

Applicable to: A320

25-07-02A Associated door considered operative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be permanently indicated in the not armed position provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated slide is visually checked to be armed before each flight.

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

Reference(s)

- (o) OpsProc 25-07-02A Passenger Door/Cabin Passenger Door - Emergency Exit Slide
Permanently Indicated Not Armed on the DOOR/OXY SD page

Applicable to: A320

ON GROUND

Cabin crew must confirm before each flight that the associated slide is armed.

25-07-02B Associated door considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	

One may be permanently indicated in the not armed position provided that the associated door is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

25-07-02

Cabin Passenger Door / Emergency Exit Slide Permanently Indicated
 Not Armed on the DOOR/OXY SD page

Applicable to: A321

25-07-02A Associated door considered operative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	(o)

One or more may be permanently indicated in the not armed position provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated slide is visually checked to be armed before each flight.

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

Reference(s)

- (o) OpsProc 25-07-02A Passenger Door/Cabin Passenger Door - Emergency Exit Slide
 Permanently Indicated Not Armed on the DOOR/OXY SD page

Applicable to: A321

ON GROUND

Cabin crew must confirm before each flight that the associated slide is armed.

25-07-02B Associated door considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	7	

One may be permanently indicated in the not armed position provided that the associated door is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

25-07-03

Overwing Emergency Exit Slide Permanently Indicated Armed on the
DOOR/OXY SD page

Applicable to: A320

25-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be permanently indicated in the armed position provided that the associated slide is visually checked to be armed before the first flight of the day.

Note: The correct indication may be recovered by performing the AMM task 52-70-00-040-007.

Reference(s)

(m) Refer to AMM 52-70-00-040-008

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-07 - Indications on the DOOR/OXY SD page

25-07-04	Overwing Emergency Exit Slide Permanently Indicated Not Armed on the <u>DOOR/OXY</u> SD page

Applicable to: A320

25-07-04A Overwing emergency exits considered operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be permanently indicated in the not armed position provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated slide is visually checked to be armed before the first flight of the day.

Note: *The correct indication may be recovered by performing the AMM task 52-70-00-040-007.*

Reference(s)

(m) Refer to AMM 52-70-00-040-009

25-07-04B Overwing Emergency exits considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be permanently indicated in the not armed position provided that both overwing emergency exits on the same side are considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-01	Pilot Seat Manual Horizontal Adjustment

Applicable to: ALL

25-11-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

25-11-02

Pilot Seat Manual Vertical Adjustment

Applicable to: ALL

25-11-02A Associated electrical control operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated electrical control is operative.

25-11-02B Associated electrical control inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the seating position is acceptable to the affected crewmember.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-03	Pilot Seat Recline Adjustment

Applicable to: ALL

25-11-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the seat is secured in an upright position acceptable to the affected crewmember.

Reference(s)

(m) Refer to AMM 25-11-00-040-001

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-04	Pilot Seat Other Manual Adjustments

Applicable to: ALL

25-11-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more may be inoperative provided that the seating position is acceptable to the affected crewmember.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-05	Pilot Seat Electrical Adjustment

Applicable to: ALL

25-11-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the electrical adjustment of the associated seat is deactivated.

_____Reference(s)_____

(m) Refer to AMM 25-11-00-040-002

25-11-06

Pilot Seat Shoulder Harness

Applicable to: ALL

25-11-06A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)

May be inoperative on the F/O seat for three flights.

Reference(s)

(o) *OpsProc 25-11-06A Pilot Seat Shoulder Harness*

Applicable to: ALL

BEFORE TAKEOFF

The takeoff briefing should include the status of the affected seat and the position to be adopted by the F/O in the case of RTO.

To cope with any potential RTO:

The F/O must tightly fasten operative harness strap.

DURING FLIGHT

For any phase of flight in turbulence atmosphere:

The F/O must fasten the belts accordingly.

BEFORE LANDING

The landing briefing should include the status of the affected seat and the position to be adopted by the F/O in the case of high deceleration at landing.

To cope with any potential high deceleration at landing:

The F/O must tightly fasten operative harness straps.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-07	Pilot Seat Fifth Strap

Applicable to: ALL

25-11-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(o)

One or both may be inoperative.

_____Reference(s)_____

(o) *Refer to OpsProc 25-11-07A Pilot Seat Fifth Strap*

Applicable to: ALL

DURING FLIGHT

To cope with any potential turbulence situation:

The crewmember of the affected seat must tightly fasten the operative harness straps.

25-11-08

Pilot Sidestick Armrest Height Adjustment

Applicable to: ALL

25-11-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated armrest position is acceptable to the affected crewmember.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-09	Pilot Sidestick Armrest Pitch Adjustment

Applicable to: ALL

25-11-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated armrest position is acceptable to the affected crewmember.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-10	Pilot Sidestick Armrest Memory Position Display

Applicable to: ALL

25-11-10A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-11	Pilot Inboard Armrest Vertical Adjustment

Applicable to: ALL

25-11-11A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-11 - Pilot Seats

25-11-12	Pilot Seat Headrest

Applicable to: ALL

25-11-12A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-12 - Third and Fourth Occupant Seats

25-12-01	Third Occupant Seat

Applicable to: ALL

25-12-01A Seat stowed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the seat is in its stowed position.

25-12-01B Seat removed

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(m)

May be removed.

_____Reference(s)_____

(m) Refer to AMM 25-11-00-040-003

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-12 - Third and Fourth Occupant Seats

25-12-02	Third Occupant Seat Shoulder Harness

Applicable to: ALL

25-12-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the seat is not occupied during takeoff and landing.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-12 - Third and Fourth Occupant Seats

25-12-03	Third Occupant Seat Abdominal Belt

Applicable to: ALL

25-12-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

- May be inoperative provided that:
- 1) The seat is placarded inoperative, and
 - 2) The seat is not occupied.

25-12-04

Third Occupant Seat Fifth Strap

Applicable to: ALL

25-12-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 25-12-04A Third Occupant Seat Fifth Strap*

Applicable to: ALL

DURING FLIGHT

To cope with any potential turbulence situation:

The third occupant must tightly fasten the operative harness straps.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-12 - Third and Fourth Occupant Seats

25-12-05	Fourth Occupant Seat

Applicable to: ALL

25-12-05A Seat stowed

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that the seat is in its stowed position and can be folded away.

25-12-05B Seat removed

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(m)

May be removed.

_____Reference(s)_____

(m) Refer to AMM 25-11-00-040-004

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-12 - Third and Fourth Occupant Seats

25-12-06	Fourth Occupant Seat Shoulder Harness

Applicable to: ALL

25-12-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that the seat is not occupied during takeoff and landing.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-12 - Third and Fourth Occupant Seats

25-12-07	Fourth Occupant Seat Abdominal Belt

Applicable to: ALL

25-12-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

- May be inoperative provided that:
- 1) The seat is placarded inoperative, and
 - 2) The seat is not occupied.

25-12-08

Fourth Occupant Seat Fifth Strap

Applicable to: ALL

25-12-08A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 25-12-08A Fourth Occupant Seat Fifth Strap*

Applicable to: ALL

DURING FLIGHT

To cope with any potential turbulence situation:

The fourth occupant must tightly fasten the operative harness straps.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-13 - Lining and Furnishings

25-13-01	Pilot Sliding Table

Applicable to: ALL

25-13-01A Table stowed

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative in its stowed position.

25-13-01B Table removed

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(m)

One or both may be removed.

_____Reference(s)_____

(m) Refer to AMM 25-13-00-040-001

25-13-02

Pilot Retractable Footrest

Applicable to: ALL

25-13-02A Footrest stowed

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative in its stowed position.

25-13-02B Footrest removed

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	(m)

One or more may be removed.

_____Reference(s)_____

(m) Refer to AMM 25-13-00-040-002

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-20 - Cabin Seats

25-20-01	Passenger Seat

Applicable to: ALL

25-20-01A Passenger Seat

Repair interval	Nbr installed	Nbr required	Procedure
D	135 ~ 200	–	(m)

May be inoperative provided that:

- 1) Seat does not block an emergency exit,
- 2) Seat does not restrict any passenger from access to the main aircraft aisle,
- 3) Affected seat(s) is blocked and placarded DO NOT OCCUPY.

- Note:
- 1) A seat with an inoperative seat belt is considered inoperative.
 - 2) Inoperative seats do not affect the required number of flight attendants.
 - 3) Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats.
 - 4) A random of 60% of passenger seats may be inoperative.

_____Reference(s)_____

(m) Block the affected seat.

25-20-01B Passenger Seat–Recline Mechanism–Seat Secured Up-Right

Repair interval	Nbr installed	Nbr required	Procedure
D	135 ~ 200	–	(m)

May be inoperative and seat occupied provided seat is secured in the full up-right position.

_____Reference(s)_____

(m) Non-Electrical Actuation :

1. Manually return the seat to the upright position by depressing the recline control button.
2. If the manual cable does not function, use the control head attached to the hydrolock.
Depress the control head of the hydrolock, until the seat has been returned to the full upright position.
3. After the seat has been returned to upright, remove the recline control head from the hydrolock. This will prevent any further movement of the back assemblies.

25-20-01C Passenger Seat–Recline Mechanism–Immovable Seat Back

Repair interval	Nbr installed	Nbr required	Procedure
D	135 ~ 200	–	

May be inoperative and seat occupied provided seat back is immovable in full upright position.

25-20-01D Passenger Seat–Under seat Baggage Restraining Bars

Repair interval	Nbr installed	Nbr required	Procedure
C	62 ~ 68	–	(o)

May be inoperative provided that:

- 1) Baggage is not stowed under seat with inoperative restraining bar,
- 2) Associated seat is placarded DO NOT STOW BAGGAGE UNDER THIS SEAT,
- 3) Procedures are established to alert cabin crew of inoperative restraining bars.

Reference(s)

(o) For an inoperative under seat baggage restraining bar, alert cabin crew prior to flight.

25-20-01E Passenger Seat–Armrest

Repair interval	Nbr installed	Nbr required	Procedure
D	–	–	

May be inoperative, damaged or missing, provided that:

- 1) The affected armrest does not block an emergency exit,
- 2) The affected armrest does not restrict any passengers from access to the aircraft aisle.
- 3) If armrest with recline mechanism is missing, that seat is secured in the full upright position.

Refer to 25-20-01B

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-20 - Cabin Seats

25-20-03	Cabin Attendant Seat

Applicable to: ALL

25-20-03A Non-Required Cabin Attendant Seat

Repair interval	Nbr installed	Nbr required	Procedure
D	4 ~ 0	0	(o)(m)

One or more non-required cabin attendant seats may be inoperative or not usable provided that the affected seat is secured in its stowed position or removed.

- Note: 1) A cabin attendant seat with an inoperative or missing seat belt or harness should be considered inoperative.
- 2) For a seat position with non required or required cabin attendant seat, refer to the following figure.

Reference(s)

(o) OpsProc 25-20-03A Cabin Attendant Seat

Applicable to: ALL

The cabin attendant assigned to the affected seat must occupy a passenger seat as close to or closer than the nearest seated passenger to the associated exit. The cabin attendant must be able to reach the assigned emergency exit in essentially the same time as from the normally assigned seat, i.e., a 2 or 3 second time difference is considered “essentially the same time”

Note: Refer to the following figure for the non-required or required cabin attendant seats.

Note: The following shading areas indicate required cabin attendant seats. (Cabin configurations may be different from each aircraft but the locations of Required Cabin Attendant Seats are the same in each figure).

FIGURE 1. A320-200 Non-required & Required Cabin Attendant Seat

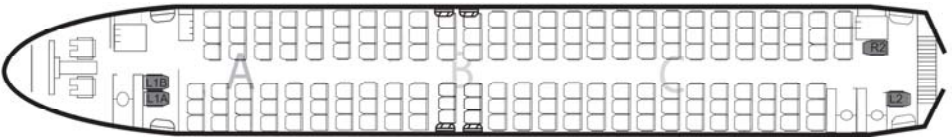
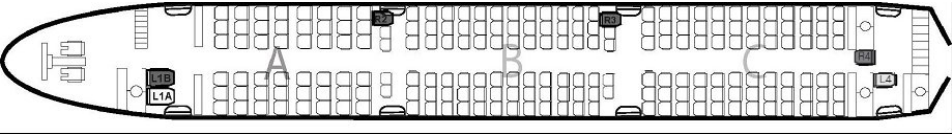


FIGURE 2. A321-100 Non-required & Required Cabin Attendant Seat



ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-20 - Cabin Seats

FIGURE 3. A321-200 except HL7767 Non-required & Required Cabin Attendant Seat

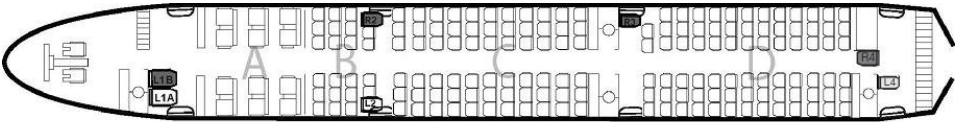
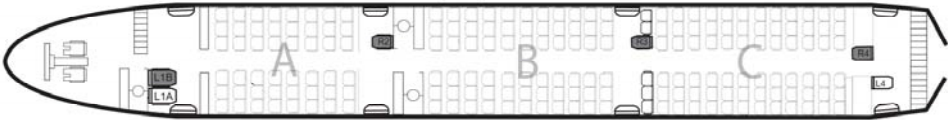


FIGURE 4. HL7767 Non-required & Required Cabin Attendant Seat



(m) Refer to AMM 25-22-00-040-001

25-20-03B Required cabin attendant seat inoperative using a non required cabin attendant seat

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(o)(m)

- One required cabin attendant seat may be inoperative or not usable provided that:
- 1) The cabin attendant assigned to the affected seat occupies the adjacent non-required cabin attendant seat or the cabin attendant seat that is nearest to the associated exit, and
 - 2) The non-required cabin attendant seat to be used by cabin attendant is correctly placarded, and
 - 3) The cabin attendant can reach assigned exit and emergency equipment in nearly the same time as from normally assigned seat, and
 - 4) The direct view of passengers by cabin attendants is not impaired, and
 - 5) The alternate procedures are established for displaced cabin attendant according to Cabin Crew Manual, and
 - 6) The affected seat is secured in its stowed position or removed..

Note: A cabin attendant seat with an inoperative or missing seat belt or harness should be considered inoperative.

Reference(s)

- (o) Refer to OpsProc 25-20-03B Cabin Attendant Seat
Refer to item 25-20-03A (o)procedure

GENERAL INFORMATION

The direct view of passenger cabin by flight attendants pertains to direct visual contact between the flight attendants and the passenger cabin. It is considered that at least 80 % of the total number of passenger seats installed, 50 % of the seats in each divided zone, should be visible to flight attendants.

(m) Refer to AMM 25-22-00-040-001

25-20-03C Required cabin attendant seat inoperative using a passenger seat

Repair interval	Nbr installed	Nbr required	Procedure
B	4	3	(o)(m)

One required cabin attendant seat may be inoperative or not usable provided that:

- 1) The cabin attendant assigned to the affected seat occupies the passenger seat that is nearest to the associated exit, with no passenger seated nearer to the exit than the cabin attendant, and
- 2) The passenger seat to be used by cabin attendant is correctly placarded, and
- 3) The cabin attendant can reach assigned exit and emergency equipment in nearly the same time as from normally assigned seat, and
- 4) The direct view of passengers by cabin attendants is not impaired, and
- 5) The alternate procedures are established for displaced cabin attendant according to Cabin Crew Manual, and
- 6) The affected seat is secured in its stowed position or removed.

Note: A cabin attendant seat with an inoperative or missing seat belt or harness should be considered inoperative.

_____Reference(s)_____

(o) Refer to OpsProc 25-20-03C Cabin Attendant Seat

Refer to item 25-20-03A (o)procedure

GENERAL INFORMATION

The direct view of passenger cabin by flight attendants pertains to direct visual contact between the flight attendants and the passenger cabin. It is considered that at least 80 % of the total number of passenger seats installed, 50 % of the seats in each divided zone, should be visible to flight attendants.

(m) Refer to AMM 25-22-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-35 - Galley Equipment

25-35-01	Galley Waste Compartment Flapper Door

Applicable to: ALL

25-35-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

One or more may be inoperative or missing provided that:

- 1) The galley waste compartment is empty, and
- 2) The associated access is secured in the closed position to prevent waste introduction.

Note: *Non-safety related galley equipment is not listed in this MEL.*

_____Reference(s)_____

(o) *OpsProc 25-35-01A Galley Waste Compartment Flapper Door*

Applicable to: ALL

Ensure that sufficient galley waste receptacle are available to accommodate all waste that may be generated.

(m) *Refer to AMM 25-35-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-40 - Lavatories

25-40-01	Toilet Waste Compartment Flapper Door

Applicable to: ALL

25-40-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	(o)(M)

One or more may be inoperative or missing provided that:

- 1) The toilet waste compartment is empty, and
- 2) The associated access is secured in the closed position to prevent waste introduction.

Note: *Non-safety related toilet equipment is not listed in this MEL.*

_____Reference(s)_____

(o) *OpsProc 25-40-01A Toilet Waste Compartment Flapper Door*

Applicable to: ALL

Ensure that cabin crewmembers are aware that the toilet waste compartment is unusable.

(m) *Refer to AMM 25-40-00-040-001*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-40 - Lavatories

25-40-02	Exterior Lavatory Ashtray

Applicable to: ALL

25-40-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	3 ~ 4	0	

One or more may be damaged or missing provided that the flight is non-smoking.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-40 - Lavatories

25-40-03	Interior Lavatory Ashtray

Applicable to: ALL

25-40-03A Lavatory fire extinguishing system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	

One or more may be damaged or missing provided that the associated lavatory fire extinguishing system is operative.

25-40-03B Lavatory locked closed

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	2	

One or more may be damaged or missing provided that the associated lavatory is locked closed and placarded inoperative.

Refer to item 38-11-01B Lavatory Not Used

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-50 - Cargo Compartments

25-50-01	Cargo Loading System

Applicable to: ALL

25-50-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	

Refer to Weight and Balance Manual.
Contact OCC for Load Master or Center of Load Control(CLC).

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-50 - Cargo Compartments

25-50-02	Decompression Panels in the Cargo Compartments

Applicable to: ALL

25-50-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	32 ~ 41	0	

One or more may be damaged or missing provided that the associated cargo compartment is empty or does not contain flammable or combustible materials.

25-50-03

Sidewall Linings and Ceiling Panels in the Cargo Compartments

Applicable to: ALL

25-50-03A Damaged panel

Repair interval	Nbr installed	Nbr required	Procedure
C	38 ~ 47	0	

One or more may be damaged provided that the associated cargo compartment is empty or does not contain flammable or combustible materials.

25-50-03B Missing panel

Repair interval	Nbr installed	Nbr required	Procedure
C	38 ~47	0	

One or more may be missing provided that the associated cargo compartment is empty.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-50 - Cargo Compartments

25-50-04	Cargo Compartment Restraint Components (Nets, Attach Points, Stanchions)

Applicable to: ALL

25-50-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	

Refer to Weight and Balance Manual.
Contact OCC for Load Master or Center of Load Control(CLC).

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-50 - Cargo Compartments

25-50-05	Protection Panels of Decompression Panels at the FWD Partition Wall of FWD Cargo Compartment

Applicable to: ALL

25-50-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	6	0	(m)

One or more may be damaged provided that:

- 1) The affected protection panel is removed if the damage prevents correct operation of the decompression panel, and
- 2) Bulk loading is not permitted in the section between the affected protection panel and the closest divider net.

_____Reference(s)_____

(m) Refer to AMM 25-54-00-040-801

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-62 - Cabin Escape Facilities

25-62-01	Cabin Passenger Door Slide or Slide Raft

Applicable to: ALL

25-62-01A Slide inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	

One may be inoperative provided that the associated door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

25-62-01B Slide removed

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(m)

One may be removed provided that the associated door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

_____Reference(s)_____

(m) Refer to AMM 52-10-00-040-001 and (or) 52-10-00-040-001- 01

25-62-02

Overwing Emergency Exit Slide or Slide Raft

Applicable to: A320

25-62-02A Slide inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the associated overwing emergency exit is considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

Note: When an overwing escape slide is inoperative, both emergency exits on the same side are considered inoperative.

25-62-02B Slide removed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(M)

One may be removed provided that the associated overwing emergency exit is considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

Note: When an overwing escape slide is inoperative, both emergency exits on the same side are considered inoperative.

Reference(s) _____

(m) Refer to AMM 25-62-00-040-006

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-62 - Cabin Escape Facilities

25-62-03	Emergency Exit Slide or Slide Raft

Applicable to: A321

25-62-03A Slide Inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	

One may be inoperative provided that the associated emergency exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

25-62-03B Slide Removed

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(m)

One may be removed provided that the associated emergency exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

_____Reference(s)_____

(m) *Refer to AMM 25-62-00-040-007*

25-62-04

SLIDE ARMED light

Applicable to: A320

25-62-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	6	0	

One or more may be inoperative.

25-62-04

SLIDE ARMED light

Applicable to: A321

25-62-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	

One or more may be inoperative.

	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-62 - Cabin Escape Facilities

25-62-05	Survival Kit

Applicable to: ALL EXCEPT HL7594, HL7703

25-62-05A Non extended overwater flight

Repair interval	Nbr installed	Nbr required	Procedure
D	4	1	(o)

One must be operative provided that extended overwater flight is not conducted.

Note: This MEL item is applicable to survival kits installed separately from rafts.

Note: If a seal of survival kit is broken or missing and survival kit is checked operative by the flight crew and cabin crew before each flight, it can be considered operative until ICN or GMP airport.

_____Reference(s)_____

(o) Flight crew brief the cabin crew on incomplete, missing or inoperative survival kit.

25-62-05B Extended overwater flight

Repair interval	Nbr installed	Nbr required	Procedure
–	4	–	(o)

For extended overwater flight, one may be incomplete, missing, or inoperative provided that the affected door slide raft is considered inoperative. Refer to Item 52-10-01 Cabin Passenger Door.

Note: This MEL item is applicable to survival kits installed separately from rafts.

Note: If a seal of survival kit is broken or missing and survival kit is checked operative by the flight crew and cabin crew before each flight, it can be considered operative until ICN or GMP airport.

_____Reference(s)_____

(o) Flight crew brief the cabin crew on incomplete, missing or inoperative survival kit.

25-62-06

Passenger Door SLIDE PRESS LOW Message on Programming and Test Panel (PTP) STATUS Page

Applicable to: HL7737, HL7738

25-62-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	(M)

One or more messages may be displayed provided that the slide bottle pressure is checked before the first MEL dispatch and then every 600 flight hours or every 4 months, whichever occurs first.

Reference(s)

(m) Refer to AMM 25-62-00-040-008

25-62-06

Passenger Door SLIDE PRESS LOW Message on Programming and Test Panel (PTP) STATUS Page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

25-62-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	(M)

One or more messages may be displayed provided that the slide bottle pressure is checked before the first MEL dispatch and then every 600 flight hours or every 4 months, whichever occurs first.

Reference(s)

(m) Refer to AMM 25-62-00-040-008

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-62 - Cabin Escape Facilities

25-62-06	Passenger Door CHECK SLIDE PRESSURE Message on Flight Attendant Panel (FAP)

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

25-62-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	(M)

One or more messages may be displayed provided that the slide bottle pressure is checked before the first MEL dispatch and then every 600 flight hours or every 4 months, whichever occurs first.

_____Reference(s)_____

(m) Refer to AMM 25-62-00-040-009

25-62-06	Passenger Door CHECK SLIDE PRESSURE Message on Flight Attendant Panel (FAP)

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

25-62-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	(M)

One or more messages may be displayed provided that the slide bottle pressure is checked before the first MEL dispatch and then every 600 flight hours or every 4 months, whichever occurs first.

_____Reference(s)_____

(m) Refer to AMM 25-62-00-040-009

25-62-07

Overwing Emergency Exit SLIDE PRESS LOW Message on
 Programming and Test Panel (PTP) STATUS Page

Applicable to: HL7737, HL7738

25-62-07A Check of the slide bottle pressure

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(M)

One or both messages may be displayed provided that the associated slide bottle pressure is checked before the first flight of each day.

Reference(s) _____

(m) Refer to AMM 25-62-00-040-001

25-62-07B Overwing emergency exits considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both messages may be displayed provided that both overwing emergency exits on the same side are considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

25-62-07

Overwing Emergency Exit CHECK SLIDE PRESSURE Message on
 Flight Attendant Panel (FAP)

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

25-62-07A Check of the slide bottle pressure

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(M)

One or both messages may be displayed provided that the associated slide bottle pressure is checked before the first flight of each day.

Reference(s) _____

(m) Refer to AMM 25-62-00-040-005

25-62-07B Overwing emergency exits considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both messages may be displayed provided that both overwing emergency exits on the same side are considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

25-62-08

Overwing Escape Life Line

Applicable to: A320

25-62-08A Associated overwing emergency exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative or missing provided that the associated overwing emergency exit is considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

25-62-08B Non extended overwater flight

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative or missing provided that extended overwater flight is not conducted.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-63 - Evacuation Signaling Equipment

25-63-01	Emergency Evacuation Signaling System (COMMAND pb-sw, HORN SHUT OFF pb, CAPT&PURS and CAPT sw)

Applicable to: ALL

25-63-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

_____Reference(s)_____

- (o) *OpsProc 25-63-01A Emergency Evacuation Signaling System (COMMAND pb-sw, HORN SHUT OFF pb, CAPT&PURS and CAPT sw)*

Applicable to: ALL

GENERAL INFORMATION

If necessary, the information will be given through the passenger address system or the cabin interphone system.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-64 - First Aid Equipment

25-64-01	First Aid Kit

Applicable to: ALL

25-64-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	3	1	(o)

Aircraft is not dispatched from Gimpo or Incheon airport.

May be incomplete, missing or inoperative provided:

- 1) Inoperative FAKs are resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit.
- 2) Repairs or replacements are made within 3 flight cycles.

_____Reference(s)_____

- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative FAK

25-64-01B

Repair interval	Nbr installed	Nbr required	Procedure
D	3	2	(o)

One may be incomplete, missing or inoperative

_____Reference(s)_____

- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative FAK

25-64-02

Emergency Medical Kit

Applicable to: ALL

25-64-02A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

Aircraft is not dispatched from Gimpo or Incheon airport.

May be incomplete, missing or inoperative provided:

- 1) Inoperative EMK is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit.
- 2) Repairs or replacements are made within 3 flight cycles.

Reference(s)

- (o) EMK. Flight crew brief the cabin crew on incomplete, missing or inoperative EMK

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-64 - First Aid Equipment

25-64-03	Automated External Defibrillator (AED)

Applicable to: ALL

25-64-03A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

- Aircraft is not dispatched from Gimpo or Incheon airport.
May be incomplete, missing or inoperative provided:
- 1) Inoperative AED is resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit.
 - 2) Repairs or replacements are made within 3 flight cycles.
- _____Reference(s)_____
- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative AED

25-64-04

Universal Precaution Kit (UPK)

Applicable to: ALL

25-64-04A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	(o)

Aircraft is not dispatched from Gimpo or Incheon airport.

May be incomplete, missing or inoperative provided:

- 1) Inoperative UPKs are resealed in a manner that will identify it as a unit that cannot be mistaken for a fully serviceable unit.
- 2) Repairs or replacements are made within 3 flight cycles.

_____Reference(s)_____

- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative UPK.

25-64-04B

Repair interval	Nbr installed	Nbr required	Procedure
D	2	1	(o)

One may be incomplete, missing or inoperative

_____Reference(s)_____

- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative UPK.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-65 - Emergency Equipment

25-65-01	Cockpit Flashlight

Applicable to: ALL

25-65-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

May be inoperative or missing provided that:

- 1) For day operations, or
- 2) For night operations, the Captain and First Officer have an operable flashlight readily available.

Note: *The Captain & First Officer must have an operable flashlight readily available according to FOM 4.1.7.1.*

25-65-02

Cabin Flashlight

Applicable to: ALL

25-65-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	4 ~ 7	3 ~ 4	

May be inoperative or missing provided the crew member assigned to the affected position has a normally operating flashlight readily available.

Note: The installed numbers and minimum numbers for dispatch are 4 and 3 EA for A320, 6 and 4 EA for A321-100, and 7 and 4 EA for A321-200 respectively.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-65 - Emergency Equipment

25-65-03	Crash Axe

Applicable to: ALL

25-65-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

25-65-04

Emergency Locator Transmitter (ELT)

Applicable to: ALL

25-65-04A Portable ELT(A320 Only)

Repair interval	Nbr installed	Nbr required	Procedure
D	2	1	

One may be inoperative or missing.

25-65-04B Portable ELT

Repair interval	Nbr installed	Nbr required	Procedure
A	A321:1 A320:2	0	

All may be inoperative or missing with operative automatic fixed ELT

1) Replacement is made within 10 days.

25-65-04C Automatic(Fixed) ELT

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

Automatic ELT may be inoperative provided that:

- 1) One portable ELT is operative,
- 2) Repairs are made within 90 days.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-65 - Emergency Equipment

25-65-05	Fireproof Gloves

Applicable to: ALL

25-65-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

One may be damaged or missing.

25-65-06

Megaphone

Applicable to: ALL

25-65-06A

Repair interval	Nbr installed	Nbr required	Procedure
–	2 ~ 3	2 ~ 3	

All must be operative.

Note: NOTE : FLIGHT SAFETY REGULATIONS Requirements

Seat Configuration	Aircraft	Installed Quantity
100 Seats ~ 199 Seats	A321-200, A320-200	2
200 Seats ~	A321-100 Only	3

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-66 - Floatation and Survival Equipment

25-66-01	Life Vest

Applicable to: ALL

25-66-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	–	–	

Any in excess of one life vest for each occupant may be inoperative or missing provided required distribution is maintained.

25-66-02

Supplementary Life Raft

Applicable to: A321-200 EXCEPT HL8236

25-66-02A Non extended overwater flight

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be missing or inoperative provided that :

- 1) Extended overwater flight is not conducted, and
- 2) The inoperative equipment is placarded inoperative.

_____Reference(s)_____

- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative supplementary life raft.

25-66-02B Extended overwater flight

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

For extended overwater flight, one may be incomplete, missing, or inoperative provided::

- 1) A maximum of 165 persons including the flight and cabin crew are carried.
- 2) The inoperative equipment is placarded inoperative.

_____Reference(s)_____

- (o) Flight crew brief the cabin crew on incomplete, missing or inoperative supplementary life raft.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 25 - EQUIPMENT/FURNISHINGS 25-90 - Non-Essential Equipment/Furnishing

25-90-01	Non-Essential Equipment/Furnishing(NEF)

Applicable to: ALL

25-90-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

May be inoperative, damaged or missing provided that item(s) is deferred in accordance with MPPM 12-2-2-2.

ATA 26

Fire Protection

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-00 - MAINTENANCE Message on the STATUS SD page

26-00-01	SDCU <u>MAINTENANCE</u> Message

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

26-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

SDCU MAINTENANCE message may be displayed on the STATUS SD page.

26-00-01	SMOKE <u>MAINTENANCE</u> Message

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

SMOKE MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-01 - Overhead Panels 26-01-01 - FIRE Overhead Panel

26-01-01-01	Bulb/LED in the ENG FIRE-PUSH pb-sw

Applicable to: ALL

26-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	16	8	

A maximum of four bulbs or LEDs may be inoperative in each ENG FIRE-PUSH pb-sw.

26-01-01-02	ENG AGENT pb DISCH light

Applicable to: ALL

26-01-01-02A One inoperative on each engine

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(m)

One may be inoperative on each engine provided that the associated fire extinguisher bottle is checked before the first flight of each day.

_____Reference(s)_____

(m) Refer to AMM 26-21-00-040-001

26-01-01-02B Both inoperative on one engine

Repair interval	Nbr installed	Nbr required	Procedure
A	4	2	(m)

Both may be inoperative on one engine for four flights or 15 flight hours, whichever occurs first, provided that the associated fire extinguisher bottles are checked before each flight.

_____Reference(s)_____

(m) Refer to AMM 26-21-00-040-001

26-01-01-03

ENG AGENT pb SQUIB light

Applicable to: ALL

26-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(m)

One or more may be inoperative provided that the engine extinguishing system firing circuit is checked operative before the first flight of each day.

Reference(s)

(m) Refer to AMM 26-21-00-040-003

26-01-01-04

Bulb/ LED in the APU FIRE-PUSH pb-sw

Applicable to: ALL

26-01-01-04A A maximum of four bulbs or LEDs inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	4	

A maximum of four bulbs or LED s may be inoperative.

26-01-01-04B Five or more bulbs or LEDs inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	

Five or more bulbs or LED s may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The APU is deactivated.

Refer to Item 49-10-01C Power Plant (APU)

26-01-01-05

APU AGENT pb DISCH light

Applicable to: ALL

26-01-01-05A Check of bottle pressure

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the APU fire extinguisher bottle is checked before the first flight of each day.

_____Reference(s)_____

(m) Refer to AMM 26-22-00-040-004

26-01-01-05B APU deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
 Refer to Item 49-10-01C Power Plant (APU)

26-01-01-06

APU AGENT pb SQUIB light

Applicable to: ALL

26-01-01-06A Check of APU extinguishing system firing circuit

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the APU extinguishing system firing circuit is checked operative before the first flight of each day.

_____Reference(s)_____

(m) Refer to AMM 26-22-00-040-005

26-01-01-06B APU deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
Refer to Item 49-10-01C Power Plant (APU)

26-01-01-31	ENG FIRE TEST pb

Applicable to: ALL

26-01-01-31A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that the associated engine fire extinguishing and detection systems are checked operative before the first flight of each day.

Reference(s) _____

(m) *Refer to AMM 26-21-00-040-002*

26-01-01-32	APU FIRE TEST pb

Applicable to: ALL

26-01-01-32A Daily check

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the APU extinguishing system firing circuit and the bottle low pressure detection system are checked operative before the first flight of each day.

Reference(s) _____

(m) *Refer to AMM 26-22-00-040-012*

26-01-01-32B APU deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
 Refer to Item 49-10-01C Power Plant (APU)

26-01-01-33	APU FIRE PUSH pb-sw

Applicable to: ALL

26-01-01-33A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
 Refer to Item 49-10-01C Power Plant (APU)

26-01-01-34	APU AGENT pb

Applicable to: ALL

26-01-01-34A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
 Refer to Item 49-10-01C Power Plant (APU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-01 - Overhead Panels 26-01-02 - CARGO SMOKE Overhead Panel

26-01-02-01	CARGO SMOKE DISCH light

Applicable to: ALL

26-01-02-01A Check of bottle weight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

May be inoperative provided that the associated bottle weight is checked before the first flight of each day.

_____Reference(s)_____

(m) Refer to AMM 26-23-00-040-001

26-01-02-01B Associated bottle considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

May be inoperative provided that the associated bottle is considered inoperative.
Refer to Item 26-23-01 Cargo Agent Bottle

26-01-02-02	CARGO SMOKE DISCH AGENT 2 light

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-01-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the agent bottle 2 is considered inoperative.
Refer to Item 26-23-01 Cargo Agent Bottle

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-12 - Engine Fire and Overheat Detection

26-12-01	Engine Fire Detection Loop A on the Engine 1

Applicable to: ALL

26-12-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The associated detection loop B is operative, and

2) The engine fire test is made before each flight.

Reference(s)

(o) Refer to OpsProc 26-12-01A Engine Fire Detection Loop

ON GROUND OR IN FLIGHT

The Engine fire test is made before each flight.

MEL ITEMS
26 - FIRE PROTECTION
26-12 - Engine Fire and Overheat Detection

26-12-02

Engine Fire Detection Loop A on the Engine 2

Applicable to: ALL

26-12-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The associated detection loop B is operative, and
- 2) The engine fire test is made before each flight.

Reference(s)

(o) Refer to OpsProc 26-12-02A Engine Fire Detection Loop

ON GROUND OR IN FLIGHT

The Engine fire test is made before each flight.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-12 - Engine Fire and Overheat Detection

26-12-03	Engine Fire Detection Loop B on the Engine 1

Applicable to: ALL

26-12-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the engine fire test is made before each flight.

Reference(s)

(o) Refer to OpsProc 26-12-03A Engine Fire Detection Loop

ON GROUND OR IN FLIGHT

The Engine fire test is made before each flight.

26-12-04

Engine Fire Detection Loop B on the Engine 2

Applicable to: ALL

26-12-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The engine fire test is made before each flight.

Reference(s)

(o) Refer to OpsProc 26-12-04A Engine Fire Detection Loop

ON GROUND OR IN FLIGHT

The Engine fire test is made before each flight.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-12 - Engine Fire and Overheat Detection

26-12-05	FIRE light on the ENG MASTER Panel

Applicable to: ALL

26-12-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

26-13-01

APU Fire Detection Loop

Applicable to: ALL

26-13-01A Loop A inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

APU fire detection loop A may be inoperative provided that:

- 1) The APU fire test is made before each APU start, and
- 2) During APU operations on ground, APU condition is continuously monitored in the cockpit.

_____Reference(s)_____

(o) Refer to OpsProc 26-13-01A APU Fire Detection Loop

ON GROUND OR IN FLIGHT

The APU fire test is made before each start.

26-13-01B Loop B inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

APU fire detection loop B may be inoperative provided that:

- 1) The APU fire test is made before each APU start.

_____Reference(s)_____

(o) Refer to OpsProc 26-13-01B APU Fire Detection Loop

ON GROUND OR IN FLIGHT

The APU fire test is made before each APU start.

26-13-01C Both loops inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both loops may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The APU is deactivated.

Refer to Item 49-10-01C Power Plant (APU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-15 - Avionics Compartment Smoke Detection

26-15-01	Avionics Smoke Detection System

Applicable to: ALL

26-15-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that EDTO is not conducted.

Reference(s)

- (o) *Refer to OpsProc 26-15-01A Avionics Smoke Detection System*

Applicable to: ALL

ON GROUND OR IN FLIGHT

Disregard:

- on the VENTILATION overhead panel: the BLOWER pb-sw FAULT light and the EXTRACT pb-sw FAULT light
- on the EMER ELEC PWR overhead panel: the GEN 1 LINE pb-sw SMOKE light

IN FLIGHT

- In the case of an electrical smoke:

Apply the AVNCS SMOKE emergency procedure. *Refer to QRH/ABN-26-Fire Protection-A.SMOKE/FUMES/AVNCS SMOKE.*

26-16-01

Smoke Detector in the FWD Cargo Compartment

Applicable to: HL7737, HL7738

26-16-01A Empty FWD cargo compartment

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

Both detectors in the cavity may be inoperative provided that the FWD cargo compartment is empty.

Note: 1. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.

Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-01B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both detectors in the cavity may be inoperative provided that EDTO is not conducted.

Note: 1. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.

Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-01D Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

Both detectors in the cavity may be inoperative provided that the liner integrity in the FWD cargo compartment is checked before each flight.

Note: 1. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.

Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

_____Reference(s)_____

(m) Refer to AMM 25-50-00-200-002

26-16-01

Smoke Detector in the FWD Cargo Compartment

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

26-16-01A Empty FWD cargo compartment

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

Both detectors in the cavity may be inoperative provided that the FWD cargo compartment is empty.

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-01B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both detectors in the cavity may be inoperative provided that EDTO is not conducted.

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-01D Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

Both detectors in the cavity may be inoperative provided that the liner integrity in the FWD cargo compartment is checked before each flight.

Reference(s) _____

(m) Refer to AMM 25-50-00-200-002

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-01	Smoke Detector in the FWD Cargo Compartment

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

26-16-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

Both detectors in one or both cavities may be inoperative provided that the FWD cargo compartment is empty or does not contain flammable or combustible materials.

- Note:
- Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-01	Smoke Detector in the FWD Cargo Compartment

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-16-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

Both detectors in one or both cavities may be inoperative provided that the FWD cargo compartment is empty or does not contain flammable or combustible materials.

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-02

Smoke Detector in the AFT and the BULK Cargo Compartments

Applicable to: HL7737, HL7738

26-16-02A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

Both detectors in one or both cavities may be inoperative provided that the AFT and the BULK cargo compartments are empty or do not contain flammable or combustible materials.

Note: 1. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-02B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

Both detectors in one or both cavities may be inoperative provided that EDTO is not conducted.

Note: 1. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-02D Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(m)

Both detectors in one or both cavities may be inoperative provided that the liner integrity in the AFT and the BULK cargo compartments is checked before each flight.

Note: 1. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

Reference(s)

(m) Refer to AMM 25-50-00-200-002

26-16-02	Smoke Detector in the AFT and the BULK Cargo Compartments

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

26-16-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	6	0	

Both detectors in one or more cavities may be inoperative provided that the AFT and the BULK cargo compartments are empty or do not contain flammable or combustible materials.

Note: Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page .
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-02	Smoke Detector in the AFT and the BULK Cargo Compartments

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

26-16-02A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

Both detectors in one or both cavities may be inoperative provided that the AFT and the BULK cargo compartments are empty or do not contain flammable or combustible materials.

Note: 1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page .
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-02B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

Both detectors in one or both cavities may be inoperative provided that EDTO is not conducted.

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-16-02D Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(m)

Both detectors in one or both cavities may be inoperative provided that the liner integrity in the AFT and the BULK cargo compartments is checked before each flight.

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

Reference(s) _____

(m) Refer to AMM 25-50-00-200-002

26-16-02	Smoke Detector in the AFT and the BULK Cargo Compartments

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-16-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	6	0	

Both detectors in one or more cavities may be inoperative provided that the AFT and the BULK cargo compartments are empty or do not contain flammable or combustible materials.

- Note:
1. The cargo smoke detection function is part of the CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)
 2. Failure of a single detector in the cavity is indicated by a MAINTENANCE message on the STATUS SD page.
 Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message.

26-17-01

Lavatory Smoke Detection System

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

26-17-01A Associated lavatory fire extinguishing system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	(o)

One or more may be inoperative provided that:

- 1) The associated lavatory fire extinguishing system is operative, and
- 2) A procedure is used to periodically check absence of smoke in the associated lavatory.

Reference(s)

(o) *OpsProc 26-17-01A Lavatory Smoke Detection System*

Applicable to: ALL

Cabin attendant must check absence of smoke in the associated lavatory every one hour as follows.

- To prohibit smoking, and
- To prohibit carriage of inflammable or combustible materials.

26-17-01B Associated lavatory not used

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	2	(o)

One or more may be inoperative provided that:

- 1) The associated lavatory waste receptacle is empty, and
- 2) The associated lavatory door is locked closed and placarded inoperative, and
Refer to item 38-11-01B Lavatory Not Used.
- 3) The lavatory is not used for storage or for any other purpose, and
- 4) A procedure is used to periodically check the absence of smoke in the associated lavatory.

Reference(s)

(o) *OpsProc 26-17-01B Lavatory Smoke Detection System*

Applicable to: ALL

Cabin attendant must check absence of smoke in the associated lavatory every one hour as follows.

- To prohibit smoking, and
- To prohibit carriage of inflammable or combustible materials.

26-17-01

Lavatory Smoke Detection System

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-17-01A Associated lavatory fire extinguishing system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	(o)

One or more may be inoperative provided that:

- 1) The associated lavatory fire extinguishing system is operative, and
- 2) A procedure is used to periodically check absence of smoke in the associated lavatory.

Note: The lavatory smoke detection function is part of CIDS Smoke Detection Function (CIDS - SDF). Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

Reference(s)

(o) OpsProc 26-17-01A Lavatory Smoke Detection System

Applicable to: ALL

Cabin attendant must check absence of smoke in the associated lavatory every one hour as follows.

- To prohibit smoking, and
- To prohibit carriage of inflammable or combustible materials.

26-17-01B Associated lavatory not used

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	(o)

One or more may be inoperative provided that:

- 1) The associated lavatory waste receptacle is empty, and
- 2) The associated lavatory door is locked closed and placarded inoperative, and
Refer to item 38-11-01B Lavatory Not Used.
- 3) The lavatory is not used for storage or for any other purpose, and
- 4) A procedure is used to periodically check the absence of smoke in the associated lavatory.

Note: The lavatory smoke detection function is part of CIDS Smoke Detection Function (CIDS - SDF). Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

Reference(s)

(o) OpsProc 26-17-01B Lavatory Smoke Detection System

Applicable to: ALL

Cabin attendant must check absence of smoke in the associated lavatory every one hour as follows.

- To prohibit smoking, and
- To prohibit carriage of inflammable or combustible materials.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-17 - Lavatory Smoke Detection

26-17-02	Smoke Detection Control Unit (SDCU)

Applicable to: HL7737, HL7738

26-17-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The FWD , AFT, and BULK cargo smoke detection systems are considered inoperative, and
- 2) The lavatory smoke detection system is considered inoperative.
*Refer to Item 26-16-01 Smoke Detector in the FWD Cargo Compartment , and
Refer to Item 26-16-02 Smoke Detector in the AFT and the BULK Cargo Compartments , and
Refer to Item 26-17-01 Lavatory Smoke Detection System*

Note: Failure of a single SDCU channel is indicated by a MAINTENANCE message on the STATUS SD page .
Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

26-17-02	Smoke Detection Control Unit (SDCU)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

26-17-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The FWD, AFT, and BULK cargo compartments are empty or do not contain flammable or combustible materials, and
- 2) The lavatory smoke detection system is considered inoperative.
Refer to Item 26-17-01 Lavatory Smoke Detection System

Note: Failure of a single SDCU channel is indicated by a MAINTENANCE message on the STATUS SD page .
Refer to Item 26-00-01 SDCU/SMOKE MAINTENANCE Message

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-22 - APU Fire Extinguishing

26-22-01	APU Automatic Fire Extinguishing Control on Ground

Applicable to: ALL

26-22-01A APU operations on ground monitored

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU condition is continuously monitored in the cockpit during APU operations on ground.

26-22-01B APU deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
Refer to Item 49-10-01C Power Plant (APU)

26-22-02

APU Fire Extinguisher Overpressure Indication (Red Disc)

Applicable to: ALL

26-22-02A APU Fire extinguisher bottle pressure switch operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be damaged or missing provided that the APU fire extinguisher bottle pressure switch is checked operative before the first flight of each day.

Reference(s) _____

(m) Refer to AMM 26-22-00-040-007

26-22-02B APU deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.

Refer to Item 49-10-01C Power Plant (APU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-22 - APU Fire Extinguishing

26-22-03	Squib of the APU Fire Extinguisher Bottle

Applicable to: ALL

26-22-03A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that the remaining squib is checked operative before the first flight of each day.

_____Reference(s)_____

(m) Refer to AMM 26-22-00-040-008

26-22-03B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the APU is deactivated.
Refer to Item 49-10-01C Power Plant (APU)

26-22-04

APU Fire Extinguisher Bottle

Applicable to: ALL

26-22-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU is deactivated.
Refer to Item 49-10-01C Power Plant (APU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-22 - APU Fire Extinguishing

26-22-05	APU AUTO EXTING TEST pb-sw on the Maintenance Panel

Applicable to: ALL

26-22-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU automatic fire extinguishing control on ground is considered inoperative.

Refer to Item 26-22-01 APU Automatic Fire Extinguishing Control on Ground

26-22-06

APU FIRE light on the External Power Panel

Applicable to: ALL

26-22-06A APU Automatic fire extinguishing control on ground operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the APU automatic fire extinguishing control on ground is checked operative.

Reference(s) _____

(m) Refer to AMM 26-22-00-040-010

26-22-06B APU Automatic fire extinguishing control on ground considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU automatic fire extinguishing control on ground is considered inoperative.

Refer to Item 26-22-01 APU Automatic Fire Extinguishing Control on Ground

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-22 - APU Fire Extinguishing

26-22-07	APU SHUT OFF pb on the External Power Panel

Applicable to: ALL

26-22-07A APU Automatic fire extinguishing control on ground operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the APU automatic fire extinguishing control on ground is checked operative.

_____Reference(s)_____

(m) Refer to AMM 26-22-00-040-011

26-22-07B APU Automatic fire extinguishing control on ground considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU automatic fire extinguishing control on ground is considered inoperative.

Refer to Item 26-22-01 APU Automatic Fire Extinguishing Control on Ground

26-23-01

Cargo Agent Bottle

Applicable to: HL7737, HL7738

26-23-01A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the cargo compartments are empty or do not contain flammable or combustible materials.

26-23-01B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that EDTO is not conducted.

26-23-01D Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the liner integrity in the cargo compartments is checked before each flight.

_____Reference(s)_____

(m) Refer to AMM 25-50-00-200-002

26-23-01

Cargo Agent Bottle

Applicable to: HL7594, HL7703, HL7767

26-23-01A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that the cargo compartments are empty or do not contain flammable or combustible materials.

26-23-01

Cargo Agent Bottle

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

26-23-01A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the cargo compartments are empty or do not contain flammable or combustible materials.

Note: The cargo smoke detection function is part of CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

26-23-01B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that EDTO is not conducted.

Note: The cargo smoke detection function is part of CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

26-23-01D Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the liner integrity in the cargo compartments is checked before each flight.

Note: The cargo smoke detection function is part of CIDS Smoke Detection Function (CIDS - SDF).
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

Reference(s)

(m) Refer to AMM 25-50-00-200-002

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-23 - Cargo Compartment Fire Extinguishing

26-23-01	Cargo Agent Bottle

Applicable to: HL7730, HL7731, HL7735, HL8236

26-23-01A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the cargo compartments are empty or do not contain flammable or combustible materials.

26-23-01C Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

Only agent bottle 2 may be inoperative provided that EDTO is not conducted.

26-23-01	Cargo Agent Bottle

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-23-01A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the cargo compartments are empty or do not contain flammable or combustible materials.

Note: *The cargo smoke detection function is part of CIDS Smoke Detection Function (CIDS - SDF).*
 Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)

26-23-01C Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

Only agent bottle 2 may be inoperative provided that EDTO is not conducted.

Note: *The cargo smoke detection function is part of CIDS Smoke Detection Function
(CIDS - SDF).
Refer to Item 23-73-10-01 Smoke Detection Function (CIDS-SDF)*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-23 - Cargo Compartment Fire Extinguishing

26-23-02	Squib of the Cargo Bottle 1

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

26-23-02A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the associated cargo compartment is empty or does not contain flammable or combustible materials.

26-23-02B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that EDTO is not conducted.

26-23-02C Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the liner integrity in the associated cargo compartment is checked before each flight.

_____Reference(s)_____

(m) Refer to AMM 25-50-00-200-002

26-23-02	Squib of the Cargo Bottle 1

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-23-02A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the associated cargo compartment is empty or does not contain flammable or combustible materials.

26-23-03

Squib of the Cargo Bottle 2

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

26-23-03A No flammable or combustible materials

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the associated cargo compartment is empty or does not contain flammable or combustible materials.

26-23-03B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that EDTO is not conducted.

26-23-03C Check of liner integrity

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the liner integrity in the associated cargo compartment is checked before each flight.

Reference(s) _____

(m) Refer to AMM 25-50-00-200-002

26-23-03

Squib of the Cargo Bottle 2

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

26-23-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative provided that the associated cargo compartment is empty or does not contain flammable or combustible materials.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-23 - Cargo Compartment Fire Extinguishing

26-23-03B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that EDTO is not conducted.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-24 - Portable Fire Extinguisher

26-24-01	Portable Fire Extinguisher

Applicable to: ALL

26-24-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	5 ~ 8	4	

One for the cockpit crew and three for the cabin crew must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 26 - FIRE PROTECTION 26-25 - Lavatory Fire Extinguishing

26-25-01	Lavatory Waste Bin Fire Extinguishing System

Applicable to: ALL

26-25-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	

One or more may be inoperative.

ATA 27

Flight Controls

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-00 - MAINTENANCE Messages on the STATUS SD page

27-00-01	F/CTL <u>MAINTENANCE</u> Message

Applicable to: ALL

27-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	-	-	

F/CTL MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-00 - MAINTENANCE Messages on the STATUS SD page

27-00-02	SFCS <u>MAINTENANCE</u> Message

Applicable to: ALL

27-00-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

SFCS MAINTENANCE message may be displayed on the STATUS SD page.

27-01-01-01

ELAC pb-sw FAULT light

Applicable to: ALL

27-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

27-01-01-02

ELAC pb-sw OFF light

Applicable to: ALL

27-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

27-01-01-03

SEC pb-sw FAULT light

Applicable to: ALL

27-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

One may be inoperative.

27-01-01-04

SEC pb-sw OFF light

Applicable to: ALL

27-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-01	Aileron Actuator Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

27-07-02	Aileron Position Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or more may be inoperative provided that the deflection of the affected aileron through each servo-control is visually checked before each flight.

Reference(s)

(o) *OpsProc 27-07-02A Aileron Position Indication on the F/CTL SD page*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note: *If the Yellow Electric Pump is not available:*
- *Pressurize the Yellow Hydraulic System with:*
 - *A Ground cart, or with*
 - *The Yellow Engine 2 Pump with the Engine 2 running.*
 - *Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.*

Check of the aileron control through the ELACs:

Put the aircraft in the test configuration:

- YELLOW ELEC PUMP pb-sw ON
- PTU pb-sw AUTO
- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb ON
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On

Check of the aileron control through the ELAC 1:

- Move the CAPT stick from right stop to left stop.
- Visually check the full travel of the ailerons.

CAUTION	If the expected aileron movement does not occur, do not attempt any reset. Contact the maintenance.

Check of the aileron control through the ELAC 2:

- ELAC 1 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
- Visually check the full travel of the ailerons.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

CAUTION	If the expected aileron movement does not occur, do not attempt any reset. Contact the maintenance.

Return to normal configuration:

- YELLOW ELEC PUMP pb-sw Off
- BLUE PUMP OVRD pb-sw Off
- ELAC 1 pb-sw On

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-03	Elevator Actuator Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-04	Elevator Position Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative provided that the deflection of the affected elevator is visually checked before each flight.

Reference(s)

(o) *OpsProc 27-07-04A Elevator Position Indication on the F/CTL SD page*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note:

If the Yellow Electric Pump is not available:
- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
 - Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

Check of the elevator control:

- YELLOW ELEC PUMP pb-sw..... ON
- PTU pb-sw AUTO
- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb..... ON
- Establish communication with the ground crew.
- Move the CAPT or the F/O stick to the maximum nose down position.
- Visually check that both elevators move down.
- Move the CAPT or the F/O stick to the maximum nose up position.
- Visually check that both elevators move up.
- Move the CAPT or the F/O stick to the neutral position.
- Visually check that both elevators go back to the neutral position.
- YELLOW ELEC PUMP pb-sw..... Off
- BLUE PUMP OVRD pb-sw Off

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-05	Pitch Trim Position Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the pitch trim handwheel and the stabilizer are visually checked to synchronously operate before each flight.

Reference(s)

(o) OpsProc 27-07-05A Pitch Trim Position Indication on the F/CTL SD page

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note: If the Yellow Electric Pump is not available:
- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
 - Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

Check of the stabilizer control:

- YELLOW ELEC PUMP pb-sw ON
- Establish communication with the ground crew.
- Move the pitch trim handwheel to the full DN position.
- Visually check that the stabilizer moves to the full down position.
- Move the pitch trim handwheel to the full UP position.
- Visually check that the stabilizer moves to the full up position.
- Move the pitch trim handwheel to the required position.
- YELLOW ELEC PUMP pb-sw Off

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-06	Rudder Position Indication on the F/CTL SD page

Applicable to: ALL

27-07-06A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	(o)

May be inoperative provided that the deflection of the rudder is visually checked before each flight.

Reference(s)

(o) *OpsProc 27-07-06A Rudder Position Indication on the F/CTL SD page*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note:

If the Yellow Electric Pump is not available:
- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
 - Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

Check of the rudder control:

- YELLOW ELEC PUMP pb-sw..... ON
- Establish communication with the ground crew.
- On the CAPT or the F/O side, apply left rudder.
- Visually check that the rudder moves to the left.
- On the CAPT or the F/O side, apply right rudder.
- Visually check that the rudder moves to the right.
- On the CAPT or the F/O side, release the pedals.
- Visually check that the rudder moves to the neutral position.
- YELLOW ELEC PUMP pb-sw..... Off

27-07-07

Rudder Trim Position Indication on the F/CTL SD page

Applicable to: ALL

27-07-07A Rudder trim position indication operative on the center pedestal

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the rudder trim position indication is operative on the center pedestal.

27-07-07B Rudder position checked at zero

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the rudder position is checked at zero on the F/CTL SD page before takeoff.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-08	Rudder Travel Limiter Position Indication on the <u>F/CTL</u> SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

27-07-08A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-09	ELAC Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-10	SEC Indication on the <u>F/CTL</u> SD page

Applicable to: ALL

27-07-10A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-11	Spoilers/Speedbrakes Indication on the F/CTL SD page

Applicable to: ALL

27-07-11A

Repair interval	Nbr installed	Nbr required	Procedure
C	10	0	(o)

One or more may be inoperative provided that the deflection of the affected surface is visually checked before each flight.

Reference(s)

(o) OpsProc 27-07-11A Spoilers/Speedbrakes Indication on the F/CTL SD page

Applicable to: ALL

DURING COCKPIT PREPARATION

Note: If the Yellow Electric Pump is not available:

- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
- Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

● If surface 1 indication is inoperative:

CAUTION	The aircraft must be stopped during the check.

- YELLOW ELEC PUMP pb-sw ON
- PTU pb-sw AUTO
- SPEEDBRAKES lever FULL
- Visually check that surface 1 slightly extends (approximately 6°).
- YELLOW PUMP pb-sw Off

● If surface 3 indication is inoperative:

- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb-sw ON
- Move the stick from left stop to right stop.
- Visually check the correct movement of surface 3.
- BLUE PUMP OVRD pb-sw Off

● If surface 2, 4, or 5 indication is inoperative:

- YELLOW ELEC PUMP pb-sw ON
- PTU pb-sw AUTO
- Move the stick from left stop to right stop and visually check the correct movement of surfaces 2, 4 and 5.
- YELLOW ELEC PUMP pb-sw Off

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-07 - Indications on SD pages

27-07-12	Spoilers/Speedbrakes Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

27-07-12A

Repair interval	Nbr installed	Nbr required	Procedure
C	10	0	(o)

One or more may be inoperative provided that the deflection of the affected surface is visually checked before each flight.

Reference(s)

(o) *OpsProc 27-07-12A Spoilers/Speedbrakes Indication on the WHEEL SD page*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note: *If the Yellow Electric Pump is not available:*
- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
 - Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

● **If surface 1 indication is inoperative:**

CAUTION	The aircraft must be stopped during the check.

- YELLOW ELEC PUMP pb-sw ON
 - PTU pb-sw AUTO
 - SPEDBRKE lever FULL
 - Visually check that surface 1 slightly extends (approximately 6°).
 - YELLOW ELECMP pb-sw Off
- **If surface 3 indication is inoperative:**
- BLUE ELEC PUMP pb-sw AUTO
 - BLUE PUMP OVRD pb-sw ON
 - Move the stick from left stop to right stop.
 - Visually check the correct movement of surface 3.
 - BLUE PUMP OVRD pb-sw Off
- **If surface 2, 4, or 5 indication is inoperative:**
- YELLOW ELEC PUMP pb-sw ON
 - PTU pb-sw AUTO
 - Move the stick from left stop to right stop and visually check he correct movement of surfaces 2, 4 and 5.
 - YELLOW ELEC PUMP pb-sw Off

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-08 - Indications on the EWD

27-08-01	Flap Position Indication on the EWD

Applicable to: ALL

27-08-01A

Repair interval	Nbr installed	Nbr required	Procedure
-	1	1	

Must be operative.

27-08-02

Slat Position Indication on the EWD

Applicable to: ALL

27-08-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-14 - Aileron and Hydraulic Actuation

27-14-01	Left Aileron Blue Servo-Control (Controlled by ELAC 1)

Applicable to: ALL

27-14-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) It is electrically disconnected, and
- 2) It remains mechanically connected and hydraulically supplied (damping function is not affected), and
- 3) The left aileron green servo-control (controlled by ELAC 2) is operative, and
- 4) The right aileron blue servo-control (controlled by ELAC 2) is operative, and
- 5) All roll spoilers are operative, and
- 6) The TR 1 and TR 2 are operative, and
- 7) The DC TIE contactor 1PC1 is checked closed.

_____Reference(s)_____

(o) *OpsProc 27-14-01A Left Aileron Blue Servo-Control (Controlled by ELAC 1)*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check that DC TIE contactor 1 is closed:

- Supply the electrical network from the APU or the external power.
- On the ELEC SD page, check the link between the DC BUS 1 and the DC BAT BUS.

(m) *Refer to AMM 27-14-00-040-001*

MEL ITEMS
27 - FLIGHT CONTROLS
27-14 - Aileron and Hydraulic Actuation

27-14-02

Left Aileron Green Servo-Control (Controlled by ELAC 2)

Applicable to: ALL

27-14-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) It is electrically disconnected, and
- 2) It remains mechanically connected and hydraulically supplied (damping function is not affected), and
- 3) All roll spoilers are operative.

Reference(s) _____

(m) Refer to AMM 27-14-00-040-001

27-14-03

Right Aileron Green Servo-Control (Controlled by ELAC 1)

Applicable to: ALL

27-14-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) It is electrically disconnected, and
- 2) It remains mechanically connected and hydraulically supplied (damping function is not affected), and
- 3) The right aileron blue servo-control (controlled by ELAC 2) is operative, and
- 4) The left aileron green servo-control (controlled by ELAC 2) is operative, and
- 5) All roll spoilers are operative, and
- 6) The TR 1 and TR 2 are operative, and
- 7) The DC TIE contactor 1PC1 is checked closed.

Reference(s)

(o) *OpsProc 27-14-03A Right Aileron Green Servo-Control (Controlled by ELAC 1)*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check that DC TIE contactor 1 is closed:

- Supply the electrical network from the APU or the external power.
- On the ELEC SD page, check the link between the DC BUS 1 and the DC BAT BUS.

(m) *Refer to AMM 27-14-00-040-001*

MEL ITEMS
27 - FLIGHT CONTROLS
27-14 - Aileron and Hydraulic Actuation

27-14-04

Right Aileron Blue Servo-Control (Controlled by ELAC 2)

Applicable to: ALL

27-14-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) It is electrically disconnected, and
- 2) It remains mechanically connected and hydraulically supplied (damping function is not affected), and
- 3) All roll spoilers are operative.

_____Reference(s)_____

(m) Refer to AMM 27-14-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-21 - Rudder Mechanical Control

27-21-01	Rudder Pedal Adjustment System

Applicable to: ALL

27-21-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative provided that:

- 1) The rudder pedals can be secured in a position which meets individual pilot requirements, and
- 2) The full and unrestricted movement of the rudder pedals and brake pedals deflection is possible at both pilot stations.

_____Reference(s)_____

(o) *OpsProc 27-21-01A Rudder Pedal Adjustment System*

Applicable to: ALL

DURING COCKPIT PREPARATION

Simultaneously apply loads on both pedals (in rudder control movement direction) to make sure that the secured position is reached. For that purpose, the effort shall be equivalent to a full rudder deflection.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-22 - Rudder Trim Actuation

27-22-01	Rudder Trim System

Applicable to: ALL

27-22-01A Rudder trim system 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

Rudder Trim System 1 may be inoperative provided that EDTO is not conducted.

_____Reference(s)_____

- (o) *OpsProc 27-22-01A Rudder Trim System*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

27-22-01B Rudder trim system 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

Rudder Trim System 2 may be inoperative.

_____Reference(s)_____

- (o) *OpsProc 27-22-01B Rudder Trim System*

Refer to item 27-22-01A (o) procedure

MEL ITEMS
27 - FLIGHT CONTROLS
27-22 - Rudder Trim Actuation

27-22-02

Manual Rudder Trim Reset Function

Applicable to: ALL

27-22-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that one rudder trim position indication is operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-22 - Rudder Trim Actuation

27-22-03	Rudder Trim Position Indication on the Center Pedestal

Applicable to: ALL

27-22-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the rudder trim position is checked centered on the F/CTL SD page before takeoff.

Reference(s)

- (o) *OpsProc 27-22-03A Rudder Trim Position Indication on the Center Pedestal*

Applicable to: ALL

DURING COCKPIT PREPARATION

RUD TRIM position indication CHECK CENTERED

- **If the RUD TRIM position indication is not centered:**
RESET pb.....PRESS

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-23 - Artificial feel and rudder travel limiting actuation

27-23-01	Rudder Travel Limiter System(Including Rudder and Pedals Travel Limiter Units)

Applicable to: ALL

27-23-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-34 - Elevator and Hydraulic Actuation

27-34-01	Elevator Servo-Control

Applicable to: ALL

27-34-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	4	4	

All must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-34 - Elevator and Hydraulic Actuation

27-34-02	Elevator Servo-Control Position Transducer

Applicable to: ALL

27-34-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	4	(m)

One transducer per servo-control must be operative.

Reference(s)

(m) Refer to AMM 27-34-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-40 - Trimmable Horizontal Stabilizer (THS)

27-40-01	Stabilizer Mechanical Control

Applicable to: ALL

27-40-01A

Repair interval	Nbr installed	Nbr required	Procedure
-	1	1	

Must be operative.

MEL ITEMS
27 - FLIGHT CONTROLS
27-40 - Trimmable Horizontal Stabilizer (THS)

27-40-02

Stabilizer Actuator Electric Motor

Applicable to: ALL

27-40-02A Electric motor 3 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

The stabilizer actuator electrical motor 3 may be inoperative.

27-40-02B Electric motor 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

The stabilizer actuator electrical motor 2 may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) ELAC 1 pitch channel is considered inoperative.

Refer to Item 27-93-01 ELAC 1

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-51 - Flaps Electrical Control and Monitoring

27-51-01	SFCC Flap Channel

Applicable to: ALL

27-51-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

SFCC 2 flap channel may be inoperative provided that:

- 1) It is deactivated, and
- 2) The slats and flaps are checked operative on SFCC 1, and
- 3) The SFCC 1 flap WTB is checked operative before each flight, and
- 4) All ELAC s, SEC s, LGCIU s, RA s, FAC s and ADIRS are operative, and
- 5) The minimum idle on ground is considered inoperative.

Refer to Item 73-20-05 Minimum Idle on Ground

Reference(s)

(o) *Refer to OpsProc 27-51-01A SFCC Flap Channel*

Applicable to: ALL

GENERAL INFORMATION

ENG 2 APPR IDLE ONLY message is displayed on the STATUS SD page.

FLAPS SLOW message is displayed on the STATUS SD page.

DURING COCKPIT PREPARATION

Disregard and clear the F/CTL FLAP SYS 2 FAULT alert displayed on the EWD.

(m) *Refer to AMM 27-51-00-040-001*

27-51-02

SFCC Slat Channel

Applicable to: ALL

27-51-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

SFCC 2 slat channel may be inoperative provided that:

- 1) It is deactivated, and
- 2) The slats and flaps are checked operative on SFCC 1, and
- 3) The SFCC 1 slat WTB is checked operative before each flight, and
- 4) All ELAC s, SEC s, LGCIU s, RA s, FAC s and ADIRS are operative, and
- 5) Takeoff is not performed in CONF 1+F.

Reference(s)

(o) *OpsProc 27-51-02A SFCC Slat Channel*

Applicable to: ALL

GENERAL INFORMATION

SLATS SLOW message is displayed on the STATUS SD page.

DURING COCKPIT PREPARATION

Disregard and clear the F/CTL SLAT SYS 2 FAULT alert displayed on the EWD.

(m) *Refer to AMM 27-51-00-040-005*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-51 - Flaps Electrical Control and Monitoring

27-51-03	Flap Wing Tip Brakes Solenoid

Applicable to: ALL

27-51-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(m)

One or two solenoids associated with the SFCC 2 may be inoperative provided that the SFCC 1 flap WTB is checked operative before each flight.

_____Reference(s)_____

(m) Refer to AMM 27-51-00-040-004

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-54 - Flaps Hydraulic Actuation and Power Transmission

27-54-01	Flap Hydraulic Motor

Applicable to: ALL

27-54-01A Green motor inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

Green motor may be inoperative.

27-54-01B Yellow motor inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

Yellow motor may be inoperative provided that the blue slat motor is operative.

MEL ITEMS
27 - FLIGHT CONTROLS
 27-54 - Flaps Hydraulic Actuation and Power Transmission

27-54-02

Flap PCU Valve Block

Applicable to: ALL

27-54-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

The valve block associated with SFCC 2 may be inoperative provided that the SFCC 2 flap channel is considered inoperative.

Refer to Item 27-51-01 SFCC Flap Channel

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-54 - Flaps Hydraulic Actuation and Power Transmission

27-54-03	Flap Pressure-Off Brake

Applicable to: ALL

27-54-03A

Repair interval	Nbr installed	Nbr required	Procedure
-	2	2	

Both must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-64 - Spoiler Hydraulic Actuation

27-64-01	Spoiler 5

Applicable to: ALL

27-64-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

The pair of spoilers 5 may be inoperative provided that:

- 1) The affected spoiler is deactivated in the retracted position, and
- 2) The pairs of spoilers 1, 2, 3, and 4 are operative.

Reference(s)

(o) *OpsProc 27-64-01A Spoiler 5*

Applicable to: ALL

AFTER ENGINE START

On the HYD SD page, check the absence of amber data.

Note: *No performance penalty applies when the pair of spoilers 5 is inoperative.*

(m) *Refer to AMM 27-64-00-040-001*

27-64-02

Spoiler 1 or 3

Applicable to: ALL

27-64-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(o)(m)

One pair of spoilers 1 or 3 may be inoperative provided that:

- 1) The affected spoiler is deactivated in the retracted position, and
- 2) The pairs of spoilers 2, 4, and 5 are operative, and
- 3) The Flight Manual performance penalties are applied.

Reference(s)

(o) OpsProc 27-64-02A Spoiler 1 or 3

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

WARNING	Do not use this method for takeoff on wet or contaminated runways.

Determine the Maximum Takeoff Weight and associated speeds in normal conditions on dry runway.

Decrease the Maximum Takeoff Weight by 800 kg (1 770 lb).

Decrease V1 by 1 kt. Keep VR and V2 unchanged.

- **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1:**

Take this last value as V1

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Landing performance computation:

Multiply the landing distances by 1.05.

AFTER ENGINE START

On the HYD SD page, check the absence of amber data.

FOR TAKEOFF

- **If the above method was used for takeoff performance determination:**
Perform the takeoff using full thrust (TOGA).

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance computation:

The takeoff performance must be determined by using OCTOPUS program or other equivalent program with present failure case taken into account.

Launch PEP.

Landing performance computation:

Multiply the landing distances by 1.05.

AFTER ENGINE START

On the HYD SD page, check the absence of amber data.

(m) Refer to AMM 27-64-00-040-001

MEL ITEMS
27 - FLIGHT CONTROLS
27-64 - Spoiler Hydraulic Actuation

27-64-03

Spoiler 2 or 4

Applicable to: ALL

27-64-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(o)(m)

One pair of spoilers 2 or 4 may be inoperative in the retracted position provided that:

- 1) The affected spoiler is deactivated in the retracted position, and
- 2) The pairs of spoilers 1, 3, and 5 are operative, and
- 3) The SFCC 2 flap channel is operative, and
- 4) The Flight Manual performance penalties are applied.

Reference(s)

(o) *OpsProc 27-64-03A Spoiler 2 or 4*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

For performance penalties, *Refer to OpsProc 27-64-02A Spoiler 1 or 3*

AFTER ENGINE START

On the HYD SD page, check the absence of amber data.

(m) *Refer to AMM 27-64-00-040-001*

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-64 - Spoiler Hydraulic Actuation

27-64-04	Spoilers 1 and 2

Applicable to: ALL

27-64-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

The pairs of spoilers 1 and 2 may be inoperative in the retracted position provided that:

- 1) The affected spoilers are deactivated in the retracted position, and
- 2) The pairs of spoilers 3, 4, and 5 are operative, and
- 3) The SFCC 2 flap channel is operative, and
- 4) The Flight Manual performance penalties are applied.

_____Reference(s)_____

(o) *OpsProc 27-64-04A Spoilers 1 and 2*

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1, VR, V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS, optimum V1 / VR, minimum V1.

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW.
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION	Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW , $\Delta V1$, ΔVR , $\Delta V2$) WHEN TWO PAIRS OF SPOILERS ARE INOPERATIVE

RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)
1 500	1 600 / 3 600	2	1	1	1 600 / 3 600	2	1	1	1 600 / 3 600	2	1	1
2 000	1 600 / 3 600	2	1	1	1 600 / 3 600	2	1	1	1 000 / 2 300	3	2	2
2 500	1 400 / 3 100	2	1	1	800 / 1 800	3	2	2	800 / 1800	4	2	2
3 000	800 / 1 800	3	2	2	800 / 1 800	3	2	2	600 / 1 400	4	3	3
3 500	1 000 / 2 300	4	3	3	600 / 1 400	5	3	3	400 / 900	5	4	4
4 000 and above	800 / 1 800	5	3	3	1 000 / 2 300	8	6	6	200 / 500	0	3	3

- **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1.

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (*Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.10.

DURING COCKPIT PREPARATION

- SEC 3 pb-sw OF
- FLT CONTROLS/SEC3/SPLY (121VU Q19) C/B Pull

TAKEOFF

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

IN FLIGHT

- **In the case of further failure of SEC 1 and SEC 2:**
 - Autoland is not permitted.
 - Disengage the AP at 500 ft RA before landing in direct law. As soon as the AP is disengaged when the three SEC s are failed, it cannot be engaged again.
 - Maximum landing capability is CAT 1

Applicable to: HL7594, HL7703

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS , optimum V1 / VR , minimum V1 .

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).

- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW, Δ V1 , Δ VR , Δ V2) WHEN TWO PAIRS OF SPOILERS ARE INOPERATIVE

RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)
1 500	1 200 / 2 700	2	1	1	1 600 / 3600	2	1	1	1 800 / 4 000	2	0	0
2 000	1 200 / 2 700	2	1	1	1 400 / 3 100	2	1	1	1 000 / 2 200	2	1	1
2 500	1 200 / 2 700	2	1	1	800 / 1 800	3	1	1	600 / 1 400	4	2	2
3 000	800 / 1 800	3	1	1	900 / 2 000	3	1	1	600 / 1 400	4	2	2
3 500	600 / 1 400	6	3	3	1 000 / 2 200	7	3	3	600 / 1 400	4	2	2
4 000	600 / 1 400	6	3	3	1 100 / 2 500	7	3	3	400 / 900	4	2	2

● **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

● **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

● **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

● **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (*Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.05.

DURING COCKPIT PREPARATION

- SEC 3 pb-sw OFF
- FLIHT CONTROLS/SEC3/SPLY (121VU Q19) C/B Pull

TAKEOFF

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

IN FLIGHT

- **In the case of further failure of SEC 1 and SEC 2:**
 - Autoland is not permitted.
 - Disengage the AP at 500 ft RA before landing in direct law. As soon as the AP is disengaged when the three SEC s are failed, it cannot be engaged again.
 - Maximum landing capability is CAT 1

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS , optimum V1 / VR , minimum V1 .

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW.
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW, Δ V1 , Δ VR , Δ V2) WHEN TWO PAIRS OF SPOILERS ARE INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)
1 500	1 400 / 3 100	3	1	1	1 600 / 3 600	3	1	1	1 400 / 3 100	3	1	1
2 000	1 600 / 3 600	3	1	1	1 400 / 3 100	1	0	0	1 200 / 2 700	1	0	0
2 500	1 600 / 3 600	3	1	1	1 600 / 3 600	3	1	1	2 000 / 4 500	3	1	1
3 000	1 600 / 3 600	3	1	1	1 800 / 4 000	3	2	2	1 200 / 2 700	4	3	3
3 500	1 200 / 2 700	3	1	1	1 200 / 2 700	4	3	3	1 400 / 3 100	6	4	4
4 000 and above	1 400 / 3 100	3	1	1	1 200 / 2 700	4	3	3	1 000 / 2 300	5	3	3

- **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1.

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (*Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.10.

DURING COCKPIT PREPARATION

- SEC 3 pb-sw OFF
- FLIHT CONTROLS/SEC3/SPLY (121VU Q19) C/B Pull

TAKEOFF

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

IN FLIGHT

- **In the case of further failure of SEC 1 and SEC 2:**

- Autoland is not permitted.
- Disengage the AP at 500 ft RA before landing in direct law. As soon as the AP is disengaged when the three SEC s are failed, it cannot be engaged again.
- Maximum landing capability is CAT 1

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance computation:

The takeoff performance must be determined by using OCTOPUS program or other equivalent program with present failure case taken into account.

Launch PEP.

Landing performance computation

Multiply the landing distances by 1.10.

DURING COCKPIT PREPARATION

- SEC 3 pb-sw OFF
- FLIGHT CONTROLS/SEC3/SPLY (121VU Q19) C/B Pull

IN FLIGHT

- **In the case of further failure of SEC 1 and SEC 2:**
 - Autoland is not permitted.
 - Disengage the AP at 500 ft RA before landing in direct law. As soon as the AP is disengaged when the three SECs are failed, it cannot be engaged again.
 - Maximum landing capability is CAT 1

(m) Refer to AMM 27-64-00-040-001

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-64 - Spoiler Hydraulic Actuation

27-64-05	Spoilers 3 and 4

Applicable to: ALL

27-64-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

The pairs of spoilers 3 and 4 may be inoperative in the retracted position provided that:

- 1) The affected spoilers are deactivated in the retracted position, and
- 2) The pairs of spoilers 1, 2, and 5 are operative, and
- 3) The TR 1 and TR 2 are operative, and
- 4) The DC TIE contactor 1PC1 is checked closed, and
- 5) The SFCC 2 flap channel is operative, and
- 6) The Flight Manual performance penalties are applied.

_____Reference(s)_____

(o) *OpsProc 27-64-05A Spoilers 3 and 4*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

For performance penalties *Refer to OpsProc 27-64-04A Spoilers 1 and 2*

DURING COCKPIT PREPARATION

Check that the DC TIE contactor 1 is closed:

- Supply the electrical network from the APU or the external power.
- On the ELEC SD page, check the link between the DC BUS 1 and the DC BAT BUS.

IN FLIGHT

Do not use the speedbrakes.

(m) *Refer to AMM 27-64-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-81 - Slats Electrical Control and Monitoring

27-81-01	Slat Wing Tip Brakes Solenoids

Applicable to: ALL

27-81-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(m)

One or two solenoids associated with the SFCC 2 may be inoperative provided that the SFCC 1 slat WTB is checked operative before each flight.

_____Reference(s)_____

(m) Refer to AMM 27-81-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-84 - Slats Hydraulic Actuation and Power Transmission

27-84-01	Slats Hydraulic Motor

Applicable to: ALL

27-84-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

MEL ITEMS
27 - FLIGHT CONTROLS
27-84 - Slats Hydraulic Actuation and Power Transmission

27-84-02

Slat PCU Valve Block

Applicable to: ALL

27-84-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

The valve block associated with SFCC 2 may be inoperative provided that the SFCC 2 slat channel is considered inoperative.

Refer to Item 27-51-02 SFCC Slat Channel

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-84 - Slats Hydraulic Actuation and Power Transmission

27-84-03	Slat Pressure-Off Brake

Applicable to: ALL

27-84-03A

Repair interval	Nbr installed	Nbr required	Procedure
-	2	2	

Both must be operative.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

27-92-01	Speedbrake Control System

Applicable to: ALL

27-92-01A Speedbrake control system inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

Speedbrake control system may be inoperative provided that the Flight Manual performance penalties associated with the ground spoiler control system inoperative are applied.

Reference(s)

- (o) *OpsProc 27-92-01A Speedbrake Control System (speedbrake control system inoperative)*

Applicable to: ALL

Refer to 27-92-02A (o) procedure

27-92-01B Speedbrake 2 or speedbrakes 3 and 4 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(o)

Speedbrake 2 or speedbrakes 3 and 4 may be inoperative provided that the Flight Manual performance penalties associated with one or two pairs of spoilers inoperative are applied.

Reference(s)

- (o) *OpsProc 27-92-01B Speedbrake Control System (speedbrake 2 or speedbrakes 3 and 4 inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- If speedbrake n°2 is inoperative:**

Apply performance penalties associated with the pair of spoilers 2 inoperative. *Refer to OpsProc 27-64-03A Spoiler 2 or 4*

- If speedbrakes n°3 and n°4 are inoperative:**

Apply performance penalties associated with two pairs of spoilers inoperative. *Refer to OpsProc 27-64-04A Spoilers 1 and 2*

IN FLIGHT

- If speedbrakes n°3 and n°4 are inoperative:**

Do not use the speedbrakes.

27-92-02

Ground Spoiler Control System

Applicable to: ALL

27-92-02A Ground spoiler control system inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) Both thrust reversers are not taken into account for performance computation, and
- 2) The autobrake function is not used, and
- 3) The Flight Manual performance penalties are applied.

Reference(s)

- (o) *OpsProc 27-92-02A Ground Spoiler Control System (ground spoiler control system inoperative)*

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

GENERAL INFORMATION

The autobrake function is not available. Refer to OpsProc 32-42-05A AUTO/BRK Function

CAUTION	One or both thrust reversers may not deploy at landing. Consequently, for performance determination, do not take into account the credit of the thrust reversers.

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative).

WARNING	- Do not use this method with takeoff charts computed with other conditions or by using TLC program. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

MEL ITEMS

27 - FLIGHT CONTROLS

27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION For runway lengths below 1,500 m, do not use the following table.

DECREMENTS (ΔW , $\Delta V1$, ΔVR , $\Delta V2$) WHEN GROUND SPOILER CONTROL SYSTEM IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)
1 500	2 000 / 4 500	4	1	1	1 800 / 4 000	4	1	1	2 600 / 5 800	6	2	2
2 000	2 600 / 5 800	4	2	2	2 800 / 6 200	5	2	2	1 800 / 4 000	6	3	3
2 500	2 200 / 4 900	4	1	1	1 200 / 2 700	6	3	3	1 400 / 3 100	8	4	4
3 000	1 200 / 2 700	5	3	3	1 400 / 3 100	7	4	4	1 200 / 2 700	9	5	5
3 500	1 800 / 4 000	8	5	5	1 600 / 3 600	9	7	7	1 400 / 3 100	10	9	9
4 000 and above	1 600 / 3 600	9	6	6	2 000 / 4 500	11	9	9	200 / 500	1	3	3

- **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (*Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.15.

TAKEOFF

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

Applicable to: HL7594, HL7703

GENERAL INFORMATION

The autobrake function is not available. *Refer to OpsProc 32-42-05A AUTO/BRK Function*

CAUTION	One or both thrust reversers may not deploy at landing. Consequently, for performance determination, do not take into account the credit of the thrust reversers.

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative).

WARNING	- Do not use this method with takeoff charts computed with other conditions or by using TLC program. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

MEL ITEMS

27 - FLIGHT CONTROLS

27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION For runway lengths below 1,500 m, do not use the following table.

DECREMENTS (ΔW , $\Delta V1$, ΔVR , $\Delta V2$) WHEN GROUND SPOILER CONTROL SYSTEM IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)
1 500	1 500 / 300	3	1	1	2 000 / 400	4	1	1	3 000 / 700	5	0	0
2 000	1 500 / 300	4	1	1	2 000 / 400	5	1	1	3 000 / 700	6	1	1
2 500	2 000 / 400	5	1	1	2 700 / 600	6	2	2	4 000 / 900	8	2	2
3 000	1 500/300	5	2	2	2 500 / 600	7	2	2	2 500 / 600	11	6	6
3 500	1 000 / 200	10	5	5	1 200 / 700	13	7	7	1 000 / 200	11	6	6
4 000	1 000 / 200	11	5	5	800 / 1 800	13	7	7	700 / 1 600	10	6	6

- **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (*Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.20.

TAKEOFF

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

The autobrake function is not available. *Refer to OpsProc 32-42-05A AUTO/BRK Function*

CAUTION	One or both thrust reversers may not deploy at landing. Consequently, for performance determination, do not take into account the credit of the thrust reversers.

FLIGHT PREPARATION/LIMITATIONS

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative).

WARNING	- Do not use this method with takeoff charts computed with other conditions or by using TLC program. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

MEL ITEMS

27 - FLIGHT CONTROLS

27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION For runway lengths below 1,500 m, do not use the following table.

DECREMENTS (ΔW , $\Delta V1$, ΔVR , $\Delta V2$) WHEN GROUND SPOILER CONTROL SYSTEM IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)	ΔW (kg/lb)	$\Delta V1$ (kt)	ΔVR (kt)	$\Delta V2$ (kt)
1 500	2 800 / 6 200	7	2	2	3 000 / 6 700	7	2	2	2 600 / 5 800	7	2	2
2 000	2 600 / 5 800	6	2	2	2 400 / 5 300	4	1	1	2 400 / 5 300	6	2	2
2 500	1 600 / 3 600	3	1	1	1 600 / 3 600	3	1	1	2 600 / 5 800	5	2	2
3 000	2 400/5 300	5	2	2	2 600 / 5 800	6	2	2	2 000 / 4 500	8	5	5
3 500	2 800 / 6 200	5	3	3	2 000 / 4 500	7	5	5	2 400 / 5 300	8	7	7
4 000 and above	3 400 / 7 500	5	3	3	2 200 / 4 900	7	6	6	2 200 / 4 900	8	6	6

- **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (*Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.15.

TAKEOFF

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

GENERAL INFORMATION

The autobrake function is not available. *Refer to OpsProc 32-42-05A AUTO/BRK Function*

CAUTION	One or both thrust reversers may not deploy at landing. Consequently, for performance determination, do not take into account the credit of the thrust reversers.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance computation

The takeoff performance must be determined by using OCTOPUS program or other equivalent program with present failure case taken into account.

Launch PEP.

Landing performance computation

Multiply the landing distances by 1.15.

27-92-02B Spoilers 5 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(o)

The pair of spoilers 5 may be inoperative.

_____Reference(s)_____

- (o)** *OpsProc 27-92-02B Ground Spoiler Control System (pair of spoilers 5 inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

For performance penalties, Refer to (o) procedure 27-64-01A Spoiler 5.

27-92-02C Spoilers 1 and 2, or spoilers 3 and 4 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(o)

The pairs of spoilers 1 and 2 or the pairs of spoilers 3 and 4 may be inoperative provided that the Flight Manual performance penalties are applied.

_____Reference(s)_____

- (o)** *OpsProc 27-92-02C Ground Spoiler Control System (pairs of spoilers 1 and 2 or pairs of spoilers 3 and 4 inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- If the pairs of spoilers 1 and 2 are inoperative:**
 For performance penalties, Refer to (o) procedure 27-64-04A Spoilers 1 and 2
- If the pairs of spoilers 3 and 4 are inoperative:**
 For performance penalties, Refer to (o) procedure 27-64-05A Spoilers 3 and 4

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

27-92-03	SIDESTICK PRIORITY light

Applicable to: ALL

27-92-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	4	4	

All must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

27-92-04	Sidestick Dual Input Visual Warnings

Applicable to: ALL

27-92-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-92 - Electrical Flight Control System (EFCS) Control Inputs and Power Supply

27-92-05	Sidestick Dual Input Aural Warning

Applicable to: ALL

27-92-05A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-93 - ELAC System (Elevator Aileron Computer)

27-93-01	ELAC 1

Applicable to: ALL

27-93-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

ELAC 1 or any ELAC 1 function may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) All SEC s, SFCC s, LGCIU s, RA s, ADIRS and FAC s are operative, and
- 3) The pairs of spoilers 2, 3, 4, and 5 are operative, and
- 4) The TR 1 and the TR 2 are operative, and
- 5) Both accelerometers associated with the ELAC 2 are checked operative before each flight, and
- 6) All sidesticks transducers associated with the ELAC 2 and the three SEC s are checked operative before each flight, and
- 7) The DC TIE contactor 1PC1 is checked closed, before each flight, and
- 8) The elevators and roll spoilers control is checked operative through the SEC s before each flight.

Note: F/O take-over pb cannot disengage AP 1.

Reference(s)

(o) OpsProc 27-93-01A ELAC 1

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

■ If the AP 1 is engaged for landing:

Maximum landing capability is CAT 1.

■ If the AP 2 is engaged for landing:

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

Note: If the Yellow Electric Pump is not available:

- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
- Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

■ If the F/CTL ELAC 1 FAULT alert is displayed on the EWD:

- Note:
1. After application of the maintenance procedure, the following ECAM alerts remain displayed on the EWD :
 - C/B TRIPPED R ELEC BAY alert , and
 - C/B TRIPPED ON OVHD PNL alert, and
 - F/CTL ELAC 1 FAULT alert.
 2. After first engine start, the F/CTL ALTN LAW alert may be spuriously displayed. It normally disappears after second engine start.

Check of the elevator and the roll spoilers control through the SECs:

Put the aircraft in the test configuration:

- YELLOW ELEC PUMP pb-sw ON
- Note: If the Yellow Electric Pump is not available, pressurize the Yellow Hydraulic System with a Ground Cart or with the Yellow Engine 2 Pump with the Engine 2 running.
- PTU pb-sw AUTO
 - BLUE ELEC PUMP pb-sw AUTO
 - BLUE PUMP OVRD pb ON
 - ELAC 2 pb-sw On
 - SEC 1 pb-sw On
 - SEC 2 pb-sw On
 - SEC 3 pb-sw On
 - Wait 5 s

Check of the elevator control through the SEC 1 and the spoilers control through the SEC 1 and the SEC 3:

- BLUE PUMP OVRD pb-sw Off
- Wait for hydraulic circuit depressurization.
- On the F/CTL SD page, check that blue elevator actuator symbol becomes amber.
- Wait 5 s
- BLUE PUMP OVRD pb-sw ON
- ELAC 2 pb-sw OFF
- SEC 2 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2, 3, and 4 and the full travel of both elevators.
- Move the F/O stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2, 3, and 4 and the full travel of both elevators.

CAUTION

If an expected spoiler or elevator movement does not occur, do not attempt any reset.
 Contact the maintenance.

Check of the elevator control through the SEC 2 and of the spoilers control through the SEC 2 and the SEC 3:

- ELAC 2 pb-sw On
- SEC 2 pb-sw On
- Wait 5 s
- YELLOW ELEC PUMP pb-sw Off
- Wait for hydraulic circuits depressurization.
- On the F/CTL SD page, check that the yellow and the green elevator actuators symbols become amber.
- Wait 5 s
- YELLOW ELEC PUMP pb-sw ON
- ELAC 2 pb-sw OFF
- SEC 1 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2 and 5 and the full travel of both elevators.
- Move the F/O stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2 and 5 and the full travel of both elevators.

CAUTION

If an expected spoiler or elevator movement does not occur, do not attempt any reset.
 Contact the maintenance.

Return to normal configuration:

- YELLOW ELEC PUMP pb-sw Off
- BLUE PUMP OVRD pb-sw Off
- ELAC 1 pb-sw OFF
- ELAC 2 pb-sw On
- SEC 1 pb-sw On

Check that the DC TIE contactor 1 is closed:

- Supply the electrical network from the APU or the external power.
- On the ELEC SD page, check the link between the DC BUS 1 and the DC BAT BUS.

■ **If the F/CTL ELAC 1 PITCH FAULT alert is displayed on the EWD:**

Note: After first engine start, the F/CTL ALTN LAW alert may be spuriously displayed on the EWD. It normally disappears after second engine start.

Check of the elevator and the roll spoilers control through the SECs:

Put the aircraft in the test configuration:

- YELLOW ELEC PUMP pb-sw ON
- PTU pb-sw AUTO
- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb ON
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On
- SEC 1 pb-sw On
- SEC 2 pb-sw On
- SEC 3 pb-sw On
- Wait 5 s

Check of the elevator control through the SEC 1 and of the spoilers control through the SEC 1 and the SEC 3:

- BLUE PUMP OVRD pb-sw Off
- Wait for hydraulic circuit depressurization.
- On the F/CTL SD page, check that blue elevator actuator symbol becomes amber.
- Wait 5 s
- BLUE PUMP OVRD pb-sw ON
- ELAC 1 pb-sw OFF
- ELAC 2 pb-sw OFF
- SEC 2 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2, 3, and 4 and the full travel of both elevators.
- Move the F/O stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2, 3, and 4 and the full travel of both elevators.

CAUTION	If an expected spoiler or elevator movement does not occur, do not attempt any reset. Contact the maintenance.

Check of the elevator control through the SEC 2 and of the spoilers control through the SEC 2 and the SEC 3:

- ELAC 1 pb-sw On
- ELAC 2 pb-sw On
- SEC 2 pb-sw On
- Wait 5 s
- YELLOW ELEC PUMP pb-sw Off
- Wait for hydraulic circuits depressurization.
- On the F/CTL SD page, check that the yellow and the green elevator actuators symbols become amber.

- Wait 5 s
- YELLOW ELEC PUMP pb-sw ON
- ELAC 1 pb-sw OFF
- ELAC 2 pb-sw OFF
- SEC 1 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2 and 5 and the full travel of both elevators.
- Move the F/O stick from right stop to left stop, then from forward stop to aft stop.
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2 and 5 and the full travel of both elevators.

CAUTION	If an expected spoiler or elevator movement does not occur, do not attempt any reset. Contact the maintenance.

Return to normal configuration:

- YELLOW ELEC PUMP pb-sw Off
- BLUE PUMP OVRD pb-sw Off
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On
- SEC 1 pb-sw On

Check that the DC TIE contactor 1 is closed:

- Supply the electrical network from the APU or the external power.
- On the ELEC SD page, check the link between the DC BUS 1 and the DC BAT BUS.

APPROACH

● **If the AP 1 is used for the approach:**

The captain must be the PF.

Note: Due to the fact that the ELAC 1 is not electrically supplied, the F/O take-over pb cannot disengage the AP 1.

(m) Refer to AMM 27-93-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-93 - ELAC System (Elevator Aileron Computer)

27-93-02	ELAC 2

Applicable to: ALL

27-93-02A

Repair interval	Nbr installed	Nbr required	Procedure
-	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-93 - ELAC System (Elevator Aileron Computer)

27-93-03	Pitch Normal Law

Applicable to: ALL

27-93-03A

Repair interval	Nbr installed	Nbr required	Procedure
-	1	1	

Must be operative.

27-94-01

SEC 1

Applicable to: ALL

27-94-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) It is deactivated, and
- 3) The SEC 2 and the SEC 3 are operative, and
- 4) All ELAC s, SFCC s, LGCIU s, RA s, FAC s and ADIRS are operative, and
- 5) The SFCC 2 flap channel is operative, and
- 6) All aileron servo-controls associated with the operative SEC s are operative, and
- 7) The TR 1 and TR 2 are operative, and
- 8) The sidestick transducers associated with the ELAC s and the operative SEC s are checked operative before each flight, and
- 9) The DC TIE contactor 1PC1 is checked closed, before each flight, and
- 10) The elevators control through the SEC 2 and the ELAC s and the roll spoilers control through the operative SEC s are checked operative before each flight, and
- 11) The Flight Manual performance penalties for the pairs of spoilers 3 and 4 inoperative are applied.

Reference(s)

(o) *OpsProc 27-94-01A SEC 1*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

For performance penalties, Refer to *OpsProc 27-64-05A Spoilers 3 and 4*

DURING COCKPIT PREPARATION

Note: If the Yellow Electric Pump is not available:

- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
- Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

Note: After application of the maintenance procedure, the C/B TRIPPED R ELEC BAY and the C/B TRIPPED ON OVHD PNL alerts are displayed on the EWD.

Check of the elevator control and roll spoilers control through the operative computers:

Put the aircraft in the test configuration:

- YELLOW ELEC PUMP pb-sw ON
- PTU pb-sw AUTO
- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb ON
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On
- SEC 2 pb-sw On
- SEC 3 pb-sw On
- Wait 5 s

Check of the elevator control through the ELAC 1:

- BLUE PUMP OVRD pb-sw Off
- Wait for hydraulic circuit depressurization.
- On the F/CTL SD page, check that blue elevator actuator symbol becomes amber.
- Wait 5 s
- BLUE PUMP OVRD pb-sw ON
- ELAC 2 pb-sw OFF
- SEC 2 pb-sw OFF
- Move the CAPT stick from forward stop to aft stop.
- On the F/CTL SD page, check the full travel of both elevators.

CAUTION

If an expected elevator movement does not occur, do not attempt any reset.
 Contact the maintenance.

Check of the elevator control through the SEC 2:

- ELAC 2 pb-sw On
- SEC 2 pb-sw On
- Wait 5 s
- YELLOW ELEC PUMP pb-sw Off
- Wait for hydraulic circuits depressurization.
- On the F/CTL SD page, check that the yellow and the green elevator actuators symbols become amber.
- Wait 5 s
- YELLOW ELEC PUMP pb-sw ON
- ELAC 1 pb-sw OFF
- ELAC 2 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
Each stop must be applied during 3 s
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2 and 5 and the full travel of both elevators.
- Move the F/O stick from right stop to left stop, then from forward stop to aft stop.
Each stop must be applied during 3 s

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-94 - SEC System (Spoiler and Elevator Computer)

- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2 and 5 and the full travel of both elevators.

CAUTION	If an expected spoiler or elevator movement does not occur, do not attempt any reset. Contact the maintenance.

Return to normal configuration:

- YELLOW ELEC PUMP pb-sw Off
- BLUE PUMP OVRD pb-sw Off
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On

Check that the DC TIE contactor 1 is closed:

- Supply the electrical network from the APU or the external power.
- On the ELEC SD page, check the link between the DC BUS 1 and the DC BAT BUS.

IN FLIGHT

Do not use the speedbrakes.

- **If the SEC 2 and the SEC 3 fail during the flight:**

Autoland is not permitted.

Maximum landing capability is CAT 1

Disengage the AP at 500 ft RA before landing in direct law.

When the AP is disengaged with the three SEC s failed, it cannot be engaged again.

(m) Refer to AMM 27-94-00-040-002

27-94-02

SEC 2

Applicable to: ALL

27-94-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) It is deactivated, and
- 2) The SEC 1 and the SEC 3 are operative, and
- 3) All ELAC s, SFCC s, LGCIU s, RA s, FAC s and ADIRS are operative, and
- 4) All aileron servo-controls and roll spoilers associated with the operative SEC s are operative, and
- 5) The sidestick transducers associated with the ELAC s and the operative SEC s are checked operative before each flight, and
- 6) The elevators control through the SEC 1 and the ELAC s and the roll spoilers control through the operative SEC s are checked operative before each flight.

Reference(s)

(o) OpsProc 27-94-02A SEC 2

Applicable to: ALL

DURING COCKPIT PREPARATION

Note: If the Yellow Electric Pump is not available:

- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
- Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

Note: After application of the maintenance procedure, the C/B TRIPPED REAR PNL N-R alert is displayed on the EWD.

Check of the elevator control and roll spoilers control through the operative computers:

Put the aircraft in the test configuration:

- YELLOW ELEC PUMP pb-sw ON
- PTU pb-sw AUTO
- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb ON
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On
- SEC 1 pb-sw On

- SEC 3 pb-sw On
- Wait 5 s

Check of the elevator control through the ELAC 1:

- BLUE PUMP OVRD pb-sw Off
- Wait for hydraulic circuit depressurization.
- On the F/CTL SD page, check that blue elevator actuator symbol becomes amber.
- Wait 5 s
- BLUE PUMP OVRD pb-sw ON
- ELAC 2 pb-sw OFF
- SEC 1 pb-sw OFF
- Move the CAPT stick from forward stop to aft stop.
- On the F/CTL SD page, check the full travel of both elevators.

CAUTION

If an expected elevator movement does not occur, do not attempt any reset.
Contact the maintenance.

Check of the elevator control through the SEC 1:

- ELAC 2 pb-sw On
- SEC 1 pb-sw On
- Wait 5 s
- BLUE PUMP OVRD pb-sw Off
- Wait for hydraulic circuits depressurization.
- On the F/CTL SD page, check that the blue elevator actuator symbols becomes amber.
- Wait 5 s
- BLUE PUMP OVRD pb-sw ON
- ELAC 1 pb-sw OFF
- ELAC 2 pb-sw OFF
- Move the CAPT stick from right stop to left stop, then from forward stop to aft stop.
Each stop must be applied during 3 s
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2, 3, and 4 and the full travel of both elevators.
- Move the F/O stick from right stop to left stop, then from forward stop to aft stop.
Each stop must be applied during 3 s
- On the F/CTL SD page, check the correct movement of the pairs of spoilers 2, 3, and 4 and the full travel of both elevators.

CAUTION

If an expected spoiler or elevator movement does not occur, do not attempt any reset.
Contact the maintenance.

Return to normal configuration:

- YELLOW ELEC PUMP pb-sw Off

- BLUE PUMP OVRD pb-sw Off
- ELAC 1 pb-sw On
- ELAC 2 pb-sw On

AFTER ENGINE START

Note: *The F/CTL ELEV SERVO FAULT alert may be displayed on the EWD if the PTU is inhibited and only one engine is operating. This alert must disappear when the PTU or the second engine is started.*

IN FLIGHT

- **If the SEC 1 and the SEC 3 fail during the flight:**

Autoland is not permitted.

Maximum landing capability is CAT 1

Disengage the AP at 500 ft RA before landing in direct law.

When the AP is disengaged with the three SECs failed, it cannot be engaged again.

(m) Refer to AMM 27-94-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-94 - SEC System (Spoiler and Elevator Computer)

27-94-03	SEC 3

Applicable to: ALL

27-94-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) It is deactivated, and
 - 2) The SEC 1 and SEC 2 are operative, and
 - 3) The SFCC 2 flap channel is operative, and
 - 4) All aileron servo-controls and roll spoilers associated with the operative SEC s are operative, and
 - 5) The Flight Manual performance penalties for the pairs of spoilers 1 and 2 inoperative are applied.

_____Reference(s)_____

(o) OpsProc 27-94-03A SEC 3

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

For performance penalties, Refer to OpsProc 27-64-04A Spoilers 1 and 2

DURING COCKPIT PREPARATION

Deactivation of the SEC 3:

- SEC 3 pb-sw OFF
- FLIGHT CONTROLS/SEC 3/SPLY (121VU Q19) C/B Pull

IN FLIGHT

- **If the SEC 1 and the SEC 2 fail during the flight:**
Autoland is not permitted.
Maximum landing capability is CAT 1
Disengage the AP at 500 ft RA before landing in direct law.
When the AP is disengaged with the three SEC s failed, it cannot be engaged again.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 27 - FLIGHT CONTROLS 27-95 - FCDC System (Flight Control Data Concentrator)

27-95-01	FCDC 1

Applicable to: ALL

27-95-01A

Repair interval	Nbr installed	Nbr required	Procedure
-	1	1	

Must be operative.

27-95-02	FCDC 2

Applicable to: ALL

27-95-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

- (o) OpsProc 27-95-02A FCDC 2

Applicable to: ALL

DURING COCKPIT PREPARATION

FLIGHT CONTROLS/FCDC2/SPLY (121VU Q20) C/B..... Pull

ATA 28

Fuel

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-00 - MAINTENANCE Message on the STATUS SD page

28-00-01	FUEL <u>MAINTENANCE</u> Message

Applicable to: ALL

28-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

FUEL MAINTENANCE message may be displayed on the STATUS SD page.

28-01-01-01

Wing TK PUMP pb-sw FAULT light

Applicable to: ALL

28-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative provided that the corresponding pump is set to OFF when the associated tank is empty.

28-01-01-02

Wing TK PUMP pb-sw OFF light

Applicable to: ALL

28-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative provided that the corresponding pump indication is operative on the FUEL SD page.

28-01-01-03

X FEED pb-sw ON light

Applicable to: ALL

28-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the X FEED indication is operative on the FUEL SD page.

28-01-01-04

X FEED pb-sw OPEN light

Applicable to: ALL

28-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the X FEED indication is operative on the FUEL SD page.

28-01-01-05

CTR TK PUMP pb-sw FAULT light

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-01-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the corresponding pump is set to OFF when there is no fuel in the center tank.

28-01-01-05

CTR TK XFR pb-sw FAULT light

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-01-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the corresponding transfer valve is set to OFF when there is no fuel in the center tank.

28-01-01-06

CTR TK PUMP pb-sw OFF light

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-01-01-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the corresponding pump indication is operative on the FUEL SD page.

28-01-01-06

CTR TK XFR pb-sw OFF light

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-01-01-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the corresponding transfer valve indication is operative on the FUEL SD page.

28-01-01-07

FUEL MODE SEL pb-sw FAULT light

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-01-01-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that all tank pumps indications are operative on the FUEL SD page.

Reference(s)

(o) *OpsProc 28-01-01-07A FUEL MODE SEL pb-sw FAULT light*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

AFTER ENGINE START

- If there is fuel in the center tank and with the slats retracted:

On the FUEL SD page, check that the center tank pumps indications are in line.

- With the slats extended:
 On the FUEL SD page, check that the center tank pumps indications are cross line.

AFTER TAKEOFF

- If there is fuel in the center tank and with the slats retracted:
 On the FUEL SD page, check that the center tank pumps indications are in line.

28-01-01-07	FUEL MODE SEL pb-sw FAULT light

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-01-01-07B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that all wing tank pumps and center tank transfer valves indications are operative on the FUEL SD page.

28-01-01-08	ACT pb-sw FAULT light

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8278, HL8279, HL8280, HL8281 and later on

28-01-01-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the fuel quantity indications of the ACT (s) and of the center tank are operative on the FUEL SD page.

Reference(s)

(o) OpsProc 28-01-01-08A ACT pb-sw FAULT light

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

IN FLIGHT

- If a manual transfer from the ACT to the CTR tank is necessary:
 - Refer to FCOM/PRO-ABN-28-R FUEL ACT XFR FAULT (If Installed).
 - On the FUEL SD page, monitor the fuel transfer.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-01 - Overhead Panels 28-01-01 - FUEL Overhead Panel

28-01-01-09	ACT pb-sw FWD light

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-01-01-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-01 - Fuel Quantity Indications on the FUEL SD page

28-07-01-01	Fuel On Board (FOB) Indication on the <u>FUEL</u> SD page

Applicable to: ALL

28-07-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided contingency fuel 3% operations should not be conducted.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

_____Reference(s)_____

(o) *OpsProc 28-07-01-01A Fuel On Board (FOB) Indication on the FUEL SD page*

Applicable to: ALL

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:

Insert the FOB.

The FOB may be calculated either using the indications on the refuel control panel (if available) or by using the Manual Magnetic Indicators (MMI s): Refer to

FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI).

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher.

28-07-01-02	Fuel Quantity Indication (FQI) in Degraded Mode on the FUEL SD page

Applicable to: ALL

28-07-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	–	0	(o)

May be inoperative provided that:

- 1) One or more FQI may be in the degraded mode (with dashes on the two last digits) provided that the loss of accuracy is taken into account for the fuel planning for each affected tank, and
- 2) Contingency fuel 3% operations should not be conducted.

Note: *The Fuel On Board indication is also in the degraded mode.*

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) *OpsProc 28-07-01-02A Fuel Quantity Indication in Degraded Mode on the FUEL SD page*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

ON GROUND

The FQI is in degraded mode when the FOB indication is displayed with two dashes across the two last digits on the EWD.

- When the FQI is in degraded mode:

On the FUEL SD page, determine which tank is affected.

The resulting loss of accuracy must be taken into account by using the two following parameters:

1. Fq: The extra fuel quantity to be loaded.
2. W: The weight to be added to the total fuel weight for TOW calculation only.

Fq and W parameters are given as follows :

LOSS OF ACCURACY DUE TO THE FUEL QUANTITY INDICATION IN DEGRADED MODE (Values in kg)		
	Fq (kg)	W (kg)
OUTER TANK	20	200
INNER TANK	110	110
CENTER TANK	130	130
ALL TANKS	390	750

LOSS OF ACCURACY DUE TO THE FUEL QUANTITY INDICATION IN DEGRADED MODE (Values in lb - If applicable)		
	Fq (lb)	W (lb)
OUTER TANK	45	450
INNER TANK	240	240
CENTER TANK	290	290
ALL TANKS	860	1 670

- When the refuel stops:

- Preselect the fuel quantity required for the mission : Fm
- Enter the table and determine Fq and W values for the affected tank.

- Start again the refuel with the new preselected quantity which corresponds to the total FOB : $F_m + F_q$

Note: *If all tanks reach high level before having loaded the complete F_q value, this shows that all tanks are volumetrically full but the necessary fuel mass for the mission is not guaranteed since the fuel quantity indication varies with the fuel density. Therefore the mission or the aircraft load must be amended to match the minimum fuel quantity known to be onboard.*

- When the refuel stops again:

The FOB value to be considered for TOW calculation is: $FOB = F_m + F_q + W$

- If all tanks reach high level before having loaded F_q value:

- The extra fuel quantity known to be onboard is F_q^* with: $F_q^* > F_q$
- The FOB value to be considered for TOW calculation is: $FOB = F_m + F_q^* + W$

- If the resulting TOW is higher than the MTOW:

The aircraft load must be reduced.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND

The FQI is in degraded mode when the FOB indication is displayed with two dashes across the two last digits on the EWD.

- When the FQI is in degraded mode:

On the FUEL SD page, determine which tank is affected.

The resulting loss of accuracy must be taken into account by using the two following parameters:

1. F_q : The extra fuel quantity to be loaded.
2. W : The weight to be added to the total fuel weight for TOW calculation only.

F_q and W parameters are given as follows :

LOSS OF ACCURACY DUE TO THE FUEL QUANTITY INDICATION IN DEGRADED MODE (Values in kg)		
	F_q (kg)	W (kg)
WING TANK	130	310
CENTER TANK	130	130
ALL TANKS	390	750

LOSS OF ACCURACY DUE TO THE FUEL QUANTITY INDICATION IN DEGRADED MODE (Values in lb - If applicable)

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-01 - Fuel Quantity Indications on the FUEL SD page

	Fq (lb)	W (lb)
WING TANK	290	690
CENTER TANK	290	290
ALL TANKS	870	1 670

- When the refuel stops:
 - Preselect the fuel quantity required for the mission: Fm
 - Enter the table and determine Fq and W values for the affected tank.
 - Start again the refuel with the new preselected quantity which corresponds to the total FOB : Fm+Fq

Note: If all tanks reach high level before having loaded the complete Fq value, this shows that all tanks are volumetrically full but the necessary fuel mass for the mission is not guaranteed since the fuel quantity indication varies with the fuel density. Therefore the mission or the aircraft load must be amended to match the minimum fuel quantity known to be onboard.

- When the refuel stops again:

The FOB value to be considered for TOW calculation is: $FOB = Fm + Fq + W$

- If all tanks reach high level before having loaded Fq value:

- The extra fuel quantity known to be onboard is Fq* with: $Fq^* > Fq$
- The FOB value to be considered for TOW calculation is: $FOB = Fm + Fq^* + W$

- If the resulting TOW is higher than the MTOW:

The aircraft load must be reduced.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

28-07-01-03	Outer Tank Fuel Quantity Indication on the <u>FUEL</u> SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-07-01-03A Check of fuel quantity in the associated tank after refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) The fuel quantity in the associated tank is checked after each refueling by the manual magnetic indicators or by the corresponding fuel quantity indicator on refuel/defuel control panel, and
- 2) The associated fuel used indication is operative, and
- 3) The associated inner tank indication is operative.
- 4) Contingency fuel 3% operations should not be conducted.

⁴ Note: If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) *OpsProc 28-07-01-03A Outer Tank Fuel Quantity Indication on the FUEL SD page*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

AFTER REFUELING

The FOB may be calculated either using the indications on the refuel control panel (if available) or by using the Manual Magnetic Indicators (MMIs): *Refer to FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI)*

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:
Insert the FOB.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) *Refer to AMM 28-40-00-040-003*

28-07-01-03B High level fuel detection system checked operative before refueling and associated inner tank indication operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative, and
- 4) The associated inner tank indication is operative.
- 5) Contingency fuel 3% operations should not be conducted.

MEL ITEMS

28 - FUEL

28-07 - Indications on the FUEL SD page

28-07-01 - Fuel Quantity Indications on the FUEL SD page

Note: *If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.*

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) Refer to AMM 28-40-00-040-003

28-07-01-03C Check of fuel quantity in the associated wing after refueling/defueling

Repair interval	Nbr installed	Nbr required	Procedure
B	2	1	(o)(m)

One may be inoperative provided that:

- 1) The fuel quantity in the associated wing (inner and outer tanks) is checked after each refueling/defueling by the manual magnetic indicators or by the corresponding fuel quantity indicator on the refuel/defuel control panel, and
- 2) The associated fuel used indication is operative.
- 3) Contingency fuel 3% operations should not be conducted.

Note: *If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.*

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) OpsProc 28-07-01-03C Outer Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

AFTER REFUELING

The FOB may be calculated either using the indications on the refuel control panel (if available) or by using the Manual Magnetic Indicators (MMIs): Refer to FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI)

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:
Insert the FOB.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) Refer to AMM 28-40-00-040-003

28-07-01-03D High level fuel detection system checked operative before refueling

Repair interval	Nbr installed	Nbr required	Procedure
B	2	1	(o)(m)

One may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative.
- 4) Contingency fuel 3% operations should not be conducted.

Note: *If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.*

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s) _____

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) Refer to AMM 28-40-00-040-003

28-07-01-04

Inner Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-07-01-04A Check of fuel quantity in the associated tank after refueling

MEL ITEMS

28 - FUEL

28-07 - Indications on the FUEL SD page
 28-07-01 - Fuel Quantity Indications on the FUEL SD page

6)

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) The fuel quantity in the associated tank is checked after each refueling by the manual magnetic indicators or by the corresponding fuel quantity indicator on the refuel/defuel control panel, and
- 2) The associated fuel used indication is operative.
- 3) Contingency fuel 3% operations should not be conducted.

Note: If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) OpsProc 28-07-01-04A Inner/Wing Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

AFTER REFUELING

The FOB may be calculated either using the indications on the refuel control panel (if available) or by using the Manual Magnetic Indicators (MMIs): Refer to FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI)

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:
Insert the FOB.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) Refer to AMM 28-40-00-040-005

28-07-01-04B High level fuel detection system checked operative before refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative.
- 4) Contingency fuel 3% operations should not be conducted.

Note: If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) Refer to AMM 28-40-00-040-005

28-07-01-04

Wing Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-07-01-04A Check of fuel quantity in the associated tank after refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) The fuel quantity in the associated tank is checked after each refueling by the manual magnetic indicators or by the corresponding fuel quantity indicator on the refuel/defuel control panel, and
- 2) The associated fuel used indication is operative.
- 3) Contingency fuel 3% operations should not be conducted.

Note: If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) OpsProc 28-07-01-04A Inner/Wing Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AFTER REFUELING

MEL ITEMS

28 - FUEL

28-07 - Indications on the FUEL SD page
 28-07-01 - Fuel Quantity Indications on the FUEL SD page

The FOB may be calculated either using the indications on the refuel control panel (if available) or by using the Manual Magnetic Indicators (MMIs): *Refer to FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI).*

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:

Insert the FOB.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) *Refer to AMM 28-40-00-040-005*

28-07-01-05

Center Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7594, HL7703, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL8236

28-07-01-05A Check of fuel quantity after refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The fuel quantity in the center tank is checked after each refueling by the manual magnetic indicators or by the corresponding fuel quantity indicator on the refuel/defuel control panel, and
- 2) All wing tanks fuel quantity indications are operative, and
- 3) Both fuel used indications are operative.
- 4) Contingency fuel 3% operations should not be conducted.

Note: *If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.*

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) *OpsProc 28-07-01-05A Center Tank Fuel Quantity Indication on the FUEL SD page*

Applicable to: HL7594, HL7703, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL8236

AFTER REFUELING

The FOB may be calculated either using the indications on the refuel control panel (if available) or

by using the Manual Magnetic Indicators (MMIs): *Refer to FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI).*

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:
Insert the FOB.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) *Refer to AMM 28-40-00-040-006*

28-07-01-05B Fuel in the center tank not usable

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) There is no fuel in the center tank or the fuel in this tank is considered as not usable and as part of the ZFW and is taken into account for CG determination., and
- 2) Contingency fuel 3% operations should not be conducted.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher_

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

MEL ITEMS

28 - FUEL

28-07 - Indications on the FUEL SD page
 28-07-01 - Fuel Quantity Indications on the FUEL SD page

28-07-01-05

Center Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-07-01-05A Check of fuel quantity after refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The fuel quantity in the center tank is checked after each refueling by the manual magnetic indicators or by the corresponding fuel quantity indicator on the refuel/defuel control panel, and
- 2) All wing tanks and ACT (s) fuel quantity indications are operative, and
- 3) Both fuel used indications are operative, and
- 4) The forward transfer from ACT (s) to the center tank is monitored during the flight.
- 5) Contingency fuel 3% operations should not be conducted.

Note: This failure will result in the display of the FUEL ACT XFR FAULT alert while the automatic transfer is still operative.

Refer to Item 28-09-03 FUEL ACT XFR FAULT Alert

Note: If the loss of the tank fuel quantity indication occurs after refueling has been completed and the fuel quantity has been formally accepted by the flight crew, the tank is verified to be properly fueled and the (m) procedure does not need to be performed.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) OpsProc 28-07-01-05A Center Tank Fuel Quantity Indication on the FUEL SD page

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AFTER REFUELING

The FOB may be calculated either using the indications on the refuel control panel (if available) or by using the Manual Magnetic Indicators (MMIs): Refer to FCOM/PER-LOD-FUL-FUEL-C.USE OF MANUAL MAGNETIC INDICATORS (MMI).

AFTER ENGINE START

Check that /FF is selected on the MCDU FUEL PRED page.

- If /FF is not selected on the MCDU FUEL PRED page:

Insert the FOB.

AT TOP OF CLIMB

- Check on the FUEL SD page that the fuel is transferred from one additional center tank (from ACT 2 if ACT 2 is installed and not empty) to the center tank.
- Check that the fuel quantity in one additional center tank has decreased (from ACT 2 if ACT 2 is installed and not empty).
- If the automatic transfer has not started:
 - After 30 minutes of flight:
 - ACT pb-sw FWD
 - If necessary perform a descent to FL 270.
 - When ACT (both ACT s if two ACT s installed) empty:
 - ACT pb-sw AUTO

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

(m) Refer to AMM 28-40-00-040-006

28-07-01-05B Fuel in the center tank not usable

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) There is no fuel in the enter tank or the fuel in this tank is considered as not usable and as part of the ZFW and is taken into account for CG determination, and
- 2) There is no fuel in any ACT.
- 3) Contingency fuel 3% operations should not be conducted.

Note: This failure will result in the display of the FUEL ACT XFR FAULT alert while the automatic transfer is still operative.

Refer to Item 28-09-03 FUEL ACT XFR FAULT Alert

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

28-07-01-06	ACT Fuel Quantity Indication on the <u>FUEL</u> SD page

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8279, HL8280, HL8281 and later on

28-07-01-06B Fuel in the ACT

 A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-01 - Fuel Quantity Indications on the FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- One fuel quantity indication may be inoperative provided that:
- 1) All wing tanks and center tank and the other ACT (if two ACTs are installed) fuel quantity indications are operative, and
 - 2) Both fuel used indications are operative, and
 - 3) The forward transfer from ACT(s) to the center tank is monitored during the flight.
 - 4) Contingency fuel 3% operations should not be conducted.

Note: *This failure will result in the inhibition of the FUEL ACT XFR FAULT alert.
Refer to Item 28-09-03 FUEL ACT XFR FAULT Alert*

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) *OpsProc 28-07-01-06B ACT Fuel Quantity Indication on the FUEL SD page*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

AT TOP OF CLIMB

Check of the fuel transfer from one additional center tank (from ACT 2 if ACT 2 is installed and not empty) to the center tank:

On the FUEL SD page, check that the transfer indication (arrow) is displayed or check that the total fuel indicated is above the actual fuel indicated after refuel minus FU.

- If the automatic transfer has not started:
 - After 30 minutes of flight:
 - ACT pb-sw FWD
 - If necessary perform a descent to FL 270.
- When ACT (both ACTs if two ACTs installed) is empty:
ACT pb-sw..... AUTO

OPERATIONAL NOTE

Contingency fuel 3% operations should be decided by the dispatcher. Contact the dispatcher

28-07-01-06C ACT empty

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-01 - Fuel Quantity Indications on the FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

One or more may be inoperative provided that there is no fuel in any ACT.

Note: *This failure will result in the inhibition of the FUEL ACT XFR FAULT alert.
Refer to Item 28-09-03 FUEL ACT XFR FAULT Alert*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-02 - Fuel Temperature Indications on the FUEL SD page

28-07-02-01	Fuel Temperature Indication on the <u>FUEL</u> SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-07-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

One in each wing or both in one wing may be inoperative.

28-07-02-01	Fuel Temperature Indication on the <u>FUEL</u> SD page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-07-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

MEL ITEMS

28 - FUEL

28-07 - Indications on the FUEL SD page

28-07-03 - Tank Pump Indications on the FUEL SD page

28-07-03-01

Wing Tank Pump Indication on the FUEL SD page

Applicable to: ALL

28-07-03-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

28-07-03-02

Center Tank Pump Indication on the FUEL SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-07-03-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

28-07-04-01

Engine LP Fuel Valve Indication on the FUEL SD page

Applicable to: ALL

28-07-04-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the associated LP valve is checked operative before each flight.

_____Reference(s)_____

(m) Refer to AMM 28-40-00-040-009

28-07-04-02

APU LP Fuel Valve Indication on the FUEL SD page

Applicable to: ALL

28-07-04-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The APU LP valve is secured in the closed position and,
- 2) The APU is not used.

_____Reference(s)_____

(m) Refer to AMM 28-40-00-040-001

28-07-04-03

Crossfeed Valve Indication on the FUEL SD page

Applicable to: ALL

28-07-04-03A Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) Operation of the crossfeed valve is checked before the first flight of each day.

_____Reference(s)_____

(m) Refer to AMM 28-40-00-040-002

28-07-04-03B EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

For EDTO, may be inoperative provided that the operation of crossfeed valve is checked before each flight.

Reference(s) _____

(m) Refer to AMM 28-40-00-040-002

28-07-04-04	Wing Transfer Valve Indication on the <u>FUEL</u> SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-07-04-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

One or both may be inoperative provided that:

- 1) The fuel quantity indications of the associated inner and outer tanks are operative, and
- 2) The transfer valve operation is checked before each flight and when used in flight.

Reference(s) _____

(O) Refer to OpsProc 28-07-04-04A Wing Transfer Valve Indication on the FUEL SD page

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

IN FLIGHT

- When any inner tank fuel quantity reaches 750 kg (1 650 lb) of fuel:

On the FUEL SD page, check the associated outer tank transfer.

(m) Refer to AMM 28-40-00-040-004

28-07-04-05	Center Tank Transfer Valve Indication on the <u>FUEL</u> SD page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8059, HL8060, HL8039, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-07-04-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-04 - Valve Indications on the FUEL SD page

One or both may be inoperative.

28-07-04-06	ACT to CTR TK Transfer (Arrow) Indication on the <u>FUEL</u> SD page

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-07-04-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the fuel quantity indications (both FQI if both ACTs installed) of the ACT(s) and of the center tank are operative on the FUEL SD page.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-07 - Indications on the FUEL SD page 28-07-05 - Fuel Flow Indication on the FUEL SD page

28-07-05-01	Fuel Flow 1+2 Indication on the <u>FUEL</u> SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8059, HL8060, HL8039, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8280, HL8281 and later on

28-07-05-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

MEL ITEMS

28 - FUEL

28-07 - Indications on the FUEL SD page

28-07-06 - Fuel Used Indication on the FUEL SD page

28-07-06-01

Fuel Used Indication on the FUEL SD page

Applicable to: ALL

28-07-06-01A

Repair interval	Nbr installed	Nbr required	Procedure
-	-	-	

Refer to Item 73-07-01 Fuel Used Indication on the ENGINE SD page.

28-07-06-02

Fuel Used 1+2 Indication on the FUEL SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8059, HL8060, HL8039, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-07-06-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

28-09-01

FUEL L(R) INNER(OUTER) TK HI TEMP Alert

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-09-01A One or two inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(o)

One in each wing or both in one wing may be displayed provided that:

- 1) The fuel temperature indications of the non affected tanks are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

Reference(s)

(o) OpsProc 28-09-01A FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

ON GROUND OR IN FLIGHT

On the FUEL SD page, monitor the fuel temperature before takeoff and periodically during the flight.

Note: For fuel temperature limits, Refer to AFM/LIM-28 Fuel Temperature Limits.

- If fuel temperature reaches limits:
 - Before takeoff:

Delay takeoff and shut down the engine on the affected side.
 - In flight:
 - Increase the engine fuel flow on the affected side.
 - If necessary use the APU GEN and switch off the IDG on the affected side (if the opposite GEN is available).

28-09-01B One or more inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be displayed provided that:

- 1) The fuel temperature indications are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

Reference(s)

(o) OpsProc 28-09-01B FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert

Refer to item 28-09-01A (o) procedure

28-09-01

FUEL L(R) WING TK HI TEMP Alert

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-09-01A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be displayed provided that:

- 1) The fuel temperature indications of the opposite wing are operative on the FUEL SD page ,
and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

Reference(s)

(o) OpsProc 28-09-01A FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

On the FUEL SD page, monitor the fuel temperature before takeoff and periodically during the flight.

Note: For fuel temperature limits, Refer to AFM/LIM-28 Fuel Temperature Limits.

- If fuel temperature reaches limits:
 - Before takeoff:
 - Delay takeoff and shut down the engine on the affected side.
 - In flight:
 - Increase the engine fuel flow on the affected side.
 - If necessary use the APU GEN and switch off the IDG on the affected side (if the opposite GEN is available).

28-09-01B Two inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be displayed provided that:

- 1) The fuel temperature indications are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

_____Reference(s)_____

(o) OpsProc 28-09-01B FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert

Refer to item 28-09-01A (o) procedure

28-09-02

FUEL L(R) INNER(OUTER) TK LO TEMP Alert

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-09-02A One or two inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(o)

One in each wing or both in one wing may be displayed provided that:

- 1) The fuel temperature indications of the non affected tanks are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

Reference(s)

(o) OpsProc 28-09-02A FUEL L(R) INNER(OUTER)/WING TK LO TEMP Alert

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

ON GROUND OR IN FLIGHT

On the FUEL SD page, monitor the fuel temperature before takeoff and periodically during the flight.

Note: For fuel temperature limits, Refer to AFM/LIM-28 Fuel Temperature Limits.

- If fuel temperature reaches limits:
 - Before takeoff:
Delay takeoff.
 - In flight:

Consider descending to a lower altitude and/or increasing the mach to increase the TAT.

28-09-02B One or more inoperative

Repair interval	Nbr installed	Nbr required	precedure
C	4	0	(o)

One or more may be displayed provided that:

- 1) The fuel temperature indications are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

Reference(s)

(o) OpsProc 28-09-02B FUEL L(R) INNER(OUTER)/WING TK LO TEMP Alert

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-09 - ECAM Alerts

Refer to item 28-09-02A (o) procedure

28-09-02	<u>FUEL</u> L(R) WING TK LO TEMP Alert

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-09-02A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be displayed provided that:

- 1) The fuel temperature indications of the opposite wing are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

Reference(s)

(o) OpsProc 28-09-02A FUEL L(R) INNER(OUTER)/WING TK LO TEMP Alert

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

On the FUEL SD page, monitor the fuel temperature before takeoff and periodically during the flight.

Note: For fuel temperature limits, Refer to AFM/LIM-28 Fuel Temperature Limits.

- If fuel temperature reaches limits:
 - Before takeoff:
Delay takeoff.
 - In flight:
Consider descending to a lower altitude and/or increasing the mach to increase the TAT.

28-09-02B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be displayed provided that:

- 1) The fuel temperature indications are operative on the FUEL SD page , and
- 2) The fuel temperature is monitored before takeoff and during the flight.

Note: *For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.*

Reference(s) _____

(o) 28-09-02B FUEL L(R) INNER(OUTER)/WING TK LO TEMP Alert

Refer to item 28-09-02A (o) procedure

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-09 - ECAM Alerts

28-09-03	<u>FUEL</u> ACT XFR FAULT Alert

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-09-03A ACT empty

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be displayed provided that there is no fuel in any ACT.

28-09-03B ACT fuel transfer monitored

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be displayed provided that the forward transfer from the ACT (s) to the center tank is monitored during the flight.

_____Reference(s)_____

(o) *OpsProc 28-09-03B FUEL ACT XFR FAULT Alert*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

Refer to (o) procedure 28-07-01-05A Center Tank Fuel Quantity Indication on the FUEL SD page

	MEL ITEMS 28 - FUEL 28-12 - Tank Venting System

28-12-01	Overpressure Protector between the Inner and the Outer Tank

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-12-01A Inner tank temperature monitored

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be broken or missing provided that the fuel temperature of the inner tank is monitored.

_____Reference(s)_____

- (o) *OpsProc 28-12-01A Overpressure Protector Between the Inner and the Outer Tank (Inner tank fuel temperature monitored)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

The dispatch condition results in an unusual distribution of the fuel quantity: the outer tank of the affected wing will be partially empty with the transfer valves normally closed.

FLIGHT PREPARATION/LIMITATIONS

Fuel management should be performed with care.

ON GROUND AND IN FLIGHT

- After a long taxi or if the outside air temperature is high, with the outer tank of the affected wing empty:

The FUEL L(R) OUTER TK HI TEMP alert may be displayed on the EWD.

- If the FUEL L(R) OUTER TK HI TEMP alert is displayed on the EWD :
 - Disregard the FUEL L(R) OUTER TK HI TEMP alert.
 - Monitor the inner tank fuel temperature during taxi and in flight to ensure that it decreases and remains within the temperature limitations.

Note: For fuel temperature limitations, Refer to AFM/LIM-28 Fuel Temperature Limits.

- If the inner tank fuel temperature exceeds the temperature limitations, apply the FUEL L(R) INNER TK HI TEMP procedure: Refer to OpsProc 28-09-01A(B) FUEL L(R) INNER(OUTER)/WING TK HI TEMP Alert.

28-12-01B Transfer valves secured open

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

One or both may be broken or missing provided that the associated transfer valves are secured in the open position after each refueling, or after each aircraft repowering.

Reference(s) _____

- (o) *OpsProc 28-12-01B Overpressure Protector Between the Inner and the Outer Tank*
(Transfer valves opened)

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in both outer tanks will transfer to the inner tanks even when the inner tanks are not empty.

ON GROUND

Check that the associated wing transfer valves are indicated open on the FUEL SD page.

- (m) Refer to AMM 28-12-00-040-003

28-12-02

Overpressure Protector in the Vent Surge Tank

Applicable to: ALL

28-12-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be broken or missing.

Reference(s)

(o) *OpsProc 28-12-02A Overpressure Protector in the Vent Surge Tank*

Applicable to: ALL

ON GROUND AND IN FLIGHT

- Avoid lateral accelerations in order to reduce the possibility of fuel spill during taxi and climb out.
- In cruise check that no fuel spillage occurred.
- Check that the FOB is sufficient to reach the destination with the adequate reserve.

28-12-03

Overpressure Protector in the Inner Tank

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-12-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

28-12-03

Overpressure Protector in the Wing Tank

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-12-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-12 - Tank Venting System

28-12-04	Overpressure Protector between the Center and the Inner Tank

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-12-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

28-12-04	Overpressure Protector between the Center and the Wing Tank

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-12-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

28-12-05

Overpressure Protector in the ACT

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-12-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

All may be broken or missing provided that the ACT auto transfer system is considered inoperative.

Refer to Item 28-28-01 ACT Auto Transfer System

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-15 - Intercell Transfer System

28-15-01	LH Wing Transfer Valve

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-15-01A One or both inoperative open

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative in the open position.

_____Reference(s)_____

(o) *OpsProc 28-15-01A LH Wing Transfer Valve (At least one transfer valve open)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

- If one or both wing transfer valves are inoperative in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in the outer tank on the affected side will transfer to the inner tank even when the inner tank is not empty.

- If one wing transfer valve is secured in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in both outer tanks will transfer to the inner tanks even when the inner tanks are not empty.

ON GROUND

- If one wing transfer valve is secured in the open position:

Check that the wing transfer valve is indicated open on the FUEL SD page.

28-15-01B One or both inoperative with not usable fuel

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative in the closed position provided that the fuel in the LH outer tank is considered as not usable and as part of the ZFW.

_____Reference(s)_____

(o) *OpsProc 28-15-01B LH Wing Transfer Valve (At least one transfer valve failed closed)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

The fuel in the affected outer tank should be considered as not usable for the flight planning.

28-15-01C One inoperative closed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative in the closed position provided that the remaining LH wing transfer valve is secured in the open position after each refueling, or after each aircraft repowering.

Reference(s)

(o) *OpsProc 28-15-01C LH Wing Transfer Valve (At least one transfer valve open)*

GENERAL INFORMATION

- If one or both wing transfer valves are inoperative in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in the outer tank on the affected side will transfer to the inner tank even when the inner tank is not empty.

- If one wing transfer valve is secured in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in both outer tanks will transfer to the inner tanks even when the inner tanks are not empty.

ON GROUND

- If one wing transfer valve is secured in the open position:

Check that the wing transfer valve is indicated open on the FUEL SD page.

(m) *Refer to AMM 28-15-00-040-001*

28-15-02

RH Wing Transfer Valve

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-15-02A One or both inoperative open

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative in the open position.

Reference(s)

(o) *OpsProc 28-15-02A RH Wing Transfer Valve (At least one transfer valve open)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

- If one or both wing transfer valves are inoperative in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in the outer tank on the affected side will transfer to the inner tank even when the inner tank is not empty.

- If one wing transfer valve is secured in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in both outer tanks will transfer to the inner tanks even when the inner tanks are not empty.

ON GROUND

- If one wing transfer valve is secured in the open position:

Check that the wing transfer valve is indicated open on the FUEL SD page.

28-15-02B One or both inoperative with not usable fuel

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative in the closed position provided that the fuel in the RH outer tank is considered as not usable and as part of the ZFW.

FUEL PENALTY ITEM

Reference(s)

(o) *OpsProc 28-15-02B RH Wing Transfer Valve (At least one transfer valve failed closed)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

The fuel in the affected outer tank should be considered as not usable for the flight planning.

28-15-02C One inoperative closed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative in the closed position provided that the remaining RH wing transfer valve is secured in the open position after each refueling, or after each aircraft repowering.

Reference(s)

(o) *OpsProc 28-15-02C RH Wing Transfer Valve (At least one transfer valve open)*

GENERAL INFORMATION

- If one or both wing transfer valves are inoperative in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in the outer tank on the affected side will transfer to the inner tank even when the inner tank is not empty.

- If one wing transfer valve is secured in the open position:

The dispatch condition results in an unusual distribution of the fuel quantity: the fuel in both outer tanks will transfer to the inner tanks even when the inner tanks are not empty.

ON GROUND

- If one wing transfer valve is secured in the open position:

Check that the wing transfer valve is indicated open on the FUEL SD page.

(m) *Refer to AMM 28-15-00-040-002*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-20 - Distribution

28-20-01	Automatic Fuel Feed System

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 28-20-01A Automatic Fuel Feed System*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

ON GROUND

- If the center tank is empty for the flight :
 - MODE SEL pb-sw MAN
 - CTR TK PUMP 1 and 2 pb-sw OFF
- If the center tank is not empty for the flight:
 - Before engine start:
 - MODE SEL pb-sw MAN
 - 3 min after engine start :
 - CTR TK PUMP 1 and 2 pb-sw OFF

IN FLIGHT

- If the center tank is not empty for the flight :
 - After slats retraction and when the fuel in one wing is less than 5 000 kg (11 000 lb) :
 - CTR TK PUMP 1 and 2 pb-sw On
 - When the FUEL CTR TK PUMPS LO PR alert is displayed on the EWD:
 - CTR TK PUMP 1 and 2 pb-sw OFF

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-21 - Main Fuel Pump System

28-21-01	Wing Tank Pump

Applicable to: ALL

28-21-01A JP4/JET B not used

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	

One pump may be inoperative provided that JP4/JET B is not used.

28-21-01B Use of JP4/JET B

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	

Pump 2 LH or pump 2 RH may be inoperative when JP4/JET B is used provided that the fuel temperature is less than 30 °C.

28-21-02

Center Tank Pump

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-21-02A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that the flight routes permit a landing at a suitable airport if the remaining center tank pump fails with fuel in the center tank.

Reference(s)

(o) *OpsProc 28-21-02A Center Tank Pump/Transfer Valve(One inoperative)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

In the case of dispatch with fuel in the center tank, the remaining center tank pump failure must be considered for the flight planning. Operator has to ensure that, from any point of the first part of the route where the center tank is not empty the aircraft may reach a suitable airport considering the fuel quantity (FQ) contained in the center tank as definitely not usable for the flight planning (as a consequence of the failure of the remaining center tank pump).

DURING COCKPIT PREPARATION

- X FEED pb-sw CHECK Off
- Affected CTR TK PUMP pb-sw OFF
- Operative CTR TK PUMP pb-sw OFF

IN FLIGHT

- If the fuel quantity in the center tank is less than 200 kg (440 lb):
 Operative CTR TK PUMP pb-sw Maintain OFF

- If the fuel quantity in the center tank is more than 200 kg (440 lb):

The fuel in the center tank can be completely used if the operative center tank pump does not fail before the center tank is empty. If the operative center tank pump fails before the center tank is empty, consider the fuel quantity remaining and the time to destination to decide either to continue the flight or to divert.

- When the fuel quantity in the first wing inner tank is less than 4 500 kg (10 000 lb):
 Operative CTR TK PUMP pb-sw ON
 X FEED pb-sw ON
- When the fuel quantity in the first wing inner tank increases above 5 500 kg (12 000 lb):
 X FEED pb-sw Off
 Operative CTR TK PUMP pb-sw OFF

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-21- Main Fuel Pump System

Note: Repeat the previous two steps as many times as necessary until the center tank is empty. The operative center tank pump will switch off automatically

- When the fuel quantity in the center tank is less than 250 kg (550 lb):
X FEED pb-sw Off

28-21-02D Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

Both may be inoperative provided that:

- 1) There is no fuel in the center tank or the fuel in the center tank is considered as not usable and as part of the ZFW and is taken into account for CG determination, and
- 2) The center tank pumps are set to OFF.

I FUEL PENALTY ITEM

_____Reference(s)_____

(o) *OpsProc 28-21-02D Center Tank Pump (Both inoperative)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

CTR TK PUMP 1 and 2 pb-sw.....OFF

28-21-03

Wing Tank Pump Sequence Valve

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-21-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	

One may be inoperative provided that the associated pump is set to OFF when the center tank is feeding.

28-22-01

APU Fuel Pump

Applicable to: ALL

28-22-01A Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that EDTO is not conducted.

_____Reference(s)_____

(o) *OpsProc 28-22-01A APU Fuel Pump*

Applicable to: ALL

FOR APU START OPERATION

Pressurize the LH fuel manifold with at least one fuel tank pump.

28-22-01B EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

For EDTO, May be inoperative for four flights.

_____Reference(s)_____

(o) *OpsProc 28-22-01B APU Fuel Pump*

Applicable to: ALL

FOR APU START OPERATION

Pressurize the LH fuel manifold with at least one fuel tank pump.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-23 - Crossfeed System

28-23-01	Crossfeed Valve

Applicable to: ALL

28-23-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-24 - Engine LP Fuel Shutoff

28-24-01	Engine LP Fuel Valve Electrical Motor

Applicable to: ALL

28-24-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(m)

One may be inoperative on one engine provided that:

- 1) The affected motor is deactivated, and
- 2) The remaining motor is checked operative.

_____Reference(s)_____

(m) Refer to AMM 28-24-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-25 - Refuel/Defuel System

28-25-01	Fuel Quantity Preselector

Applicable to: ALL

28-25-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

28-25-02

Fuel Quantity on the Refuel/Defuel Control Panel

Applicable to: ALL

28-25-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

One or more indications may be inoperative provided that the fuel quantity is continuously monitored on the FUEL SD page during refueling and defueling.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-25 - Refuel/Defuel System

28-25-03	Refuel Valve

Applicable to: ALL

28-25-03A Manual refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(m)

One or more may be inoperative provided that the aircraft is manually refueled.

_____Reference(s)_____

(m) Refer to AMM 28-25-00-040-005

28-25-03B Gravity refueling

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative provided that overwing gravity refueling is performed.

Refer to FCOM/PER-LOD-FUL OVERWING GRAVITY REFUELING

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-25 - Refuel/Defuel System

28-25-04	Transfer Defuel Valve

Applicable to: ALL

28-25-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the valve is secured in the closed position.

Reference(s)

(m) Refer to AMM 28-25-00-040-004

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-25 - Refuel/Defuel System

28-25-05	Exterior Refuel/Defuel Control Panel

Applicable to: ALL

28-25-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the aircraft is manually refueled.

Reference(s)

(m) Refer to AMM 28-25-00-040-008

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-26 - Main Transfer System

28-26-01	Center Tank Transfer Valve

Applicable to: HL7594, HL7703, HL7763, HL8236

28-26-01B One inoperative closed			
Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative in the closed position provided that the flight routes permit a landing at a suitable airport if the remaining center tank transfer valve fails with fuel in the center tank.

Reference(s)

(o) OpsProc 28-26-01B Center Tank Transfer Valve

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

IN FLIGHT

- Disregard the FUEL CTR L(R) XFR FAULT alert displayed on the EWD.
- MODE SEL pb-sw Auto
- Operative CTR TK L(R) XFR pb-sw On
- Affected CTR TK L(R) XFR pb-sw OFF
- When differences between fuel quantities in two wings is above 1 500 kg (3 300 lb):
Monitor the fuel imbalance.

Note: Apply the FUEL IMBALANCE FCOM procedure as required provided that no fuel leak is suspected. Refer to FCOM/PRO-ABN-28 FUEL IMBALANCE.

28-26-01E Both inoperative closed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative in the closed position provided that there is no fuel in the center tank or the fuel in the center tank is considered as not usable and as part of the ZFW and is taken into account for CG determination.

FUEL PENALTY ITEM

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-26 - Main Transfer System

28-26-01F One or both inoperative open

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative in the open position provided that there is no fuel in the center tank.

28-26-01	Center Tank Transfer Valve
Applicable to: HL7730, HL7731, HL7735, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on	

28-26-01B One inoperative closed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative in the closed position provided that the flight routes permit a landing at a suitable airport if the remaining center tank transfer valve fails with fuel in the center tank and in any ACT.

Reference(s)

(o) OpsProc 28-26-01B Center Tank Transfer Valve

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

IN FLIGHT

- Disregard the FUEL CTR L(R) XFR FAULT alert displayed on the EWD.
- MODE SEL pb-sw Auto
- Operative CTR TK L(R) XFR pb-sw On
- Affected CTR TK L(R) XFR pb-sw OFF
- When differences between fuel quantities in two wings is above 1 500 kg (3 300 lb):
Monitor the fuel imbalance.

Note: Apply the FUEL IMBALANCE FCOM procedure as required provided that no fuel leak is suspected. Refer to FCOM/PRO-ABN-28 FUEL IMBALANCE.

28-26-01E Both inoperative closed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative in the closed position provided that there is no fuel in any ACT and the center tank or the fuel in any ACT and the center tank is considered as not usable and as part of the ZFW and is taken into account for CG determination.

28-26-01F One or both inoperative open

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative in the open position provided that there is no fuel in the center tank and in any ACT.

	MEL ITEMS 28 - FUEL 28-28 - Additional Center Tank Transfer System

28-28-01	ACT Auto Transfer System

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-01A ACT empty

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that there is no fuel in any ACT.

28-28-01B Manual fuel transfer operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The manual transfer from the ACT (s) to the center tank is operative, and
- 2) The fuel quantity indications of the ACT (s) and of the center tank are operative on the FUEL SD page.

_____Reference(s)_____

- (o) *OpsProc 28-28-01B ACT Auto Transfer System (Manual transfer from the ACT(s) to the center tank operative)*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

Establish cockpit to ground communications for the following procedure.

REFUEL PANEL DOOR.....OPEN

The refuel panel door must be open to check the operation of the manual transfer.

- If the center tank is full:
ACT pb-sw CHECK AUTO
TEST sw SELECT AND MAINTAIN HI. LVL
Manual fuel transfer from the ACT(s) to the center tank is usually performed with the center tank not full (center tank high level sensor dry). Therefore, if the center tank is full, keeping selected the TEST sw on the refuel/defuel control panel overrides the high level sensor.

CAUTION	When the ACT pb-sw is set to FWD, fuel may spill out from the center tank to the left surge tank. Once manual fuel transfer is checked operative, set immediately the ACT pb-sw to AUTO. Otherwise, fuel may spill out from the left tank.

ACT pb-sw FWD
FUEL SD page MONITOR

Manual fuel transfer is checked operative when one of the following occurs:

- The ACT to center tank fuel transfer indication is fully green
- The fuel quantity of one ACT decreases (ACT 1, or ACT 2 if installed if not empty).

ACT pb-sw AUTO
 TEST sw RELEASE
 REFUEL PANEL DOOR CLOSE

30 MIN AFTER TAKEOFF

ACT pb-sw FWD
FUEL SD page MONITOR

Check that the fuel is transferred from the ACTs to the center tank.

If necessary perform a descent to FL 270.

- When ACT (both ACTs if two ACTs installed) is empty:
 ACT pb-sw AUTO

28-28-01C ACT fuel not usable

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided t at:

- 1) The fuel in the ACT (s) is considered as not usable and s art of the ZFW and is taken into account for CG determination, and
- 2) The ACT transfer valve is secured in the closed position.

FUEL PENALTY ITEM

Reference(s)

- (o) *OpsProc 28-28-01C ACT Auto Transfer System (Fuel in the ACT(s) considered as not usable)*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- When there is less than 3 000 kg (6 700 lb) of fuel in the center tank:
 Disregard and clear the FUEL ACT XFR FAULT alert displayed on the EWD.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-28 - Additional Center Tank Transfer System

(m) Refer to AMM 28-28-00-040-009

28-28-02

ACT Transfer Valve

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-02A Valve closed with the ACT empty

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative in the closed position provided that there is no fuel in any ACT.

28-28-02B Valve open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative in the open position provided that a special procedure is applied for refueling the ACT(s).

Reference(s)

(m) Refer to AMM 28-28-00-040-001

28-28-02C Valve closed with the ACT fuel not usable

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) It is secured in the closed position, and
- 2) The fuel in the ACT(s) is considered as not usable and as part of the ZFW and is taken into account for CG determination.

Reference(s)

(o) OpsProc 28-28-02C ACT Transfer Valve

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

When there is less than 3 000 kg (6 700 lb) of fuel in the center tank:

Disregard and clear the FUEL ACT XFR FAULT alert displayed on the EWD.

(m) Refer to AMM 28-28-00-040-010

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-28 - Additional Center Tank Transfer System

28-28-03	ACT Transfer Pump

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

28-28-04

ACT Air Shutoff Valve

Applicable to: HL7730, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-04B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the ACT auto transfer system is considered inoperative.
Refer to Item 28-28-01 ACT Auto Transfer System

28-28-04

ACT Air Shutoff Valve

Applicable to: HL7731, HL7735

28-28-04C Valve closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative in the closed position provided that the ACT auto transfer system is considered inoperative.
Refer to Item 28-28-01 ACT Auto Transfer System

28-28-04E Valve open

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative in the open position provided that the ACT vent valve is secured in the open position.
Refer to Item 28-28-06 ACT Vent Valve

Reference(s)

(m) Refer to AMM 28-28-00-040-002

	MEL ITEMS 28 - FUEL 28-28 - Additional Center Tank Transfer System

28-28-05	ACT Inward Pressure Relief Valve

Applicable to: HL7730, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-05A Valve open with fuel in the ACT

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- One or more may be inoperative in the open position provided that:
- 1) The manual transfer from the ACT(s) to the center tank is operative, and
 - 2) The fuel quantity indications of the ACT(s) and of the center tank are operative on the FUEL SD page.

_____Reference(s)_____

(o) *OpsProc 28-28-05A ACT Inward Pressure Relief Valve*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

1. The refuel panel door must be open to check the operation of the manual transfer on the ground using the FUEL SD page. Establish ground communications and ensure that the refuel panel door is open during following check and closed after the check is done.
 2. The manual transfer may be performed only if the center tank is not full (center tank high level sensor dry). If the center tank is full, the high level sensor may be overridden by keeping pressed in the HI LVL pb test of the refuel panel. When the high level sensor is overridden, take care to not overfill the center tank. Otherwise, fuel may spill out from the surge tanks.
- ACT pb-sw FWD
 - On the FUEL SD page, check that the fuel is transferred from one ACT to the center tank.
 - ACT pb-sw AUTO

AT TOP OF CLIMB

Check that the fuel is transferred from the ACTs to the center tank.

- If the automatic transfer has not started:
 - After 30 min of flight:
 - ACT pb-sw FWD
 - If necessary perform a descent to FL 270.
- When ACT(both ACTs if two ACTs installed) is empty:
 - ACT pb-sw AUTO

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-28 - Additional Center Tank Transfer System

28-28-05B ACT empty

Repa r int rval	Nbr installed	Nbr required	Procedure
C	1	0	

One or more may be inoperative provided that there is no fuel in any ACT .

28-28-05	ACT Inward Pressure Relief Valve

Applicable to: HL7731, HL7735

28-28-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative in the open position provided that:

- 1) The manual transfer from the ACT to the center tank is operative, and
- 2) The fuel quantity indications of the ACT and of the center tank are operative on the FUEL SD page.

_____Reference(s)_____

(o) *OpsProc 28-28-05A ACT Inward Pressure Relief Valve*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

1. The refuel panel door must be open to check the operation of the manual transfer on the ground using the FUEL SD page. Establish ground communications and ensure that the refuel panel door is open during following check and closed after the check is done.
 2. The manual transfer may be performed only if the center tank is not full (center tank high level sensor dry). If the center tank is full, the high level sensor may be overridden by keeping pressed in the HI LVL pb test of the refuel panel. When the high level sensor is overridden, take care to not overfill the center tank. Otherwise, fuel may spill out from the surge tanks.
- ACT pb-sw..... FWD
 - On the FUEL SD page, check that the fuel is transferred from one ACT(from the ACT 2 if the ACT 2 is installed and not empty) to the center tank.
 - ACT pb-sw..... AUTO

AT TOP OF CLIMB

Check that the fuel is transferred from the ACTs to the center tank.

- If the automatic transfer has not started:

- After 30 min of flight:
 - AT pb-sw FWD
 - If necessary perform a descent to FL 270.
- When ACT is empty:
 - ACT pb-sw AUTO

28-28-06

ACT Vent Valve

Applicable to: HL7730, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-06A Use of ACT fuel

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

One or more may be inoperative in the open position provided that:

- 1) The manual transfer from the ACT(s) to the center tank is operative, and
- 2) The fuel quantity indications of the ACT(s) and of the center tank are operative on the FUEL SD page.

Reference(s)

- (o) *OpsProc 28-28-06A ACT Vent Valve (Manual transfer from the ACT(s) to the center tank operative)*

Applicable to: HL7730, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

Refer to OpsProc 28-28-01B ACT Auto Transfer System (Manual transfer from the ACT(s) to the center tank operative)

- (m) *Refer to AMM 28-28-00-040-003*

28-28-06B ACT fuel not usable

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

One or more may be inoperative provided that:

- 1) The fuel in the ACT(s) is considered as not usable and as part of the ZFW and is taken into account for CG determination, and
- 2) The ACT transfer valve is secured in the closed position.

Reference(s)

- (o) *OpsProc 28-28-06B ACT Vent Valve (Fuel in the ACT(s) considered as not usable)*

Applicable to: HL7730, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- When there is less than 3 000 kg (6 700 lb) of fuel in the center tank:

Disregard and clear the FUEL ACT XFR FAULT alert displayed on the EWD.

(m) Refer to AMM 28-28-00-040-011

28-28-06E ACT empty

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

One or more may be inoperative provided that there is no fuel in any ACT.

28-28-06	ACT Vent Valve

Applicable to: HL7731, HL7735

28-28-06D

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative in the open position provided that the ACT auto transfer system is considered inoperative.

Refer to Item 28-28-01 ACT Auto Transfer System

_____Reference(s)_____

(m) Refer to AMM 28-28-00-040-003

28-28-07

ACT Refuel Valve

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

Note: *If the refuel valve is inoperative in the closed position, the ACT cannot be refueled.
Refer to AMM task 28-25-00-040-005.*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-28 - Additional Center Tank Transfer System

28-28-08	ACT Integrated Impact Wall

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-08A Heat shield not damaged

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(m)

The protection cover of the ACT integrated impact wall may be damaged provided that the heat shield is not damaged.

_____Reference(s)_____

(m) Refer to AMM 28-28-00-040-006

28-28-08B AFT cargo compartment empty

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be damaged or missing provided that the AFT cargo compartment is empty.

28-28-09

ACT 1 Inlet Valve

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-28-09B All ACTs empty

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative in the closed position provided that there is no fuel in the ACT.

28-28-09C ACTs fuel not usable

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative in the closed position provided that:

- 1) The fuel in the ACT is considered as not usable and as part of the ZFW and is taken into account for CG determination, and
- 2) The ACT transfer valve is secured in the closed position.

Reference(s)

(o) *OpsProc 28-28-09C ACT 1 Inlet Valve*

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- When there is less than 3 000 kg (6 700 lb) of fuel in the center tank:

Disregard and clear the FUEL ACT XFR FAULT alert displayed on the EWD.

(m) *Refer to AMM 28-28-00-040-008*

28-28-09D Use of ACT fuel

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative in the open position provided that the ACT transfer valve is checked operative before each flight when the ACT is used.

Reference(s)

(m) *Refer to AMM 28-28-00-040-004*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-29 - APU LP Fuel Shutoff

28-29-01	APU LP Fuel Valve

Applicable to: ALL

28-29-01A Checked closed on FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) It is checked closed on the FUEL SD page , and
 - 2) The APU is not used.

Reference(s)

(o) *OpsProc 28-29-01A APU LP Fuel Valve*

Applicable to: ALL

BEFORE ENGINE START

The APU is not available.

APU MASTER SW pb-sw Off

Note: 1. No APU bleed air will be available for the Main Engine Start (MES) or the air conditioning.

 2. No electrical power will be available from the APU generator.

On the FUEL SD page, check that the APU LP valve is indicated closed: *Refer to FCOM/DSC-28-20 ECAM Fuel Page.* .

28-29-01B Secured closed

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

- May be inoperative provided that:
- 1) It is secured in the closed position, and
 - 2) The APU is not used.

Reference(s)

(m) *Refer to AMM 28-29-00-040-002*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-43 - Manual Magnetic Indicators

28-43-01	Manual Magnetic Indicators

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776

28-43-01A Associated fuel quantity indication operative on the FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	11	0	

One or more may be inoperative provided that the associated fuel quantity indication is operative on the FUEL SD page.

28-43-01B High level fuel detection and fuel used indication operative

Repair interval	Nbr installed	Nbr required	Procedure
C	11	0	(m)

One or more may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative.

_____Reference(s)_____

(m) Refer to AMM 28-40-00-040-012

28-43-01	Manual Magnetic Indicators

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL8236

28-43-01A Associated fuel quantity indication operative on the FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	15	0	

One or more may be inoperative provided that the associated fuel quantity indication is operative on the FUEL SD page.

28-43-01B High level fuel detection and fuel used indication operative

Repair interval	Nbr installed	Nbr required	Procedure
C	15	0	(m)

One or more may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative.

Reference(s)

(m) Refer to AMM 28-40-00-040-012

28-43-01

Manual Magnetic Indicators

Applicable to: HL7788

28-43-01A Associated fuel quantity indication operative on the FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	9	0	

One or more may be inoperative provided that the associated fuel quantity indication is operative on the FUEL SD page.

28-43-01B High level fuel detection and fuel used indication operative

Repair interval	Nbr installed	Nbr required	Procedure
C	9	0	(m)

One or more may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative.

Reference(s)

(m) Refer to AMM 28-40-00-040-012

28-43-01

Manual Magnetic Indicators

Applicable to: HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-43-01A Associated fuel quantity indication operative on the FUEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	7	0	

One or more may be inoperative provided that the associated fuel quantity indication is operative on the FUEL SD page.

28-43-01B High level fuel detection and fuel used indication operative

Repair interval	Nbr installed	Nbr required	Procedure
C	7	0	(m)

One or more may be inoperative provided that:

- 1) The high level fuel detection system is checked operative before refueling, and
- 2) The tanks in both wings are full, and
- 3) The associated fuel used indication is operative.

_____Reference(s)_____

(m) Refer to AMM 28-40-00-040-012

28-43-02

Fuel Quantity Attitude Monitor

Applicable to: HL7594, HL7703, HL8236

28-43-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that it is not required for refueling and defueling procedures.

28-46-01

High Level Detection System in the Inner Tank

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-46-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the fuel quantity is continuously monitored during refueling.

28-46-01

High Level Detection System in the Wing Tank

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-46-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the fuel quantity is continuously monitored during refueling.

28-46-02

High Level Detection System in the Center Tank

Applicable to: HL7594, HL7703, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL8236

28-46-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the fuel quantity is continuously monitored during refueling.

28-46-02

High Level Detection System in the Center Tank

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-46-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The fuel quantity is continuously monitored during refueling, and
- 2) The ACT auto transfer system is considered inoperative.

Refer to Item 28-28-01 ACT Auto Transfer System

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-46 - Tank Level Sensing

28-46-03	High Level Detection System in the ACT

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-46-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	0	

One or more may be inoperative provided that the fuel quantity is continuously monitored during refueling.

28-46-04

Low Level Detection System in the Inner Tank

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

28-46-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

28-46-04

Low Level Detection System in the Wing Tank

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-46-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 28 - FUEL 28-46 - Tank Level Sensing

28-46-05	Low Level Detection System in the ACT

Applicable to: HL7730, HL7731, HL7735, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

28-46-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the ACT auto transfer system is considered inoperative.
Refer to Item 28-28-01 ACT Auto Transfer System

28-50-01

Fuel Quantity Indicating Computer (FQIC) Channel

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

28-50-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)

One may be inoperative for 10 calendar days provided that EDTO is not conducted.

Reference(s) _____

(o) *OpsProc 28-50-01A Fuel Quantity Indicating Computer (FQIC) Channel*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

1. Ensure that correct weights are entered in the FMGC associated with the affected FQIC channel.
2. In the case of failure in-flight of the remaining FQIC channel, all fuel quantities indications on the EWD are lost.

28-50-01

Fuel Quantity Indicating Computer (FQIC) Channel

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

28-50-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)

One may be inoperative for 10 calendar days provided that:

- 1) EDTO is not conducted, and
- 2) The aircraft is manually refueled.

Reference(s) _____

(o) *OpsProc 28-50-01A Fuel Quantity Indicating Computer (FQIC) Channel*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

1. Ensure that correct weights are entered in the FMGC associated with the affected FQIC channel.
2. In the case of failure in-flight of the remaining FQIC channel, all fuel quantities indications on the EWD are lost.

ATA 29

Hydraulic Power

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-01 - Overhead Panels 29-01-01 - HYD Overhead Panel

29-01-01-01	B(Y) ELEC PUMP pb-sw FAULT light

Applicable to: ALL

29-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated reservoir quantity indication is operative on the HYD SD page.

Note: Simultaneous illumination of the BLUE ELEC PUMP pb-sw FAULT light and the ENG 1(2) PUMP pb-sw FAULT light with engines off may be due to a failed engine oil low pressure switch. In this case, the ENG 1(2) OIL LO PR alert is inoperative. Refer to Item 79-09-01 ENG 1(2) OIL LO PR Alert

29-01-01-02	B ELEC PUMP pb-sw OFF light

Applicable to: ALL

29-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

29-01-01-03	Y ELEC PUMP pb-sw ON light

Applicable to: ALL

29-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

29-01-01-04

G(Y) ENG 1(2) PUMP pb-sw FAULT light

Applicable to: ALL

29-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated reservoir quantity indication is operative on the HYD SD page.

Note: Simultaneous illumination of the BLUE ELEC PUMP pb-sw FAULT light and the ENG 1(2) PUMP pb-sw FAULT light with engines off may be due to a failed engine oil low pressure switch. In this case, the ENG 1(2) OIL LO PR alert is inoperative. Refer to Item 79-09-01 ENG 1(2) OIL LO PR Alert

29-01-01-05

G(Y) ENG 1(2) PUMP pb-sw OFF light

Applicable to: ALL

29-01-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

29-01-01-06

PTU pb-sw FAULT light

Applicable to: ALL

29-01-01-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the quantity indications of the yellow and green reservoir are operative on the HYD SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-01 - Overhead Panels 29-01-01 - HYD Overhead Panel

29-01-01-07	PTU pb-sw OFF light

Applicable to: ALL

29-01-01-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-01 - Overhead Panels 29-01-02 - Maintenance HYD Overhead Panel

29-01-02-01	G(B)(Y) LEAK MEASUREMENT VALVES pb-sw OFF light

Applicable to: ALL

29-01-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-07 - Indications on the HYD SD page

29-07-01	Yellow ELEC Pump Indication on the <u>HYD</u> SD page

Applicable to: ALL

29-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

29-07-02

Pump Indication on the HYD SD page

Applicable to: ALL

29-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-07 - Indications on the HYD SD page

29-07-03	Fire Valve Indication on the <u>HYD</u> SD page

Applicable to: ALL

29-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

29-07-04

PTU Indication on the HYD SD page

Applicable to: ALL

29-07-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-07 - Indications on the HYD SD page

29-07-05	Reservoir Quantity Indication on the <u>HYD</u> SD page

Applicable to: ALL

29-07-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

One may be inoperative provided that:

- 1) The associated HYD B(G)(Y) RSVR LO LVL alert is checked operative, and
- 2) The associated reservoir quantity is checked before each flight.

_____Reference(s)_____

(m) Refer to AMM 29-31-00-040-001 and (or) 29-31-00-040-002

29-07-06

RAT Indication on the HYD SD page

Applicable to: ALL

29-07-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the RAT is visually checked to be stowed before each flight.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-07 - Indications on the HYD SD page

29-07-07	System Label Indication on the <u>HYD</u> SD page

Applicable to: ALL

29-07-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)

One or more may be inoperative provided that the associated system pressure is checked available before each flight.

_____Reference(s)_____

(o) *OpsProc 29-07-07A System Label Indication on the HYD SD page*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note: *If the Yellow Electric Pump is not available:*
- *Pressurize the Yellow Hydraulic System with:*
 - *A Ground cart, or with*
 - *The Yellow Engine 2 Pump with the Engine 2 running.*
 - *Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.*
- YELLOW ELEC PUMP pb-sw..... ON
 - BLUE ELEC PUMP pb-sw AUTO
 - BLUE PUMP OVRD pb-sw ON
 - PTU pb-sw AUTO
 - Move the CAPT stick left or right.
 - On the F/CTL SD page, check the pairs of spoilers movement.
 - YELLOW ELEC PUMP pb-sw..... Off
 - BLUE PUMP OVRD pb-sw OFF

29-07-08

System Pressure Indication on the HYD SD page

Applicable to: ALL

29-07-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)

One may be inoperative provided that the associated system label indication is checked operative before each flight.

Reference(s)

(o) OpsProc 29-07-08A System Pressure Indication on the HYD SD page

Applicable to: ALL

DURING COCKPIT PREPARATION

Note: If the Yellow Electric Pump is not available:

- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
- Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.

■ If the blue system pressure indication is inoperative:

Check of the system label:

- On the HYD SD page, check that the BLUE system label is amber.
- BLUE ELEC PUMP pb-sw AUTO
- BLUE PUMP OVRD pb-sw N
- On the HYD SD page, check that the BLUE system label is white and that the arrow is green.
- BLUE PUMP OVRD pb-sw Off

■ If the yellow system pressure indication is inoperative:

Check of the system label:

- YELLOW ELEC PUMP pb-sw Off
- On the HYD SD page, check that the YELLOW system label is amber.
- YELLOW ELEC PUMP pb-sw ON
- On the HYD SD page, check that the YELLW system label is white and that the arrow is green.
- YELLOW ELEC PUMP pb-sw Off

■ If the green system pressure indication is inoperative:

Check of the system label:

- On the HYD SD page, check that the GREEN system label is amber.
- YELLOW ELEC PUP pb-sw ON
- PTU pb-sw AUTO
- On the HYD SD page, check that the GREEN system label is white and that the arrow is green.
- YELLOW ELEC PUMP pb-sw Off

AFTER ENGINES START

Note: The HYD PTU FAULT ECAM alert may be triggered.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-01	<u>HYD</u> B(Y) ELEC PUMP LO PR Alert

Applicable to: ALL

29-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be displayed provided that the associated system pressure indication is operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-02	<u>HYD</u> B(Y) ELEC PUMP OVHT Alert

Applicable to: ALL

29-09-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be displayed.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-03	<u>HYD</u> G(Y) ENG 1(2) PUMP LO PR Alert

Applicable to: ALL

29-09-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

- One or both may be displayed provided that:
- 1) The associated system pressure indications are operative, and
 - 2) The engine pumps are checked operative before each flight.

Reference(s)

(o) *OpsProc 29-09-03A HYD G(Y) ENG 1(2) PUMP LO PR Alert*

Applicable to: ALL

AFTER ENGINE START

Check of the engines pumps:

- PTU pb-sw OFF
- On the HYD SD page, check that the green and the yellow hydraulic systems pressures are correct.
A correct pressure is 3 000 PSI (± 200 PSI).
- PTU pb-sw AUTO

Note: *On the HYD SD page, the PTU remains indicated running .*

TAXI

Note: *Due to a false HYD G(Y) ENG 1(2) PUMP LO PR alert displayed on the EWD, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line in the T.O MEMO.*

Consider normal configuration for takeoff provided that no alert was displayed during the T.O CONFIG TEST except a false HYD G(Y) ENG 1(2) PUMP LO PR alert.

CAUTION	The T.O CONFIG TEST pb must be maintained pressed to check that there is no alert except a false <u>HYD</u> G(Y) ENG 1(2) PUMP LO PR alert.

29-09-04

HYD G(B)(Y) RSVR LO AIR PR Alert

Applicable to: ALL

29-09-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

One may be inoperative provided that the air pressure is checked on the associated reservoir before each flight.

Reference(s) _____

(m) Refer to AMM 29-34-00-040-001 and (or) 29-34-00-040-002

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-05	<u>HYD</u> G(B)(Y) RSVR LO LVL Alert

Applicable to: ALL

29-09-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

One may be displayed provided that the associated reservoir quantity is checked on the HYD SD page before each flight.

- Note:
1. When the alert is displayed on the EWD , the associated PUMP pb-sw FAULT light and the PTU pb-sw FAULT light (if the green or the yellow system is affected) may simultaneously come on.
Refer to Item 29-01-01-01 B(Y) ELEC PUMP pb-sw FAULT light , and
Refer to Item 29-01-01-04 G(Y) ENG 1(2) PUMP pb-sw FAULT light , and
Refer to Item 29-01-01-06 PTU pb-sw FAULT light
 2. If the blue reservoir is affected, EMER GEN may appear in the INOP SYS column on the STATUS SD page before engine start.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-06	<u>HYD</u> G(B)(Y) RSVR OVHT Alert

Applicable to: ALL

29-09-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

The HYD G RSVR OVHT alert or the HYD Y RSVR OVHT alert may be displayed.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-07	<u>HYD</u> PTU FAULT Alert

Applicable to: ALL

29-09-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be displayed provided that the PTU is checked operative before each flight.

_____Reference(s)_____

(o) *OpsProc 29-09-07A HYD PTU FAULT Alert*

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note: *If the Yellow Electric Pump is not available:*
- *Pressurize the Yellow Hydraulic System with:*
 - *A Ground cart, or with*
 - *The Yellow Engine 2 Pump with the Engine 2 running.*
 - *Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.*

Check of the PTU:

- YELLOW ELEC PUMP pb-sw..... ON
- PTU pb-sw AUTO
- On the HYD SD page, check that the green hydraulic system pressure indication is green.
If the green hydraulic system pressure indication is not available, check on the HYD SD page that the GREEN system label is white and the arrow is green.
- YELLOW ELEC PUMP pb-sw..... Off

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-08	<u>HYD</u> RAT FAULT Alert

Applicable to: ALL

29-09-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be displayed provided that the RAT integrity is checked before each flight.

Reference(s)

(m) Refer to AMM 29-30-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-09 - ECAM Alerts

29-09-09	<u>HYD</u> G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

Applicable to: ALL

29-09-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)

One or more may be displayed provided that the associated system pressure is checked available before each flight.

Reference(s)

(o) OpsProc 29-09-09A HYD G(B)(Y)(B+G)(G+Y)(B+Y) SYS LO PR Alert

Applicable to: ALL

DURING COCKPIT PREPARATION

- Note: If the Yellow Electric Pump is not available:
- Pressurize the Yellow Hydraulic System with:
 - A Ground cart, or with
 - The Yellow Engine 2 Pump with the Engine 2 running.
 - Replace any action on the YELLOW ELEC PUMP pb-sw by a similar action on the Ground Cart or on the YELLOW ENG 2 PUMP pb-sw in the following procedure.
- YELLOW ELEC PUMP pb-sw..... ON
 - BLUE ELEC PUMP pb-sw AUTO
 - BLUE PUMP OVRD pb-sw ON
 - PTU pb-sw AUTO
 - On the CAPT or the F/O side, move the stick left or right.
 - On the F/CTL SD page, check the pairs of spoilers movement.
 - YELLOW ELEC PUMP pb-sw..... Off
 - BLUE PUMP OVRD pb-sw Off

TAXI

- Note: Due to a false HYD G(B)(Y)(G+B)(G+Y)(B+Y) SYS LO PR alert displayed on the EWD, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line in the T.O MEMO.
- Consider normal configuration for takeoff provided that no alert was displayed during the T.O CONFIG TEST except a false HYD G(B)(Y)(G+B)(G+Y)(B+Y) SYS LO PR alert.

CAUTION	The T.O CONFIG TEST pb must be maintained pressed to check that there is no alert except a false HYD G(B)(Y)(G+B)(G+Y)(B+Y) SYS LO PR alert.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-10 - Main Hydraulic Power

29-10-01	Engine Driven Pump

Applicable to: ALL

29-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

29-10-02

Engine Driven Pump Depressurization Function

Applicable to: ALL

29-10-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-10 - Main Hydraulic Power

29-10-03	Blue System Electric Pump

Applicable to: ALL

29-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(o)

The automatic control may be inoperative provided that the pump is manually operated.

Reference(s)

(o) *OpsProc 29-10-03A Blue System Electric Pump*

Applicable to: ALL

DURING PRELIMINARY COCKPIT PREPARATION

- If the blue electric pump continuously runs:

At electrical power supply application:

BLUE ELEC PUMP pb-sw OFF

AFTER ENGINE START

BLUE ELEC PUMP pb-sw AUTO

- If the blue electric pump does not automatically start:
 - BLUE PUMP OVRD pb-sw..... ON
 - On the HYD SD page, check that the blue hydraulic circuit pressure is available.

AFTER ENGINE SHUTDOWN

BLUE ELEC PUMP pb-sw OFF

29-10-04

Hydraulic System Accumulator

Applicable to: ALL

29-10-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(m)

One or more may be inoperative provided that the affected accumulator is deactivated.

Reference(s) _____

(m) Refer to AMM 29-10-00-040-004 and (or) 29-10-00-040-005 and (or) 29-10-00-040-006

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-10 - Main Hydraulic Power

29-10-05	Yellow Brake Accumulator

Applicable to: ALL

29-10-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

29-10-07

Engine Pump Fire Valve

Applicable to: ALL

29-10-07A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-10 - Main Hydraulic Power

29-10-08	Hydraulic System Filter

Applicable to: ALL

29-10-08A One LP filter inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	7	

One LP filter may be inoperative.

29-10-08B Reservoir filling filter inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	7	

The reservoir filling filter may be inoperative.

29-10-09

Hydraulic Case Drain Filter

Applicable to: ALL

29-10-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

One may be inoperative provided that it is removed.

Reference(s) _____

(m) Refer to AMM 29-10-00-040-001 and (or) 29-10-00-040-002 and (or) 29-10-00-040-003

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-22 - Blue Auxiliary Hydraulic Power

29-22-01	Ram Air Turbine

Applicable to: ALL

29-22-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-23 - Power Transfer

29-23-01	Power Transfer Unit (PTU)

Applicable to: ALL

29-23-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(o)

PTU may continuously run when set to AUTO provided that the operation of the PTU in both directions is checked before the first flight of each day.

Reference(s)

- (o) OpsProc 29-23-01A Power Transfer Unit

Applicable to: ALL

AFTER ENGINE START

Check of the PTU operation:

- GREEN ENG 1 PUMP pb-sw OFF
- On the HYD SD page, check that the green system pressure is correct.
A correct pressure is 3 000 PSI (± 200 PSI).
- Check the PTU arrow indication.
- GREEN ENG 1 PUMP pb-sw On
- PTU pb-sw OFF
- YELLOW ENG 2 PUMP pb-sw OFF
- YELLOW ELEC PUMP pb-sw..... Off
- Let the pressure in the yellow hydraulic system decrease to 200 PSI or less.
If the pressure is not below 200 PSI, the indications on the HYD SD page will not be displayed.
- PTU pb-sw AUTO
- On the HYD SD page, check that the yellow system pressure is correct.
A correct pressure is 3 000 PSI (± 200 PSI).
- Check the PTU arrow indication.
- YELLOW ENG 2 PUMP pb-sw On

Note: 1. The PTU pressurizes the system to a nominal value of 3 000 PSI (± 200 PSI), but if no consumers are operated the pressure is not constant. The PTU operates in a cycle which keeps the pressure in the hydraulic systems between 2 100 PSI and 3 200 PSI.

 2. For passengers comfort, the PTU may be set to OFF during the taxi after landing provided that both engines hydraulic pumps are operative and running. The PTU must be set back to AUTO before leaving the aircraft.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 29 - HYDRAULIC POWER 29-24 - Yellow Auxiliary Hydraulic Power

29-24-01	Yellow System Electric Pump

Applicable to: ALL

29-24-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the associated pb-sw is set to off.

Reference(s)

(o) *OpsProc 29-24-01A Yellow System Electric Pump*

Applicable to: ALL

ON GROUND

- If the pump continuously runs and does not stop when set to off:
DOORS/CARGO (T12 on 122 VU) C/B Pull
 - If unsuccessful:
 - Y HYD/ELEC PUMP/NORM (AB 03 on 123 VU) C/B.....Pull
 - Y HYD/ELEC/PUMP (AB 06 on 123 VU) C/ Pull

Note: 1. If the pump continuously runs on the ground, there is a potential overheat situation.
 2. The reset of the C/Bs must be limited to the time required to open or close the cargo doors.

ATA 30

Ice & Rain Protection

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-00 - MAINTENANCE Message on the STATUS SD page

30-00-01	ICE DETECT <u>MAINTENANCE</u> Message

Applicable to: HL7767

30-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	-	-	

ICE DETECT MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-01 - Overhead Panels 30-01-01 - ANTI ICE Overhead Panel

30-01-01-01	ANTI ICE ENG 1(2) pb-sw FAULT light

Applicable to: ALL

30-01-01-01A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

30-01-01-02	ANTI ICE ENG 1(2) pb-sw ON light

Applicable to: ALL

30-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

30-01-01-03	ANTI ICE WING pb-sw FAULT light

Applicable to: ALL

30-01-01-03A Anti-ice “arrow” symbols operative on the BLEED SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the anti-ice “arrow” symbols are operative on the BLEED SD page.

Reference(s)

(o) *OpsProc 30-01-01-03A ANTI ICE WING pb-sw FAULT light*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check of the anti-ice "arrow" symbol:

- Make sure that the APU bleed air supply system is available.
- ANTI ICE WING pb-sw ON
- On the BLEED SD page, check that the anti-ice "arrow" symbols are displayed amber and disappear after 30 s.
- ANTI ICE WING pb-sw Off

MEL ITEMS
30 - ICE AND RAIN PROTECTION
30-01 - Overhead Panels
30-01-01 - ANTI ICE Overhead Panel

30-01-01-03B Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The wing anti-ice control valves are deactivated in the closed position and considered inoperative.

Refer to Item 30-11-01 Wing Anti-Ice Control Valve

Reference(s)

(m) Refer to AMM 30-11-00-040-002

30-01-01-04

ANTI ICE WING pb-sw ON light

Applicable to: ALL

30-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-01 - Overhead Panels 30-01-02 - WIPER Overhead Panel

30-01-02-01	Wiper High Speed Function (FAST Position)

Applicable to: ALL

30-01-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated low speed function is operative.

30-01-02-02	Wiper Low Speed Function (SLOW Position)

Applicable to: ALL

30-01-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

30-01-02-03	Wiper Intermittent Speed Function (INTMT Position)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

30-01-02-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-07 - Indications on the BLEED SD page

30-07-01	ANTI ICE Indication on the <u>BLEED</u> SD page

Applicable to: ALL

30-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

MEL ITEMS
30 - ICE AND RAIN PROTECTION
30-07 - Indications on the BLEED SD page

30-07-02

Arrow Indication on the BLEED SD page

Applicable to: ALL

30-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-11 - Wing Ice Protection

30-11-01	Wing Anti-Ice Control Valve

Applicable to: ALL

30-11-01A Inoperative in the open position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

The RH valve may be inoperative in the open position provided that the associated ECAM procedure is applied.

FUEL PENALTY ITEM

Reference(s)

(o) OpsProc 30-11-01A Wing Anti-Ice Control Valve

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Flight planning:

Increase fuel consumption by:

Zp (ft)	5 000	10 000	15 000	20 000	25 000	30 000	35 000	40 000
Fuel penalties	3.0 %	3.0 %	3.0 %	3.0 %	3.5 %	3.5 %	3.5 %	3.5 %

Single engine cruise:

Decrease drift down ceilings by:

1 200 ft when OAT ≤ ISA + 15 °C

4 200 ft when OAT > ISA + 15 °C

Approach climb performance:

■ When the engine bleed air supply system is closed:

No penalty.

■ When the engine bleed air supply system is open:

Decrease maximum climb limiting weight by:

2 200 kg (4 900 lb)

DURING COCKPIT PREPARATION

● After application of the maintenance procedure:

On the BLEED SD page, check that the anti-ice arrow symbol is displayed.

The anti-ice arrow symbol may be displayed amber or green.

The WING ANTI ICE L(R) HI PR alert must not be displayed on the EWD.

BEFORE ENGINE START

- Maintain the X BLEED selector at SHUT before engine start when the APU bleed is used.
- Start the engine 1.
Maintain the X BLEED selector at SHUT during the start of engine 1.
- Use the CROSS BLEED ENGINE START (Refer to FCOM/PRO-SUP-70 Crossbleed Engine Start) procedure to start the engine 2.
- Apply the procedure associated with the WING ANTI ICE R VALVE OPEN alert displayed on the EWD.

AFTER TAKEOFF

● **When above 1 500 ft:**

Apply the automatic recall of the WING ANTI ICE R VALVE OPEN procedure displayed on the EWD.

IN FLIGHT

If the wing anti ice is operated in flight, WING ANTI ICE R HI PR alert may be displayed on the EWD.

● **In the case of failure of a Bleed Air Supply System:**

PACK (affected side) pb-sw OFF

AFTER LANDING

Apply the automatic recall of the WING ANTI ICE R VALVE OPEN procedure displayed on the EWD.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

FLIGHT PREPARATION/LIMITATIONS

Flight planning:

Increase fuel consumption by:

Zp (ft)	5 000	10 000	15 000	20 000	25 000	30 000	35 000	40 000
Fuel penalties	4.0 %	3.5 %	2.5 %	3.0 %	3.5 %	3.5 %	3.5 %	3.5 %

Single engine cruise:

Decrease drift down ceilings by:

1 200 ft when OAT ≤ ISA + 15 °C

2 200 ft when OAT > ISA + 15 °C

Approach climb performance:

■ **When the engine bleed air supply system is closed:**

No penalty.

■ **When the engine bleed air supply system is open:**

Decrease maximum climb limiting weight by:

2 200 kg (4 900 lb)

DURING COCKPIT PREPARATION

● **After application of the maintenance procedure:**

On the BLEED SD page, check that the anti-ice arrow symbol is displayed.

The anti-ice arrow symbol may be displayed amber or green.

The WING ANTI ICE L(R) HI PR alert must not be displayed on the EWD.

BEFORE ENGINE START

- Maintain the X BLEED selector at SHUT before engine start when the APU bleed is used.
- Start the engine 1.

Maintain the X BLEED selector at SHUT during the start of engine 1.

- Use the CROSS BLEED ENGINE START (Refer to FCOM/PRO-SUP-70 Crossbleed Engine Start) procedure to start the engine 2.
- Apply the procedure associated with the WING ANTI ICE R VALVE OPEN alert displayed on the EWD.

AFTER TAKEOFF

● **When above 1 500 ft:**

Apply the automatic recall of the WING ANTI ICE R VALVE OPEN procedure displayed on the EWD.

IN FLIGHT

If the wing anti ice is operated in flight, WING ANTI ICE R HI PR alert may be displayed on the EWD.

● **In the case of failure of a Bleed Air Supply System:**

PACK (affected side) pb-sw OFF

AFTER LANDING

Apply the automatic recall of the WING ANTI ICE R VALVE OPEN procedure displayed on the EWD.

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

FLIGHT PREPARATION/LIMITATIONS

Flight planning:

Increase fuel consumption by:

MEL ITEMS
30 - ICE AND RAIN PROTECTION
 30-11 - Wing Ice Protection

Zp (ft)	5 000	10 000	15 000	20 000	25 000	30 000	35 000	40 000
Fuel penalties (%)	3.5 %	2.5 %	2.5 %	3.0 %	3.5 %	3.5 %	3.5 %	3.5 %

Single engine cruise:

Decrease drift down ceilings by:

1 500 ft when OAT ≤ ISA + 20 °C

2 700 ft when OAT > ISA + 20 °C

Approach climb performance:

- **When the engine bleed air supply system is closed:**

No penalty.

- **When the engine bleed air supply system is open:**

Decrease maximum climb limiting weight by:

2 300 kg (5 100 lb)

DURING COCKPIT PREPARATION

- **After application of the maintenance procedure:**

On the BLEED SD page, check that the anti-ice arrow symbol is displayed.

The anti-ice arrow symbol may be displayed amber or green.

The WING ANTI ICE L(R) HI PR alert must not be displayed on the EWD.

BEFORE ENGINE START

- Maintain the X BLEED selector at SHUT before engine start when the APU bleed is used.
- Start the engine 1.
Maintain the X BLEED selector at SHUT during the start of engine 1.
- Use the CROSS BLEED ENGINE START (*Refer to FCOM/PRO-SUP-70 Crossbleed Engine Start*) procedure to start the engine 2.
- Apply the procedure associated with the WING ANTI ICE R VALVE OPEN alert displayed on the EWD.

AFTER TAKEOFF

- **When above 1 500 ft:**

Apply the automatic recall of the WING ANTI ICE R VALVE OPEN procedure displayed on the EWD.

IN FLIGHT

If the wing anti ice is operated in flight, WING ANTI ICE R HI PR alert may be displayed on the EWD.

- **In the case of failure of a Bleed Air Supply System:**

PACK (affected side) pb-sw OFF

AFTER LANDING

Apply the automatic recall of the WING ANTI ICE R VALVE OPEN procedure displayed on the EWD.

(m) Refer to AMM 30-11-00-040-004

30-11-01B Inoperative in the closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative in the closed position provided that:

- 1) EDTO is not conducted, and
- 2) The aircraft is not operated in known or forecast icing conditions.

_____Reference(s)_____

(m) Refer to AMM 30-11-00-040-001

30-21-01

Engine Anti-Ice Valve

Applicable to: ALL

30-21-01A Inoperative in the closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative in the closed position provided that:

- 1) EDTO is not conducted, and
- 2) The aircraft is not operated in known or forecast icing conditions.

_____Reference(s)_____

(m) Refer to AMM 30-21-00-040-020

30-21-01C Inoperative in the open position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

One or both may be inoperative in the open position provided that:

- 1) The Flight Manual performance penalties are applied, and
- 2) The OAT is below ISA + 35 °C.

FUEL PENALTY ITEM

_____Reference(s)_____

(o) OpsProc 30-21-01C Engine Anti-Ice Valve

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in the open position.

FLIGHT PREPARATION/LIMITATIONS

- Note:
1. The following decrements may be used for takeoff performance determination only for dry runways if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.
 2. Performance penalties apply whatever one or both valves are inoperative.

Takeoff performance:

Perform the takeoff using full thrust.

Apply the following reductions on the MTOW and the speeds :

MEL ITEMS
30 - ICE AND RAIN PROTECTION
 30-21 - Engine Air Intake Ice Protection

OAT (°C)	≤ ISA +20 °C	> ISA +20 °C
Weight decrement (kg/lb)	500/1 200	2 800/6 200
V1, VR and V2 decrement (kt IAS)	1	2

Flight planning:

Increase fuel consumption by:

Zp (ft)	2 Valves blocked OPEN	1 Valve blocked OPEN
5 000	3.5 %	2.0 %
10 000	3.5 %	2.0 %
15 000	3.5 %	2.0 %
20 000	3.5 %	2.0 %
25 000	3.5 %	2.0 %
30 000	3.5 %	2.0 %
35 000	3.5 %	2.0 %
40 000	3.0 %	1.5 %

Single engine cruise:

Decrease drift down ceilings by:

900 ft when OAT ≤ ISA + 15 °C

4 000 ft when OAT > ISA + 15 °C

Approach climb performance:

Decrease maximum climb limiting weight by:

No penalty when OAT ≤ ISA + 20 °C

4 300 kg (9 500 lb) when OAT > ISA + 20 °C

DURING COCKPIT PREPARATION

ANTI ICE ENG (affected) pb-sw ON

Applicable to: HL7594, HL7703

GENERAL INFORMATION

An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in the open position.

FLIGHT PREPARATION/LIMITATIONS

- Note:
1. The following decrements may be used for takeoff performance determination only for dry runways if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.
 2. Performance penalties apply whatever one or both valves are inoperative.

Takeoff performance:

Perform the takeoff using full thrust.

Apply the following reductions on the MTOW and the speeds :

OAT (°C)	≤ ISA +10 °C	> ISA +10 °C
Weight decrement (kg/lb)	300/700	3 500/7 800
V1, VR and V2 decrement (kt IAS)	0	4

Flight planning:

Increase fuel consumption by:

Zp (ft)	2 Valves blocked OPEN	1 Valve blocked OPEN
5 000	4.0 %	2.0 %
10 000	4.0 %	2.0 %
15 000	3.5 %	2.0 %
20 000	3.5 %	2.0 %
25 000	3.5 %	2.0 %
30 000	3.5 %	2.0 %
35 000	3.5 %	2.0 %
40 000	3.0 %	1.5 %

Single engine cruise:

Decrease drift down ceilings by:

1 100 ft when OAT ≤ ISA + 15 °C

3 300 ft when OAT > ISA + 15 °C

Approach climb performance:

Decrease maximum climb limiting weight by:

No penalty when OAT ≤ ISA + 10 °C

4 800 kg (10 600 lb) when OAT > ISA +10 °C

DURING COCKPIT PREPARATION

ANTI ICE ENG (affected) pb-sw ON

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

GENERAL INFORMATION

An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in the open position.

FLIGHT PREPARATION/LIMITATIONS

MEL ITEMS
30 - ICE AND RAIN PROTECTION
30-21 - Engine Air Intake Ice Protection

- Note:
1. The following decrements may be used for takeoff performance determination only for dry runways if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.
 2. Performance penalties apply whatever one or both valves are inoperative.

Takeoff performance:

Perform the takeoff using full thrust.

Apply the following reductions on the MTOW and the speeds :

OAT (°C)	≤ ISA +10 °C	ISA +10 °C < OAT ≤ ISA +20 °C	> ISA +20 °C
Weight decrement (kg/lb)	300/700	3 400/7 500	6 000/13 300
V1, VR and V2 decrement (kt IAS)	1	3	7

Flight planning:

Increase fuel consumption by:

Zp (ft)	2 Valves blocked OPEN	1 Valve blocked OPEN
5 000	4.0 %	2.0 %
10 000	4.0 %	2.0 %
15 000	3.5 %	2.0 %
20 000	3.5 %	2.0 %
25 000	3.5 %	2.0 %
30 000	3.5 %	2.0 %
35 000	3.5 %	2.0 %
40 000	3.0 %	1.5 %

Single engine cruise:

Decrease drift down ceilings by:

1 100 ft when OAT ≤ ISA + 15 °C

3 300 ft when OAT > ISA + 15 °C

Approach climb performance:

Decrease maximum climb limiting weight by:

No penalty when OAT ≤ ISA + 10 °C

4 800 kg (10 600 lb) when OAT > ISA + 10 °C

DURING COCKPIT PREPARATION

ANTI ICE ENG (affected) pb-sw ON

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

GENERAL INFORMATION

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-21 - Engine Air Intake Ice Protection

An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in the open position.

FLIGHT PREPARATION/LIMITATIONS

Same performance penalties apply with one or two valves inoperative.

Takeoff performance:

The takeoff performance must be determined by using OCTOPUS program or other equivalent program with present failure case taken into account.

Launch PEP.

Flight planning:

Increase fuel consumption by:

Zp (ft)	2 Valves blocked OPEN	1 Valve blocked OPEN
5 000	4.0 %	2.0 %
10 000	4.0 %	2.0 %
15 000	3.5 %	2.0 %
20 000	3.5 %	2.0 %
25 000	3.5 %	2.0 %
30 000	3.5 %	2.0 %
35 000	3.5 %	2.0 %
40 000	2.5 %	1.5 %

Single engine cruise:

Decrease drift down ceilings by:

1 300 ft when OAT ≤ ISA + 15 °C

3 000 ft when OAT > ISA + 15 °C

Approach climb performance:

Decrease maximum climb limiting weight by:

No penalty when OAT ≤ ISA + 10 °C

5 500 kg (12 100 lb) when OAT > ISA + 10 °C

DURING COCKPIT PREPARATION

ANTI ICE ENG (affected) pb-sw ON

(m) Refer to AMM 30-21-00-040-010

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-31 - Probe Ice Protection

30-31-01	Probe Heat Computer (PHC)

Applicable to: ALL

30-31-01A Associated probe heating operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

One may be inoperative provided that the associated probe heating is checked operative before each flight.

_____Reference(s)_____

(m) Refer to AMM 30-31-00-040-001

30-31-01B F/O PHC inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)(m)

The F/O PHC may be inoperative provided that the ADR s, heaters and failure alerts associated with the operative computers are checked operative every day.

_____Reference(s)_____

(o) OpsProc 30-31-01B Probe Heat Computer

Applicable to: HL7594, HL7703, HL7767, HL8236

DURING COCKPIT PREPARATION

AIR DATA selector F/O 3

IN FLIGHT

- **If icing conditions are encountered:**

ADR 2 pb-sw OFF

CAUTION	When ADR 2 is set to OFF, - takeoff in CONF 1+F is not permitted, and - maximum landing capability is CAT 3 SINGLE, and - RVSM operations are not permitted.

The ADR 2 pb-sw must remain set to OFF for the remainder of the flight.

MEL ITEMS
30 - ICE AND RAIN PROTECTION
 30-31 - Probe Ice Protection

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

AIR DATA selector F/O 3

IN FLIGHT

● **If icing conditions are encountered:**

ADR 2 pb-sw OFF

CAUTION	When ADR 2 is set to OFF, - takeoff in CONF 1+F is not permitted, and - maximum landing capability is CAT 3 SINGLE.

The ADR 2 pb-sw must remain set to OFF for the remainder of the flight.

(m) Refer to AMM 30-31-00-040-002

30-31-01C STBY PHC inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

The STBY PHC may be inoperative provided that:

- 1) The ADR s, heaters and failure alerts associated with the operative computers are checked operative every day, and
- 2) The aircraft is not operated in visible moisture or in known or forecast icing conditions, and
- 3) The OAT at the departure airport is above 5 °C when the taxiway or the runway are contaminated with water or slush.

_____Reference(s)_____

(m) Refer to AMM 30-31-00-040-002

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-31 - Probe Ice Protection

30-31-02	Pitot Heater

Applicable to: ALL

30-31-02A F/O pitot heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)(m)

The F/O pitot heater may be inoperative provided that the ADR s, heaters and failure alerts associated with the CAPT and the STBY probes (pitot, static, AOA , TAT) are checked operative every day.

_____Reference(s)_____

(o) OpsProc 30-31-02A Pitot Heater

Applicable to: ALL

Refer to OpsProc 30-31-01B Probe Heat Computer

(m) Refer to AMM 30-31-00-040-002

30-31-02B CAPT pitot heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

The CAPT pitot heater may be inoperative provided that:

- 1) The ADR s, heaters and failure alerts associated with the F/O and the STBY probes (pitot, static, AOA , TAT) are checked operative every day, and
- 2) The aircraft is not operated in visible moisture or in known or forecast icing conditions.

_____Reference(s)_____

(m) Refer to AMM 30-31-00-040-002

MEL ITEMS
30 - ICE AND RAIN PROTECTION
30-31 - Probe Ice Protection

30-31-02C STBY pitot heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(m)

The STBY pitot heater may be inoperative provided that:

- 1) The ADR s, heaters and failure alerts associated with the CAPT and the F/O probes (pitot, static, AOA , TAT) are checked operative every day, and
- 2) The aircraft is not operated in visible moisture or in known or forecast icing conditions.

Reference(s)

(m) Refer to AMM 30-31-00-040-002

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-31 - Probe Ice Protection

30-31-03	Static Ports Heater

Applicable to: ALL

30-31-03A One STBY static port heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	5	

One STBY static ports heater may be inoperative.

30-31-03B Both STBY static port heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	4	(m)

Both STBY static ports heaters may be inoperative provided that:

- 1) The ADR s, heaters and failure alerts associated with the CAPT and the F/O probes (pitot, static, AOA , TAT) are checked operative every day, and
- 2) The OAT at the departure airport is above 5 °C when the runway is contaminated with water or slush.

_____Reference(s)_____

(m) Refer to AMM 30-31-00-040-002

30-31-03C One or both F/O static port heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	4	(o)(m)

One or both F/O static ports heaters may be inoperative provided that the ADR s, heaters and failure alerts associated with the CAPT and the STBY probes (pitot, static, AOA , TAT) are checked operative every day.

_____Reference(s)_____

(o) OpsProc 30-31-03C Static Ports Heater

Applicable to: ALL

Refer to OpsProc 30-31-01B Probe Heat Computer

(m) Refer to AMM 30-31-00-040-002

30-31-03D One or both CAPT static port heater inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	4	(o)(m)

One or both CAPT static ports heaters may be inoperative provided that:

- 1) The ADR s, heaters and failure alerts associated with the F/O and the STBY probes (pitot, static, AOA , TAT) are checked operative every day, and
- 2) The OAT at the departure airport is above 5 °C when the runway is contaminated with water or slush.

Reference(s)

(o) *OpsProc 30-31-03D CAPT Static Ports Heater*

Applicable to: ALL

ON GROUND OR IN FLIGHT

Disregard and clear the ANTI ICE CAPT L(R) STAT alert associated with the CAPT static ports heater(s) inoperative for the dispatch.

(m) *Refer to AMM 30-31-00-040-002*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-31 - Probe Ice Protection

30-31-04	Angle of Attack (AOA) Probes Heating

Applicable to: ALL

30-31-04A F/O AOA inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)(m)

The F/O AOA probes heating may be inoperative provided that the ADR s, heaters and failure alerts associated with the CAPT and the STBY probes (pitot, static, AOA , TAT) are checked operative every day

Reference(s)

- (o) OpsProc 30-31-04A Angle of Attack (AOA) Probe Heating (F/O inoperative)
- Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

- FLIGHT PREPARATION/LIMITATIONS
- If icing conditions are encountered during the flight:
Maximum landing capability may be downgraded to CAT 2.

- DURING COCKPIT PREPARATION
- AIR DATA selector F/O 3
- Applicable to: HL7594, HL7703, HL7767, HL8236

- FLIGHT PREPARATION/LIMITATIONS
- If icing conditions are encountered during the flight:
Maximum landing capability may be downgraded to CAT 2.
RVSM operations are not permitted.

- DURING COCKPIT PREPARATION
- AIR DATA selector F/O 3
-

- (m) Refer to AMM 30-31-00-040-002
-

MEL ITEMS
30 - ICE AND RAIN PROTECTION
30-31 - Probe Ice Protection

30-31-04B STBY AOA inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)(m)

The STBY AOA probes heating may be inoperative provided that the ADR s, heaters and failure alerts associated with the CAPT and the F/O probes (pitot, static, AOA , TAT) are checked operative every day

Reference(s) _____

(o) *OpsProc 30-31-04B Angle of Attack (AOA) Probe Heating (CAPT or STBY inoperative)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- **If icing conditions are encountered during the flight:**

Maximum landing capability may be downgraded to CAT 2

(m) *Refer to AMM 30-31-00-040-002*

30-31-04C CAPT AOA inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)(m)

The CAPT AOA probes heating may be inoperative provided that:

- 1) The ADR s, heaters and failure alerts associated with the F/O and the STBY probes (pitot, static, AOA , TAT) are checked operative every day, and
- 2) The aircraft is not operated in visible moisture or in known or forecast icing conditions

Reference(s) _____

(o) *OpsProc 30-31-04C Angle of Attack (AOA) Probe Heating (CAPT or STBY inoperative)*

Refer to item 30-31-04B (o)procedure

(m) *Refer to AMM 30-31-00-040-002*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-31 - Probe Ice Protection

30-31-05	TAT Probes Heating

Applicable to: ALL

30-31-05A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

30-31-05B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the aircraft is not operated in visible moisture or in known or forecast icing conditions.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-42 - Windshield Anti-Icing and Defogging

30-42-01	Window Heat Computer

Applicable to: ALL

30-42-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) The aircraft is not operated in known or forecast icing conditions, and
- 2) All heaters and failure alerts on the front and sliding windows associated with the operative computer are checked operative every day.

_____Reference(s)_____

(o) *OpsProc 30-42-01A Window Heat Computer*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- **When the PF side is inoperative:**
Maximum landing capability is CAT 1.
- **When the PM side is inoperative:**
Maximum landing capability is CAT 3 DUAL.

(m) *Refer to AMM 30-42-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-42 - Windshield Anti-Icing and Defogging

30-42-02	Fixed Lateral Window and Sliding Window Heating

Applicable to: ALL

30-42-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-42 - Windshield Anti-Icing and Defogging

30-42-03	Windshield Heating

Applicable to: ALL

30-42-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that the aircraft is not operated in known or forecast icing conditions.

_____Reference(s)_____

(o) *OpsProc 30-42-03A Windshield Heating*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- **When the PF side is inoperative:**
Maximum landing capability is CAT 1.
- **When the PM side is inoperative:**
Maximum landing capability is CAT 3 DUAL.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-42 - Windshield Anti-Icing and Defogging

30-42-04	PROBES/WINDOW HEAT pb-sw AUTO Control

Applicable to: ALL

30-42-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

Automatic control may be inoperative provided that the PROBES/WINDOW HEAT system is manually selected.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-42 - Windshield Anti-Icing and Defogging

30-42-05	PROBES/WINDOW HEAT pb-sw ON light

Applicable to: ALL

30-42-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-45 - Windshield Rain Protection

30-45-01	Windshield Wiper

Applicable to: ALL

30-45-01A One inoperative on the PM side

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	

One may be inoperative on the PM side for three flights.

30-45-01B One or both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative provided that:

- 1) The aircraft is not operated in precipitation within departure and arrival areas, and
- 2) The approach minima do not require their use.

_____Reference(s)_____

(o) *OpsProc 30-45-01B Windshield Wiper*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- **When the wiper and the rain repellent are inoperative or deactivated on the PF side:**

Maximum landing capability is CAT 1.

30-45-01C Rain repellent system operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the associated rain repellent system is installed and operative.

MEL ITEMS
30 - ICE AND RAIN PROTECTION
 30-45 - Windshield Rain Protection

30-45-02

Windshield Wiper PARK Function

Applicable to: ALL

30-45-02A One or both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated wipers can be positioned in a location that will not obstruct forward vision.

30-45-02B One or both inoperative and removed

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the associated wipers are removed.

Refer to Item 30-45-01 Windshield Wiper

_____Reference(s)_____

(m) *Refer to AMM 30-45-00-040-003*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-45 - Windshield Rain Protection

30-45-03	Rain Repellent System

Applicable to: ALL

30-45-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative.

Note: No entry in the logbook is required when it is installed but intentionally deactivated.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-71 - Waste Water Ice Protection

30-71-01	Waste Water Drain Mast Heating System

Applicable to: HL7594, HL7703, HL7737, HL7738, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL8236

30-71-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that:

- 1) The associated galleys and lavatories are not used, and
- 2) The associated lavatory water supplies are closed.

_____Reference(s)_____

(m) Refer to AMM 30-71-00-040-001

30-71-01	Waste Water Drain Mast Heating System

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

30-71-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(m)

One or more may be inoperative provided that:

- 1) The associated galleys and lavatories are not used, and
- 2) The associated lavatory water supplies are closed.

_____Reference(s)_____

(m) Refer to AMM 30-71-00-040-001

MEL ITEMS
30 - ICE AND RAIN PROTECTION
 30-71 - Waste Water Ice Protection

30-71-03

Cargo Compartment Drain Line and Drain Mast Ice Protection System

Applicable to: HL7767

30-71-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-81 - Ice Detection

30-81-01	Ice Detection System

Applicable to: HL7767

30-81-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 30-81-01A Ice Detection System*

Applicable to: HL7767

IN FLIGHT

The presence of ice in the vicinity of the windshield and on the wipers is periodically checked

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-81 - Ice Detection

30-81-02	External Visual Icing Indicator

Applicable to: ALL

30-81-02A

Repair interval	Nbr installed	Nbr required	Procedure
-	-	-	

Refer to CDL-30-01 Icing Indicator

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 30 - ICE AND RAIN PROTECTION 30-81 - Ice Detection

30-81-03	Lighting of External Visual Icing Indicator

Applicable to: ALL

30-81-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 30-81-03A Lighting of External Visual Icing Indicator*

Applicable to: ALL

IN FLIGHT

- **If icing conditions are expected during night operations:**

Refer to AFM/LIM-70 Operations in Icing Conditions

ATA 31

Indication/Recording Systems

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-00 - MAINTENANCE Message on the STATUS SD page

31-00-01	QAR <u>MAINTENANCE</u> Message

Applicable to: ALL

31-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	–	–	

QAR MAINTENANCE message may be displayed on the STATUS SD page .

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-00 - MAINTENANCE Message on the STATUS SD page

31-00-02	ACMS <u>MAINTENANCE</u> Message

Applicable to: ALL

31-00-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	–	–	

ACMS MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-00 - MAINTENANCE Message on the STATUS SD page

31-00-03	DAR <u>MAINTENANCE</u> Message

Applicable to: ALL

31-00-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	–	–	

DAR MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-00 - MAINTENANCE Message on the STATUS SD page

31-00-04	CFDIU <u>MAINTENANCE</u> Message

Applicable to: ALL

31-00-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

CFDIU MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-00 - MAINTENANCE Message on the STATUS SD page

31-00-05	DMC 1/3 <u>MAINTENANCE</u> Message

Applicable to: ALL

31-00-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

DMC 1/3 MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-00 - MAINTENANCE Message on the STATUS SD page

31-00-06	DMC 2/3 <u>MAINTENANCE</u> Message

Applicable to: ALL

31-00-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

DMC 2/3 MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-01	AP Related Indications on the FMA

Applicable to: ALL

31-05-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 22-05-01 AP Related Indications on the FMA

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-02	A/THR Related Indications on the FMA

Applicable to: ALL

31-05-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 22-05-02 A/THR Related Indications on the FMA

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-03	Approach and Landing Capabilities on the FMA

Applicable to: ALL

31-05-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 22-05-03 Approach and Landing Capabilities on the FMA

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-04	Special Messages on the FMA

Applicable to: ALL

31-05-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 22-05-04 Special Messages on the FMA

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-05	Actual Airspeed Reference Line and Scale Indications on the PFD

Applicable to: ALL

31-05-05A

Repair interval	Nbr installed	Nbr required	Procedure
-	-	-	-

Refer to Item 34-05-01 Actual Airspeed Reference Line and Scale Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-06	Mach Number Indication on the PFD

Applicable to: ALL

31-05-06A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-02 Mach Number Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-07	VMO / MMO Characteristic Speed Indication on the PFD

Applicable to: ALL

31-05-07A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-03 VMO/MMO Characteristic Speed Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-08	Altitude Indication on the PFD

Applicable to: ALL

31-05-08A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-04 Altitude Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-09	Vertical Speed Indication on the PFD

Applicable to: ALL

31-05-09A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-06 Vertical Speed in Inertial Mode Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-10	Other Air Data Related Indications on the PFD

Applicable to: ALL

31-05-10A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-07 Other Air Data Related Indications on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-11	Attitude Indication on the PFD

Applicable to: ALL

31-05-11A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-08 Attitude Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-05 - Indications on the Primary Flight Display (PFD)

31-05-12	Heading Indication on the PFD

Applicable to: ALL

31-05-12A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-05-09 Heading Indication on the PFD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-01	Ground Speed Indication on the ND

Applicable to: ALL

31-06-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-01 Ground Speed Indication on the ND

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-02	True Air Speed Indication on the ND

Applicable to: ALL

31-06-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-02 True Air Speed Indication on the ND

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-03	Wind Indication on the ND

Applicable to: ALL

31-06-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-03 Wind Indication on the ND

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-04	Heading Indication on the ND

Applicable to: ALL

31-06-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-04 Heading Indication on the ND

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-05	Position (Aircraft Symbol) Indication on the ND

Applicable to: ALL

31-06-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-05 Position (Aircraft Symbol) Indication on the ND

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-06	Navigation Station Information on the ND

Applicable to: ALL

31-06-06A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-06 Radio Nav aids Indications on the ND

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-06 - Indications on the Navigation Display (ND)

31-06-07	Chrono Indication on the ND

Applicable to: ALL

31-06-07A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 34-06-07 Chrono Indication on the ND

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-07 - Indications on the System Display (SD)

31-07-01	Indications on the System Display pages

Applicable to: ALL

31-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	

Refer to corresponding item in the associated ATA chapter.

31-07-02

Permanent Data (TAT, SAT, GLOAD -
 ALT SEL, UTC, GW) Indications on the SD

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL8236, HL8279

31-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	6	1	(o)

TAT indication must be available.

Reference(s)

(o) *OpsProc 31-07-02A Permanent Data Indications on the SD*

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL8236, HL8279

DURING COCKPIT PREPARATION

Check that the TAT value is operative on the SD permanent data.

- If the TAT value is not operative:

Check that the TAT value is available through the ADR 3.

Note: Use the AIR DATA SWITCHING selector to display temporarily the TAT value on the SD.

IN FLIGHT

- If needed:

The TAT value may be displayed through the same action on the AIR DATA SWITCHING selector.

31-07-02

Permanent Data (TAT, SAT, GLOAD, UTC, GW) Indications on the SD

Applicable to: HL7594, HL7703, HL7767

31-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	5	1	(o)

TAT indication must be available.

Reference(s)

(o) *OpsProc 31-07-02A Permanent Data Indications on the SD*

Applicable to: HL7594, HL7703, HL7767

DURING COCKPIT PREPARATION

Check that the TAT value is operative on the SD permanent data.

- If the TAT value is not operative:

Check that the TAT value is available through the ADR 3.

Note: Use the AIR DATA SWITCHING selector to display temporarily the TAT value on the SD.

IN FLIGHT

- If needed:

The TAT value may be displayed through the same action on the AIR DATA SWITCHING selector.

31-07-02	Permanent Data (TAT, SAT, ISA, GLOAD - ALT SEL, UTC, GW) Indications on the SD

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8280, HL8281 and later on

31-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	7	1	(o)

TAT indication must be available.

Reference(s) _____

(o) OpsProc 31-07-02A Permanent Data Indications on the SD

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

Check that the TAT value is operative on the SD permanent data.

- If the TAT value is not operative:

Check that the TAT value is available through the ADR 3.

Note: Use the AIR DATA SWITCHING selector to display temporarily the TAT value on the SD.

IN FLIGHT

- If needed:

The TAT value may be displayed through the same action on the AIR DATA SWITCHING selector.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-08 - Indications on the Engine Warning Display (EWD)

31-08-01	Engine Parameter Indications on the EWD

Applicable to: ALL

31-08-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	

Refer to 77-08

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-08 - Indications on the Engine Warning Display (EWD)

31-08-02	Fuel On Board (FOB) Indication on the EWD

Applicable to: ALL

31-08-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 28-07-01-01 Fuel On Board (FOB) Indication on the FUEL SD page

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-08 - Indications on the Engine Warning Display (EWD)

31-08-03	MEMO Messages on the EWD

Applicable to: ALL

31-08-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-08 - Indications on the Engine Warning Display (EWD)

31-08-04	Slats/Flaps Position Indications on the EWD

Applicable to: ALL

31-08-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 27-08-01 Flap Position Indication on the EWD
AND Refer to Item 27-08-02 Slat Position Indication on the EWD

Note: Apply both MEL Items.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-20 - Independent Instruments

31-20-01	Electrical Clock Indicator

Applicable to: ALL

31-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The UTC indication from the CFDIU is operative on the permanent data of the SD , and
- 2) A chrono indication is operative on at least one ND.

_____Reference(s)_____

(o) *OpsProc 31-20-01A Electrical Clock Indicator*

Applicable to: ALL

ON GROUND OR IN FLIGHT

- After any electrical power interruption resulting in the loss of the UTC on the SD :
Initialize the UTC and the date using the MCDU : *Refer to FCOM/DSC-45-20 GMT/Date Initialization.*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-20 - Independent Instruments

31-20-02	Flight Number Reminder

Applicable to: HL7767

31-20-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-01	Centralized Fault Display System (CFDS)

Applicable to: ALL

31-30-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-02	Digital AIDS Recorder (DAR)

Applicable to: ALL

31-30-02A

Repair interval	Nbr installed	Nbr required	Procedure
-	-	-	-

Refer to Item 31-00-03 DAR MAINTENANCE Message

Note: Failure of DAR is indicated by a MAINTENANCE message on the STATUS SD page.

	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-03	Digital Flight Data Recorder (DFDR)

Applicable to: ALL

31-30-03A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for three flight days provided that:

- 1) For all stations, Cockpit Voice Recorder(CVR) operates normally,
- 2) For designated airport, the airplane can be dispatched only one time provided that:
 - a) The FDR failure occurs after push back but prior to take off, or
 - b) The FDR repair was attempted but was not successful.

Note: It is possible for the airplane to be dispatched only one time at the designated airport within three flight days. Refer to two examples to support the dispatch decision below;

Example 1: The Flight , 'PUS(Deferred) - GMP(1 FLT day. Attempted, not successful) - CJJ - HIN (2 FLT day) - CJU - GMP (3 FLT day)', is acceptable.

Example 2: The Flight, 'PUS (Deferred) -GMP (1 FLT day. Attempted, not successful) - CJU - GMP (2 FLT day. Attempted, not successful) -PUS -GMP (3 FLT day)', is not acceptable.

- Note:
- 1) Designated airport is considered one in which AAR has parts, facilities, personnel and time to return the FDR to service. AAR designated airport will be Gimpo or Incheon airport.
 - 2) Designate specific repair location(s) at the time of deferral. In those cases where repair is attempted but not successful, the new designated repair facilities must be specified by AAR. New designated airport may be Gimpo or Incheon airport.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-04	Data Management (DMU or FDIMU Data Management function)

Applicable to: ALL

31-30-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-05	Flight Data Interface (FDIU or FDI MU Flight Data Interface function)

Applicable to: ALL

31-30-05A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative provided that the DFDR and the QAR are considered inoperative.
Refer to Item 31-30-03 Digital Flight Data Recorder (DFDR), and
Refer to Item 31-30-06 Quick Access Recorder (QAR)

MEL ITEMS
 31 - INDICATING/RECORDING SYSTEMS
 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-06

Quick Access Recorder (QAR)

Applicable to: ALL

31-30-06A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 31-00-01 QAR MAINTENANCE Message

Note: Failure of QAR is indicated by a MAINTENANCE message on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-07	Printer

Applicable to: ALL

31-30-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

MEL ITEMS
31 - INDICATING/RECORDING SYSTEMS
31-30 - Centralized Fault Display System (CFDS) and Data Recording System

31-30-08

DFDR Recording Parameters

Applicable to: ALL

31-30-08A DFDR Recording Parameters Required by Regulation

Repair interval	Nbr installed	Nbr required	Procedure
A	–	–	

For DFDR recording parameters required by regulation, up to three (3) parameters may be inoperative provided:

- 1) Cockpit Voice Recorder(CVR) operates normally, and
- 2) Repairs are made within 20 calendar days.

31-30-08B FDR Recording Parameters not Required by Regulation

Repair interval	Nbr installed	Nbr required	Procedure
A	-	-	

For DFDR recording parameters not required by regulation, may be inoperative provided repairs are made prior to completion of next heavy maintenance visit.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-38 - Up and Down Data Loading System Acquisition/Interface and Equipment

31-38-01	DATA LOADING selector

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

31-38-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-38 - Up and Down Data Loading System Acquisition/Interface and Equipment

31-38-02	Data Loading Routing Box (DLRB)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

31-38-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-38 - Up and Down Data Loading System Acquisition/Interface and Equipment

31-38-03	Multipurpose Disk Drive Unit (MDDU)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790

31-38-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-53 - Flight Warning Computer (FWC)

31-53-01	Flight Warning Computer (FWC)

Applicable to: ALL

31-53-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

FWC 2 may be inoperative.

Reference(s)

(o) *OpsProc 31-53-01A Flight Warning Computer (FWC)*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-53 - Flight Warning Computer (FWC)

31-53-02	MASTER CAUT Cancel Function

Applicable to: ALL

31-53-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-53 - Flight Warning Computer (FWC)

31-53-03	MASTER WARN Cancel Function

Applicable to: ALL

31-53-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-53 - Flight Warning Computer (FWC)

31-53-04	MASTER CAUT light

Applicable to: ALL

31-53-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-53 - Flight Warning Computer (FWC)

31-53-05	MASTER WARN light

Applicable to: ALL

31-53-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

31-53-06

Altitude Alert

Applicable to: ALL

31-53-06A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

May be inoperative provided repairs are made within 3 flight days.

_____Reference(s)_____

(o) *OpsProc 31-53-06A Altitude Alert*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- When both altitude alert functions are inoperative:
RVSM operations are not permitted.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-55 - System Data Acquisition Concentrator (SDAC)

31-55-01	System Data Acquisition Concentrator (SDAC)

Applicable to: ALL

31-55-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

SDAC 2 may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-01	System Page Manual Call pb on the ECP

Applicable to: ALL

31-56-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	11	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-02	ALL pb on the ECP

Applicable to: ALL

31-56-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-03	CLR pb on the ECP

Applicable to: ALL

31-56-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-04	EMER CANC pb on the ECP

Applicable to: ALL

31-56-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-05	RCL pb on the ECP

Applicable to: ALL

31-56-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-06	STS pb on the ECP

Applicable to: ALL

31-56-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-56 - ECAM Control Panel (ECP)

31-56-07	T.O CONFIG pb on the ECP

Applicable to: ALL

31-56-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 31-56-07A T.O CONFIG pb on the ECP*

Applicable to: ALL

BEFORE TAKEOFF

Check that the aircraft is in the correct takeoff configuration:

- FLAPS/SLATS CHECK
- On EWD, check that the FLAPS position corresponds to the position inserted in the MCDU PERF TAKE OFF Page.
- PITCH TRIM CHECK
- Check that the selected pitch trim is in the green band of the pitch trim wheel and corresponds to the value inserted in the MCDU PERF TAKE OFF Page.
- RUDDER TRIM..... CHECK ZERO
- GROUND SPOILERS CHECK ARMED
- SIDESTICK PRIORITY light CHECK NO RED
- On the WHEEL SD page, check that the brakes temperature is below 300 °C.
- DOORS..... CHECK
- On the DOOR/OXY SD page, check that all doors are indicated closed.
- Deselect the DOOR/OXY SD page after the check.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-62 - Display Management Computer (DMC)

31-62-01	DMC 1

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

31-62-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The DMC 2 and DMC 3 are operative, and
- 2) The ISIS airspeed indication is operative, and
- 3) The ISIS altitude indication is operative, and
- 4) The ISIS attitude indication is operative, and
- 5) The standby compass is operative, and
- 6) The EIS DMC SWITCHING selector is set to CAPT 3.

_____Reference(s)_____

(o) OpsProc 31-62-01B DMC 1

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- In the case of multiple undue ECAM alerts concerning ENG 1(2) N1(N2) (EGT)(FF) OVER LIMIT
or
ENG 1(2) N1(N2)(EGT)(EPR)(FF) DISCREPANCY
or
NAV ATT(ALT1)(HDG) DISCREPANCY
or
NAV FM/GPS POS DISAGREE
or
FUEL F.USED/FOB DISAGREE
or
MINIMUM or HUNDRED ABOVE callouts, possibly associated with EFIS red flags, apply the below procedure:
 - Crosscheck the affected parameters on the EWD, PFD, ND, or on the related SD page to confirm that the alerts are undue.
 - EIS DMC SWITCHING selector NORM

Note: CAPT PFD and ND are lost when EIS DMC SWITCHING selector is set to NORM.
- If the undue ECAM alerts stop:

- Pull EIS/DMC3/SPLY (121 VU Q09) C/B and EIS/DMC3/STBY/SPLY (49 VU E10) C/B for more than 5 s and push them back.
- EIS DMC SWITCHING selector CAPT 3
- If the undue ECAM alerts continue:
 - EIS DMC SWITCHING selector 3 CAPT 3
 - Wait for CAPT PFD and ND recovery.
 - Pull EIS/DMC2/SPLY (121 VU Q08) C/B for more than 5 s and push it back.

31-62-01

DMC 1

Applicable to: HL7594, HL7703, HL7767, HL8236

31-62-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The DMC 2 and DMC 3 are operative, and
- 2) The standby IAS indicator is operative, and
- 3) The standby altimeter is operative, and
- 4) The standby horizon is operative, and
- 5) The standby compass is operative, and
- 6) The EIS DMC SWITCHING selector is set to CAPT 3.

31-62-01

DMC 1

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738

31-62-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The DMC 2 and DMC 3 are operative, and
- 2) The ISIS airspeed indication is operative, and
- 3) The ISIS altitude indication is operative, and
- 4) The ISIS attitude indication is operative, and
- 5) The standby compass is operative, and
- 6) The EIS DMC SWITCHING selector is set to CAPT 3.

31-62-02

DMC 2

Applicable to: HL7594, HL7703, HL7767, HL8236

31-62-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The DMC 1 and DMC 3 are operative, and
- 2) The standby IAS indicator is operative, and
- 3) The standby altimeter is operative, and
- 4) The standby horizon is operative, and
- 5) The standby compass is operative, and
- 6) The EIS DMC SWITCHING selector is set to F/O 3, and
- 7) The AC ESS FEED control is checked operative every day, and
- 8) The AC ESS FEED pb-sw FAULT light is checked operative every day.

Reference(s)

(m) Refer to AMM 31-68-00-040-005

31-62-02

DMC 2

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

31-62-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The DMC 1 and DMC 3 are operative, and
- 2) The ISIS airspeed indication is operative, and
- 3) The ISIS altitude indication is operative, and
- 4) The ISIS attitude indication is operative, and
- 5) The standby compass is operative, and
- 6) The EIS DMC SWITCHING selector is set to F/O 3, and
- 7) The AC ESS FEED control is checked operative every day, and
- 8) The AC ESS FEED pb-sw FAULT light is checked operative every day.

Reference(s)

(o) *OpsProc 31-62-02A DMC 2*

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- In the case of multiple undue ECAM alerts concerning ENG 1(2) N1(N2) (EGT)(FF) OVER LIMIT
 or
ENG 1(2) N1(N2)(EGT)(EPR)(FF) DISCREPANCY
 or
NAV ATT(ALT1)(HDG) DISCREPANCY
 or
NAV FM/GPS POS DISAGREE
 or
FUEL F.USED/FOB DISAGREE
 or
 MINIMUM or HUNDRED ABOVE callouts, possibly associated with EFIS red flags, apply the below procedure:

- Crosscheck the affected parameters on the EWD, PFD, ND, or on the related SD page to confirm that the alerts are undue.
- EIS DMC SWITCHING selector..... NORM

Note: F/O PFD and ND are lost when EIS DMC SWITCHING selector is set to NORM.

- If the undue ECAM alerts stop:
 - Pull EIS/DMC3/SPLY (121 VU Q09) C/B and EIS/DMC3/STBY/SPLY (49 VU E10) C/B for more than 5 s and push them back.
 - EIS DMC SWITCHING selector F/O 3
- If the undue ECAM alerts continue:
 - EIS DMC SWITCHING selector F/O 3
 - Wait for F/O PFD and ND recovery.
 - Pull EIS/DMC1/SPLY (49 VU E11) C/B for more than 5 s and push it back.

(m) *Refer to AMM 31-68-00-040-005*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-62 - Display Management Computer (DMC)

31-62-02	DMC 2

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738

31-62-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

- May be inoperative provided that:
- 1) The DMC 1 and DMC 3 are operative, and
 - 2) The ISIS airspeed indication is operative, and
 - 3) The ISIS altitude indication is operative, and
 - 4) The ISIS attitude indication is operative, and
 - 5) The standby compass is operative, and
 - 6) The EIS DMC SWITCHING selector is set to F/O 3, and
 - 7) The AC ESS FEED control is checked operative every day, and
 - 8) The AC ESS FEED pb-sw FAULT light is checked operative every day.

_____Reference(s)_____

(m) Refer to AMM 31-68-00-040-005

31-62-03

DMC 3

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

31-62-03B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The DMC 1 and DMC 2 are operative, and
- 2) The ISIS airspeed indication is operative, and
- 3) The ISIS altitude indication is operative, and
- 4) The ISIS attitude indication is operative, and
- 5) The standby compass is operative.

Reference(s)

(o) OpsProc 31-62-03B DMC 3

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

- In the case of multiple undue ECAM alerts concerning ENG 1(2) N1(N2) (EGT)(FF) OVER LIMIT

or

ENG 1(2) N1(N2)(EGT)(EPR)(FF) DISCREPANCY

or

NAV ATT(ALT1)(HDG) DISCREPANCY

or

NAV FM/GPS POS DISAGREE

or

FUEL F.USED/FOB DISAGREE

or

MINIMUM or HUNDRED ABOVE callouts, possibly associated with EFIS red flags, apply the below procedure:

- Crosscheck the affected parameters on the EWD, PFD, ND, or on the related SD page to confirm that the alerts are undue.
- EIS DMC SWITCHING selector.....CAPT 3

Note: CAPT PFD and ND are lost when EIS DMC SWITCHING selector is set to CAPT 3.

- If the undue ECAM alerts stop:

- Pull EIS/DMC1/SPLY (49 VU E11) C/B a for more than 5 s and push it back.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-62 - Display Management Computer (DMC)

- EIS DMC SWITCHING selector NORM
- If the undue ECAM alerts continue:
 - EIS DMC SWITCHING selector.....NORM
 - Wait for CAP PFD and ND recover
 - Pull EIS/DMC2/SPLY (121 VU Q08) C/B for more than 5 s and push it back.

31-62-03	DMC 3

Applicable to: HL7594, HL7703, HL7767, HL8236

31-62-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

- May be inoperative provided that:
- 1) The DMC 1 and DMC 2 are operative, and
 - 2) The standby IAS indicator is operative, and
 - 3) The standby altimeter is operative, and
 - 4) The standby horizon is operative, and
 - 5) The standby compass is operative.

31-62-03	DMC 3

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738

31-62-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

- May be inoperative provided that:
- 1) The DMC 1 and DMC 2 are operative, and
 - 2) The ISIS airspeed indication is operative, and
 - 3) The ISIS altitude indication is operative, and
 - 4) The ISIS attitude indication is operative, and
 - 5) The standby compass is operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-63 - Display Unit (DU)

31-63-01	PFDU 1

Applicable to: ALL

31-63-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-63 - Display Unit (DU)

31-63-02	PFDU 2

Applicable to: ALL

31-63-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that PFDU 1, NDU 1, NDU 2, EWDU and SDU are operative.

Note: For RNP 1 operation, PFDU and NDU must be operative on a PF side.

Reference(s)

(o) OpsProc 31-63-02A PFDU 2

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

ON GROUND OR IN FLIGHT

PFDU 2 knob OFF

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-63 - Display Unit (DU)

31-63-03	NDU 1

Applicable to: ALL

31-63-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that PFDU 1, PFDU 2, NDU 2, EWDU and SDU are operative.

Note: For RNP 1 operation, PFDU and NDU must be operative on a PF side.

Reference(s)

(o) OpsProc 31-63-03A NDU 1

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

ON GROUND OR IN FLIGHT

NDU 1 knob OFF

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-63 - Display Unit (DU)

31-63-04	NDU 2

Applicable to: ALL

31-63-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that PFDU 1, PFDU 2, NDU 1, EWDU and SDU are operative.

Note: For RNP 1 operation, PFDU and NDU must be operative on a PF side.

Reference(s)

(o) OpsProc 31-63-04A NDU 2

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

ON GROUND OR IN FLIGHT

NDU 2 knob OFF

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-63 - Display Unit (DU)

31-63-05	SDU

Applicable to: ALL

31-63-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

- May be inoperative provided that:
- 1) The PFDU 1, PFDU 2, NDU 1, NDU 2 and EWDU are operative, and
 - 2) The AC ESS FEED control is checked operative every day, and
 - 3) The AC ESS FEED pb-sw FAULT light is checked operative every day.

_____Reference(s)_____

(o) *OpsProc 31-63-05A SDU*

Applicable to: ALL

ON GROUND OR IN FLIGHT

SDU knob OFF

- In the case of alerts being displayed on the EWD :
Use the ECAM/ND SWITCHING selector to display the system page on the selected NDU .
- In the case of failure of the AC BUS 1:
 - If all the Display Units are lost:
Apply the ELEC AC ESS BUS FAULT alert procedure: *Refer to FCOM/PRO-ABN-24-ELECTRICAL-ELEC AC ESS BUS FAULT.*

Note: *The AC ESS BUS is recovered when the AC ESS FEED pb-sw is set to ALTN.*

(m) *Refer to AMM 31-68-00-040-006*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-63 - Display Unit (DU)

31-63-06	EWDU

Applicable to: ALL

31-63-06A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-68 - Switching Panel

31-68-01	AIR DATA SWITCHING selector on the Center Pedestal

Applicable to: ALL

31-68-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the AIR DATA SWITCHING selector is set to NORM.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-68 - Switching Panel

31-68-02	ATT HDG SWITCHING selector on the Center Pedestal

Applicable to: ALL

31-68-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the ATT HDG SWITCHING selector is set to NORM.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-68 - Switching Panel

31-68-03	ECAM/ND XFR SWITCHING selector on the Center Pedestal

Applicable to: ALL

31-68-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

- May be inoperative provided that:
- 1) Both ECAM DU are operative, and
 - 2) The ECAM/ND XFR SWITCHING selector is set to NORM.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-68 - Switching Panel

31-68-04	EIS DMC SWITCHING selector on the Center Pedestal

Applicable to: ALL

31-68-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the EIS DMC SWITCHING selector is set to NORM.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 31 - INDICATING/RECORDING SYSTEMS 31-68 - Switching Panel

31-68-05	PFD/ND XFR pb on the Lateral Instrument Panel

Applicable to: ALL

31-68-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

- One or both may be inoperative provided that:
- 1) The PFD and ND units are operative, and
 - 2) The PFD to ND automatic switching is checked operative on the PF side before each flight.

Reference(s)

(o) *OpsProc 31-68-05A PFD/ND XFR pb on the Lateral Instrument Panel*

Applicable to: ALL

DURING COCKPIT PREPARATION

- On the side where the PFD/ND XFR pb is inoperative:
 - PFD brightness control knob OFF
 - Check that the PFD image is automatically displayed on the NDU.
 - PD brightness control knob On
- If the PFD image is not automatically displayed on the NDU:

The affected side cannot be used by the Pilot Flying.
- On the side where the PFD to ND automatic switching is inoperative:
 - PFD brightness control knob OFF
 - EIS DMC SWITCHING selector (Affected side) CAPT 3 (F/O 3)
 - Check that the PFD image is displayed on the associated NDU.
 - PFD brightness control knob On
 - EIS DMC SWITCHING knob (Affected side) NORM

IN FLIGHT

- If a PFDU fails with no automatic transfer to the associated NDU:
 - PFD brightness control knob OFF
 - EIS DMC SWITCHING selector (Affected side) CAPT 3 (F/O 3)
 - Check that the PFD image is displayed on the associated NDU.

ATA 32

Landing Gear

32-07-01

Brakes Temperature Indication on the WHEEL SD page

Applicable to: ALL

32-07-01A BRAKES HOT alert not displayed

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be inoperative provided that the ground brake cooling time is applied.

—Reference(s)—

(o) *OpsProc 32-07-01A Brakes Temperature Indication on the WHEEL SD page*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

The brake energy graph and the brake cooling time table given hereafter permit to determine the ground brake cooling time.

BRAKE ENERGY GRAPH

■ **If MAX reverser thrust was selected for all reversers during the braking phase:**

Enter the brake energy graph: WITH THRUST REVERSERS USE.

■ **If MAX reverser thrust was NOT selected for all reversers during the braking phase:**

Enter the brake energy graph: WITHOUT THRUST REVERSERS USE.

Determination of the brake energy accumulated during a REJECTED TAKEOFF (RTO) :

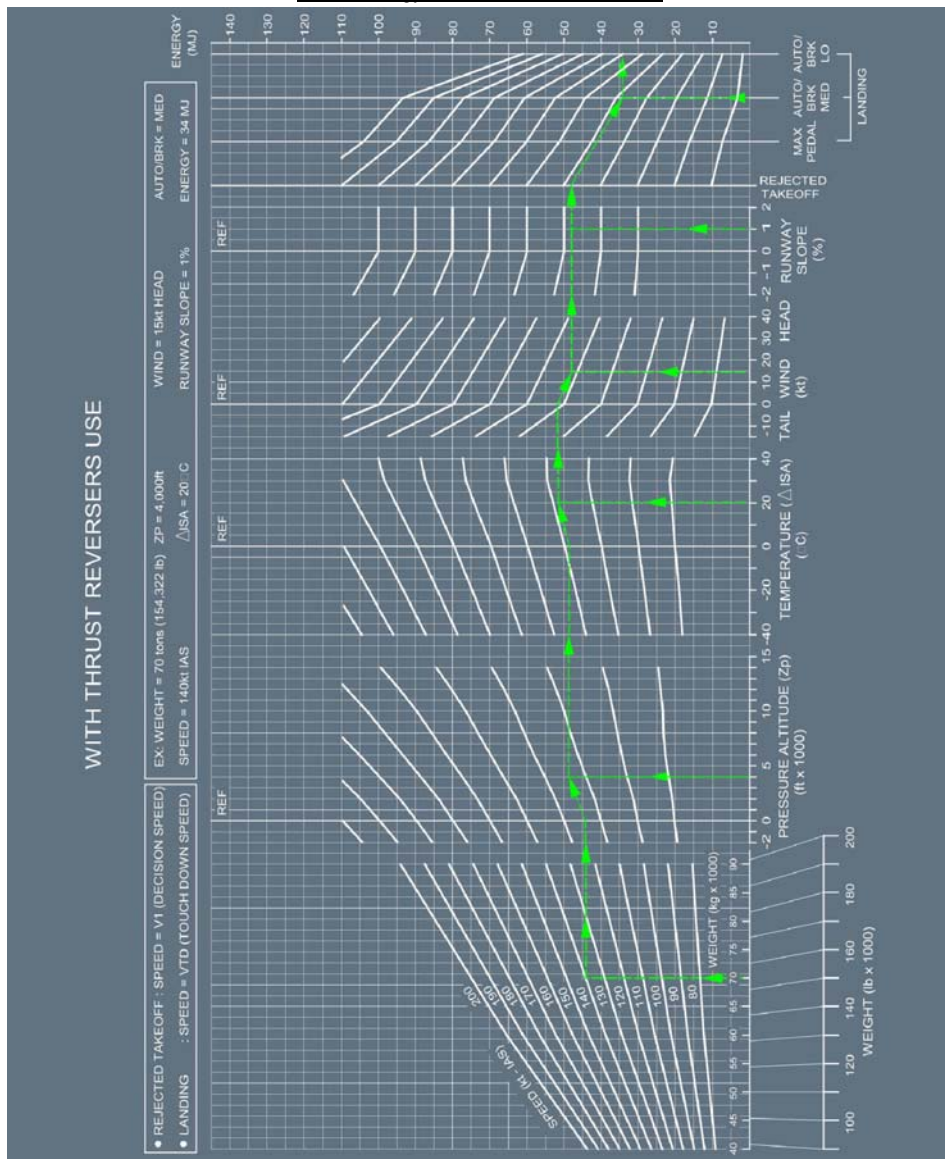
- Enter with the aircraft takeoff weight (TOW) and with the rejected takeoff speed in kt IAS).
- Apply airport pressure altitude, temperature, wind and runway slope corrections.

Determination of the brake energy accumulated during a LANDING :

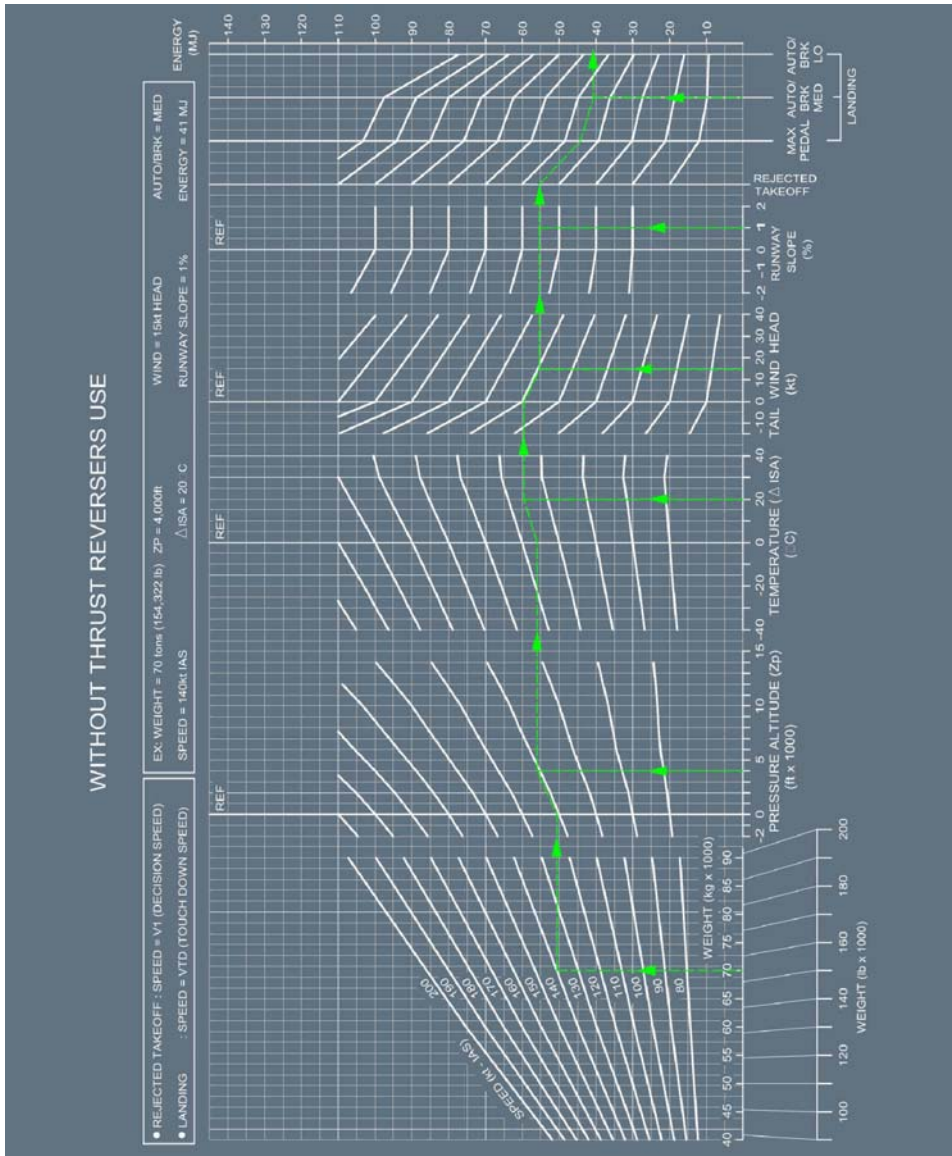
- Enter with the aircraft landing weight, and
- Enter with the touch down speed in kt IAS if the autobrake was selected and applied or with the manual braking speed in kt IAS in the other cases.
- Apply airport pressure altitude, temperature, wind and runway slope corrections.
- Correct for brake setting with a preselected autobrake setting (LO, MED) or with MAX PEDAL braking in the other cases.

Note: *In the case of a dispatch with one brake inoperative (Refer to Item 32-42-01 Main Wheel Brake or Refer to Item 32-42-02 Green System Brake), the brake energy accumulated is increased by 34 %.*

Brake Energy with Thrust Reverser Use



Brake Energy without Thrust Reverser Use



BRAKE COOLING TIME TABLE

Determination of the brake cooling time:

EXAMPLE:

55	152 46	153 46	154 46	155 46	155 47	====< TIME (min) WITHOUT BRAKE COOLING FAN
						====< TIME (min) WITH BRAKE COOLING FAN

If the Energy and the OAT are not given in the table, use the values given in the next adjacent column/row.

For Example, with Energy = 78 MJ , and OAT = 15 °C , entering the next adjacent column/row (Energy = 80 MJ , OAT = 20 °C) gives the following results:

- Without brake cooling fan: 189 min
- With brake cooling fan: 57 min

Enter the following table with the energy and the OAT to determine the ground brake cooling time.

ENERGY (MJ)	GROUND BRAKE COOLING TIME (min)											
	OAT (°C)											
	-50	-40	-30	-20	-10	0	10	20	30	40	50	55
0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
10	0 0	0 0	0 0	4 1	9 3	14 4	19 6	23 7	27 8	31 9	35 10	37 11
15	31 9	35 10	38 11	42 12	45 13	48 14	51 15	54 16	57 17	60 18	62 19	64 19
20	59 18	62 19	65 19	67 20	70 21	72 22	74 22	77 23	79 24	81 24	83 25	84 25
25	81 24	83 25	85 25	87 26	89 27	91 27	92 28	94 28	96 29	98 29	99 30	100 30
30	98 29	99 30	101 30	103 31	104 31	106 32	107 32	109 33	110 33	112 34	113 34	114 34
35	112 34	113 34	115 34	116 35	117 35	119 36	120 36	121 36	123 37	124 37	125 38	126 38
40	124 37	125 37	126 38	127 38	129 39	130 39	131 39	132 40	133 40	134 40	135 41	136 41
45	134 40	135 41	136 41	137 41	139 42	140 42	141 42	142 42	143 43	144 43	145 43	145 44
50	144 43	145 43	146 44	146 44	147 44	148 45	149 45	150 45	151 45	152 46	153 46	153 46
55	152 46	153 46	154 46	155 46	155 47	156 47	157 47	158 47	159 48	160 48	160 48	161 48
60	160 48	160 48	161 48	162 49	163 49	164 49	164 49	165 50	166 50	167 50	167 50	168 50
65	167 48	167 48	168 48	169 49	170 49	170 49	171 50	172 50	172 50	173 50	174 50	174 50

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

	50	50	50	51	51	51	51	52	52	52	52	52
70	173	174	174	175	176	176	177	178	178	179	180	180
	52	52	52	53	53	53	53	53	54	54	54	54
75	179	180	180	181	182	182	183	183	184	185	185	186
	54	54	54	54	54	55	55	55	55	55	56	56
80	185	185	186	186	187	188	188	189	189	190	190	191
	55	56	56	56	56	56	56	57	57	57	57	57
85	190	190	191	191	192	193	193	194	194	195	195	196
	57	57	57	57	58	58	58	58	58	58	59	59
90	195	195	196	196	197	197	198	198	199	199	200	200
	58	59	59	59	59	59	59	60	60	60	60	60
95	199	200	200	201	201	202	202	203	203	204	204	205
	60	60	60	60	60	61	61	61	61	61	61	61
100	204	204	205	205	206	206	207	207	208	208	208	209
	61	61	61	62	62	62	62	62	62	62	63	63
105	208	208	209	209	210	210	211	211	212	212	212	213
	62	63	63	63	63	63	63	63	63	64	64	64
110	212	212	213	213	214	214	215	215	215	216	216	216
	64	64	64	64	64	64	64	64	65	65	65	65
115	216	216	217	217	217	218	218	219	219	219	220	220
	65	65	65	65	65	65	65	66	66	66	66	66
120	219	220	220	221	221	221	222	222	222	223	223	223
	66	66	66	66	66	66	67	67	67	67	67	67
A320 Messier/Goodrich - 03.01.05 - F476021.txt												

AFTER ENGINE START

- In the case of a false BRAKES HOT alert displayed on the EWD :

EMER CANC pb Press

Note: In the case of a false BRAKES HOT alert due to a faulty BTMU or a faulty BSCU, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line in the T.O MEMO. Consider normal configuration for takeoff provided that no alert was displayed during the T.O CONFIG TEST.

CAUTION	The T.O CONFIG TEST pb must be maintained pressed to check that there is no alert.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

The brake energy graph and the brake cooling time table given hereafter permit to determine the ground brake cooling time.

BRAKE ENERGY GRAPH

■ **If MAX reverser thrust was selected for all reversers during the braking phase:**

Enter the brake energy graph: WITH THRUST REVERSERS USE.

■ **If MAX reverser thrust was NOT selected for all reversers during the braking phase:**

Enter the brake energy graph: WITHOUT THRUST REVERSERS USE.

Determination of the brake energy accumulated during a REJECTED TAKEOFF (RTO) :

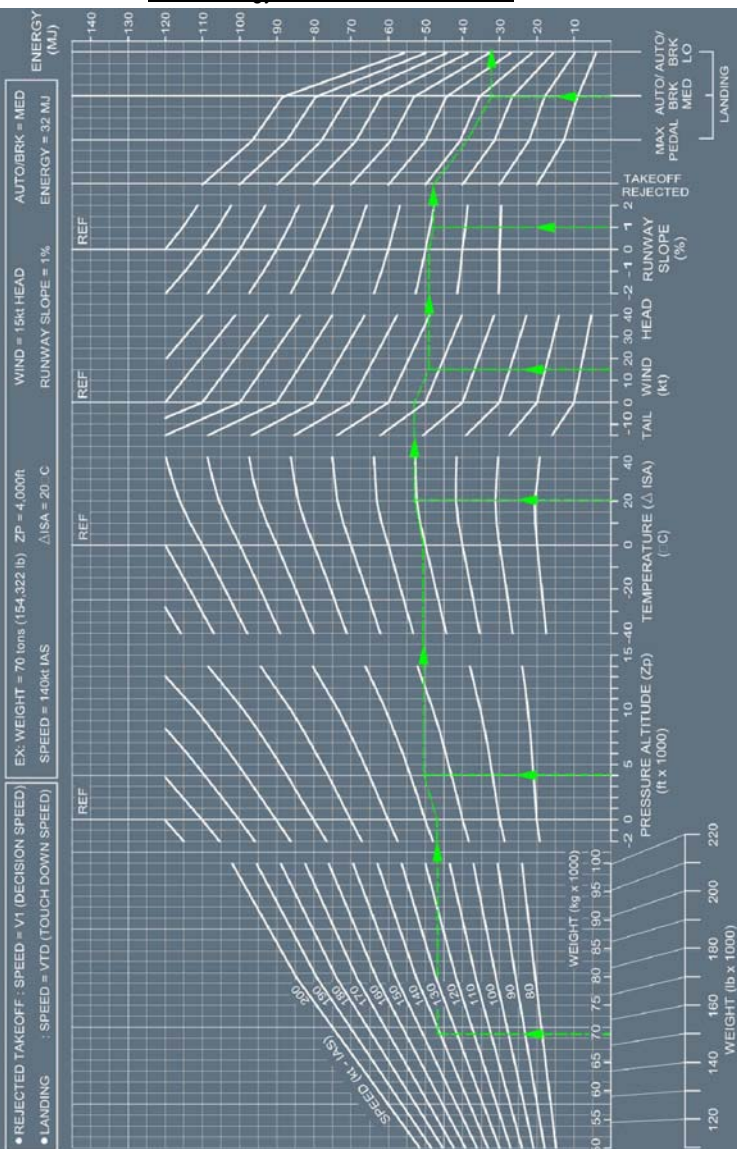
- Enter with the aircraft takeoff weight (TOW) and with the rejected takeoff speed in kt IAS.
- Apply airport pressure altitude, temperature, wind and runway slope corrections.

Determination of the brake energy accumulated during a LANDING :

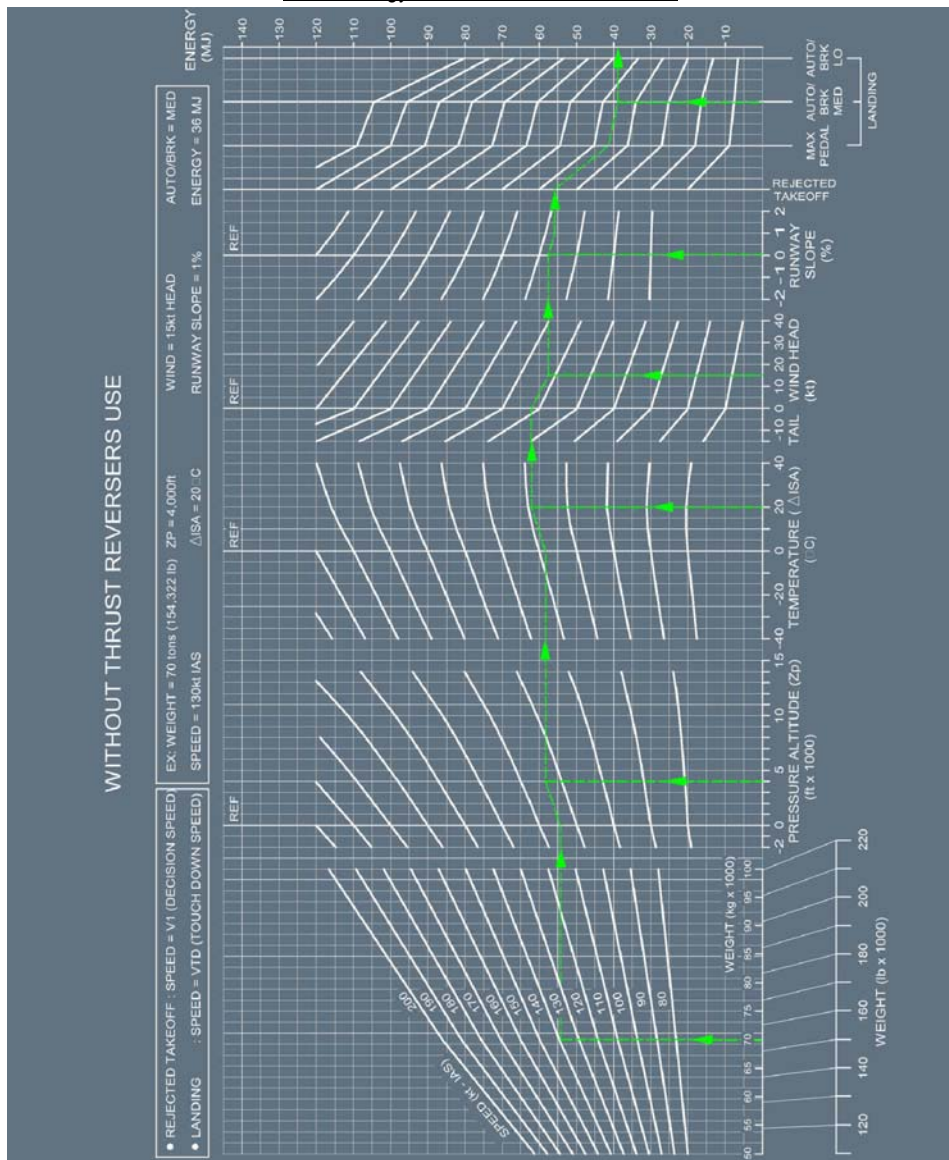
- Enter with the aircraft landing weight, and
- Enter with the touch down speed in kt IAS if the autobrake was selected and applied or with the manual braking speed in kt IAS in the other cases.
- Apply airport pressure altitude, temperature, wind and runway slope corrections.
- Correct for brake setting with a preselected autobrake setting (LO, MED) or with MAX PEDAL braking in the other cases.

Note: *In the case of a dispatch with one brake inoperative (Refer to Item 32-42-01 Main Wheel Brake or Refer to Item 32-42-02 Green System Brake), the brake energy accumulated is increased by 34 %.*

WITH THRUST REVERSERS USE



Brake Energy without Thrust Reverser Use



BRAKE COOLING TIME TABLE

Determination of the brake cooling time:

EXAMPLE:

55	42	44	46	48	49	====< TIME (min) WITHOUT BRAKE COOLING FAN
	14	15	15	16	16	====< TIME (min) WITH BRAKE COOLING FAN

If the Energy and the OAT are not given in the table, use the values given in the next adjacent column/row.

For Example, with Energy = 78 MJ , and OAT = 15 °C , entering the next adjacent column/row (Energy = 80 MJ , OAT = 20 °C) gives the following results:

- Without brake cooling fan: 76 min
- With brake cooling fan: 25 min

Enter the following table with the energy and the OAT to determine the ground brake cooling time.

GROUND BRAKE COOLING TIME (min)												
ENERGY (MJ)	OAT (°C)											
	-50	-40	-30	-20	-10	0	10	20	30	40	50	55
0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
10	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
15	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
20	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	3 1	7 2	10 3	12 4
25	0 0	0 0	0 0	0 0	0 0	4 1	8 3	11 4	14 5	17 6	20 7	22 7
30	0 0	1 0	5 2	8 3	12 4	15 5	18 6	21 7	24 8	26 9	29 10	30 10
35	9 3	12 4	15 5	18 6	21 7	24 8	27 9	29 10	32 11	34 11	36 12	37 12
40	19 6	22 7	25 8	27 9	30 10	32 11	34 11	37 12	39 13	41 14	43 14	44 15
45	28 9	30 10	33 11	35 12	37 12	39 13	41 14	43 14	45 15	47 16	49 16	50 17
50	35 12	37 12	40 13	42 14	44 15	45 15	47 16	49 16	51 17	53 18	54 18	55 18
55	42 14	44 15	46 15	48 16	49 16	51 17	53 18	54 18	56 19	58 19	59 20	60 20
60	48	50	52	53	55	56	58	59	61	62	64	64

	16	17	17	18	18	19	19	20	20	21	21	21
65	54 18	55 18	57 19	58 19	60 20	61 20	63 21	64 21	65 22	67 22	68 23	69 23
70	59 20	60 20	61 20	63 21	64 21	66 22	67 22	68 23	70 23	71 24	72 24	73 24
75	63 21	65 22	66 22	67 22	69 23	70 23	71 24	72 24	73 24	75 25	76 25	76 25
80	67 22	69 23	70 23	71 24	72 24	74 25	75 25	76 25	77 26	78 26	79 26	80 27
85	72 24	73 24	74 25	75 25	76 25	77 26	78 26	79 26	81 27	82 27	83 28	83 28
90	75 25	76 25	78 26	79 26	80 27	81 27	82 27	83 28	84 28	85 28	86 29	86 29
ABS						81 : TIME (MIN) WITHOUT BRAKE COOLING FAN 27 : TIME (MIN) WITH BRAKE COOLING FAN						

AFTER ENGINE START

- In the case of a false BRAKES HOT alert displayed on the EWD :
EMER CANC pb Press

Note: In the case of a false BRAKES HOT alert due to a faulty BTMU or a faulty BSCU, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line in the T.O MEMO. Consider normal configuration for takeoff provided that no alert was displayed during the T.O CONFIG TEST.

CAUTION	The T.O CONFIG TEST pb must be maintained pressed to check that there is no alert.

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

The brake energy graph and the brake cooling time table given hereafter permit to determine the ground brake cooling time.

BRAKE ENERGY GRAPH

- If **MAX reverser thrust was selected for all reversers during the braking phase:**
Enter the brake energy graph: WITH THRUST REVERSERS USE.
- If **MAX reverser thrust was NOT selected for all reversers during the braking phase:**
Enter the brake energy graph: WITHOUT THRUST REVERSERS USE.

Determination of the brake energy accumulated during a REJECTED TAKEOFF (RTO) :

- Enter with the aircraft takeoff weight (TOW) and with the rejected takeoff speed in kt IAS.
- Apply airport pressure altitude, temperature, wind and runway slope corrections.

Determination of the brake energy accumulated during a LANDING :

MEL ITEMS

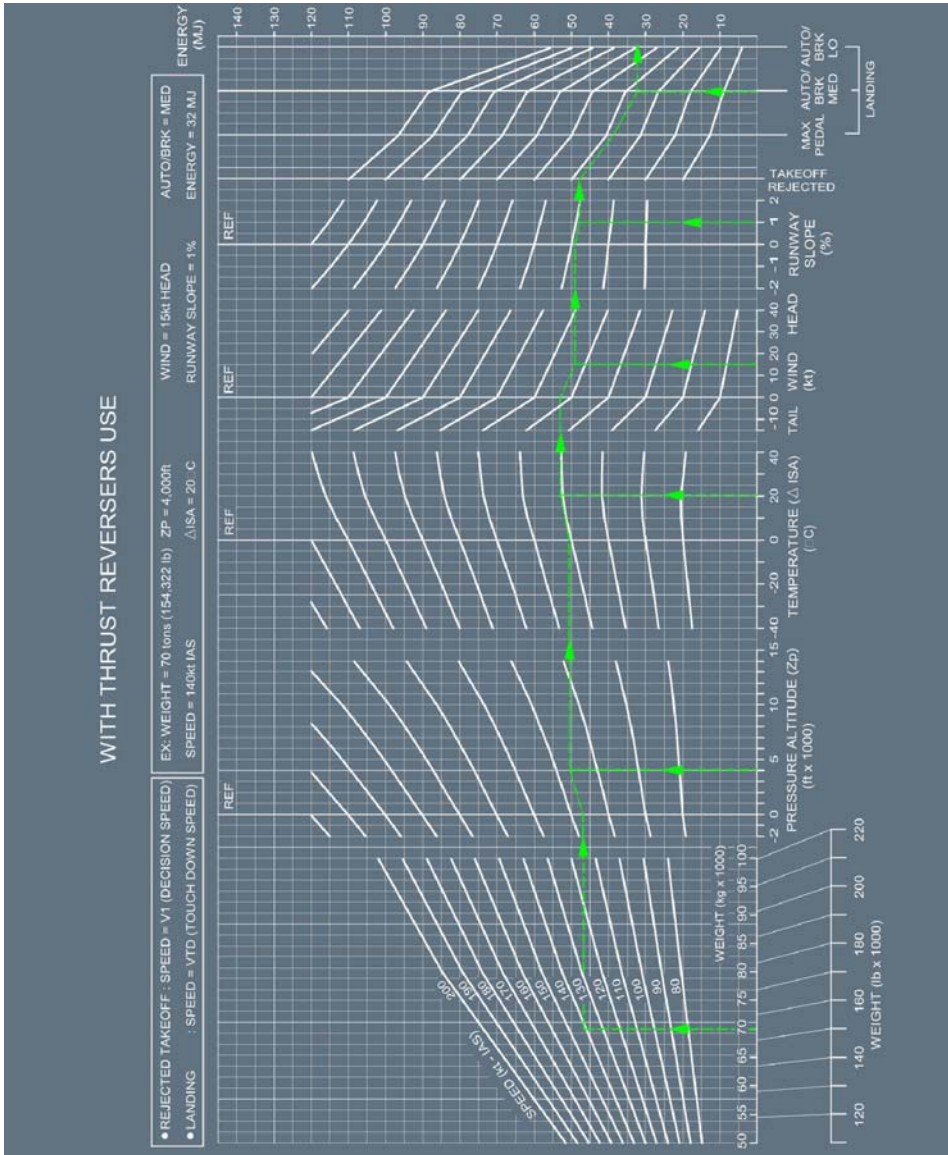
32 - LANDING GEAR

32-07 - Indications on the WHEEL SD page

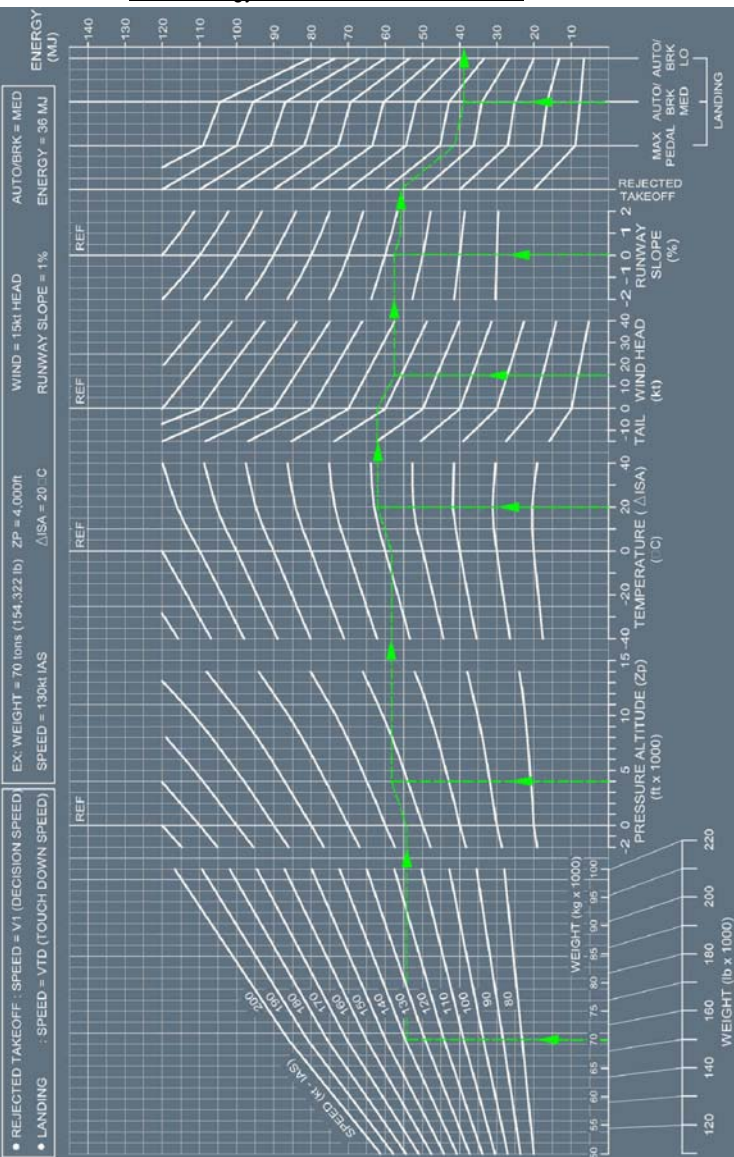
- Enter with the aircraft landing weight, and
- Enter with the touch down speed in kt IAS if the autobrake was selected and applied or with the manual braking speed in kt IAS in the other cases.
- Apply airport pressure altitude, temperature, wind and runway slope corrections.
- Correct for brake setting with a preselected autobrake setting (LO, MED) or with MAX PEDAL braking in the other cases.

Note: *In the case of a dispatch with one brake inoperative (Refer to Item 32-42-01 Main Wheel Brake or Refer to Item 32-42-02 Green System Brake), the brake energy accumulated is increased by 34 %.*

Brake Energy with Thrust Reverser Use



WITHOUT THRUST REVERSERS USE



BRAKE COOLING TIME TABLE

Determination of the brake cooling time:

EXAMPLE:

55	152 46	153 46	154 46	155 46	155 47	====< TIME (MN) WITHOUT BRAKE COOLING FAN
						====< TIME (MN) WITH BRAKE COOLING FAN

If the Energy and the OAT are not given in the table, use the values given in the next adjacent column/row.

For Example, with Energy = 78 MJ, and OAT = 15 °C, entering the next adjacent column/row (Energy = 80 MJ, OAT = 20 °C) gives the following results:

- Without brake cooling fan: 189 min
- With brake cooling fan: 57 min

Enter the following table with the energy and the OAT to determine the ground brake cooling time.

GROUND BRAKE COOLING TIME (min)												
ENERGY (MJ)	OAT (°C)											
	-50	-40	-30	-20	-10	0	10	20	30	40	50	55
0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
5	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
10	0 0	0 0	0 0	4 1	9 3	14 4	19 6	23 7	27 8	31 9	35 10	37 11
15	31 9	35 10	38 11	42 12	45 13	48 14	51 15	54 16	57 17	60 18	62 19	64 19
20	59 18	62 19	65 19	67 20	70 21	72 22	74 22	77 23	79 24	81 24	83 25	84 25
25	81 24	83 25	85 25	87 26	89 27	91 27	92 28	94 28	96 29	98 29	99 30	100 30
30	98 29	99 30	101 30	103 31	104 31	106 32	107 32	109 33	110 33	112 34	113 34	114 34
35	112 34	113 34	115 34	116 35	117 35	119 36	120 36	121 36	123 37	124 37	125 38	126 38
40	124 37	125 37	126 38	127 38	129 39	130 39	131 39	132 40	133 40	134 40	135 41	136 41
45	134 40	135 41	136 41	137 41	139 42	140 42	141 42	142 42	143 43	144 43	145 43	145 44
50	144 43	145 43	146 44	146 44	147 44	148 45	149 45	150 45	151 45	152 46	153 46	153 46
55	152 46	153 46	154 46	155 46	155 47	156 47	157 47	158 47	159 48	160 48	160 48	161 48

60	160 48	160 48	161 48	162 49	163 49	164 49	164 49	165 50	166 50	167 50	167 50	168 50
65	167 50	167 50	168 50	169 51	170 51	170 51	171 51	172 52	172 52	173 52	174 52	174 52
70	173 52	174 52	174 52	175 53	176 53	176 53	177 53	178 53	178 54	179 54	180 54	180 54
75	179 54	180 54	180 54	181 54	182 54	182 55	183 55	183 55	184 55	185 55	185 56	186 56
80	185 55	185 56	186 56	186 56	187 56	188 56	188 56	189 57	189 57	190 57	190 57	191 57
85	190 57	190 57	191 57	191 57	192 58	193 58	193 58	194 58	194 58	195 58	195 59	196 59
90	195 58	195 59	196 59	196 59	197 59	197 59	198 59	198 60	199 60	199 60	200 60	200 60
95	199 60	200 60	200 60	201 60	201 60	202 61	202 61	203 61	203 61	204 61	204 61	205 61
100	204 61	204 61	205 61	205 62	206 62	206 62	207 62	207 62	208 62	208 62	208 63	209 63
105	208 62	208 63	209 63	209 63	210 63	210 63	211 63	211 63	212 63	212 64	212 64	213 64
110	212 64	212 64	213 64	213 64	214 64	214 64	215 64	215 64	215 65	216 65	216 65	216 65
115	216 65	216 65	217 65	217 65	217 65	218 65	218 65	219 66	219 66	219 66	220 66	220 66
120	219 66	220 66	220 66	221 66	221 66	221 66	222 67	222 67	222 67	223 67	223 67	223 67

A321

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AFTER ENGINE START

- **In the case of a false BRAKES HOT alert displayed on the EWD :**

EMER CANC pb Press

Note: In the case of a false BRAKES HOT alert due to a faulty BTMU or a faulty BSCU, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line in the T.O MEMO. Consider normal configuration for takeoff provided that no alert was displayed during the T.O CONFIG TEST.

CAUTION	The T.O CONFIG TEST pb must be maintained pressed to check that there is no alert.

32-07-01B BRAKES HOT alert displayed

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

One or more may be inoperative provided that:

- 1) The associated sensor is deactivated if the BRAKES HOT alert is displayed on the EWD , and
- 2) The ground brake cooling time is applied.

Reference(s)

(o) OpsProc 32-07-01B Brakes Temperature Indication on the WHEEL SD page

Refer to item 32-07-01A (o)procedure

(m) Refer to AMM 32-47-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-02	L/G Position Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

32-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	6	0	

One or more may be inoperative provided that the L/G gear position indications are operative on the LDG GEAR indicator panel.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-03	L/G Doors Position Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

32-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)

One or more may be inoperative.

Reference(s)

(o) OpsProc 32-07-03A L/G Doors Position Indication on the WHEEL SD page

Applicable to: ALL

IN FLIGHT

MAX SPEED 250 kt or M 0.60

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-04	L/G CTL Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

32-07-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-05	UP LOCK Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

32-07-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-06	[Y] N/W STEERING Indication on the <u>WHEEL</u> SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-07-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

MEL ITEMS
32 - LANDING GEAR
 32-07 - Indications on the WHEEL SD page

32-07-08

ANTI SKID Indication on the WHEEL SD page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

32-07-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

32-07-08

ANTI SKID, [1], [2] Indication on the WHEEL SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-07-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-09	AUTO BRK Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

32-07-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

32-07-10	[G] NORM BRK Indication on the <u>WHEEL</u> SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-07-10A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-11	Release Brake Indication on the <u>WHEEL</u> SD page

Applicable to: ALL

32-07-11A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

32-07-12

ACCU PRESS/ACCU ONLY Indication on the WHEEL SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-07-12A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-07 - Indications on the WHEEL SD page

32-07-13	[Y] ALTN BRK Indication on the <u>WHEEL</u> SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-07-13A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-09 - ECAM Alerts

32-09-01	<u>BRAKES-N/WS MINOR FAULT</u> Alert

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-09-01A Fault on an alternate braking system pressure transducer

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

May be displayed provided that:

- 1) The alert is confirmed to be caused by a fault on an alternate braking system pressure transducer by troubleshooting, and
- 2) The associated BRAKES pressure indicator is considered inoperative.
Refer to Item 32-44-03 BRAKES Pressure Indicator

32-09-01C Both BRAKES pressure indicators operative

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(o)(m)

May be displayed provided that:

- 1) Both BRAKES pressure indicators are operative, and
- 2) The alternate braking system is checked operative before the first flight of each day, and
- 3) It is checked before each flight that the CFDS failure message related to the BRAKES-N/WS MINOR FAULT alert do not report a fault on a normal or an alternate pressure transducer.

Reference(s)

(o) *OpsProc 32-09-01C BRAKES-N/WS MINOR FAULT Alert (Alternate braking checked operative)*

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

The ACCU PRESS indication must be in the green band.

- **If ACCU PRESS indication not in the green band:**
Y ELEC PUMP pb-sw ON then OFF
- CHOCKS.....CHECK IN PLACE
- PRKING BRAKE handle OFF
- PARKING PEDALS.....PRESS
Apply maximum pressure on both pedals.

- BRAKE PRESSURE (on BRAKES pressure indicators).....CHECK
Pressure must increase without delay symmetrically on left and right sides for the same application simultaneously applied on left and right pedals. With full pedal deflection, the pressure must be between 900 and 1100 psi.
- BRAKES PEDALS.....RELEASE
Check that no residual pressure in the brakes remains.
- PARKING BRAKE handle ON

(m) Refer to AMM 32-46-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-11 - Main Gear

32-11-01	Main Gear Torque Link Damper

Applicable to: ALL

32-11-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	

One or both may be inoperative for 7 flights.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-12 - Main Gear Doors

32-12-01	Main Gear Door Ground Opening Cable

Applicable to: ALL

32-12-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be broken or missing.

Reference(s)

(m) Refer to AMM 32-12-00-040-006

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-31 - Normal Extension and Retraction

32-31-01	Landing Gear Control and Interface Unit (LGCIU)

Applicable to: ALL

32-31-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)

The LGCIU 2 may be inoperative for 7 flights provided that:

- 1) All ELAC s, SEC s, SFCC s, RA s, FAC s, and ADIRS s are operative, and
- 2) Both air conditioning packs are operative, and
- 3) The FLEX Takeoff Mode is not used, and
- 4) The operation of avionics equipment is time limited on ground.

_____Reference(s)_____

(o) OpsProc 32-31-01A Landing Gear Control and Interface Unit (LGCIU)

Applicable to: ALL

DURING COCKPIT PREPARATION

HYDRAULIC/LGCIU/SYS2 (121VU Q35) C/B PULL

The following table gives the consequences on the systems affected when the LGCIU 2 is inoperative and above mentioned C/B is pulled.

SYSTEMS	CONSEQUENCES	PROCEDURE
AVNCS VENT (on ground)	- The system remains in closed circuit configuration. - The ground cooling system (if installed) is inoperative.	- Time limitations on ground for ELEC PWR supply: - OAT ≤ 43 °C: No Limitation - 44 °C ≤ OAT ≤ 52 °C: 3 h - OAT ≥ 53 °C: 30 min - Check that the air conditioning system is operative.
HYD (on ground)	The PU runs after the first engine start until the second engine is started.	
	The BLUE ELEC PUMP light and the YELLOW ENG 2 PUMP FAULT light come on when engines are off.	
TPIS (if installed)	The <u>WHEEL</u> TYRE LO PR alert threshold is set to flight level.	
ATC 2 (on ground)	The ATC 2 is not inhibited.	On ground, set the ATC selector to SYS 1.
LIGHTS	The strobe lights (if installed) are not inhibited on ground when set to AUTO.	On ground, set the STROBE sw to OFF.
	On ground, with flaps retracted, logo lights do not come on.	

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-31 - Normal Extension and Retraction

	The taxi light, the runway turn-off light, and the takeoff light are inoperative on ground and in flight.	
ELEC (on ground)	When only the APU generator or the GPU supplies the aircraft, the main galleys are not supplied.	
ENG 2 (on ground)	The FADEC supply is continuously on.	
	The automatic start abort is inoperative.	Use the MAN START procedure. Refer to FCOM/PRO-SUP-70 Manual Engine Start - Manual Engine Start Procedure
	The minimum idle is inoperative when slats/flaps are extended.	Refer to OpsProc 73-20-05A Minimum Idle on Ground
	When FLX TO is selected, MCT thrust is set.	Use the TOGA for takeoff.
	The thrust reverser is inoperative.	Refer to OpsProc 78-30-01A Thrust Reverser
	The BUMP function (if installed) is inoperative.	Do not use the BUMP function.
SLATS (on ground)	The slats are slow from 1 to 0.	
AIR COND (on ground)	Both air conditioning packs ram air inlet do not close.	
WING A ICE (on ground)	On ground, when set to ON, the WING A ICE valve, do not close at the end of the test sequence (30 s). The WING A ICE OPEN ON GND alert will be displayed on the EWD.	
ADIRU and AVNCS VENT alert	The horn and the light are inoperative.	
WATER SERVICING (on ground)	The preselect water servicing is inoperative.	
CARGO DOOR (FWD and AFT)	Only the manual control is operative.	
RECORDERS (on ground)	The CVR test and the CVR erase functions are inoperative. The CVR and the DFDR do not stop after engine shutdown.	
BRAKES (on ground)	The brakes cooling (if installed) is inoperative.	
AIRSTAIRS (if installed)	The airstairs (if installed) cannot be extended.	
WEIGHT AND BALANCE SYSTEM (if installed)	The WBS(if installed) is inoperative.	
ECAM (in flight and on ground)		

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-31 - Normal Extension and Retraction
	- On the <u>WHEEL</u> SD page, the landing gear position indications associated with the LGCIU 2 are displayed XX . - The <u>L/G</u> LGCIU 2 FAULT alert is displayed on the EWD.

IN FLIGHT

- In the case of loss of the LGCIU 1:**

AP and FD are lost.

Maximum landing capability is CAT 1.

MEL ITEMS
32 - LANDING GEAR
 32-31 - Normal Extension and Retraction

32-31-02

Landing Gear Retracting System

Applicable to: ALL

32-31-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The aircraft is operated in accordance with the Flight Manual supplement for the flight with landing gear down.

Reference(s) _____

(o) *OpsProc 32-31-02A Landing Gear Retracting System*

Applicable to: ALL

Refer to *FCOM/PRO-SPO-25 Flight with GEAR DOWN* or Octopus program (Flight with landing gears extended) can be used.

(m) Refer to AMM 32-31-00-040-803

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

32-32-01	LGCIU 1 Proximity Detector

Applicable to: ALL

32-32-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	16	16	

All must be operative.

MEL ITEMS
32 - LANDING GEAR
 32-32 - Proximity Detector System

32-32-02

LGCIU 2 RH L/G Shock Absorber Proximity Detector

Applicable to: ALL

32-32-02A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) Both radio altimeters are operative, and
- 2) The other proximity detectors are operative, and
- 3) The origin of the failure is checked to be electrical.

Reference(s)

(o) *OpsProc 32-32-02A LGCIU 2 RH L/G Shock Absorber Proximity Detector*

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	The F/O pitot is set to high heating level when the EXT PWR pb-sw is set to OFF.	Keep the EXT PWR pb-sw set to ON until the engine start.
AVNCS VENT (on ground)	- The system remains in the closed circuit configuration. - The ground cooling system (If Installed) is inoperative.	- Time limitations on ground for ELEC PWR supply: - OAT ≤ 43 °C: No limitation - OAT = 52 °C: 3 h - OAT = 61 °C: 30 min - Check that the air conditioning system is operative.
ADIRU and AVNCS VENT alert (on ground)	The horn and the light are inoperative.	
HYD alerts (on ground)	The BLUE ELEC PUMP FAULT light and the YELLOW ENG 2 PUMP FAULT light come on when engines are off.	
WING A/ICE (on ground)	The wing anti-ice is not inhibited.	On ground, do not set the WING ANTI ICE pb-sw to ON for more that 30 s. If required, set it to ON just before takeoff.
TPIS (If Installed) (on ground)	The <u>WHEEL</u> TYRE LO PR alert threshold is set to flight level.	
ATC 2 (on ground)	The ATC 2 is not inhibited.	On ground, set the ATC selector to SYS 1.
LIGHTS	The strobe lights (If Installed) are not inhibited.	On ground, set the STROBE sw to OFF.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

(on ground)	On ground, with flaps retracted, the logo lights do not come on.	
ELEC (on ground)	When only the APU generator or GPU supplies the aircraft, the main galleys are not supplied.	
ENG 2 (on ground)	The FADEC supply is continuously on.	
	The automatic start abort is inoperative.	Use the MAN START procedure. <i>Refer to FCOM/PRO-SUP-70 Manual Engine Start -Manual Engine Start Procedure.</i>
	The minimum idle is inoperative.	<i>Refer to OpsProc 73-20-05A Minimum Idle on Ground</i>
	When FLX TO is selected, MCT thrust is set.	Use the TOGA for takeoff.
	The thrust Reverser is inoperative.	<i>Refer to OpsProc 78-30-01A Thrust Reverser</i>
	The BUMP function (If Installed) is inoperative.	Do not use the BUMP function.
SLATS(on ground)	The slats are slow from 1 to 0.	
CARGO DOOR (on ground)	Only the manual control is operative.	
AIR COND (on ground)	The air conditioning pack 2 ram air inlet does not close.	
WATER SERVICING (on ground)	The preselect water servicing is inoperative.	
AIRSTAIRS (If Installed) (on ground)	The airstairs cannot be extended.	
RECORDERS (on ground)	The CVR test and the CVR erase functions are inoperative. The CVR and the DFDR do not stop after engine shutdown.	
ECAM(in flight and on ground)	- On the <u>WHEEL</u> SD page, the landing gear position indications associated with the LGCIU 2 are displayed XX. - The <u>L/G</u> LGCIU 2 FAULT alert is displayed on the EWD.	

(m) Refer to AMM 32-31-00-040-003

32-32-02B

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

32-32-03

LGCIU 2 LH L/G Shock Absorber Proximity Detector

Applicable to: ALL

32-32-03A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) Both radio altimeters are operative, and
- 2) The other proximity detectors are operative, and
- 3) The origin of the failure is checked to be electrical.

Reference(s)

(o) *OpsProc 32-32-03A LGCIU 2 LH L/G Shock Absorber Proximity Detector*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	The CAPT pitot is set to the high heating level when the EXT PWR pb-sw is set to OFF.	Keep the EXT PWR pb-sw set to ON until engine start.
AVNCS VENT (on ground)	• The system remains in the closed circuit configuration • The ground cooling system (if installed) is inoperative.	• Time limitations on ground for ELEC PWR supply: - OAT ≤ 42 °C : No limitation - OAT = 53 °C : 3 h - OAT = 61 °C : 30 min • Check that the air conditioning system is operative.
ADIRU and AVNCS VENT alert (on ground)	The horn and the light are inoperative.	
HYD alerts (on ground)	The BLUE LEC PUMP FAULT light and the YELLOW ENG 2 PUMP FAULT light come on when engines are off.	
TPIS (if installed) (on ground)	The <u>WHEEL</u> TYRE LO PR alert threshold is set to flight level.	
LIGHTS (on ground)	The strobe lights (if installed) are not inhibited. On ground, with flaps retracted, the logo lights do not come on.	On ground, set the STROBE sw to OFF.
ELEC (on ground)	When only the APU generator or GPU supplies the aircraft, the main galleys are not supplied.	
ENG 2	The FADEC supply is continuously on.	

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

(on ground)	The automatic start abort is inoperative.	Use the MAN START procedure. <i>Refer to FCOM/PRO-SUP-70 Manual Engine Start -Manual Engine Start Procedure</i>
	The minimum idle is inoperative.	<i>Refer to OpsProc 73-20-05A Minimum Idle on Ground</i>
	When FLX TO selected, MCT thrust is set.	Use the TOGA for takeoff.
	The thrust Reverser is inoperative.	<i>Refer to OpsProc 78-30-01A Thrust Reverser</i>
	The BUMP function (if installed) is inoperative.	Do not use the BUMP function.
SLATS (on ground)	The slats are slow from 1 to 0.	
AIR COND (on ground)	The air conditioning pack 1 ram air inlet does not close	
CARGO DOOR	Only the manual control is operative.	
WATER SERVICING (on ground)	The preselect water servicing is inoperative.	
RECORDERS (on ground)	The CVR test and the CVR erase functions are inoperative. The CVR and the DFDR do not stop after engine shutdown.	
ECAM (in flight and on ground)	- On the <u>WHEEL</u> SD page, the landing gear position indications associated with the LGCIU 2 are displayed XX . - The <u>L/G</u> LGCIU 2 FAULT alert is displayed on the EWD .	

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	The CAPT pitot is set to the high heating level when the EXT PWR pb-sw is set to OFF.	Keep the EXT PWR pb-sw set to ON until engine start.
AVNCS VENT (on ground)	- The system remains in the closed circuit configuration - The ground cooling system (if installed) is inoperative.	- Time limitations on ground for ELEC PWR supply: - OAT ≤ 42 °C : No limitation - OAT = 53 °C : 3h - OAT = 61 °C : 30 min - Check that the air conditioning system is operative.
ADIRU and	The horn and the light are inoperative.	

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

AVNCS VENT alert (on ground)		
HYD alerts (on ground)	The BLUE ELECPUMP FAULT light and the YELLOW ENG 2 PUMP FAULT light come on when engines are off.	
TPIS (if installed) (on ground)	The <u>WHEEL</u> TYRE LO PR alert threshold is set to flight level.	
LIGHTS (on ground)	The strobe lights (if installed) are not inhibited.	On ground, set the STROBE sw to OFF.
	On ground, with flaps retracted, the logo lights do not come on.	
ELEC (on ground)	When only the APU generator or GPU supplies the aircraft, the main galleys are not supplied	
ENG 2 (on ground)	The FADEC supply is continuously on.	
	The automatic start abort is inoperative.	Use the MAN START procedure. <i>Refer to FCOM/PRO-SUP-70 Manual Engine Start -Manual Engine Start Procedure</i>
	The minimum idle is inoperative.	<i>Refer to OpsProc 73-20-05A Minimum Idle on Ground</i>
	When FLX TO selected, MCT thrust is set.	Use the TOGA for takeoff.
	The thrust reverser is inoperative.	<i>Refer to OpsProc 78-30-01A Thrust Reverser</i>
	The BUMP function (if installed) is inoperative.	Do not use the BUMP function.
SLATS (on ground)	The slats are slow from 1 to 0.	
AIR COND (on ground)	The air conditioning pack 1 ram air inlet does not close.	
CARGO DOOR	Only the manual control is operative.	
WATER SERVICING (on ground)	The preselect water servicing is inoperative.	
RECORDERS (on ground)	The CVR test and the CVR erase functions are inoperative. The CVR and the DFDR do not stop after engine shutdown.	
ECAM (in flight and on ground)	- On the <u>WHEEL</u> SD page, the landing gear position indications associated with the LGCIU 2 are displayed XX . - The <u>L/G</u> LGCIU 2 FAULT alert is displayed on the EWD .	

(m) Refer to AMM 32-31-00-040-003

32-32-03B

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

32-32-04	LGCIU 2 Nose L/G Shock Absorber Proximity Detector

Applicable to: ALL

32-32-04A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

- May be inoperative for 7 flights provided that:
- 1) The other proximity detectors are operative, and
 - 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) *OpsProc 32-32-04A LGCIU 2 Nose L/G Shock Absorber Proximity Detector*

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	The STBY pitot is set to the high heating level when the EXT PWR pb-sw is set to OFF. If displayed, disregard the <u>ANTI ICE</u> CAPT(F/O) PITOT alert on the EWD when EXT PWR pb-sw is set to OFF.	Keep the EXT PWR pb-sw set to ON until the engine start.
HYD (on ground)	The PTU runs after the first engine start until the second engine is started.	
ENG 2 (on ground)	The minimum idle is inoperative when slats/flaps are extended.	
ECAM (in flight and on ground)	For <u>WHEEL</u> SD page and ECAM alert Refer to OpsProc 32-32-03A LGCIU 2 LH L/G Shock Absorber Proximity Detector " ECAM " line.	

(m) Refer to AMM 32-31-00-040-003

32-32-04B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

MEL ITEMS
32 - LANDING GEAR
 32-32 - Proximity Detector System

32-32-05

LGCIU 2 RH L/G Down Lock Proximity Detector

Applicable to: ALL

32-32-05A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) OpsProc 32-32-05A LGCIU 2 RH L/G Down Lock Proximity Detector

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
ENG 2 (on ground)	REVERSER 2 is displayed in the INOP SYS column on the STATUS SD page.	The REVERSER 2 is still operative.
	The minimum idle is inoperative when slats/flaps are extended.	
ECAM (in flight and on ground)	On the WHEEL SD page, the landing gear position indications associated with the LGCIU 2 are displayed XX. The L/G LGCIU 2 FAULT alert is displayed on the EWD.	

(m) Refer to AMM 32-31-00-040-003

32-32-05B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
 Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

32-32-06	LGCIU 2 LH L/G Down Lock Proximity Detector

Applicable to: ALL

32-32-06A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

_____Reference(s)_____

(o) *OpsProc 32-32-06A LGCIU 2 LH L/G Down Lock Proximity Detector*

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
BRAKES	The brakes cooling(if installed) is inoperative.	
ENG 2 (on ground)	REVERSER 2 is displayed in the INOP SYS column on the <u>STATUS</u> SD page. The minimum idle is inoperative when slats/flaps are extended.	The REVERSER 2 is still operative.
ECAM (in flight and on ground)	For <u>WHEEL</u> SD page and ECAM alert Refer to <i>OpsProc 32-32-03A LGCIU 2 LH L/G Shock Absorber Proximity Detector</i> "ECAM" line. The L/G LGCIU 2 FAULT alert is displayed on the EWD.	

(m) *Refer to AMM 32-31-00-040-003*

32-32-06B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

MEL ITEMS
32 - LANDING GEAR
 32-32 - Proximity Detector System

32-32-07

LGCIU 2 Nose L/G Down Lock Proximity Detector

Applicable to: ALL

32-32-07A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) OpsProc 32-32-07A LGCIU 2 Nose L/G Down Lock Proximity Detector

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES
WBS (if installed) (in flight and on ground)	The WBS (if installed) is inoperative.
LIGHTS (in flight and on ground)	The Taxi light and the takeoff light are inoperative.
ECAM (in flight and on ground)	For <u>WHEEL</u> SD page and ECAM alert Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU) " ECAM " line.

(m) Refer to AMM 32-31-00-040-003

32-32-07B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
 Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

32-32-08	LGCIU 2 RH L/G Up Lock Proximity Detector

Applicable to: ALL

32-32-08A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

_____Reference(s)_____

(o) *OpsProc 32-32-08A LGCIU 2 RH L/G Up Lock Proximity Detector*

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
ENG 2 (on ground)	REVERSER 2 is displayed in the INOP SYS column on the <u>STATUS SD</u> page .	The thrust Reverser 2 is still operative.
	The minimum idle on ground is inoperative when slats/flaps are extended.	
ECAM (in flight and on ground)	For <u>WHEEL</u> SD page and ECAM alert Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU) " ECAM " line.	

(m) *Refer to AMM 32-31-00-040-003*

32-32-08B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.
Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

MEL ITEMS
32 - LANDING GEAR
 32-32 - Proximity Detector System

32-32-09

LGCIU 2 LH L/G Up Lock Proximity Detector

Applicable to: ALL

32-32-09A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) OpsProc 32-32-09A LGCIU 2 LH L/G Up Lock Proximity Detector

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
ENG 2 (on ground)	REVERSER 2 is displayed in the INOP SYS column on the STATUS SD page .	The thrust Reverser 2 is still operative.
	The minimum idle on ground is inoperative when slats/flaps are extended.	
ECAM (in flight and on ground)	For <u>WHEEL</u> SD page and ECAM alert Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU) " ECAM " line.	

(m) Refer to AMM 32-31-00-040-003

32-32-09B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

32-32-10	LGCIU 2 Nose L/G Up Lock Proximity Detector

Applicable to: ALL

32-32-10A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

_____Reference(s)_____

(o) *OpsProc 32-32-10A LGCIU 2 Nose L/G Up Lock Proximity Detector*

Applicable to: ALL

GENERAL INFORMATION

SYSTEMS	CONSEQUENCES	PROCEDURES
ENG 2 (on ground)	REVERSER 2 is displayed in the INOP SYS column on the <u>STATUS</u> SD page.	The thrust Reverser 2 is still operative
	The minimum idle on ground is inoperative when slats/flaps are extended.	
ECAM (in flight and on ground)	For <u>WHEEL</u> SD page and ECAM alert Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU) " ECAM " line.	

(m) *Refer to AMM 32-31-00-040-003*

32-32-10B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

32-32-11

LGCIU 2 RH L/G Doors Open Proximity Detector

Applicable to: ALL

32-32-11A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) OpsProc 32-32-11A LGCIU 2 RH L/G Doors Open Proximity Detector

Applicable to: ALL

Refer to OpsProc 32-32-08A LGCIU 2 RH L/G Up Lock Proximity Detector

(m) Refer to AMM 32-31-00-040-003

32-32-11B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-32 - Proximity Detector System

32-32-12	LGCIU 2 LH L/G Doors Open Proximity Detector

Applicable to: ALL

32-32-12A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

_____Reference(s)_____

(o) OpsProc 32-32-12A LGCIU 2 LH L/G Doors Open Proximity Detector

Applicable to: ALL

Refer to OpsProc 32-32-09A LGCIU 2 LH L/G Up Lock Proximity Detector

(m) Refer to AMM 32-31-00-040-003

32-32-12B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

MEL ITEMS
32 - LANDING GEAR
32-32 - Proximity Detector System

32-32-13

LGCIU 2 Nose L/G Doors Open Proximity Detector

Applicable to: ALL

32-32-13A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	(o)(m)

One or both may be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) OpsProc 32-32-13A LGCIU 2 Nose L/G Doors Open Proximity Detector

Applicable to: ALL

Refer to OpsProc 32-32-10A LGCIU 2 Nose L/G Up Lock Proximity Detector

(m) Refer to AMM 32-31-00-040-003

32-32-13B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	

One or both may be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

32-32-14

LGCIU 2 RH L/G Doors Closed Proximity Detector

Applicable to: ALL

32-32-14A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

_____Reference(s)_____

(o) OpsProc 32-32-14A LGCIU 2 RH L/G Doors Closed Proximity Detector

Applicable to: ALL

Refer to OpsProc 32-32-08A LGCIU 2 RH L/G Up Lock Proximity Detector

(m) Refer to AMM 32-31-00-040-003

32-32-14B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

32-32-15

LGCIU 2 LH L/G Doors Closed Proximity Detector

Applicable to: ALL

32-32-15A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

Reference(s)

(o) OpsProc 32-32-15A LGCIU 2 LH L/G Doors Closed Proximity Detector

Applicable to: ALL

Refer to OpsProc 32-32-09A LGCIU 2 LH L/G Up Lock Proximity Detector

(m) Refer to AMM 32-31-00-040-003

32-32-15B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

32-32-16

LGCIU 2 Nose L/G Doors Closed Proximity Detector

Applicable to: ALL

32-32-16A Other proximity detectors operative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative for 7 flights provided that:

- 1) The other proximity detectors are operative, and
- 2) The origin of the failure is checked to be electrical.

_____Reference(s)_____

(o) *OpsProc 32-32-16A LGCIU 2 Nose L/G Doors Closed Proximity Detector*

Applicable to: ALL

Refer to OpsProc 32-32-10A LGCIU 2 Nose L/G Up Lock Proximity Detector

(m) *Refer to AMM 32-31-00-040-003*

32-32-16B LGCIU 2 considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative for 7 flights provided that the LGCIU 2 is considered inoperative.

Refer to Item 32-31-01 Landing Gear Control and Interface Unit (LGCIU)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-33 - Free Fall Extension

32-33-01	Landing Gear Gravity Extension System

Applicable to: ALL

32-33-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The aircraft is operated in accordance with the Flight Manual supplement for the flight with landing gear down.

_____Reference(s)_____

(o) *OpsProc 32-33-01A Landing Gear Gravity Extension System*

Applicable to: ALL

| Refer to FCOM/PRO-SPO-25 Flight with GEAR DOWN or Octopus program (Flight with landing gears extended) can be used.

(m) Refer to AMM 32-31-00-040-802

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-41 - Wheels

32-41-01	Nose Wheel Tie Bolt

Applicable to: ALL

32-41-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	12	11	(m)

One tie bolt may be broken or missing for 15 flights provided that:

- 1) The affected wheel tie bolt is removed, and
- 2) The affected wheel is checked for absence of damage.

_____Reference(s)_____

(m) Refer to AMM 32-41-00-040-002

MEL ITEMS
32 - LANDING GEAR
32-41 - Wheels

32-41-02

Main Wheel Tie Bolt

Applicable to: A320

32-41-02A

Repair interval	Nbr installed	Nbr required	Procedure
A	18	17	(m)

One tie bolt may be broken or missing for 15 flights provided that:

- 1) The affected wheel tie bolt is removed, and
- 2) The affected wheel and the associated brake are checked for absence of damage.

_____Reference(s)_____

(m) Refer to AMM 32-41-00-040-003

32-41-02

Main Wheel Tie Bolt

Applicable to: A321

32-41-02A

Repair interval	Nbr installed	Nbr required	Procedure
A	22	21	(m)

One tie bolt may be broken or missing for 5 flights provided that:

- 1) The affected wheel tie bolt is removed, and
- 2) The affected wheel and the associated brake are checked for absence of damage.

_____Reference(s)_____

(m) Refer to AMM 32-41-00-040-003

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-01	Main Wheel Brake

Applicable to: ALL

32-42-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(o)(m)

One may be inoperative provided that:

- 1) The nose wheel steering is operative, and
- 2) Both thrust reversers are operative, and
- 3) The green and yellow systems are operative on operative brakes, and
- 4) The affected brake is deactivated or removed, and
- 5) The runway width at departure and arrival airports is at least 45 m , and
- 6) The Flight Manual performance penalties are applied, and
- 7) The AUTO/BRK function is considered inoperative.

Refer to Item 32-42-05 AUTO/BRK Function

Reference(s)

(o) OpsProc 32-42-01A Main Wheel Brake

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS , optimum V1 / VR , minimum V1 .

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).

- Apply the QNH and/or bleed corrections, if any, to determine the MTOW.
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW, Δ V1 , Δ VR , Δ V2) WHEN ONE BRAKE IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)
1 500	3 800 (8 400)	11	3	3	4 000 (8 900)	11	3	3	3 800 (8400)	1	3	3
2 000	4 800 (10 600)	12	4	4	4 600 (10 200)	11	3	3	3 400 (7 500)	11	4	4
2 500	6 400 (14 200)	10	5	5	4 200 (9 300)	12	6	6	2 200 (4 900)	12	6	6
3 000	13 400 (29 600)	8	6	6	5 600 (12 400)	18	12	12	2 400 (5 300)	14	7	7
3 500	8 600 (19 000)	18	16	16	7 400 (16 400)	20	16	16	2 800 (6 200)	14	12	12
4 000 and above	8 600 (19 000)	20	17	17	6 000 (13 300)	22	18	18	2 200 (4 900)	13	13	13

• **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

• **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

• **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

• **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.25.

FOR TAKEOFF

The autobrake function, even if available, must not be used.

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

- **In the case of engine failure at takeoff:**

Retract the landing gear when positive climb.

Vibrations may occur during 1 or 2 min after the retraction of the landing gear.

- **If both engines are operative:**

Keep the landing gear down for 1 min.

FOR LANDING

The autobrake function, even if available, must not be used.

Applicable to: HL7594, HL7703

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS, optimum V1 / VR , minimum V1 .

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW, Δ V1 , Δ VR , Δ V2) WHEN ONE BRAKE IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)
1 500	3 500 / 7 800	10	3	3	3 500 / 7 800	11	3	3	5 000 / 11 100	9	1	1
2 000	3 500 / 7 800	10	3	3	5 000 / 11 100	11	2	2	4 000 / 8 900	10	3	3
2 500	5 000 / 11 100	13	3	3	3 000 / 6 700	12	5	5	4 000 / 8 900	13	5	5
3 000	5 000 / 11 100	19	7	7	4 000 / 8 900	25	10	10	3 000 / 6 700	18	8	8
3 500	9 000 / 19 900	20	8	8	4 000 / 8 900	24	10	10	6 000 / 13 300	13	9	9
4 000	9 000 / 19 900	19	17	17	6 000 / 13 300	22	18	18	7 000 / 15 500	11	9	9

● **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

● **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

● **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see *Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.40.

FOR TAKEOFF

The autobrake function, even if available, must not be used.

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

- **In the case of engine failure at takeoff:**

Retract the landing gear when positive climb.

Vibrations may occur during 1 or 2 min after the retraction of the landing gear.

- **If both engines are operative:**

Keep the landing gear down for 1 min .

FOR LANDING

The autobrake function, even if available, must not be used.

Applicable to: HL7767

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS , optimum V1 / VR , minimum V1 .

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION	Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW, Δ V1 , Δ VR , Δ V2) WHEN ONE BRAKE IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW (kg/lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)
1 500	3 000 (6 700)	8	2	2	3 000 (6 700)	8	2	2	2 800 (6 200)	7	2	2
2 000	3 800 (8 400)	9	2	2	3 600 (8 000)	8	2	2	2 400 (5 300)	8	3	3
2 500	5 200 (11 500)	13	4	4	3 800 (8 400)	14	5	5	2 000 (4 500)	12	6	6
3 000	11 800 (26 100)	14	12	12	7 600 (16 800)	20	14	14	7 400 (16 400)	18	16	16
3 500	9 400 (20 800)	17	14	14	6 600 (14 600)	21	16	16	5 600 (12 400)	19	15	15
4 000 and above	9 400 (20 800)	17	15	15	6 600 (14 600)	21	18	18	8 400 (18 600)	16	18	18

● **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

● **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1.

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see *Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.30.

FOR TAKEOFF

The autobrake function, even if available, must not be used.

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

- **In the case of engine failure at takeoff:**

Retract the landing gear when positive climb.

Vibrations may occur during 1 or 2 min after the retraction of the landing gear.

- **If both engines are operative:**

Keep the landing gear down for 1 min.

FOR LANDING

The autobrake function, even if available, must not be used.

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The following penalties may be used for takeoff and landing performance determination if no takeoff and landing data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Takeoff performance computation:

The method explained hereafter allows the determination of the MTOW and associated speeds (V1 , VR , V2), by applying decrements on the MTOW and associated speeds computed in normal conditions (i.e. all systems operative). The method is based on the use of RTOW charts established at optimum V2 / VS , optimum V1 / VR , minimum V1 .

WARNING	- Do not use this method with takeoff charts computed with other conditions. - Do not use this method for takeoff with tailwind. - Do not use this method for takeoff on wet or contaminated runways.

How to proceed

- Read, in 0 kt wind column of the takeoff chart computed in normal condition, the MTOW and associated speeds (V1 , VR , V2) corresponding to the actual temperature, even in the case of headwind (the method does not take into account the headwind benefit on takeoff performance).
- Apply the QNH and/or bleed corrections, if any, to determine the MTOW .
- Enter the following table to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

CAUTION	Do not extrapolate below the shortest runway length provided by the table.

DECREMENTS (ΔW, Δ V1 , Δ VR , Δ V2) WHEN ONE BRAKE IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1+F				2				3			
	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)	ΔW kg (lb)	Δ V1 (kt)	Δ VR (kt)	Δ V2 (kt)
1 500	3 000 (6 700)	7	2	2	3 000 (6 700)	7	2	2	2 600 (5 800)	7	2	2
2 000	3 200 (7 100)	7	2	2	3 200 (7 100)	7	2	2	3 000 (6 700)	7	2	2
2 500	5 000 (11 100)	14	5	5	4 200 (9 300)	12	4	4	4 600 (10 200)	12	4	4
3 000	9 600 (21 200)	15	10	10	8 400 (18 600)	16	9	9	6 800 (15 000)	19	12	12
3 500	13 000 (28 700)	11	9	9	9 400 (20 800)	15	14	14	6 800 (15 000)	19	17	17
4 000 and above	11 600 (25 600)	13	12	12	9 600 (21 200)	17	14	14	6 100 (13 500)	19	17	17

● **If the actual TOW is lower than the MTOW calculated using above method:**

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW

chart (due to VMCG limitation).

- **If the corrected V1 is lower than the minimum V1 :**

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 600 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected VR is lower than the minimum VR :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see *Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS)*).

- **If the corrected V2 is lower than the minimum V2 :**

Takeoff cannot be performed using this method.

Landing performance computation:

Multiply the landing distances by 1.25.

FOR TAKEOFF

The autobrake function, even if available, must not be used.

- **If the above method was used for takeoff performance computation:**

Perform the takeoff using full thrust (TOGA).

- **In the case of engine failure at takeoff:**

Retract the landing gear when positive climb.

Vibrations may occur during 1 or 2 min after the retraction of the landing gear.

- **If both engines are operative:**

Keep the landing gear down for 1 min .

FOR LANDING

The autobrake function, even if available, must not be used.

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

Takeoff performance computation:

The takeoff and landing performance must be determined by using OCTOPUS program or other equivalent program with present failure case taken into account.

Launch PEP.

Landing performance computation

Multiply the landing distances by 1.30.

FOR TAKEOFF

The autobrake function, even if available, must not be used.

- **In the case of engine failure at takeoff:**

Retract the landing gear when positive climb.

Vibrations may occur during 1 or 2 min after the retraction of the landing gear.

- **If both engines are operative:**

Keep the landing gear down for 1 min.

FOR LANDING

The autobrake function, even if available, must not be used.

(m) Refer to AMM 32-42-00-040-003

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-02	Green System Brake

Applicable to: ALL

32-42-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(o)(m)

Braking on one wheel may be inoperative provided that:

- 1) The nose wheel steering is operative, and
- 2) Both thrust reversers are operative, and
- 3) The green hydraulic supply of affected brake is deactivated, and
- 4) The runway width at departure and arrival airports is at least 45 m , and
- 5) The Flight Manual performance penalties are applied.

_____Reference(s)_____

(o) *OpsProc 32-42-02A Green System Brake*

Applicable to: ALL

Refer to OpsProc 32-42-01A Main Wheel Brake

(m) *Refer to AMM 32-42-00-040-002*

32-42-03

Braking/Steering Control Unit (BSCU) System 1

Applicable to: ALL

32-42-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The BSCU system 2 is operative, and
- 2) The affected system is deactivated, and
- 3) It is checked that the CFDS does not report a fault related to the L/G SYS DISAGREE alert before each flight, and
- 4) The AUTO/BRK (LO, MED, MAX) pb-sw DECEL light and the AUTO/BRK (LO, MED, MAX) pb-sw ON light are considered inoperative.
Refer to Item 32-42-08 AUTO/BRK (LO, MED, MAX) pb-sw DECEL light , and
Refer to Item 32-42-09 AUTO/BRK (LO, MED, MAX) pb-sw ON light

Reference(s)

(m) Refer to AMM 32-42-00-040-007

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-04	Braking/Steering Control Unit (BSCU) System 2

Applicable to: ALL

32-42-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The affected system is deactivated, and
- 2) It is checked that the CFDS does not report a fault related to the L/G SYS DISAGREE alert before each flight.

_____Reference(s)_____

(m) Refer to AMM 32-42-00-040-007

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-05	AUTO/BRK Function

Applicable to: ALL

32-42-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 32-42-05A AUTO/BRK Function*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

BEFORE TAKEOFF

When T.O MEMO is displayed on the EWD, disregard the line:

AUTO BRK..... MAX (blue)

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-06	Tachometer

Applicable to: ALL

32-42-06B

Repair interval	Nbr installed	Nbr required	Procedure
–	4	4	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-08	AUTO/BRK (LO, MED, MAX) pb-sw DECEL light

Applicable to: ALL

32-42-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-42 - Normal Braking

32-42-09	AUTO/BRK (LO, MED, MAX) pb-sw ON light

Applicable to: ALL

32-42-09A AUTO/BRK mode arming displayed on the WHEEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative provided that, when appropriate, the associated AUTO/BRK mode arming is displayed on the WHEEL SD page.

32-42-09B AUTO/BRK function considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative provided that the AUTO/BRK function is considered inoperative.

Refer to Item 32-42-05 AUTO/BRK Function

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-44 - Alternate Braking

32-44-01	Yellow System Brake

Applicable to: ALL

32-44-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	(m)

Braking on one wheel may be inoperative provided that:

- 1) Both thrust reversers are operative, and
- 2) The yellow hydraulic supply of the affected brake is deactivated.

_____Reference(s)_____

(m) Refer to AMM 32-43-00-040-001

32-44-02

ACCU PRESS Indicator

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

32-44-02A BRAKES pressure indicator operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) Both BRAKES pressure indicators are operative, and
- 2) The pressure on both BRAKES pressure indicators is checked with parking brake ON before each flight.

Reference(s)

(o) *OpsProc 32 44 02A ACCU PRESS Indicator (with Brakes Pressure Indicator Operative)*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

DURING COCKPIT PREPARATION

- YELLOW ENG 2 PUMP pb sw OFF
- YELLOW ELEC PUMP pb sw Off
- Move a side stick in pitch and roll until the yellow system pressure indication on the HYD SD page indicates 0.
- PARK BRK handle ON
- BRAKES pressure CHECK

On both BRAKES pressure indicators, check that the BRAKES indication is in the upper part of the white zone (around 2,500 PSI). If required use the electric pump on the yellow hydraulic system to recharge the brake accumulators.

WARNING	Yellow and green hydraulics systems are pressurized from yellow electric pump. Get ground crew clearance before using the electric pump.

- Restore normal settings.

32-44-02

ACCU PRESS Indicator

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-44-02A BRAKES pressure indicator operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) Both BRAKES pressure indicators are operative, and

- 2) The pressure on both BRAKES pressure indicators is checked with parking brake ON before each flight.

Reference(s)

- (o) *OpsProc 32-44-02A ACCU PRESS Indicator (with Brakes Pressure Indicator Operative)*

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

- YELLOW ENG 2 PUMP pb sw OFF
- YELLOW ELEC PUMP pb sw Off
- Move a side stick in pitch and roll until the yellow system pressure indication on the HYD SD page indicates 0.
- PARK BRK handle ON
- BRAKES pressure CHECK

On both BRAKES pressure indicators, check that the BRAKES indication is in the upper part of the white zone (around 2,500 PSI). If required use the electric pump on the yellow hydraulic system to recharge the brake accumulators.

WARNING	Yellow and green hydraulics systems are pressurized from yellow electric pump. Get ground crew clearance before using the electric pump.

- Restore normal settings.

32-44-02B Checks on WHEEL SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The ACCU PRESS/ACCU ONLY indication is operative on the WHEEL SD page, and
- 2) The hydraulic pressure of the brake accumulator is checked on the WHEEL SD page before each flight.

Reference(s)

- (o) *OpsProc 32-44-02B ACCU PRESS Indicator (with WHEEL SD page)*

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

DURING COCKPIT PREPARATION

- YELLOW ENG 2 PUMP pb-sw OFF
- YELLOW ELEC PUMP pb-sw Off

- Move a side stick in pitch and roll until the yellow system pressure indication on the HYD SD page indicates 0.
- PARK BRK handle ON
- BRAKES pressure.....CHECK

On the WHEEL SD page, check that the ACCU PRESS or ACCU ONLY indication is displayed in green. If required, use the electric pump on the yellow hydraulic system to recharge the brake accumulators.

WARNING	Yellow and green hydraulics systems are pressurized from yellow electric pump. Get ground crew clearance before using the electric pump.

- Restore normal settings.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-44 - Alternate Braking

32-44-03	BRAKES Pressure Indicator

Applicable to: ALL

32-44-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the BSCU system 1 and the BSCU system 2 are operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-44 - Alternate Braking

32-44-04	Alternate Braking Control Unit (ABCU)

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

32-44-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-45 - Parking/Ultimate Emergency Braking

32-45-01	Parking Brake Control Valve Electrical Motor

Applicable to: ALL

32-45-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that:

- 1) Both thrust reversers are operative, and
- 2) The aircraft is not towed if the STBY motor is affected and when the batteries supply the aircraft.

_____Reference(s)_____

(m) Refer to AMM 32-45-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-47 - Brake Temperature System

32-47-01	Brake Temperature Monitoring Unit (BTMU)

Applicable to: ALL

32-47-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative provided that the ground brake cooling time is applied.

Reference(s)

- (o) OpsProc 32-47-01A Brake Temperature Monitoring Unit (BTMU)

Applicable to: ALL

DURING PRELIMINARY COCKPIT PREPARATION

HYDRAULIC/BRK/TEMP/DET/UNIT (121VU M26 or M37) C/B PULL
Determine brake cooling time (Refer to OpsProc 32-07-01A(B) Brakes Temperature Indication on the WHEEL SD page).

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-48 - Brake Cooling

32-48-01	Brake Fan System

Applicable to: ALL

32-48-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-48 - Brake Cooling

32-48-02	BRK FAN pb-sw HOT light

Applicable to: ALL

32-48-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-48 - Brake Cooling

32-48-03	BRK FAN pb-sw ON light

Applicable to: ALL

32-48-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-51 - Steering

32-51-01	Nose Wheel Steering Control System

Applicable to: ALL

32-51-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

May be inoperative for three flights provided that:

- 1) The failure is detected by the BSCU (the WHEEL N/W STRG FAULT alert is displayed on the EWD), and
- 2) The runway width at departure and arrival airports is at least 45 m , and
- 3) The runway is not contaminated, and
- 4) The crosswind component is below 20 kt at departure and arrival airports.

Note: For nose wheel steering offset, Refer to FCOM/PRO-SUP-32 Operation with Nosewheel Steering Offset.

_____Reference(s)_____

(o) OpsProc 32-51-01A Nose Wheel Steering Control System

Applicable to: ALL

GENERAL INFORMATION

The electrical and hydraulic control of NWS is inoperative. Do not reset the WHEEL N/W STRG FAULT alert with A/SKID & N/W STRG selector . The WHEEL N/W STRG FAULT alert indicates that no hydraulic pressure is applied on the NWS actuator.

FLIGHT PREPARATION/LIMITATIONS

Dispatch is not permitted from (or to) contaminated runways.

Maximum crosswind component for takeoff and landing: 20 kt .

Maximum landing capability is CAT 2.

Note: the automatic roll out is not permitted (Refer to QRH/OPS Required Equipment for CAT2 and CAT3).

- **For operations with crosswind component above 5 kt :**

Reduce maximum takeoff performance limiting weight by 1 000 kg (2 200 lb)

DURING TAXI

Taxiing Procedure:

- Avoid high thrust settings, taxi sped limited to 20 kt .
- Check brakes temperature (if available) before takeoff.
If necessary, set the BRAKES FAN pb-sw (if installed) to ON.
- Minimum speed of 5 kt is required to initiate a turn.

- Apply asymmetrical thrust in straight taxi to compensate crosswind and differential braking for taxi and line up as required.
- Avoid sharp turns and use maximum width of the runway.
- Do not apply too high asymmetrical thrust to avoid that nose landing gear get stuck to full travel (90 °) (in that case release the aircraft by towing).

FOR TAKEOFF

- **In the case of crosswind component above 5 kt :**
 - Set full nose down elevator till 80 kt regardless of the aircraft loading.
 - Apply $EPR = 1.05$ on the brakes
 - Release the brakes, and smoothly apply takeoff power
 - Use asymmetric braking, if required, to keep on runway center-line until directional control is available by use of rudder.
 - Release stick progressively to reach neutral at about 100 kt .

FOR LANDING

Do not use autobrake for landing.

- **In the case of crosswind component above 5 kt :**
 - Aircraft lateral control is achieved with the rudder until slowing to approximately 50 kt IAS .
 - Upon reaching 50 kt IAS use differential braking to achieve taxi speed as required.

AFTER LANDING

Disengage AP at touchdown when autoland is performed.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-51 - Steering

32-51-02	Rudder PEDALS DISC pb

Applicable to: ALL

32-51-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative (no disconnection is possible).

_____Reference(s)_____

(o) *OpsProc 32-51-02A Rudder PEDALS DISC pb*

Applicable to: ALL

The purpose of the procedure is to explain how to perform the flight control check with one or both PEDALS DISC pb failed in the released position.

GENERAL INFORMATION

■ **When the disconnection is not possible on one side:**

The flight control check can be performed on the operative side.

■ **When the disconnection is not possible on both sides:**

The flight control check must be performed while aircraft is stopped.

Note: *it is not necessary to set the A/SKID & N/W STRG sw to OFF.*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-51 - Steering

32-51-03	NWS Electrical Deactivation Box

Applicable to: ALL

32-51-03A No towing mode when lever in the TOWING position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Note: The towing mode is not available when the lever is in the TOWING position.

Reference(s)

- (o) OpsProc 32-51-03A NWS Electrical Deactivation Box (towing mode is not available when the lever is in the TOWING position)

Applicable to: ALL

BEFORE CONVENTIONAL OR TOWLESS PUSHBACK

A/SKID & N/W STRG selector OFF

AFTER PUSHBACK

A/SKID & N/W STRG selector ON

32-51-03B NWS electrical deactivation box deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that the NWS electrical deactivation box is deactivated.

Reference(s)

- (o) OpsProc 32-51-03B NWS Electrical Deactivation Box (NWS Electrical Deactivation Box deactivated)

Applicable to: ALL

BEFORE CONVENTIONAL OR TOWLESS PUSHBACK

A/SKID & N/W STRG selector OFF

As a result of the NWS electrical box deactivation, the parking brake light on that box will not be available.

The parking brake setting must be verbally confirmed between the flight crew and the ground personnel before pushback.

ASIANA AIRLINES 7 A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-51 - Steering

AFTER PUSHBACK

A/SKID & N/W STRG selector..... ON

(m) Refer to AMM 32-51-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-51 - Steering

32-51-04	PARKING BRAKE light on the NWS Electrical Deactivation Box

Applicable to: ALL

32-51-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Note: *This MEL item can be applied when the light is steady On or Off. But, ECAM memo message "PARK BRK" must not be displayed when the parking brake handle is in the OFF position*

_____Reference(s)_____

(o) OpsProc 32-51-04A PARKING BRAKE light on the NWS Electrical Deactivation Box

Applicable to: ALL

BEFORE PUSHBACK

The parking brake setting must be verbally confirmed between the flight crew and the ground personnel.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 32 - LANDING GEAR 32-61 - Landing Gear Panel on the Center Instrument Panel

32-61-01	LDG GEAR Indicator Panel

Applicable to: ALL

32-61-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

MEL ITEMS
32 - LANDING GEAR
32-61 - Landing Gear Panel on the Center Instrument Panel

32-61-02

DOWN Red Arrow light on the Landing Gear lever

Applicable to: ALL

32-61-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the L/G GEAR NOT DOWN alert and the L/G GEAR NOT DOWNLOCKED alert are checked operative.

Reference(s)

(m) Refer to AMM 32-61-00-040-001

ATA 33

Lights

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-01 - Overhead Panels 33-01-01 - ANN LT Overhead Panel

33-01-01-01	TEST Function of ANN LT sw

Applicable to: ALL

33-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

33-01-01-02	DIM Function of ANN LT sw

Applicable to: ALL

33-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

Dim lighting may be inoperative provided that the bright lighting is operative.

33-01-01-03	BRT Function of ANN LT sw

Applicable to: ALL

33-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

Bright lighting may be inoperative for night operation.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-01 - Overhead Panels 33-01-02 - SIGNS Overhead Panel

33-01-02-01	EMER EXIT LT OFF light

Applicable to: ALL

33-01-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

33-01-02-02	AUTO Function of SEAT BELT SIGNS sw

Applicable to: ALL

33-01-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) *OpsProc 33-01-02-02A AUTO Function of SEAT BELT SIGNS selector*

Applicable to: ALL

DURING COCKPIT PREPARATION

SEAT BELTS selector ON

AFTER TAKEOFF

SEAT BELTS selector As required

DURING APPROACH

SEAT BELTS selector ON

33-01-02-03

AUTO Function of NO SMOKING SIGNS sw

Applicable to: HL7594, HL7703, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

33-01-02-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

Reference(s) _____

(o) *OpsProc 33-01-02-03A AUTO Function of NO SMOKING/EXIT/NO PORTABLE SIGNS selector*

Applicable to: HL7594, HL7703, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

ON GROUND OR IN FLIGHT

Set the NO SMOKING selector ON as required.

33-01-02-03

AUTO Function of EXIT SIGNS sw

Applicable to: HL7730, HL7731, HL7735

33-01-02-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)

May be inoperative.

Reference(s) _____

(o) *OpsProc 33-01-02-03A AUTO Function of NO SMOKING/EXIT/NO PORTABLE SIGNS selector*

Applicable to: HL7730, HL7731, HL7735

ON GROUND OR IN FLIGHT

Set the EXIT selector ON as required.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-10 - Cockpit General Illumination

33-10-01	Cockpit General Illumination (Center & Main Instrument Lighting, Console and Floor Lighting, Dome lights and Lighting Strips, Instrument and Panel Integral Lighting, Map Holder Lighting, Center Pedestal Lighting)

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

33-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

May be inoperative provided that:

- 1) The lighting is sufficient for all instruments and controls, and
- 2) The RH dome light is operative.

33-10-01	Cockpit General Illumination (Center & Main Instrument Lighting, Console and Floor Lighting, Dome lights and Lighting Strips, Instrument and Panel Integral Lighting, Map Holder Lighting, Center Pedestal Lighting)

Applicable to: HL7594, HL7703, HL7767, HL8236

33-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

May be inoperative provided that:

- 1) The lighting is sufficient for all instruments and controls, and
- 2) The RH dome light is operative, and
- 3) The left section of the center instrument panel flood lighting is operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-20 - Cabin General Illumination

33-20-01	Cabin General Illumination(Ceiling and Window Lighting strip, and Handrail LED strip)

Applicable to: ALL

33-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

The lighting must be sufficient for cabin attendants to perform their duties.

33-20-02

Cabin Signs (No Smoking/No Electronic
 Devices/Fasten Seat Belt/Return to Seat)

Applicable to: ALL

33-20-02A Affected seat occupied

Repair interval	Nbr installed	Nbr required	Procedure
C	–	0	

One or more may be inoperative and the affected passenger seat may be occupied provided that:

- 1) The passenger address system is operative, and can be heard throughout the cabin during the flight, and
- 2) The passenger address system is used to alert the passengers when return to seat is requested, seat belts should be fastened and smoking is prohibited.

33-20-02B Affected seat not occupied

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(m)

One or more “No Smoking/Fasten Seat Belt” sign may be inoperative provided that:

- 1) No passenger seat is occupied from which a passenger cannot see a readily legible “No smoking/Fasten Seat Belt” sign, and
- 2) The affected seat is blocked and placarded inoperative.

Note: A random of 60% of passenger seats may be inoperative.

Reference(s)

(m) Refer to AMM 33-20-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-20 - Cabin General Illumination

33-20-03	Lavatory Sign (Return to seat)

Applicable to: ALL

33-20-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	(o)

One or more may be inoperative and the affected lavatory may be used provided that:

- 1) The passenger address system is checked operative in the affected lavatory, and
- 2) The passenger address system is used to alert the occupant to return to his seat.

_____Reference(s)_____

(o) *OpsProc 33-20-03A Lavatory Sign (Return to seat)*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check that the passenger address function is operative in the affected lavatory with the door closed.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-30 - Cargo and Service Compartment Lighting

33-30-01	Cargo and Service Compartment Lighting System

Applicable to: ALL

33-30-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-01	Navigation light System 1

Applicable to: ALL

33-40-01A Navigation light system 1 and 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative for daylight operations.

33-40-01B Navigation light system 2 operative

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative provided that the Navigation light system 2 is operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-02	Navigation light System 2

Applicable to: ALL

33-40-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-03	Landing light

Applicable to: ALL

33-40-03A Taxi and takeoff lights operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that both taxi and takeoff lights are operative.

33-40-03B Daylight operations

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative for daylight operations.

33-40-04

Landing light Extension/Retraction System

Applicable to: ALL

33-40-04A Inoperative in extended position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative in the extended position.

FUEL PENALTY ITEM

Reference(s)

(o) *OpsProc 33-40-04A Landing light Extension/Retraction System*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

The fuel consumption is increased by 1 % per landing light extended.

33-40-04B Inoperative in retracted position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative in the retracted position provided that the associated light is considered inoperative.

Refer to Item 33-40-03 Landing light

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-05	Runway Turnoff light

Applicable to: ALL

33-40-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-06	Taxi and Takeoff light

Applicable to: ALL

33-40-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-07	Logo light

Applicable to: ALL

33-40-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

One or both may be inoperative.

33-40-08

Beacon light

Applicable to: ALL

33-40-08A Daylight operations

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative for daylight operations.

_____Reference(s)_____

(o) *OpsProc 33-40-08A Beacon light*

Applicable to: ALL

BEFORE ENGINE START

- If the bottom light is inoperative:

If this light is used to alert the ground crew of the engine start, an alternate procedure must be established to alert the ground crew of the engine start.

33-40-08B Strobe lights operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative provided that the Strobe lights are operative.

_____Reference(s)_____

(o) *OpsProc 33-40-08B Beacon light*

Refer to item 33-40-08A (o)procedure

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-09	Wing Scan light

Applicable to: ALL

33-40-09A Daylight operations

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative for daylight operations.

33-40-09B Night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative for night operations.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-40 - Exterior Lighting

33-40-10	Strobe light

Applicable to: ALL

33-40-10A

Repair interval	Nbr installed	Nbr required	Procedure
D	3	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-51 - Cabin Emergency Lighting

33-51-01	Exit Marking Sign

Applicable to: HL7594, HL7703, HL7767, HL8236

33-51-01A A maximum of three non-adjacent bulbs inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	8	

A maximum of three non-adjacent bulbs may be inoperative in one or more signs.

33-51-01C Associated exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

33-51-01	Exit Marking Sign

Applicable to: A320

33-51-01B A maximum of three non-adjacent LEDs inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	6	

A maximum of three non-adjacent LED s may be inoperative in one or more signs.

33-51-01C Associated exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door , and
Refer to Item 52-10-02 Overwing Emergency Exit

33-51-01

Exit Marking Sign

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

33-51-01B A maximum of three non-adjacent LEDs inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	8	

A maximum of three non-adjacent LED s may be inoperative in one or more signs.

33-51-01C Associated exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-51 - Cabin Emergency Lighting

33-51-02	Exit Location Sign in the Main Aisle

Applicable to: ALL

33-51-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4-6	—	

A maximum of three non-adjacent bulbs or LEDs may be inoperative in one or more signs.

33-51-03

Overhead Emergency Lighting System in the Main Aisle

Applicable to: ALL

33-51-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	8~11	5~8	

A maximum of three non-adjacent overhead emergency lights may be inoperative.

33-51-04

Overhead Emergency Lighting System in the Door Vicinity

Applicable to: ALL

33-51-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

33-51-05

Floor Proximity Emergency Escape Path Marking System in the Main Aisle

Applicable to: ALL EXCEPT PHOTO-LUMINESCENT TYPE INSTALLED AIRCRAFT

33-51-05A ALL EXCEPT PHOTO-LUMINESCENT TYPE INSTALLED AIRCRAFT

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	

One or more lighting elements may be inoperative provided :

- 1) They are not adjacent, and
- 2) They are not located at the end of the path marking leading to a door.

Note: However a single end lighting element inoperative for the complete aircraft is allowed for one flight.

33-51-05

Floor Proximity Emergency Escape Path Marking System in the Main Aisle

Applicable to: PHOTO-LUMINESCENT TYPE INSTALLED AIRCRAFT ONLY

33-51-05A PHOTO-LUMINESCENT TYPE INSTALLED AIRCRAFT ONLY

Repair interval	Nbr installed	Nbr required	Procedure
C	1	1	

Each of the photo-luminescent strips of an aisle may be inoperative or missing up to a length of 0.25 meter (10 inches) provided the inoperative or missing parts are not directly opposite each other and are not closer than 2 meter (78.74 inches).
 No more than four such inoperative or missing parts are allowed.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-51 - Cabin Emergency Lighting

33-51-07	Floor Proximity Emergency Escape Path Marking System Exit Marker

Applicable to: A320

33-51-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door , and
Refer to Item 52-10-02 Overwing Emergency Exit

33-51-07	Floor Proximity Emergency Escape Path Marking System Exit Marker

Applicable to: A321

33-51-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

33-51-08

Overwing Emergency light

Applicable to: A320

33-51-08A Daylight operations

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative for daylight operations.

33-51-08B Associated exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	–	

One or more may be inoperative provided that the associated exit is considered inoperative.
Refer to Item 52-10-02 Overwing Emergency Exit

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-51 - Cabin Emergency Lighting

33-51-09	Overwing Exit Handle light

Applicable to: A320

33-51-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

33-51-10

Escape Slide Lighting

Applicable to: A320

33-51-10A Daylight operations

Repair interval	Nbr installed	Nbr required	Procedure
C	6	0	

May be inoperative for daylight operations.

33-51-10B Associated exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	6	–	

May be inoperative provided that the associated exit is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door , and

Refer to Item 52-10-02 Overwing Emergency Exit

33-51-10

Escape Slide Lighting

Applicable to: A321

33-51-10A Daylight operations

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	

May be inoperative for daylight operations.

33-51-10B Associated exit considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

May be inoperative provided that the associated exit is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-51 - Cabin Emergency Lighting

33-51-11	Lavatory Auxiliary light

Applicable to: ALL

33-51-11A

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	0	

One or more may be inoperative.

33-51-12

BAT TEST pb on the PTP

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

33-51-12A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the batteries are correctly charged.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 33 - LIGHTS 33-51 - Cabin Emergency Lighting

33-51-13	SYS TEST pb on the PTP

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

33-51-13A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the operational test of the emergency lighting system is performed as an alternative to this test.

_____Reference(s)_____

(m) Refer to AMM 33-51-00-040-001

ATA 34

Navigation

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-00 - MAINTENANCE Messages on the STATUS SD page

34-00-01	ADR <u>MAINTENANCE</u> Message

Applicable to: ALL

34-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

ADR MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-00 - MAINTENANCE Messages on the STATUS SD page

34-00-02	IR <u>MAINTENANCE</u> Message

Applicable to: ALL

34-00-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

IR MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-01 - Overhead Panels 34-01-01 - ADIRS Overhead Panel

34-01-01-01	ADR pb-sw FAULT light

Applicable to: ALL

34-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

34-01-01-02	ADR pb-sw OFF light

Applicable to: ALL

34-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

34-01-01-03	IR FAULT light

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

34-01-01-03	IR pb-sw FAULT light

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-01-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

34-01-01-04

IR ALIGN light

Applicable to: HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

34-01-01-04

IR pb-sw OFF light

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-01-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative.

34-01-01-05

ON BAT light

Applicable to: ALL

34-01-01-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

34-01-01-31

ADR pb-sw

Applicable to: ALL

34-01-01-31A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)

ADR 2 or ADR 3 pb-sw may be inoperative provided that:

- 1) The associated mode selector is operative, and
- 2) The two ADR s and the two IR s associated with the two operative ADRs pb-sw are operative.

Reference(s)

(o) *OpsProc 34-01-01-31A ADR pb-sw*

Applicable to: ALL

IN FLIGHT

If needed, the associated ADR can be set to OFF through the associated mode selector.

Note: • *If the ADR is set to OFF:*

The associated IR is also set to OFF.

The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

34-01-01-32	IR pb-sw

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-01-01-32A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	(o)

IR 2 or IR 3 pb-sw may be inoperative provided that:

- 1) The associated mode selector is operative, and
- 2) The two ADR s and the two IR s associated with the two operative IRs pb-sw are operative.

Reference(s)

(o) *OpsProc 34-01-01-32A IR pb-sw*

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

IN FLIGHT

If needed, the associated IR can be set to OFF through the associated mode selector.

Note: • If the IR is set to OFF:

The associated ADR is also set to OFF.

The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

34-01-01-33	IR Mode selector

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-33A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

IR 2 or IR 3 mode selector may be inoperative provided that the associated ADIRS is considered inoperative.

Refer to the associated Items.

34-01-01-33	IR Mode selector

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-01-01-33A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

One may be inoperative.

34-01-01-34	DATA DISPLAY selector of ADIRS CDU

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-34A MCDU 1 and MCDU 2 operative

Repair interval	Nbr installed	Nbr required	Procedure

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-01 - Overhead Panels 34-01-01 - ADIRS Overhead Panel

C	1	0	

May be inoperative provided that the MCDU 1 and the MCDU 2 are operative.

34-01-01-34B Navigation not planned on inertial data

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the navigation is not planned on inertial data.

34-01-01-35	SYS DISPLAY selector of ADIRS CDU

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-35A MCDU 1 and MCDU 2 operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The MCDU 1 and the MCDU 2 are operative, and
- 2) The IRS initialization is available through the FMGC.

34-01-01-35B Navigation not planned on inertial data

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the navigation is not planned on inertial data.

34-01-01-36	Display Unit of ADIRS CDU

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-36A MCDU 1 and MCDU 2 operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

MEL ITEMS
 34 - NAVIGATION
 34-01 - Overhead Panels
 34-01-01 - ADIRS Overhead Panel

May be inoperative provided that the MCDU 1 and the MCDU 2 are operative.

34-01-01-36B Navigation not planned on inertial data

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the navigation is not planned on inertial data.

34-01-01-37

Keyboard of ADIRS CDU

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-01-01-37A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the MCDU 1 and the MCDU 2 are operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-01 - Overhead Panels 34-01-02 - GPWS Overhead Panel

34-01-02-01	GPWS SYS FAULT light

Applicable to: ALL

34-01-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

Dispatch conditions are the same as MEL 34-40-01

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-05 - Indications on the Primary Flight Display (PFD)

34-05-01	Actual Airspeed Reference Line and Scale Indication on the PFD

Applicable to: ALL

34-05-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

34-05-02

Mach Number Indication on the PFD

Applicable to: HL7594, HL7703, HL7767, HL8236

34-05-02A One indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

34-05-02B Both indications inoperative - FCU operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the SPD/MACH selection window on the FCU is operative.

34-05-02C Both indications inoperative - FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the flight altitude is limited to 25 000 ft.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

34-05-02

Mach Number Indication on the PFD

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-05-02A One indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

34-05-02B Both indications inoperative - FCU operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the SPD/MACH selection window on the FCU is operative.

34-05-02C Both indications inoperative - FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the flight altitude is limited to 25 000 ft.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

34-05-02D Both indications inoperative - ISIS Mach Number Indication operative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that the ISIS Mach Number Function is operative.

34-05-03	VMO/MMO Characteristic Speed Indication on the PFD

Applicable to: ALL

34-05-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-05 - Indications on the Primary Flight Display (PFD)

34-05-04	Altitude Indication on the PFD

Applicable to: ALL

34-05-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

34-05-05	Baro Reference Indication on the PFD

Applicable to: ALL

34-05-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-05 - Indications on the Primary Flight Display (PFD)

34-05-06	Vertical Speed in Inertial Mode Indication on the PFD

Applicable to: ALL

34-05-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

34-05-07

Other Air Data Related Indications on the PFD

Applicable to: ALL

34-05-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	—	0	(o)

One or more may be inoperative.

Reference(s) _____

(o) *OpsProc 34-05-07A Other Air Data Related Indications on the PFD*

Applicable to: ALL

GENERAL INFORMATION

For F, S, Green Dot determination, *Refer to QRH/PER-A Speeds.*

For VAPP determination, Refer to QRH/FPE-IFL-VAP VAPP Determination without Failure and
 Refer to QRH/FPE-IFL-VAF VAPP Determination with Failure.

For VFE or VLE determination, refer to the corresponding placard in the cockpit.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-05 - Indications on the Primary Flight Display (PFD)

34-05-08	Attitude Indication on the PFD

Applicable to: ALL

34-05-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The aircraft is operated in day VMC conditions.

_____Reference(s)_____

(o) *OpsProc 34-05-08A Attitude Indication on the PFD*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1.

34-05-09

Heading Indication on the PFD

Applicable to: ALL

34-05-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-06 - Indications on the Navigation Display (ND)

34-06-01	Ground Speed Indication on the ND

Applicable to: ALL

34-06-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-06 - Indications on the Navigation Display (ND)

34-06-02	True Air Speed Indication on the ND

Applicable to: ALL

34-06-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-06 - Indications on the Navigation Display (ND)

34-06-03	Wind Indication on the ND

Applicable to: ALL

34-06-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

34-06-04

Heading Indication on the ND

Applicable to: ALL

34-06-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the heading indications are operative on both PFDs.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-06 - Indications on the Navigation Display (ND)

34-06-05	Position (Aircraft Symbol) Indication on the ND

Applicable to: ALL

34-06-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

34-06-06

Radio Nav aids Indications on the ND

Applicable to: ALL

34-06-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-06 - Indications on the Navigation Display (ND)

34-06-07	Chrono Indication on the ND

Applicable to: ALL

34-06-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-10 - Air Data/Inertial Reference System (ADIRS)

34-10-01	ADR 1

Applicable to: ALL

34-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	1	1	

Must be operative.

Applicable to: ALL

34-10-02B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The IR 1, IR 3, ADR 1 and ADR 3 are operative, and
 - 2) The takeoff is not performed in CONF 1+F.

Reference(s)

(o) OpsProc 34-10-02B ADR 2

Applicable to: HL7594, HL7703, HL7767, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.
RVSM operations are not permitted.

DURING COCKPIT PREPARATION

- ADR 2 pb-sw OFF
The F/CTL MAINTENANCE message is displayed on the STATUS SD page.
- AIR DATA SWITCHING selector..... F/O 3
- ADIRS/ADIRU/2/26VAC AND AOA (location 121VU N08 or N09) C/B Pull

AFTER ENGINE START

- Use the RCL pb-sw on the ECAM control panel, in order to recall the NAV ADR 2 FAULT alert.
- On the EWD, check that the ADR 2...OFF procedure is not displayed.

FOR TAKEOFF

Takeoff in CONF 1+F is not permitted.

Note: When the ADR 2 pb-sw is set to OFF, and if the aircraft is in CONF 1+F, the SFCS n°2 Flap channel is unable to crosscheck the airspeed coming from the ADR 1 with the ADR 2 airspeed coming from the SFCS n°2 Slat channel. This may lead to an uncommanded flap retraction during the takeoff. As a consequence, takeoff in CONF 1+F is not permitted when the ADR 2 pb-sw is set to OFF.

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- ADR 2 pb-sw OFF
The F/CTL MAINTENANCE message is displayed on the STATUS SD page.
- AIR DATA SWITCHING selector F/O 3
- ADIRS/ADIRU/2/26VAC AND AOA (location 121VU N08 or N09) C/B Pull

AFTER ENGINE START

- Use the RCL pb-sw on the ECAM control panel, in order to recall the NAV ADR 2 FAULT alert.
- On the EWD, check that the ADR 2...OFF procedure is not displayed.

FOR TAKEOFF

Takeoff in CONF 1+F is not permitted.

Note: When the ADR 2 pb-sw is set to OFF, and if the aircraft is in CONF 1+F, the SFCS n°2 Flap channel is unable to crosscheck the airspeed coming from the ADR 1 with the ADR 2 airspeed coming from the SFCS n°2 Slat channel. This may lead to an uncommanded flap retraction during the takeoff. As a consequence, takeoff in CONF 1+F is not permitted when the ADR 2 pb-sw is set to OFF.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-10 - Air Data/Inertial Reference System (ADIRS)

34-10-03	ADR 3

Applicable to: ALL

34-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the IR 1, IR 2, ADR 1 and ADR 2 are operative.

Reference(s)

(o) OpsProc 34-10-03A ADR 3

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- ADR 3 pb-sw OFF
The F/CTL MAINTENANCE message is displayed on the STATUS SD page.
- ADIRS/ADIRU/3/26VAC AND AOA (location 121VU N07 or N08) C/B Pull

AFTER ENGINE START

- Use the RCL pb-sw on the ECAM control panel, in order to recall the NAV ADR 3 FAULT alert.
- On the EWD, check that the ADR 3...OFF procedure is not displayed.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-10 - Air Data/Inertial Reference System (ADIRS)

34-10-04	IR 1

Applicable to: ALL

34-10-04B GPS 1 operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

The NAV mode may be inoperative provided that:

- 1) The IR 1 is operated in ATT mode, and
- 2) The IR 2 and IR 3 are operative, and
- 3) The GPS 1 is operative, and
- 4) The terrain function of the TAWS is considered inoperative.

Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

Reference(s)

(o) *OpsProc 34-10-04B IR 1*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2

DURING COCKPIT PREPARATION

- ATT HDG SWITCHING selector CAPT 3
- IR 1 mode selector ATT
- The heading must be entered through the CDU keyboard for the IR 1 and has to be frequently reset (*Refer to FCOM/PRO-ABN-34 IR ALIGNMENT IN ATT MODE*).

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- ATT HDG SWITCHING selector CAPT 3
- IR 1 mode selector ATT
- The heading must be entered through the MCDU for the IR 1 and has to be frequently reset (*Refer to FCOM/PRO-ABN-34 IR ALIGNMENT IN ATT MODE*).

34-10-04C GPS 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

The NAV mode may be inoperative provided that:

- 1) The IR 1 is operated in ATT mode, and
- 2) The IR 2 and IR 3 are operative, and
- 3) The Flight remains within radio navaids coverage, and
- 4) The terrain function of the TAWS is considered inoperative.

Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

Note: *The aircraft must receive radio navaids data during the entire flight.*

Reference(s)

(o) OpsProc 34-10-04C IR 1

Refer to item 34-10-04B (o)procedure

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-10 - Air Data/Inertial Reference System (ADIRS)

34-10-05	IR 2

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-10-05B IR 2 totally inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The IR 2 mode selector is set to OFF, and
 - 2) The IR 1, the IR 3, the ADR 1 and the ADR 3 are operative, and
 - 3) The takeoff is not performed in CONF 1+F.

Reference(s)

(o) *OpsProc 34-10-05B IR 2 (IR 2 totally inoperative)*

Applicable to: HL7594, HL7703, HL7767, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.
RVSM operations are not permitted because the ADR 2 is set to OFF.

DURING COCKPIT PREPARATION

- IR 2 mode selector OFF
 - ADR 2 is consequently set to OFF.
 - The F/CTL MAINTENANCE message is displayed on the STATUS SD page.
- ATT HDG SWITCHING selector F/O 3
- AIR DATA SWITCHING selector F/O 3

● If the ADS-B OUT function is required for the intended route:

ATC selector 1

FOR TAKEOFF

Takeoff in CONF 1+F is not permitted.

Note: When the ADR 2 is set to OFF, and if the aircraft is in CONF 1+F, the SFCS n°2 Flap channel is unable to crosscheck the airspeed coming from the ADR 1 with the ADR 2 airspeed coming from the SFCS n°2 Slat channel. This may lead to an uncommanded flap retraction during the takeoff. As a consequence, takeoff in CONF 1+F is not permitted when the ADR 2 is set to OFF.

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- IR 2 mode selector OFF

Note: - ADR 2 is consequently set to OFF.
- The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

- ATT HDG SWITCHING selector F/O 3
- AIR DATA SWITCHING selector F/O 3

● If the ADS-B OUT function is required for the intended route:

ATC selector 1

FOR TAKEOFF

Takeoff in CONF 1+F is not permitted.

Note: When the ADR 2 is set to OFF, and if the aircraft is in CONF 1+F, the SFCS n°2 Flap channel is unable to crosscheck the airspeed coming from the ADR 1 with the ADR 2 airspeed coming from the SFCS n°2 Slat channel. This may lead to an uncommanded flap retraction during the takeoff. As a consequence, takeoff in CONF 1+F is not permitted when the ADR 2 is set to OFF.

34-10-05C Only NAV mode of IR 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

The NAV mode may be inoperative provided that:

- 1) The IR 2 is operated in ATT mode, and
- 2) The IR 1 and the IR 3 are operative.

Reference(s)

- (o) Refer to OpsProc 34-10-05C IR 2 (only NAV mode of IR 2 inoperative)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- ATT HDG SWITCHING selector F/O 3

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-10 - Air Data/Inertial Reference System (ADIRS)

- IR 2 mode selector ATT
- The heading must be entered through the CDU keyboard for the IR 2 and has to be frequently reset (Refer to FCOM/PRO-ABN-34 IR ALIGNMENT IN ATT MODE).

34-10-05	IR 2

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-10-05B IR 2 totally inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The IR 2 pb-sw is set to OFF, and
 - 2) The IR 1, the IR 3 and two ADRs are operative.

_____Reference(s)_____

(o) OpsProc 34-10-05B IR 2 (IR 2 totally inoperative)

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- IR 2 pb-sw OFF
The F/CTL MAINTENANCE message is displayed on the STATUS SD page.
- ATT HDG SWITCHING selector F/O 3
- AIR DATA SWITCHING selector F/O 3

Note: When the ADR 2 is inoperative and if the IR2 pb-sw OFF light does not come on:
Set the IR2 mode selector to OFF.

●If the ADS-B OUT function is required for the intended route:

ATC selector 1

34-10-05C Only NAV mode of IR 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

The NAV mode may be inoperative provided that:

- 1) The IR 2 is operated in ATT mode, and
- 2) The IR 1 and the IR 3 are operative.

Reference(s)

(o) *OpsProc 34-10-05C IR 2 (only NAV mode of IR 2 inoperative)*

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- ATT HDG SWITCHING selector F/O 3
- IR 2 mode selector ATT
- The heading must be entered through the MCDU keyboard for the IR 2 and has to be frequently reset (*Refer to FCOM/PRO-ABN-34 IR ALIGNMENT IN ATT MODE*).

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-10 - Air Data/Inertial Reference System (ADIRS)

34-10-06	IR 3

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

34-10-06A IR 3 totally inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The IR 3 mode selector is set to OFF, and
- 2) The IR 1, the IR 2, the ADR 1, and the ADR 2 are operative.

Reference(s)

(o) *OpsProc 34-10-06A IR 3 (IR 3 totally inoperative)*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

IR 3 mode selector OFF

- Note:**
- The ADR 3 is consequently set to OFF
 - The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

34-10-06B Only NAV mode of IR3 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

The NAV mode may be inoperative provided that:

- 1) The IR 3 is operated in ATT mode, and
- 2) The IR 1 and the IR 2 are operative.

Reference(s)

(o) *OpsProc 34-10-06B IR 3 (only NAV mode of IR 3 inoperative)*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- IR 3 mode selector ATT
- The heading must be entered through the CDU keyboard for the IR 3 and has to be frequently reset (Refer to FCOM/PRO-ABN-34 IR ALIGNMENT IN ATT MODE).

34-10-06	IR 3

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on,

34-10-06A IR 3 totally inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The IR 3 pb-sw is set to OFF, and
- 2) The IR 1, the IR 2, the ADR 1, and the ADR 2 are operative.

Reference(s) _____

(o) OpsProc 34-10-06A IR 3 (IR 3 totally inoperative)

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

IR 3 pb-sw OFF

- The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

Note: When the ADR 3 is inoperative and if the IR3 pb-sw OFF light does not come on:
Set the IR3 mode selector to OFF.

34-10-06B Only NAV mode of IR 3 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

The NAV mode may be inoperative provided that:

- 1) The IR 3 is operated in ATT mode, and

2) The IR 1 and the IR 2 are operative.

Reference(s)

(o) *OpsProc 34-10-06B IR 3 (only NAV mode of IR 3 inoperative)*

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

DURING COCKPIT PREPARATION

- IR 3 mode selector ATT
- The heading must be entered through the MCDU keyboard for the IR 3 and has to be frequently reset (*Refer to FCOM/PRO-ABN-34 IR ALIGNMENT IN ATT MODE*).

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-11 - Sensors

34-11-01	Angle of Attack (AOA) Sensor

Applicable to: ALL

34-11-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	2	

The F/O or the STBY Angle Of Attack sensor may be inoperative provided that the associated ADR is considered inoperative.
Refer to Item 34-10-02 ADR 2 , or
Refer to Item 34-10-03 ADR 3

34-11-02

CAPT Total Air Temperature (TAT)
 Sensor Element Connected to the ADR 1

Applicable to: ALL

34-11-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The CAPT sensor element connected to the ADR 3 is operative, and
- 2) The F/O sensor connected to the ADR 2 is operative, and
- 3) The ADR 2 and the ADR 3 are operative, and
- 4) The TAT indication on the SD is checked operative, and
- 5) The TAS indication on the ND 1 is considered inoperative.

Refer to Item 34-06-02 True Air Speed Indication on the ND

Reference(s)

- (o) *OpsProc 34-11-02A CAPT Total Air Temperature (TAT) Sensor Element Connected to ADR 1*

Applicable to: ALL

Refer to OpsProc 31-07-02A Permanent Data Indications on the SD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-11 - Sensors

34-11-03	CAPT Total Air Temperature (TAT) Sensor Element Connected to the ADR 3

Applicable to: ALL

34-11-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The CAPT sensor element connected to the ADR 1 is operative, and
- 2) The F/O sensor connected to the ADR 2 is operative, and
- 3) The ADR 1 and the ADR 2 are operative, and
- 4) The TAT indication on the SD is checked operative.

_____Reference(s)_____

- (o) *OpsProc 34-11-03A CAPT Total Air Temperature (TAT) Sensor Element Connected to ADR 3*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check that the TAT is displayed on the SD permanent data.

34-11-04

F/O Total Air Temperature (TAT) Sensor
 Element Connected to the ADR 2

Applicable to: ALL

34-11-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) Both CAPT TAT sensor elements are operative, and
- 2) The ADR 1 and the ADR 3 are operative, and
- 3) The TAT indication on the SD is checked operative, and
- 4) The TAS indications on the ND 2 is considered inoperative.

Refer to Item 34-06-02 True Air Speed Indication on the ND

Reference(s)

(o) OpsProc 34-11-04A F/O Total Air Temperature (TAT) Sensor Element Connected to ADR 2

Applicable to: ALL

Refer to OpsProc 31-07-02A Permanent Data Indications on the SD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-21 - Altitude and Airspeed Standby Data

34-21-01	Standby ALT Indicator

Applicable to: HL7594, HL7703, HL7767, HL8236

34-21-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the aircraft is operated in day VMC conditions.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-21 - Altitude and Airspeed Standby Data

34-21-02	Bugs on the Standby ALT Indicator

Applicable to: HL7594, HL7703, HL7767, HL8236

34-21-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-21 - Altitude and Airspeed Standby Data

34-21-03	Standby IAS Indicator

Applicable to: HL7594, HL7703, HL7767, HL8236

34-21-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:

 - 1) The three ADR s are operative, and
 - 2) The three Probe Heat Computers are operative, and
 - 3) The Standby horizon is operative, and
 - 4) The AIR DATA SWITCHING selector , the EIS DMC SWITCHING selector and the PFD/ND XFR pb are checked operative.

_____Reference(s)_____

(o) *OpsProc 34-21-03A Standby IAS Indicator*

Applicable to: HL7594, HL7703, HL7767, HL8236

DURING COCKPIT PREPARATION

Check of the AIR DATA, PFD/ND, and EIS DMC switching:

- AIR DATA SWITCHING selector CAPT 3
 - Check that the display is normal on the CAPT PFD and the CAPT ND.
 - AIR DATA SWITCHING selector F/O 3
 - Check that the display is normal on the F/O PFD and the F/O ND.
 - AIR DATA SWITCHING selector NORM
 - EIS DMC SWITCHING selector..... CAPT 3
 - Check that the display is normal on the CAPT PFD and the CAPT ND.
 - EIS DMC SWITCHING selector..... F/O 3
 - Check that the display is normal on the F/O PFD and the F/O ND.
 - EIS DMC SWITCHING selector.....NORM
 - CAPT PFD/ND XFR pb.....Press
 - Check that the CAPT PFD and the CAPT ND images are exchanged.
 - CAPT PFD/ND XFR pb.....Press
 - F/O PFD/ND XFR pb Press
 - Check that the F/O PFD and the F/O ND images are exchanged.
 - F/O PFD/ND XFR pb Press

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-21 - Altitude and Airspeed Standby Data

34-21-04	Bugs on the Standby IAS Indicator

Applicable to: HL7594, HL7703, HL7767, HL8236

34-21-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-22 - Attitude and Heading Standby Data

34-22-01	Standby Compass Indicator

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267

34-22-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

- May be inoperative provided that:
- 1) The three IR s are operative, and
 - 2) The ATT/HDG SWITCHING selector, the EIS DMC SWITCHING selector and the PFD/ND XFR pb are checked operative.
- _____Reference(s)_____

(o) *OpsProc 34-22-01B Standby Compass Indicator*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check of the ATT HDG, PFD/ND, and EIS DMC switching:

- ATT HDG SWITCHING selector..... CAPT 3
- Check that the display is normal on the CAPT PFD, the CAPT ND, and the RMI VOR.
- ATT HDG SWITCHING selector..... F/O 3
- Check that the display is normal on the F/O PFD and the F/O ND.
- ATT HDG SWITCHING selector..... NORM
- EIS DMC SWITCHING selector..... CAPT 3
- Check that the display is normal on the CAPT PFD and the CAPT ND.
- EIS DMC SWITCHING selector..... F/O 3
- Check that the display is normal on the F/O PFD and the F/O ND.
- EIS DMC SWITCHING selector..... NORM
- CAPT PFD/ND XFR pb..... Press
- Check that the CAPT PFD and the CAPT ND images are exchanged.
- CAPT PFD/ND XFR pb..... Press
- F/O PFD/ND XFR pb..... Press
- Check that the F/O PFD and the F/O ND images are exchanged.
- F/O PFD/ND XFR pb..... Press

34-22-01C

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The three IR s are operative, and
- 2) The DDRMI is operative.

34-22-01	Standby Compass Indicator

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8277, HL8278, HL8279, HL8280, HL8281 and later on.

34-22-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The three IR s are operative, and
- 2) The ATT/HDG SWITCHING selector, the EIS DMC SWITCHING selector and the PFD/ND XFR pb are checked operative.

Reference(s)

(o) *OpsProc 34-22-01B Standby Compass Indicator*

Applicable to: ALL

DURING COCKPIT PREPARATION

Check of the ATT HDG, PFD/ND, and EIS DMC switching:

- ATT HDG SWITCHING selector CAPT 3
- Check that the display is normal on the CAPT PFD, the CAPT ND, and the RMI VOR.
- ATT HDG SWITCHING selector F/O 3
- Check that the display is normal on the F/O PFD and the F/O ND.
- ATT HDG SWITCHING selector NORM
- EIS DMC SWITCHING selector CAPT 3
- Check that the display is normal on the CAPT PFD and the CAPT ND.
- EIS DMC SWITCHING selector F/O 3
- Check that the display is normal on the F/O PFD and the F/O ND.
- EIS DMC SWITCHING selector NORM
- CAPT PFD/ND XFR pb Press
- Check that the CAPT PFD and the CAPT ND images are exchanged.
- CAPT PFD/ND XFR pb Press
- F/O PFD/ND XFR pb Press
- Check that the F/O PFD and the F/O ND images are exchanged.
- F/O PFD/ND XFR pb Press

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-22 - Attitude and Heading Standby Data

34-22-02	Standby Compass Lighting

Applicable to: ALL

34-22-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

34-22-03

Standby Horizon Indicator

Applicable to: HL7594, HL7703, HL7767, HL8236

34-22-03B

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the aircraft is operated in day VMC conditions.

Reference(s)

(o) *OpsProc 34-22-03B Standby Horizon Indicator*

Applicable to: HL7594, HL7703, HL7767, HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-23 - Integrated Standby Instrument System (ISIS)

34-23-01	ISIS Altitude Indication

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-23-01A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	

May be inoperative provided that the aircraft is operated in day VMC conditions.

34-23-02

ISIS Airspeed Indication

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-23-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that:

- 1) The ISIS attitude indication is operative, and
- 2) The ADRs, DMCs and probe heat computers are operative, and
- 3) The AIR DATA SWITCHING selector, the EIS DMC SWITCHING selector and the PFD/ND XFR pb are operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-23 - Integrated Standby Instrument System (ISIS)

34-23-03	ISIS Bugs Indication

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-23-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

34-23-04

ISIS Horizon Indication

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-23-04B

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	(o)

May be inoperative provided that the aircraft is operated in day VMC conditions.

Reference(s)

(o) *OpsProc 34-23-04B ISIS Horizon Function*

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-23 - Integrated Standby Instrument System (ISIS)

34-23-05	ISIS ILS Indication

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-23-05A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-23 - Integrated Standby Instrument System (ISIS)

34-23-06	ISIS Mach Number Indication

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-23-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

34-30-04

Instrument Landing System (ILS)

Applicable to: ALL

34-30-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One ILS may be inoperative provided No CAT II approaches are conducted.

Note: For EDTO, if ILS is required, ILS 1 must be operative.
 When the ILS 1 is inoperative, the GPWS/TAWS G/S mode (mode 5) is also inoperative.
 Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

Reference(s)

(o) OpsProc 34-30-04A Instrument Landing System (ILS)

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- When one ILS is inoperative:
 Maximum landing capability is ILS CAT 1.

34-30-04B

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

Both may be inoperative provided No Autoland is performed.

Note: For EDTO, if ILS is required, ILS 1 must be operative.
 When the ILS 1 is inoperative, the GPWS/TAWS G/S mode (mode 5) is also inoperative.
 Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

Reference(s)

(o) OpsProc 34-30-04B Instrument Landing System (ILS)

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

When both ILS are inoperative:
 CAT 1 ILS approaches are not permitted.

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-40 - GPWS/TAWS, Radio Altimeter, TCAS, Weather Radar

34-40-01	Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

Applicable to: ALL

34-40-01A Ground Proximity Warning System (GPWS) inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

May be inoperative provided that:

- 1) Alternate procedures are established and used,
- 2) Repairs are made within two flight days,
- 3) No CAT III approaches are conducted.

_____Reference(s)_____

(o) *Refer to followings.*

ALTERNATE PROCEDURE

These procedures must maintain flight crew awareness of airplane altitude and flight path. They may include flight crew use of all systems available (autopilot, autoland, ILS and FMCS) and approach altitude callouts.

34-40-01B GPWS MODE 5(Glideslope) inoperative

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	

GPWS MODE 5(Glideslope) may be inoperative

34-40-01C GPWS MODE 5(Glideslope) inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

GPWS MODE 5(Glideslope) may be inoperative for day VMC only.

34-40-01D Terrain Awareness Warning System (TAWS) inoperative

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	(o)

May be inoperative provided alternate procedures are established and used.

Reference(s)

(o) Refer to followings.

ALTERNATE PROCEDURE

- 1) Engage the autopilot/autoland rather than manual flight.
- 2) Takeoff and landings are not conducted in known or forecast windshear conditions.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-40 - GPWS/TAWS, Radio Altimeter, TCAS, Weather Radar

34-40-02	Radio Altimeter Automatic Callout

Applicable to: ALL

34-40-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

Reference(s)

(o) *OpsProc 34-40-02A Radio Altimeter Automatic Callout*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 1.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-40 - GPWS/TAWS, Radio Altimeter, TCAS, Weather Radar

34-40-03	Radio Altimeter System

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

34-40-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that both FCU channels, all ELAC s, SEC s, ADIRU s, SFCC s, LGCIU s and FAC s are operative.

Note: *When the radio altimeter 1 is inoperative, the GPWS or the reactive modes of TAWS are inoperative.*
Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

_____Reference(s)_____

(o) OpsProc 34-40-03A Radio Altimeter System

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, PRE SB 27-1243 for HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

DURING COCKPIT PREPARATION

- If RA 1 is inoperative:
 COM NAV/RAD ALTM/1 (121VU K11) C/B..... Pull

■ If RA 2 is inoperative:
 COM NAV/RAD ALTM/2 (121VU K12) C/B..... Pull

DURING APPROACH

During an ILS (or MLS, or GLS) approach with AP engaged, the flight crew must closely monitor all primary flight parameters and FMA indications. An early/untimely FLARE and THR IDLE mode engagement may occur in the case of an erroneous RA height indication from the remaining RA.

- In the event of an early/untimely FLARE and THR IDLE mode engagement:

- Immediately perform an automatic go-around (thrust levers set to TOGA),
 OR

- Immediately disconnect AP and set both FDs to OFF. If external visual references are sufficient, the approach may be continued manually.

- Note:
- If the flight crew does not immediately react, the angle-of-attack will increase and may reach the stall value,
 - In CONF FULL, the auto-trim function is inhibited. In manual flight, a significant longitudinal sidestick input may be required.

Applicable to: HL7767, HL8004, HL8018, HL8038, HL8039, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on, POST SB 27-1243 for HL8236

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

DURING COCKPIT PREPARATION

- If RA 1 is inoperative:
COM NAV/RAD ALTM/1 (121VU K11) C/B Pull
- If RA 2 is inoperative:
COM NAV/RAD ALTM/2 (121VU K12) C/B Pull

DURING APPROACH

During an ILS (or MLS, or GLS) approach with AP engaged, the flight crew must closely monitor all primary flight parameters and FMA indications. An early/untimely FLARE and THR IDLE mode engagement may occur in the case of an erroneous RA height indication from the remaining RA.

In the event of an early/untimely FLARE and THR IDLE mode engagement:

- Perform a go-around (thrust levers set to TOGA), or
- Disconnect AP, set both FDs to OFF and continue the approach using raw data or external visual references.

34-40-03

Radio Altimeter System

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

34-40-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that both FCU channels, all ELAC s, SEC s, ADIRU s, SFCC s, LGCIU s and FAC s are operative.

_____Reference(s)_____

(o) *OpsProc 34-40-03A Radio Altimeter System*

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

FLIGHT PREPARATION/LIMITATIONS

Maximum landing capability is CAT 2.

The F/CTL MAINTENANCE message is displayed on the STATUS SD page.

DURING COCKPIT PREPARATION

- If RA 1 is inoperative:
 COM NAV/RAD ALTM/1 (121VU K11) C/B..... Pull
- If RA 2 is inoperative:
 COM NAV/RAD ALTM/2 (121VU K12) C/B..... Pull

DURING APPROACH

During an ILS (or MLS, or GLS) approach with AP engaged, the flight crew must closely monitor all primary flight parameters and FMA indications. An early/untimely FLARE and THR IDLE mode engagement may occur in the case of an erroneous RA height indication from the remaining RA.

In the event of an early/untimely FLARE and THR IDLE mode engagement:

- Perform a go-around (thrust levers set to TOGA), or
- Disconnect AP, set both FDs to OFF and continue the approach using raw data or external visual references.

34-40-04

Traffic Collision Avoidance System (TCAS)

Applicable to: ALL

34-40-04A TCAS

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	(m)

May be inoperative provided the system is deactivated and secured and enroute or approach procedures do not require its use.

Note: China TCAS serviceability requirement.

- 1) If TCAS system failure on ground in Korea, you cannot dispatch the airplane fly into China.
- 2) If TCAS system failure during the flight to China, the flight crew will be needed to report to ATMB of CAAC ASAP. ATMB will arrange a flight level.
- 3) If TCAS system failure on ground in China, no matter the following flight will fly in RVSM airspace or not, before the airplane being dispatched, the flight crew will be needed to report to ATMB of CAAC and get their approval for the next flight.

Note: The paragraph "Enroute or approach procedures do not require its use.", means that dispatch may be permitted with entire TCAS inoperative provided the airspace of respective flight phase does not mandate the serviceability of TCAS by regulation.

Reference(s)

(M) Refer to AMM 34-43-00-040-001

34-40-04B TCAS - Combined Traffic Alert(TA) and Resolution Advisory(RA) Dual Display System(s)

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

May be inoperative on the non-flying pilot side provided :

- 1) TA and RA visual display is operative on the flying pilot side,
- 2) TA and RA audio function is operative on flying pilot side

34-40-04C TCAS - Resolution Advisory(RA) Dual Display System(s)

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative on the non-flying pilot side.

34-40-05

Weather Radar System

Applicable to: HL7594, HL7703, HL7767, HL8236

34-40-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

All may be inoperative provided :

- 1) Airplane is operative at day VMC,
- 2) Airplane is not operated under IMC or night VMC conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar.

Note: When the weather radar system is inoperative, the predictive Windshear Detection System(If Installed) is inoperative..
 Refer to Item 34-40-06 Weather Radar/Predictive Windshear Detection Function(If Installed)

34-40-05

Weather Radar System

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-40-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

All may be inoperative provided :

- 1) Airplane is operative at day VMC,
- 2) Airplane is not operated under IMC or night VMC conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar.

Note: When both weather radars are inoperative, the predictive Windshear Detection System is inoperative.
 Refer to Item 34-40-06 Weather Radar/Predictive Windshear Detection Function

34-40-05B

Repair interval	Nbr installed	Nbr required	Procedure
D	2	1	

One may be inoperative.

34-40-06

Predictive Windshear Detection Function

Applicable to: HL7594, HL7703, HL7767

34-40-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative

_____Reference(s)_____

(o) *Procedure*

Applicable to: ALL

Pay attention to terrain avoidance by monitoring radio altitude, vertical speed, airspeed, flight course and flight path.

34-40-06

Predictive Windshear Detection Function

Applicable to: HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

34-40-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	1	

May be inoperative.

34-40-06B

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

Both may be inoperative.

_____Reference(s)_____

(o) *Procedure*

Applicable to: ALL

Pay attention to terrain avoidance by monitoring radio altitude, vertical speed, airspeed, flight course and flight path.

34-40-07

PULL UP-GPWS pb-sw

Applicable to: ALL

34-40-07A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that the GPWS or the TAWS aural and visual warnings are checked operative.

Reference(s)

(o) OpsProc 34-40-07A GPWS/PULL UP-G/S pb-sw

Applicable to: ALL

DURING COCKPIT PREPARATION

Check of the GPWS (or TAWS) aural and visual warnings:

- PULL UP – GPWS pb-sw (operative) Press
- Check that the GPWS (or the TAWS) aural and visual warnings are operative. Refer to FCOM/DSC-34-70 GPWS.

34-40-07B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	

Both may be inoperative provided that the GPWS or the TAWS is considered inoperative.
 Refer to Item 34-40-01 Ground Proximity Warning System (GPWS)/Terrain Awareness and Warning System (TAWS)

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-50 - ATC and Radio / GPS Navigation Systems

34-50-01	ATC

Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

34-50-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

Note: If no ATC is available:

1. The TCAS is inoperative.
Refer to Item 34-40-04 Traffic Collision Avoidance System(TCAS)
2. The ADS-B OUT Function is Also inoperative.
Refer to Item 34-50-10 ADS-B OUT Function

_____Reference(s)_____

(o) OpsProc 34-50-01A ATC

FLIGHT PREPARATION/LIMITATIONS

When both ATCs are inoperative, RVSM operations are not permitted.

34-50-01	ATC

Applicable to: HL7594, HL7703, HL7767, HL8236

34-50-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative.

Note: If no ATC is available, the TCAS is also inoperative.

Refer to Item 34-40-04 Traffic Collision Avoidance System (TCAS)

_____Reference(s)_____

(o) OpsProc 34-50-01A ATC

FLIGHT PREPARATION/LIMITATIONS

When both ATCs are inoperative, RVSM operations are not permitted.

34-50-03

ADF

Applicable to: ALL

34-50-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1 ~ 2	0	

May be inoperative provided :

- 1) All 3 IRSs are operative,
- 2) Navigation function of both FMGS is operative,
- 3) Both VOR systems are operative,
- 4) No approach procedure is based on its use.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-50 - ATC and Radio / GPS Navigation Systems

34-50-04	DME

Applicable to: ALL

34-50-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

DME 2 may be inoperative provided :

- 1) All 3 IRSs are operative,
- 2) Navigation function of both FMGS is operative,

34-50-05

VOR

Applicable to: ALL

34-50-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided :

- 1) All 3 IRSs are operative,
- 2) Navigation function of both FMGS is operative,
- 3) ADF system is operative.

Note: *The Marker Beacon and VOR receivers are contained in the same LRU. If the VOR 1 navigation system to be inoperative, then the marker beacon system may also be inoperative. See MEL 34-50-06 for an inoperative Marker Beacon System.*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-50 - ATC and Radio / GPS Navigation Systems

34-50-06	MARKER

Applicable to: ALL

34-50-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided approach minimums do not require its use.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-50 - ATC and Radio / GPS Navigation Systems

34-50-07	DDRMI

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267

34-50-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 34 - NAVIGATION 34-50 - ATC and Radio / GPS Navigation Systems

34-50-09	Global Positioning System (GPS)

Applicable to: HL7594, HL7703, HL7767, HL8236

34-50-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

May be inoperative.

- Note:
1. MMR includes GPS functions.
 2. For RNP 1 operation, one GPS must be operative.
 3. For RNP 4 operation, two GPS must be operative.

34-50-09	Global Positioning System (GPS)

Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

34-50-09A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

May be inoperative.

- Note:
1. MMR includes GPS functions.
 2. For RNP 1 operation, one GPS must be operative.
 3. For RNP 4 operation, two GPS must be operative.
 4. If no GPS is available, the ADS-B OUT Function is also inoperative.
Refer to Item 34-50-10 ADS-B OUT Function

_____Reference(s)_____

(o) Refer to OpsProc 34-50-09A Global Positioning System (GPS) Function

Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

DURING COCKPIT PREPARATION

- If ADS-B OUT is required for the intended route:

- When GPS 1 is inoperative:

ATC selector.....2

- When GPS 2 is inoperative:

ATC selector.....1

34-50-10

ADS-B OUT Function

Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

34-50-10A Not required for the intended route

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that it is not required for the intended route.

34-50-10B Required for the intended route

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that permission is obtained from the Air Navigation Service Provider(s) when required for the intended route.

Reference(s)

(o) Refer to OpsProc 34-50-10B ADS-B OUT Function

Applicable to: ALL EXCEPT HL7594, HL7703, HL7767, HL8236

DURING COCKPIT PREPARATION

Flight crew must contact dispatcher to confirm OFP(Operational Flight Plan).

ATA 35

Oxygen

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-01 - Overhead Panels 35-01-01 - OXYGEN Overhead Panel

35-01-01-01	CREW SUPPLY pb-sw OFF light

Applicable to: ALL

35-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

35-01-01-02	PASSENGER SYS ON light

Applicable to: ALL

35-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

35-01-01-31	MANUAL Control of the MASK MAN ON pb

Applicable to: ALL

35-01-01-31A AUTO control function checked operative

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that the AUTO control function is checked operative.

_____Reference(s)_____

(m) Refer to AMM 35-23-00-040-008

35-01-01-31B FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) The operating altitude is limited to FL 250 , and

- 2) The minimum operating altitude is in accordance with the following operation procedure, and
- 3) The portable oxygen units (supplemental oxygen) are provided in accordance with cabin crew manual.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) *OpsProc 35-01-01-31B MANUAL Control of the MASK MAN ON pb*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- The flight crew shall brief the cabin crew on the alternate emergency procedures that will be used.
- The affected occupants are briefed appropriately.
- The quantity of oxygen needed for the intended flight is in accordance with PART CAT.IDE.A.235.

Supply for :	Duration and Cabin Pressure Altitude
100% of passengers	Entire flight time when the cabin pressure altitude exceeds 15,000 ft but in no case less than 10 minutes.(Note 1)
30% of passengers	Entire flight time when the cabin pressure altitude exceeds 14,000 ft but does not exceed 15,000 ft.
10% of passengers	Entire flight time when the cabin pressure altitude exceeds 10,000 ft but does not exceed 14,000 ft after the first 30 minutes at these altitude

Note : For the purpose of this table 'passengers' means passengers actually carried and includes infants.

Note 1 : The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the airplane maximum certificated operating altitude to 15,000 ft in 10 minutes.

35-01-01-32	AUTO Control of the MASK MAN ON pb

Applicable to: ALL

35-01-01-32A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The MANUAL Control of the passengers oxygen masks is checked operative, and
- 2) The operating altitude is limited to FL 300.

Reference(s)

(m) *Refer to AMM 35-23-00-040-802*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-07 - Indications on the DOOR/OXY SD page

35-07-01	Crew OXY High Pressure Indication on the <u>DOOR/OXY</u> SD page

Applicable to: ALL

35-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that the oxygen pressure is checked by direct reading before each flight.

_____Reference(s)_____

(o) *OpsProc 35-07-01A Crew OXY High Pressure Indication on the DOOR/OXY SD page*

Applicable to: ALL

DURING COCKPIT PREPARATION

- After application of the maintenance procedure:

Check that the oxygen pressure is sufficient for the intended flight. *Refer to FCOM/LIM-35 Cockpit Fixed Oxygen System.*

(m) *Refer to AMM 35-10-00-040-001*

35-07-02

Crew Oxygen REGUL LO PR Indication on the DOOR/OXY SD page

Applicable to: ALL

35-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that the oxygen pressure is checked before the first flight of each day.

Reference(s)

(o) OpsProc 35-07-02A Crew Oxygen REGUL LO PR Indication on the DOOR/OXY SD page

Applicable to: ALL

GENERAL INFORMATION

On the DOOR/OXY SD page, disregard the REGUL LO PR indication and the associated OXY indication.

(m) Refer to AMM 35-10-00-040-002

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-10 - Crew Oxygen

35-10-01	Crew Oxygen Mask

Applicable to: ALL

35-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

Each occupant of the cockpit must have his assigned mask operative.

35-10-02

Crew Oxygen Mask Microphone

Applicable to: ALL

35-10-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

One must be operative for each pilot.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-10 - Crew Oxygen

35-10-03	Exterior Crew Oxygen Overpressure Indicator Disc (Green Disc)

Applicable to: ALL

35-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be missing or damaged.

Reference(s)

(o) *OpsProc 35-10-03A Exterior Crew Oxygen Overpressure Indicator Disc (Green Disc)*

Applicable to: ALL

DURING COCKPIT PREPARATION

Before the first flight of each day, check that the oxygen pressure does not decrease:

On the DOOR/OXY SD page, check the OXY pressure indication twice.

A 15 min interval must be applied between both checks.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-20 - Passenger Oxygen

35-20-01	Passenger Oxygen Unit

Applicable to: ALL

35-20-01A Associated seats considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
D	49-68	–	

One or more may be inoperative provided that the associated seats are considered inoperative.

Refer to Item 25-20-01 Passenger Seat

35-20-01B FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	49-68	0	(o)

One or more may be inoperative and the associated seats may be occupied provided that:

- 1) The operating altitude is limited to FL 250 , and
- 2) The minimum operating altitude is in accordance with following operation procedure, and
- 3) Portable oxygen units (supplemental oxygen) are provided in accordance with cabin crew manual.

_____Reference(s)_____

(o) *OpsProc 35-20-01B Passenger Oxygen Unit*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- The flight crew shall brief the cabin crew on the alternate emergency procedures that will be used.
- The affected occupants are briefed appropriately.
- The quantity of oxygen needed for the intended flight is in accordance with PART CAT.IDE.A.235.

Supply for :	Duration and Cabin Pressure Altitude
100% of passengers	Entire flight time when the cabin pressure altitude exceeds 15,000 ft but in no case less than 10 minutes.(Note 1)
30% of passengers	Entire flight time when the cabin pressure altitude exceeds 14,000 ft but does not exceed 15,000 ft.
10% of passengers	Entire flight time when the cabin pressure altitude exceeds 10,000 ft but does not exceed 14,000 ft after the first 30 minutes at these altitude

Note : For the purpose of this table 'passengers' means passengers actually carried and includes infants.

Note 1 : The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the airplane maximum certificated operating altitude to 15,000 ft in 10 minutes

35-20-02

Cabin Attendant Oxygen Unit

Applicable to: ALL

35-20-02A Associated seats considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
D	4~8	–	

One or more may be inoperative provided that the associated seats are considered inoperative.

Refer to Item 25-20-03 Cabin Attendant Seat

35-20-02B FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	4~8	0	(o)

One or more may be inoperative and the associated seats may be occupied provided that:

- 1) The operating altitude is limited to FL 250 , and
- 2) The minimum operating altitude is in accordance with the following operation procedure, and
- 3) Portable oxygen units (supplemental oxygen) are provided in accordance with cabin crew manual.

Reference(s)

(o) *OpsProc 35-20-02B Cabin Attendant Oxygen Unit*

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- The flight crew shall brief the cabin crew on the alternate emergency procedures that will be used.
- The quantity of oxygen needed for the intended flight is in accordance with PART CAT.IDE.A.235.

Supply for :	Duration and Cabin Pressure Altitude
All required cabin crew members	Entire flight time when cabin pressure altitude exceeds 13,000 ft but not less than 30 minutes(Note 1), and entire flight time when cabin pressure altitude is greater than 10,000 ft but does not exceed 13,000 ft after the first 30 minutes at these altitude.

Note 1 : The required minimum supply is that quantity of oxygen necessary for a constant rate of descent from the airplane maximum certificated operating altitude to 10,000 ft in 10 minutes and followed by 20 minutes at 10,000 ft.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-20 - Passenger Oxygen

35-20-03	Lavatory Oxygen Unit

Applicable to: ALL

35-20-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	3~4	2	–

One or more may be inoperative provided that:

- 1) The associated lavatory door is placarded inoperative and locked closed, and
- 2) The lavatory is not used for storage or any other purpose.

Refer to item 38-11-01B Lavatory Not Used.

35-20-04

Galley Oxygen Unit

Applicable to: ALL

35-20-04A Adjacent cabin attendant oxygen unit available

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or more may be inoperative and the associated galley area may be occupied provided that an adjacent cabin attendant individual oxygen unit is available for each occupants of the associated galley area.

Note: For an inoperative cabin attendant oxygen unit located within the galley area:
 Refer to Item 35-20-02 Cabin Attendant Oxygen Unit

Reference(s)

- (o) OpsProc 35-20-04A Galley Oxygen Unit (cabin attendant oxygen unit available near the galley)

Applicable to: ALL

IN FLIGHT

The number of galley area occupants must be in accordance with the available adjacent cabin attendant oxygen units.

35-20-04B Portable oxygen available in the associated galley area

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or more may be inoperative and the associated galley area may be occupied provided that a cabin attendant portable oxygen device is available for each occupants of the associated galley area.

Note: For an inoperative cabin attendant oxygen unit located within the galley area:
 Refer to Item 35-20-02 Cabin Attendant Oxygen Unit

Reference(s)

- (o) OpsProc 35-20-04B Galley Oxygen Unit (cabin attendant portable oxygen device available near the galley)

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

Before the flight, the flight crew shall brief the cabin crew that the galley oxygen unit is inoperative and that the cabin attendant portable oxygen device should be used instead.

35-20-04C Altitude limited according to regulations

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more may be inoperative and the associated galley area may be occupied provided that the operating altitude is limited to FL 250.

Note: For an inoperative cabin attendant oxygen unit located within the galley area:
Refer to Item 35-20-02 Cabin Attendant Oxygen Unit

35-20-04D Associated galley area not occupied

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more may be inoperative provided that the associated galley area is not occupied.

Note: For an inoperative cabin attendant oxygen unit located within the galley area:
Refer to Item 35-20-02 Cabin Attendant Oxygen Unit

35-20-05

Manual Release Tool

Applicable to: ALL

35-20-05A

Repair interval	Nbr installed	Nbr required	Procedure
D	4 ~8	1	

One must be available.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-30 - Portable Oxygen

35-30-01	Flight Crew Portable Device

Applicable to: ALL

35-30-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	

Refer to MEL item 35-30-03 PROTECT. BREATHING EQPT(PBE).

35-30-02

Cabin Attendant Portable Device

Applicable to: ALL

35-30-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	5 ~ 6	4	

May be unserviceable or missing provided :

- 1) One unit for each minimum required cabin crew is serviceable,
- 2) Bottles not properly serviced are replaced, serviced or removed at the next available maintenance facility.

Note: 1) *Until it can be removed from the airplane at the next available maintenance base, stow out of service units in a location where they will not be used by mistake and remove or obscure locator placards for the inoperative units.*
2) *Ensure required distribution of serviceable units is maintained throughout the airplane.*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 35 - OXYGEN 35-30 - Portable Oxygen

35-30-03	PROTECT. BREATHING EQPT(PBE)

Applicable to: ALL

35-30-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	6	—	

Any number of those required may be inoperative or removed provided :

- 1) Appropriate number of seats are not occupied to meet the basic requirement as follows:

BASICALLY REQUIRED QUANTITY

- Flight Deck : One

- Passenger Compartment : Number of minimum cabin crew approved by MOLIT.

- 2) Cabin attendants are advised that the affected PBE(s) is inoperative or removed.



ATA 36

Pneumatic Power

36-00-01

AIR BLEED MAINTENANCE Message

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

36-00-01A No fault on BMC, on a pylon leak detection loop nor on the APU leak detection loop

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(m)

AIR BLEED MAINTENANCE message may be displayed on the STATUS SD page provided that it is checked that the CFDS does not report a fault on a BMC, on a pylon leak detection loop or on the APU leak detection loop.

_____Reference(s)_____

(m) Refer to AMM 36-11-00-040-004

36-00-01B Only RH side affected

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(m)

AIR BLEED MAINTENANCE message may be displayed on the STATUS SD page provided that:

- 1) The CFDS does not report a fault on the BMC 1, on the LH pylon leak detection loop or on the APU leak detection loop, and
- 2) If the CFDS reports a fault on the BMC 2, the BMC 2 is inoperative
Refer to Item 36-11-08 Bleed Monitoring Computer(BMC), and
- 3) If the CFDS reports a fault on the RH pylon leak detection loop, the RH pylon leak detection loop is inoperative.

Refer to Item 36-22-01 Pylon Leak Detection System

_____Reference(s)_____

(m) Refer to AMM 36-11-00-040-807

36-00-01C Only LH side and/or APU leak detection loop affected

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(m)

AIR BLEED MAINTENANCE message may be displayed on the STATUS SD page provided that:

- 1) The CFDS does not report a fault on the BMC 2, on the RH pylon leak detection loop, and
- 2) *If the CFDS reports a fault on the BMC 1, the BMC 1 is inoperative
Refer to Item 36-11-08 Bleed Monitoring Computer(BMC), and*
- 3) If the CFDS reports a fault on the LH pylon leak detection loop, the LH pylon leak detection loop is inoperative.
Refer to Item 36-22-01 Pylon Leak Detection System, and
- 4) If the CFDS reports a fault on the APU leak detection loop, the APU leak detection loop is inoperative.
Refer to Item 36-22-03 APU Leak Detection Loop

Reference(s)

(m) *Refer to AMM 36-11-00-040-808*

36-00-01

AIR BLEED MAINTENANCE Message

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060 and later on

36-00-01D No fault on the APU leak detection loop

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(m)

AIR BLEED MAINTENANCE message may be displayed on the STATUS SD page provided that it is checked that the CFDS does not report a fault on the APU leak detection loop.

Reference(s)

(m) *Refer to AMM 36-11-00-040-004*

36-00-01E APU leak detection loop affected

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	(m)

AIR BLEED MAINTENANCE message may be displayed on the STATUS SD page provided that the APU leak detection loop is considered inoperative.

Refer to Item 36-22-03 APU Leak Detection Loop.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-01 - AIR COND Overhead Panel

36-01-01	ENG BLEED pb-sw FAULT light

Applicable to: ALL

36-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

36-01-02

ENG BLEED pb-sw OFF light

Applicable to: ALL

36-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-01 - AIR COND Overhead Panel

36-01-03	APU BLEED pb-sw FAULT light

Applicable to: ALL

36-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

36-01-04

APU BLEED pb-sw ON light

Applicable to: ALL

36-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-07 - Indications on the BLEED SD page

36-07-01	APU Bleed Valve Indication on the <u>BLEED</u> SD page

Applicable to: ALL

36-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	



May be inoperative provided that the Automatic Control of the X Bleed Valve is considered inoperative.
Refer to Item 36-12-04 Automatic Control of the X Bleed Valve

36-07-02

Engine Bleed Valve Indication on the BLEED SD page

Applicable to: ALL

36-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-07 - Indications on the BLEED SD page

36-07-03	Engine Bleed HP Valve Indication on the <u>BLEED</u> SD page

Applicable to: ALL

36-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

36-07-04

Engine Bleed Precooler Inlet Pressure Indication on the BLEED SD
page

Applicable to: ALL

36-07-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-07 - Indications on the BLEED SD page

36-07-05	Engine Bleed Precooler Outlet Temperature Indication on the <u>BLEED</u> SD page

Applicable to: ALL

36-07-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

36-07-06

X Bleed Valve Indication on the BLEED SD page

Applicable to: ALL

36-07-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-11 - Engine Bleed Air Supply System

36-11-01	Engine Bleed Air Supply System

Applicable to: ALL

36-11-01A Non EDTO flight - no FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

- One may be inoperative provided that:
- 1) EDTO is not conducted, and
 - 2) The associated ENG BLEED pb-sw is set to OFF, and
 - 3) The X-BLEED selector is set to OPEN, and
 - 4) The speedbrakes are operative.

Note: *The HP ground connection is near the engine 1 hazardous area. If the bleed air supply system 2 is inoperative, it is better to use the APU bleed for engine start. If the APU bleed is not available, a ground cart can be used as long as the pneumatic pipe is kept out of the hazardous area.*

Reference(s)

(o) OpsProc 36-11-01A Engine Bleed Air Supply System (non-EDTO flights)

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

The flight crew should take into account the severity of forecast icing conditions. The wing anti-ice will be lost if the remaining engine bleed air supply system becomes inoperative.

AFTER ENGINE START

- ENG BLEED (AFFECTED) pb-sw OFF

- X BLEED rotary selector OPEN

■ If both PACKs are operative:

■ If Wing Anti-Ice is not required:

PACK FLOW selector LO

The PACK FLOW selector must be set to LO due to precooler performance.

■ If Wing Anti-Ice is required:

PACK (AFFECTED) pb-sw OFF

■ If one PACK is inoperative:

PACK FLOW selector HI

FOR TAKEOFF

Set at least one air conditioning pack to off, or use the APU bleed air supply system.

AFTER TAKEOFF

- If the APU has been used to supply the air conditioning during the takeoff:
 APU BLEED pb-sw Off

IN FLIGHT

- If Wing Anti-Ice is required:
 PACK (affected side) pb-sw OFF
- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - Refer to *QRH/ABN-36 AIR ENG 1+2 BLEED FAULT*.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

The flight crew should take into account the severity of forecast icing conditions. The wing anti-ice will be lost if the remaining engine bleed air supply system becomes inoperative.

- If the cargo heating(If Installed) is switched off:

For live animal transportation, use the Live Animal Transportation Calculation Tool.

AFTER ENGINE START

- ENG BLEED (AFFECTED) pb-sw OFF
- X BLEED rotary selector OPEN
- If both PACKs are operative:
 - If Wing Anti-Ice is not required:
 ECON FLOW pb-sw ON
The ECON FLOW pb-sw must be set to ON due to precooler performance.
 AFT CARGO HOT AIR (If Installed) pb-sw OFF
 - If Wing Anti-Ice is required:
 PACK (AFFECTED) pb-sw OFF
 - If one PACK is inoperative:
 ECON FLOW pb-sw Off

FOR TAKEOFF

Set at least one air conditioning pack to off, or use the APU bleed air supply system.

AFTER TAKEOFF

- If the APU has been used to supply the air conditioning during the takeoff:
APU BLEED pb-sw Off

IN FLIGHT

- If Wing Anti-Ice is required:
PACK (affected side) pb-sw OFF
- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - Refer to *QRH/ABN-36 AIR ENG 1+2 BLEED FAULT*.

36-11-01B EDTO flight - no FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)

For EDTO , one may be inoperative for one flight provided that:

- 1) The APU bleed air supply system is operative, and
- 2) The APU is running throughout the flight, and
- 3) The associated ENG BLEED pb-sw is set to OFF, and
- 4) The X-BLEED selector is set to OPEN, and
- 5) The speedbrakes are operative.

Note: The HP ground connection is near the engine 1 hazardous area. If the bleed air supply system 2 is inoperative, it is better to use the APU bleed for engine start. If the APU bleed is not available, a ground cart can be used as long as the pneumatic pipe is kept out of the hazardous area.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

_____Reference(s)_____

(o) *OpsProc 36-11-01B Engine Bleed Air Supply System (EDTO flights)*

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

APU fuel consumption with the APU ON (APU GEN OFF and APU BLEED OFF):

	APU ON (IDLE)						
FL	GND	100	200	315	354	370	390
KG/H	80	60	42	28	24	22	20

LB/H	176	132	93	62	53	49	44

The flight crew should take into account the severity of forecast icing conditions. The wing anti-ice will be lost if the remaining engine bleed air supply system becomes inoperative.

- If the cargo heating(If Installed) is switched off:

For live animal transportation, use the Live Animal Transportation Calculation Tool.

AFTER ENGINE START

- ENG BLEED (AFFECTED) pb-sw OFF
- X BLEED rotary selector OPEN

- If both PACKs are operative:

- If Wing Anti-Ice is not required:

PACK FLOW selector LO

The PACK FLOW selector must be set to LO due to precooler performance.

AFT CARGO HOT AIR (If Installed) pb-sw OFF

- If Wing Anti-Ice is required:

PACK (AFFECTED) pb-sw OFF

- If one PACK is inoperative:

PACK FLOW selector HI

BEFORE TAKEOFF

APU MASTER SW pb-sw ON

FOR TAKEOFF

Set at least one air conditioning pack to off, or use the APU bleed air supply system.

AFTER TAKEOFF

- If the APU has been used to supply the air conditioning during the takeoff:

APU BLEED pb-sw Off

IN FLIGHT

- If Wing Anti-Ice is required:

PACK (affected side) pb-sw OFF

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:

- Apply the associated ECAM procedure, then
- Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

APU fuel consumption with the APU ON (APU GEN OFF and APU BLEED OFF):

	APU ON (IDLE)						
FL	GND	100	200	315	354	370	390
KG/H	80	60	42	28	24	22	20
LB/H	176	132	93	62	53	49	44

The flight crew should take into account the severity of forecast icing conditions. The wing anti-ice will be lost if the remaining engine bleed air supply system becomes inoperative.

- If the cargo heating(If Installed) is switched off:

For live animal transportation, use the Live Animal Transportation Calculation Tool.

AFTER ENGINE START

- ENG BLEED (AFFECTED) pb-sw OFF
- X BLEED rotary selector OPEN
- If both PACKs are operative:
 - If Wing Anti-Ice is not required:
 - ECON FLOW pb-sw ON
 - The ECON FLOW pb-sw must be set to ON due to precooler performance.*
 - AFT CARGO HOT AIR (If Installed) pb-sw OFF
 - If Wing Anti-Ice is required:
 - PACK (AFFECTED) pb-sw OFF
- If one PACK is inoperative:
 - ECON FLOW pb-sw Off

BEFORE TAKEOFF

APU MASTER SW pb-sw ON

FOR TAKEOFF

Set at least one air conditioning pack to off, or use the APU bleed air supply system.

AFTER TAKEOFF

- If the APU has been used to supply the air conditioning during the takeoff:
 - APU BLEED pb-sw Off

IN FLIGHT

- If Wing Anti-Ice is required:
 - PACK (affected side) pb-sw OFF

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.

36-11-01E Non EDTO flight - limitation to 31 500 ft

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The associated ENG BLEED pb-sw is set to OFF, and
- 3) The X-BLEED selector is set to OPEN, and
- 4) The altitude is limited to 31 500 ft (9 600 m).

Note: The HP ground connection is near the engine 1 hazardous area. If the bleed air supply system 2 is inoperative, it is better to use the APU bleed for engine start. If the APU bleed is not available, a ground cart can be used as long as the pneumatic pipe is kept out of the hazardous area.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

Reference(s)

(o) OpsProc 36-11-01E Engine Bleed Air Supply System (non-EDTO flights)

Refer to item 36-11-01A (o)procedure

36-11-01F EDTO flight - limitation to 31 500 ft

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(o)

For EDTO , one may be inoperative for one flight provided that:

- 1) The APU bleed air supply system is operative, and
- 2) The APU is running throughout the flight, and
- 3) The associated ENG BLEED pb-sw is set to OFF, and
- 4) The X-BLEED selector is set to OPEN, and
- 5) The altitude is limited to 31 500 ft (9 600 m).

Note: The HP ground connection is near the engine 1 hazardous area. If the bleed air supply system 2 is inoperative, it is better to use the APU bleed for engine start. If the APU bleed is not available, a ground cart can be used as long as the pneumatic pipe is kept out of the hazardous area.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

_____Reference(s)_____

(o) *OpsProc 36-11-01F Engine Bleed Air Supply System (EDTO flights)*

■ Refer to item 36-11-01B (o)procedure

36-11-02

Engine Bleed Valve (PRV)

Applicable to: ALL

36-11-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that:

- 1) The affected engine bleed valve is secured in the closed position, and
- 2) The associated bleed air supply system is considered inoperative.

Refer to Item 36-11-01 Engine Bleed Air Supply System

Reference(s)

(m) *Refer to AMM 36-11-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-11 - Engine Bleed Air Supply System

36-11-03	Engine Bleed Overpressure Valve

Applicable to: ALL

36-11-03A Associated bleed considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the associated bleed air supply system is considered inoperative.

Refer to Item 36-11-01 Engine Bleed Air Supply System

36-11-03B Associated Bleed still available

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated AIR ENG 1(2) BLEED FAULT alert or the AIR ENG 1(2) BLEED ABNORM PR alert was not displayed during the previous flight.

36-11-04

Engine Bleed Fan Air Valve

Applicable to: ALL

36-11-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the associated engine bleed air supply system is considered inoperative.

Refer to Item 36-11-01 Engine Bleed Air Supply System

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-11 - Engine Bleed Air Supply System

36-11-05	Engine Bleed Air Precooler

Applicable to: ALL

36-11-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the associated engine bleed air supply system is considered inoperative.
Refer to Item 36-11-01 Engine Bleed Air Supply System

36-11-06

Engine Bleed IP Check Valve

Applicable to: ALL

36-11-06A Associated bleed considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the associated engine bleed air supply system is considered inoperative.

Refer to Item 36-11-01 Engine Bleed Air Supply System

36-11-06B Associated HP valve secured in the closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative in the open position provided that:

- 1) The associated engine bleed HP valve is secured in the closed position, and
- 2) The opposite engine bleed supply system is operative.

Reference(s)

(o) OpsProc 36-11-06B Engine Bleed IP Check Valve

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

The flight crew should take into account the severity of forecast icing conditions. At low power settings, the wing anti-ice will be lost if the opposite engine bleed air supply system becomes inoperative.

DURING TAXI

When the engines operate in idle thrust:

- ENG (affected side) BLEED pb-sw OFF
- X BLEED selector..... OPEN
- If wing anti-ice is required:
 - One PACK pb-sw OFF

BEFORE TAKE OFF AND UNTIL DESCENT

Just before applying takeoff thrust

- ENG (affected side) BLEED pb-sw On
- X BLEED selector..... AUTO
- If one PACK has been selected OFF during TAXI:

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-11 - Engine Bleed Air Supply System

PACK pb-sw.....

ON

BEFORE DESCENT AND UNTIL LANDING

When the engines operate in idle thrust:

- ENG (affected side) BLEED pb-sw.....

OFF
- X BLEED selector

OPEN

- If wing anti-ice is required:

One PACK pb-sw.....

OFF

(m) Refer to AMM 36-11-00-040-002

36-11-07

Engine Bleed HP Valve

Applicable to: ALL

36-11-07A Associated bleed considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative in the closed position provided that the associated engine bleed air supply system is considered inoperative.

Refer to Item 36-11-01 Engine Bleed Air Supply System

36-11-07B HP valve secured in the closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative in the open position provided that:

- 1) The affected engine bleed HP valve is secured in the closed position, and
- 2) The opposite engine bleed supply system is operative.

_____Reference(s)_____

(o) *OpsProc 36-11-07B Engine Bleed HP Valve*

Applicable to: ALL

Refer to OpsProc 36-11-06B Engine Bleed IP Check Valve

(m) *Refer to AMM 36-11-00-040-003*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-11 - Engine Bleed Air Supply System

36-11-08	Bleed Monitoring Computer (BMC)

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

36-11-08C No FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1)EDTO is not conducted, and
- 2)The associated BLEED pb-sw is set to OFF, and
- 3)The associated PACK pb-sw is set to OFF, and
- 4)The X-BLEED selector is set to SHUT, and
- 5)If the BMC 1 is affected, the APU leak detection loop is considered inoperative
Refer to Item 36-22-03 APU Leak Detection Loop, and
- 6)The aircraft is not operated in known or forecast icing conditions, and
- 7)The speedbrakes are operative.

Reference(s) _____

(o) *OpsProc 36-11-08C Bleed Monitoring Computer (BMC)*

DURING COCKPIT PREPARATION

- ENG (affected side) BLEED pb-sw OFF
- PACK (affected side) pb-sw OFF
- X BLEED selector SHUT
- If the BMC 1 is affected:
APU BLEED pb-sw OFF

Note: The use of the APU bleed air supply system for Main Engine Start is permitted.

IN FLIGHT

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.

36-11-08D Limitation to 31500 ft

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1)EDTO is not conducted, and
- 2)The associated BLEED pb-sw is set to OFF, and
- 3)The associated PACK pb-sw is set to OFF, and
- 4)The X-BLEED selector is set to SHUT, and

- 5) If the BMC 1 is affected, the APU leak detection loop is considered inoperative
Refer to Item 36-22-03 APU Leak Detection Loop, and
 6) The aircraft is not operated in known or forecast icing conditions, and
 7) The altitude is limited to 31500 ft(9600 m).

Reference(s)

(o) *OpsProc 36-11-08D Bleed Monitoring Computer (BMC)*

DURING COCKPIT PREPARATION

- ENG (affected side) BLEED pb-sw OFF
 - PACK (affected side) pb-sw OFF
 - X BLEED selector.....SHUT
 - If the BMC 1 is affected:
 APU BLEED pb-sw..... OFF
- Note: The use of the APU bleed air supply system for Main Engine Start is permitted.*

IN FLIGHT

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - *Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.*

36-11-08

Bleed Monitoring Computer (BMC)

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

36-11-08A BMC 1 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	-

BMC 1 may inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The engine 1 bleed air supply system is considered inoperative
Refer to Item 36-11-01 Engine Bleed Air Supply System, and
- 3) The APU leak detection loop is considered inoperative.
Refer to Item 36-22-03 APU Leak Detection Loop

36-11-08B BMC 2 inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	-

BMC 2 may be inoperative provided that the engine 2 bleed air supply system is considered inoperative.
Refer to Item 36-11-01 Engine Bleed Air Supply System

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-12 - APU Bleed Air Supply and Crossbleed Systems

36-12-01	APU Bleed Air Supply System

Applicable to: ALL

36-12-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU BLEED pb-sw is set to OFF.

36-12-02

APU Bleed Valve

Applicable to: ALL

36-12-02A Inoperative in the closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The APU bleed valve is deactivated in the closed position, and
- 2) The APU bleed air supply system is considered inoperative.
Refer to Item 36-12-01 APU Bleed Air Supply System

Reference(s)

(m) Refer to AMM task 49-51-00-040-002

36-12-02B Inoperative in the open position

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative in the open position provided that the APU is not used in flight.

Refer to Item 49-10-01 Power Plant (APU)

Reference(s)

(o) OpsProc 36-12-02B APU Bleed Valve

Applicable to: ALL

ON GROUND OR IN FLIGHT

- When the APU runs:
 APU BLEED pb-sw..... ON
- After APU shutdown:
 APU BLEED pb-sw..... Off

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-12 - APU Bleed Air Supply and Crossbleed Systems

36-12-03	APU Bleed Check Valve

Applicable to: ALL

36-12-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the APU bleed air supply system is considered inoperative.

Refer to Item 36-12-01 APU Bleed Air Supply System

36-12-04

Automatic Control of the X Bleed Valve

Applicable to: ALL

36-12-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the manual control is checked operative.

Reference(s)

(o) *OpsProc 36-12-04A Automatic control of the X Bleed Valve*

Applicable to: ALL

GENERAL INFORMATION

When the APU BLEED pb-sw is ON, or for engine start :

- X BLEED selector..... OPEN
- Select SHUT in all other cases.

DURING COCKPIT PREPARATION

Check of the Manual Control of the X BLEED valve:

- X BLEED selector..... OPEN
- On the BLEED SD page, check that the cross bleed valve is indicated open.
- X BLEED selector.....SHUT
- On the BLEED SD page, check that the cross bleed valve is indicated closed.
- X BLEED selector.....AS RQRD

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-12 - APU Bleed Air Supply and Crossbleed Systems

36-12-05	Manual Control of the X Bleed Valve

Applicable to: ALL

36-12-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that the Automatic Control is checked operative.

Reference(s)

(o) *OpsProc 36-12-05A Manual Control of the X Bleed Valve*

Applicable to: ALL

DURING COCKPIT PREPARATION

X BLEED selector.....AUTO

Check of the automatic control of the X BLEED valve:

- Check that the APU is started.
- APU BLEED pb-sw.....Off.
- On the BLEED SD page, check that the cross bleed valve is indicated closed.
- APU BLEED pb-sw.....ON
- On the BLEED SD page, check that the cross bleed valve is indicated open.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-22 - Leak Detection Loop

36-22-01	Pylon Leak Detection System

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

36-22-01B No FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

- One may be inoperative provided that:
- 1) EDTO is not conducted, and
 - 2) The associated pylon leak detection loop is deactivated, and
 - 3) The associated BLEED pb-sw is set to OFF, and
 - 4) The associated PACK pb-sw is set to OFF, and
 - 5) The X-BLEED selector is set to SHUT, and
 - 6) The APU BLEED pb-sw is set to OFF if LH side is affected, and
 - 7) The aircraft is not operated in known or forecast icing conditions, and
 - 8) The speedbrakes are operative.

Reference(s)

(o) *OpsProc 36-22-01B Pylon Leak Detection System*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7763, HL7767, HL7769, HL7772, HL7773, HL8236

DURING COCKPIT PREPARATION

- ENG (affected side) BLEED pb-sw OFF
 - PACK (affected side) pb-sw OFF
 - X BLEED selector SHUT
 - If the LH side is affected:
APU BLEED pb-sw OFF
- Note: *The use of the APU bleed air supply system for Main Engine Start is permitted.*

IN FLIGHT

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.

(m) Refer to AMM 36-22-00-040-001

36-22-01C Limitation to 31 500 ft

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The associated pylon leak detection loop is deactivated, and
- 3) The associated BLEED pb-sw is set to OFF, and
- 4) The associated PACK pb-sw is set to OFF, and
- 5) The X-BLEED selector is set to SHUT, and
- 6) The APU BLEED pb-sw is set to OFF if the LH side is affected, and
- 7) The aircraft is not operated in known or forecast icing conditions, and
- 8) The altitude is limited to 31 500 ft (9 600 m).

Reference(s)

(o) *OpsProc 36-22-01C Pylon Leak Detection System*

Refer to item 36-22-01B (o) procedure

(m) *Refer to AMM 36-22-00-040-001*

36-22-01	Pylon Leak Detection System

Applicable to: HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

36-22-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that:

- 1) The associated pylon leak detection loop is deactivated, and
- 2) The AIR ENG 1(2) BLEED LEAK alert is confirmed to be false by troubleshooting, and
- 3) The associated bleed air supply system is considered inoperative.

Refer to Item 36-11-01 Engine Bleed Air Supply System

Reference(s)

(m) *Refer to AMM 36-22-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 36 - PNEUMATIC 36-22 - Leak Detection Loop

36-22-02	Wing Leak Detection System

Applicable to: ALL

36-22-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Must be operative.

Note: Failure of one loop in one or both wing leading edges is indicated by a MAINTENANCE message displayed on the STATUS SD page .
Refer to Item 36-00-01 AIR BLEED MAINTENANCE Message

36-22-03

APU Leak Detection Loop

Applicable to: ALL

36-22-03A APU bleed check valve replaced by a plate

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

May be inoperative provided that:

- 1) The APU bleed check valve is removed and replaced by a plate, and
- 2) The APU bleed air supply system is considered inoperative.

Refer to Item 36-12-01 APU Bleed Air Supply System

Reference(s) _____

(m) *Refer to AMM Task 36-12-00-040-XXX*

36-22-03B No FL limitation

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The AIR APU BLEED LEAK alert was not displayed during the previous flight, and
- 3) The ENG 1 BLEED pb-sw is set to OFF, and
- 4) The PACK 1 pb-sw is set to OFF, and
- 5) The X BLEED selector is set to SHUT, and
- 6) The APU BLEED pb-sw is set to OFF, and
- 7) The aircraft is not operated in known or forecast icing conditions, and
- 8) The speedbrakes are operative.

Reference(s) _____

(o) *Refer to OpsProc 36-22-03B APU Leak Detection Loop*

Applicable to: ALL

DURING COCKPIT PREPARATION

- ENG (affected side) BLEED pb-sw OFF
- PACK (affected side) pb-sw OFF
- X BLEED selector.....SHUT
- APU BLEED pb-sw OFF

Note: The use of the APU bleed air supply system for Main Engine Start is permitted.

IN FLIGHT

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:

- Apply the associated ECAM procedure, then
- Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.

36-22-03C Limitation to 31500 ft

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The AIR APU BLEED LEAK alert was not displayed during the previous flight, and
- 3) The ENG 1 BLEED pb-sw is set to OFF, and
- 4) The PACK 1 pb-sw is set to OFF, and
- 5) The X BLEED selector is set to SHUT, and
- 6) The APU BLEED pb-sw is set to OFF, and
- 7) The aircraft is not operated in known or forecast icing conditions, and
- 8) The altitude is limited to 31500 ft(9600 m).

Reference(s)

- (o) Refer to OpsProc 36-22-03C APU Leak Detection Loop

Applicable to: ALL

DURING COCKPIT PREPARATION

- ENG (affected side) BLEED pb-sw OFF
- PACK (affected side) pb-sw OFF
- X BLEED selector SHUT
- APU BLEED pb-sw OFF

Note: The use of the APU bleed air supply system for Main Engine Start is permitted.

IN FLIGHT

- In the case of failure of the remaining engine bleed air supply system, or in the case of failure of the associated engine:
 - Apply the associated ECAM procedure, then
 - Refer to QRH/ABN-36 AIR ENG 1+2 BLEED FAULT.

ATA 38

Water & Waste

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 38 –WATER AND WASTE 38-10 –Potable Waste System

38-10-01	POTABLE WATER SYSTEM

Applicable to: ALL

38-10-01A Inoperative Components Deactivated

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

Individual components may be inoperative provided :

- 1) Associated components are deactivated or isolated,
- 2) Associated system components are verified not to have leaks.

38-10-01B Potable Water Systems Not Used

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	

May be inoperative provided :

- 1) System is drained,
- 2) System is secured,
- 3) Flight is limited to 2 flight hours for the flight to the main base.

38-10-01C Potable Water Indication Systems

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 38 –WATER AND WASTE 38-11 –Lavatory Waste System

38-11-01	LAVATORY WASTE SYSTEMS(INCLUDING WHEELCHAIR ACCESSIBLE LAVATORIES)

Applicable to: ALL

38-11-01A Components Deactivated or Isolated

Repair interval	Nbr installed	Nbr required	Procedure
C	3 ~ 4	2	(m)

May be inoperative provided :

- 1) Associated components are deactivated or isolated,
- 2) Associated system components are verified not to have leaks.

_____Reference(s)_____

(m) NOTE: Due to the wide variety of lavatory installations and various component failure possibilities, operators must develop procedures tailored to their specific installations.

1. Refer to the AMM for Lavatory System Description, Operation, Maintenance, and Servicing practices.
2. For inoperative individual components:
 - A. Deactivate or isolate inoperative components.
 - B. Verify associated system components do not have leaks.

38-11-01B Lavatory Not Used

Repair interval	Nbr installed	Nbr required	Procedure
C	3~4	2	(m)

May be inoperative provided :

- 1) Associated components are deactivated or isolated to prevent leaks,
- 2) For the forward lavatory inoperative, the Pilot-in-Command will determine if flight duration is acceptable,
- 3) Associated lavatory door is locked closed and placard "INOPERATIVE – DO NOT ENTER".

Note: 1) These provisions are not intended to prohibit inspection by crewmembers.

_____Reference(s)_____

(m) NOTE: Due to the wide variety of lavatory installations and various component failure possibilities, operators must develop procedures tailored to their specific installations.

1. Refer to the AMM for Lavatory System Description, Operation, Maintenance, and Servicing practices.
2. For an inoperative lavatory waste system:
 - A. Drain the associated waste tank.

CAUTION: DO NOT ADD THE PRECHARGE CHEMICAL TO THE ASSOCIATED WASTE TANK.

- B. Secure the associated lavatory door closed and placard.

ATA 46

Information Systems

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 46 - INFORMATION SYSTEMS 46-21 - Air Traffic and Information Management System

46-21-01	Air Traffic Service Unit (ATSU)

Applicable to: ALL except HL7767

46-21-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative.

46-21-02

Datalink Control and Display Unit (DCDU)

Applicable to: ALL except HL7767

46-21-02A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 46 - INFORMATION SYSTEMS 46-21 - Air Traffic and Information Management System

46-21-03	ATC MSG pb

Applicable to: ALL except HL7767

46-21-03A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

May be inoperative.

ATA 47

Inert Gas System

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 47 - INERT GAS SYSTEM 47-10 - Generation/Storage

47-10-01	Fuel Tank Inerting System

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

47-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ATA 49

Auxiliary Power Unit

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-00 - MAINTENANCE Message on the STATUS SD page

49-00-01	APU <u>MAINTENANCE</u> Message

Applicable to: ALL

49-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

APU MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-01 - APU Overhead Panel

49-01-01	APU MASTER SW pb-sw FAULT light

Applicable to: ALL

49-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the N and the EGT indications are operative on the APU SD page.

MEL ITEMS
 49 - AIRBORNE AUXILIARY POWER
 49-01 - APU Overhead Panel

49-01-02

APU MASTER SW pb-sw ON light

Applicable to: ALL

49-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-01 - APU Overhead Panel

49-01-03	APU START pb-sw AVAIL light

Applicable to: ALL

49-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the N indication is operative on the APU SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-01 - APU Overhead Panel

49-01-04	APU START pb-sw ON light

Applicable to: ALL

49-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-07 - Indications on the APU SD page

49-07-01	Indications on the <u>APU</u> SD page

Applicable to: ALL

49-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	

One or more may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-10 - Power Plant

49-10-01	Power Plant (APU)

Applicable to: ALL

49-10-01A Non EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative provided that EDTO is not conducted.

Reference(s)

(o) *OpsProc 49-10-01A Power Plant (APU)*

Applicable to: ALL

GENERAL INFORMATION

No APU bleed air will be available for Main Engine Start (MES) or air conditioning.
No electrical power will be available from the APU generator.

In the case of both APU unserviceable and absence of suitable ground support equipment at destination, an engine opposite to the refueling point will need to be operated during refueling to ensure the continued availability of bleed air and electrical power for engine starting.

Refer to FCOM/PER-LOD-FUL REFUELING WITH ONE ENGINE RUNNING.

DURING COCKPIT PREPARATION

APU MASTER SW pb-sw Off

49-10-01B EDTO flight

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)

For EDTO, may be inoperative for four flights.

Reference(s)

(o) *OpsProc 49-10-01B Power Plant (APU)*

Refer to item 49-10-01A (o)procedure

49-10-01C APU deactivated or removed

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	(o)(m)

May be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The APU is deactivated or removed.

_____Reference(s)_____

(o) *OpsProc 49-10-01C Power Plant (APU)*

GENERAL INFORMATION

No APU bleed air will be available for Main Engine Start (MES) or air conditioning.

No electrical power will be available from the APU generator.

In the case of both APU unserviceable and absence of suitable ground support equipment at destination, an engine opposite to the refueling point will need to be operated during refueling to ensure the continued availability of bleed air and electrical power for engine starting.

Refer to FCOM/PER-LOD-FUL REFUELING WITH ONE ENGINE RUNNING.

DURING COCKPIT PREPARATION

APU MASTER SW pb-sw Off

When the APU is removed:

Adjust SOW(DOW) & Index Unit (I.U.) by

- A320: -454lb & -3.5 I.U.

- A321: -454lb & -7.9 I.U.

(m) *Refer to AMM 49-10-00-040-007*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 49 - AIRBORNE AUXILIARY POWER 49-10 - Power Plant

49-10-02	APU Air Intake Flap

Applicable to: ALL

49-10-02A APU not used

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative in the closed position provided that the APU is not used.

49-10-02B APU used

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(m)

May be inoperative in the open position for 10 days.

_____Reference(s)_____

(m) Refer to AMM 49-16-00-040-002

ATA 52

Doors

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-01 - Overhead Panels 52-01-01 - CKPT DOOR CONT Normal Overhead Panel

52-01-01-01	CHAN (1, 2) LEDs on the CKPT DOOR CONT Overhead Panel

Applicable to: ALL

52-01-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or more may be inoperative provided the FAULT light on the COCKPIT DOOR Panel is checked operative.

_____Reference(s)_____

- (o) 1. Before the first flight under this item: NORM and LOCK functions are verified to operate normally.
- A. Close the cockpit door and verify by manual inspection that it is locked when the toggle switch of the COCKPIT DOOR panel is in the NORM position.
 - B. Ask a flight crew to perform the emergency access procedure (FCOM PRO-ABN-25).
 - C. Set the toggle switch of the COCKPIT DOOR panel to the LOCK position.
 - D. Verify that the door remains closed and locked and the keypad and buzzer are inhibited.

52-01-01-02	STRIKE (TOP, MID, BOT) LEDs on the CKPT DOOR CONT Overhead Panel

Applicable to: ALL

52-01-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

Refer to ITEM 52-01-01-01 CHAN (1, 2) LEDs on the CKPT DOOR CONT Overhead Panel

52-01-01-03

Pressure Rate Sensor on the CKPT DOOR CONT Overhead Panel

Applicable to: ALL

52-01-01-03A One inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	2	1	(m)

One may be inoperative for 60 consecutive calendar days provided that the remaining pressure rate sensor is checked operative.

_____Reference(s)_____

(m) Refer to AMM 52-51-00-040-011

52-01-01-03B Both inoperative

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

Both may be inoperative provided that the CDLS normal system is considered inoperative.
Refer to Item 52-51-01 CDLS Normal System (Normal Control Unit, Switch and Lights on the CKPT DOOR Panel, Buzzer, Keypad) .

 ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-07 - Indications on the DOOR/OXY SD page

52-07-01	Passenger Door Permanently Indicated Open on the <u>DOOR/OXY</u> SD page

Applicable to: A320

52-07-01A Check of associated door and 'C' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be permanently indicated open when actually closed provided that:

- 1) The associated door is visually checked to be closed and locked before each flight, and
- 2) The white SLIDE ARMED light on the associated door does not come on when the door is closed and locked and the slide arming lever is in the armed position.

Note: *The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.*

Reference(s)

(o) OpsProc 52-07-01A Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light operative)

Applicable to: A320

GENERAL INFORMATION

If passenger doors are affected, indications on the PTP or the FAP may be affected.
If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.

AFTER ENGINE START

- In the case of false door alert:
EMER CANC pb Press

Note: *the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.*

BEFORE TAKEOFF

-

CAUTION	<i>The T.O CONFIG pb must be maintained pressed to check that there is no alert.</i>

T.O CONFIG pb Press

In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

52-07-01B Check of associated door and 'B' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
B	4	0	(0)

One or more may be permanently indicated open when actually closed provided that the associated door is visually checked to be closed and locked before each flight.

Note: *The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.*

Reference(s) _____

- (o) OpsProc 52-07-01B Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light may be permanently illuminated)

Applicable to: A320

GENERAL INFORMATION

If passenger doors are affected, indications on the PTP or the FAP may be affected.

If passenger doors are affected, the time recorded in the ACARS movement report may be wrong. The SLIDE ARMED light on passenger doors may be permanently illuminated.

AFTER ENGINE START

- In the case of false door alert:

EMER CANC pb Press

Note: *the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.*

BEFORE TAKEOFF

- **CAUTION** *The T.O CONFIG pb must be maintained pressed to check that there is no alert.*

T.O CONFIG pb Press

In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

52-07-01C No night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be permanently indicated open when actually closed provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated door is visually checked to be closed and locked before each flight.

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

Reference(s)

- (o) OpsProc 52-07-01C Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light may be permanently illuminated)

Refer to item 52-07-01B (o)procedure

52-07-01D Slide of the associated door not armed

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(o)

One may be permanently indicated open when actually closed provided that:

- 1) The associated door is visually checked to be closed and locked before each flight, and
- 2) The slide of the associated door is not armed, and
- 3) The associated door is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

Reference(s)

- (o) OpsProc 52-07-01D Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light may be permanently illuminated)

Refer to item 52-07-01B (o)procedure

52-07-01

Passenger Door/Emergency Exit Permanently Indicated Open on the
DOOR/OXY SD page

Applicable to: A321

52-07-01A Check of associated door and 'C' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	(o)

One or more may be permanently indicated open when actually closed provided that:

- 1) The associated door is visually checked to be closed and locked before each flight, and
- 2) The white SLIDE ARMED light on the associated door does not come on when the door is closed and locked and the slide arming lever is in the armed position.

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

Reference(s)

- (o) OpsProc 52-07-01A Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light operative)

Applicable to: A321

GENERAL INFORMATION

If passenger doors/emergency exits are affected, indications on the PTP or the FAP may be affected.
If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.

AFTER ENGINE START

- In the case of false door alert:
EMER CANC pb Press

Note: the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.

BEFORE TAKEOFF

CAUTION The T.O CONFIG pb must be maintained pressed to check that there is no alert.

T.O CONFIG pb Press
In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

52-07-01B Check of associated door and 'B' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
B	8	0	(o)

One or more may be permanently indicated open when actually closed provided that the associated door is visually checked to be closed and locked before each flight.

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

_____Reference(s)_____

- (o) OpsProc 52-07-01B Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light may be permanently illuminated)

Applicable to: A321

GENERAL INFORMATION

If passenger doors/emergency exits are affected, indications on the PTP or the FAP may be affected. If passenger doors are affected, the time recorded in the ACARS movement report may be wrong. The SLIDE ARMED light on passenger doors/emergency exit may be permanently illuminated.

AFTER ENGINE START

- In the case of false door alert:
EMER CANC pb Press

Note: the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.

BEFORE TAKEOFF

CAUTION	The T.O CONFIG pb must be maintained pressed to check that there is no alert.

T.O CONFIG pb Press
In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

52-07-01C No night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	(o)

One or more may be permanently indicated open when actually closed provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated door is visually checked to be closed and locked before each flight.

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

Reference(s) _____

- (o) OpsProc 52-07-01C Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light may be permanently illuminated)

Refer to item 52-07-01B (o)procedure

52-07-01D Slide of the associated door not armed

Repair interval	Nbr installed	Nbr required	Procedure
C	8	7	(o)

One may be permanently indicated open when actually closed provided that:

- 1) The associated door is visually checked to be closed and locked before each flight, and
- 2) The slide of the associated door is not armed, and
- 3) The associated door is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

Reference(s) _____

- (o) OpsProc 52-07-01D Passenger Door/Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page (SLIDE ARMED light may be permanently illuminated)

Refer to item 52-07-01B (o)procedure

	MEL ITEMS 52 - DOORS 52-07 - Indications on the DOOR/OXY SD page

52-07-02	Passenger Door Permanently Indicated Closed on the <u>DOOR/OXY</u> SD page

Applicable to: A320

52-07-02A No night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be permanently indicated closed when actually open provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated door is visually checked to be closed and locked before each flight.

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

_____Reference(s)_____

- (o) OpsProc 52-07-02A Passenger Door/Emergency Exit Permanently Indicated Closed on the DOOR/OXY SD page

Applicable to: A320

GENERAL INFORMATION

If passenger doors are affected, indications on the PTP or the FAP may be affected.

If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.

52-07-02B Check of associated door

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(o)

One may be permanently indicated closed when actually open provided that:

- 1) The associated door is visually checked to be closed and locked before each flight, and
- 2) The associated door is considered inoperative.

Refer to Item 52-10-01 Cabin Passenger Door

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

_____Reference(s)_____

(o) OpsProc 52-07-02B Passenger Door/Emergency Exit Permanently Indicated Closed on the DOOR/OXY SD page

Refer to item 52-07-02A (o) procedure

52-07-02	Passenger Door/Emergency Exit Permanently Indicated Closed on the <u>DOOR/OXY SD page</u>

Applicable to: A321

52-07-02A No night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	(o)

One or more may be permanently indicated closed when actually open provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated door is visually checked to be closed and locked before each flight.

Note: The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.

Reference(s)

(o) OpsProc 52-07-02A Passenger Door/Emergency Exit Permanently Indicated Closed on the DOOR/OXY SD page

Applicable to: A321

GENERAL INFORMATION

If passenger doors/emergency exits are affected, indications on the PTP or the FAP may be affected.

If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.

52-07-02B Check of associated door

Repair interval	Nbr installed	Nbr required	Procedure
C	8	7	(o)

One may be permanently indicated closed when actually open provided that:

- 1) The associated door is visually checked to be closed and locked before each flight, and

- 2) The associated door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

Note: *The check of the closed and locked door should be performed after the final closing of an affected door(s) prior to departure. The maintenance personnel should inform the flight crew of the status of the affected door(s) by interphone system.*

_____Reference(s)_____

- (o) *OpsProc 52-07-02B Passenger Door/Emergency Exit Permanently Indicated Closed on the DOOR/OXY SD page*

Refer to item 52-07-02A (o)procedure

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-07 - Indications on the DOOR/OXY SD page

52-07-03	Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page

Applicable to: A320

52-07-03A Check of associated exit and 'C' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

One or more may be permanently indicated open when actually closed provided that:

- 1) The associated exit is visually checked to be closed and locked before each flight, and
- 2) The associated SLIDE indication is displayed in white on the DOOR/OXY SD page .

Reference(s)

- (o) OpsProc 52-07-03A Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page

Applicable to: A320

GENERAL INFORMATION

Indications on the PTP or the FAP may be affected.

AFTER ENGINE START

- In the case of false door alert:
EMER CANC pb Press

Note: the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.

BEFORE TAKEOFF

CAUTION	The T.O CONFIG pb must be maintained pressed to check that there is no alert.

T.O CONFIG pb Press
In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

(m) Refer to AMM 52-70-00-040-010

52-07-03B Check of associated exit and 'B' repair interval

Repair interval	Nbr installed	Nbr required	Procedure
B	4	0	(o)(m)

One or more may be permanently indicated open when actually closed provided that the associated exit is visually checked to be closed and locked before each flight.

_____Reference(s)_____

- (o) *OpsProc 52-07-03B Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page*

Refer to item 52-07-03A (o)procedure

(m) *Refer to AMM 52-70-00-040-010*

52-07-03C No night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

One or more may be permanently indicated open when actually closed provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated exit is visually checked to be closed and locked before each flight.

_____Reference(s)_____

- (o) *OpsProc 52-07-03C Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page*

Refer to item 52-07-03A (o)procedure

(m) *Refer to AMM 52-70-00-040-010*

52-07-03D Both exits on the same side considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(o)(m)

One or more may be permanently indicated open when actually closed provided that:

- 1) The associated exit is visually checked to be closed and locked before each flight, and
- 2) Both exits on the same side are considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

Reference(s)

- (o) *OpsProc 52-07-03D Overwing Emergency Exit Permanently Indicated Open on the DOOR/OXY SD page*

Refer to item 52-07-03A (o)procedure

- (m) *Refer to AMM 52-70-00-040-010*

	MEL ITEMS 52 - DOORS 52-07 - Indications on the DOOR/OXY SD page

52-07-04	Overwing Emergency Exit Permanently Indicated Closed on the <u>DOOR/OXY</u> SD page

Applicable to: A320

52-07-04A No night operations

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

One or more may be permanently indicated closed when actually open provided that:

- 1) The aircraft is not operated at night, and
- 2) The associated exit is visually checked to be closed and locked before each flight.

_____Reference(s)_____

- (o) *OpsProc 52-07-04A Overwing Emergency Exit Permanently Indicated Closed on the DOOR/OXY SD page*

Applicable to: A320

GENERAL INFORMATION

Indications on the PTP or the FAP may be affected.

(m) *Refer to AMM 52-70-00-040-011*

52-07-04B Both exits on the same side considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	4	3	(o)(m)

One or more may be permanently indicated closed when actually open provided that:

- 1) The associated exit is visually checked to be closed and locked before each flight, and
- 2) Both exits on the same side are considered inoperative.

Refer to Item 52-10-02 Overwing Emergency Exit

_____Reference(s)_____

- (o) *OpsProc 52-07-04B Overwing Emergency Exit Permanently Indicated Closed on the DOOR/OXY SD page*

Refer to item 52-07-04A (o)procedure

(m) *Refer to AMM 52-70-00-040-011*

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-07 - Indications on the DOOR/OXY SD page

52-07-05	Cargo Door Indication on the <u>DOOR/OXY</u> SD page

Applicable to: ALL

52-07-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(o)(m)

One or more may be inoperative provided that the associated door is visually checked to be closed and locked before each flight.

_____Reference(s)_____

(o) *OpsProc 52-07-05A Cargo Door Indication on the DOOR/OXY SD page*

Applicable to: ALL

GENERAL INFORMATION

If the cargo doors are affected, the time recorded in the ACARS movement report may be wrong.

- If cargo indication is inoperative due to a proximity switch failure:

The relevant cargo heating (if installed) is inhibited. For live animal transportation, use the Live Animal Transportation Calculation Tool.

AFTER ENGINE START

- In the case of false door alert:
EMER CANC pb Press

Note: the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.

BEFORE TAKEOFF

-

CAUTION

The T.O CONFIG pb must be maintained pressed to check that there is no alert.

T.O CONFIG pb Press

In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

(m) *Refer to AMM 52-70-00-040-001*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-07 - Indications on the DOOR/OXY SD page

52-07-06	Avionics Compartment Access Door Indication on the <u>DOOR/OXY</u> SD page

Applicable to: ALL

52-07-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)(m)

One or more may be inoperative provided that the associated door is visually checked to be closed and locked before each flight.

_____Reference(s)_____

(o) *OpsProc 52-07-06A Avionics Compartment Access Door Indication on the DOOR/OXY SD page*

Applicable to: ALL

AFTER ENGINE START

- In the case of false door alert:
EMER CANC pb Press

Note: the limitation MAX FL : 100/MEA-MORA remains displayed on the STATUS SD page.

BEFORE TAKEOFF

-

CAUTION	<i>The T.O CONFIG pb must be maintained pressed to check that there is no alert.</i>

T.O CONFIG pb Press
In the T.O MEMO, the "T.O CONFIG NORMAL" line will not replace the "T.O CONFIG . . TEST" line.

- Consider normal configuration for takeoff provided that no alert were displayed during the T.O CONFIG TEST.

(m) *Refer to AMM 52-70-00-040-004*

52-10-01

Cabin Passenger Door

Applicable to: A320

52-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	4	3	(o)(m)

One may be inoperative for a maximum of 5 flights provided:

- 1) The number of passengers carried and the position of the seats which they occupy is in accordance with the following diagrams, and
- 2) Adequate cabin safety procedures are established and used, and
- 3) Affected door/exit is closed and locked, and
- 4) The affected door/exit is not used for passenger boarding, nor for any nonemergency purpose while passengers are on board, and
- 5) Affected door/exit is marked with a placard to prohibit utilization, as applicable, and
- 6) All the door/exit markings, signs and lights associated with the affected door/exit must be obscured, as applicable, and
- 7) For extended overwater flight, if one slide raft is inoperative, occupancy (passengers, flight and cabin crew) shall not exceed a maximum of carried persons (A320-200: 110 persons). If necessary, reduce occupancy nearer to the inoperative slide raft.

Note: 1. Weight and balance manifest must be revised as necessary to ensure proper loading limits are observed.

2: Cabin attendants may be stationed in vicinity of each door within blocked area.

Door positions in diagrams:

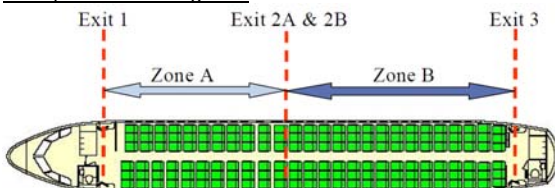
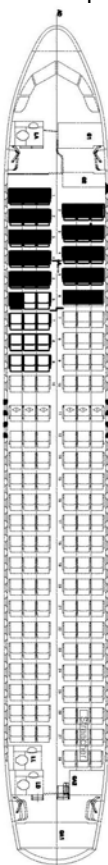


Diagram 1. A320-200 Seat Block Layout With Inoperative Door

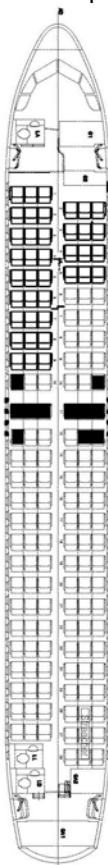
NOTE : Shaded area indicates the number of seats to be blocked.

No.1 Door Inoperative		No.2A Door Inoperative		No.2B Door Inoperative		No.2A &2B Door Inoperative		No.3 Door Inoperative	
Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked
A	31	A	8	A	0	A	8	A	0
B	0	B	3	B	11	B	38	B	31
Total	31	Total	11	Total	11	Total	46	Total	31

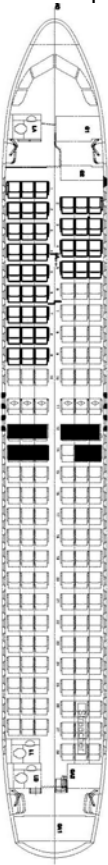
Exit 1 inop



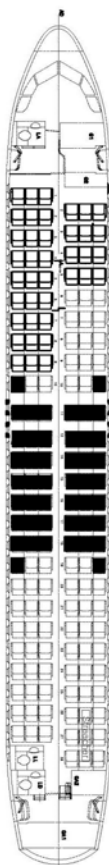
Exit 2A inop



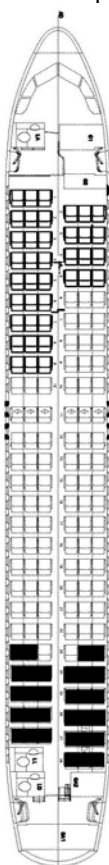
Exit 2B inop



Exit 2A&2B inop



Exit 3 inop



Reference(s)

(o) *OpsProc 52-10-01A Cabin Passenger Door*

Applicable to: ALL

To ensure that:

- All crew members are briefed on the location and condition of the affected door/exit, passenger distribution and modified cabin safety procedures;
- Where the affected door/exit can be opened, the briefing should address the possible use of the door for emergency evacuation in certain circumstances;
- The affected emergency exit, escape paths, and blocked seating layout are checked before each take-off and landing;
- The pre-take-off briefing to passengers accurately represents the current state and condition of the aircraft's escape facilities;
- A verbal briefing by cabin crew, or a briefing using automatic audio/visual presentation, or a briefing by reference to a briefing card, is immediately complemented by a verbal/public announcement to inform passengers that a particular door/exit is inoperative and displays an appropriate placard.

(m) *Refer to following procedure*

To ensure that:

- Affected door/exit is closed and locked if the closing/locking function is not affected;
- If the closing/locking mechanism is affected, the door is secured closed and locked;
- A conspicuous barrier, strap or rope and a placard stating 'DO NOT USE' are placed across the affected door/exit, as applicable, prior to passenger boarding;
- Associated door/exit markings, signs and lights are obscured or removed.

52-10-01

Cabin Passenger Door/Emergency Exit

Applicable to: A321

52-10-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	8	7	(o)(m)

One may be inoperative for a maximum of 5 flights provided:

- 1) The number of passengers carried and the position of the seats which they occupy is in accordance with the following diagrams, and
- 2) Adequate cabin safety procedures are established and used, and
- 3) Affected door/exit is closed and locked, and
- 4) The affected door/exit is not used for passenger boarding, nor for any nonemergency purpose while passengers are on board, and
- 5) Affected door/exit is marked with a placard to prohibit utilization, as applicable, and
- 6) All the door/exit markings, signs and lights associated with the affected door/exit must be obscured, as applicable, and
- 7) For extended overwater flight, if one slide raft is inoperative, occupancy (passengers, flight and cabin crew) shall not exceed a maximum of carried persons (A321-200 except HL8236: 147 persons if the supplementary life raft is operative. 110 persons if the supplementary life raft is not operative). If necessary, reduce occupancy nearer to the inoperative slide raft.

Note: 1. Weight and balance manifest must be revised as necessary to ensure proper loading limits are observed.

2: Cabin attendants may be stationed in vicinity of each door within blocked area.

Door positions in diagrams:

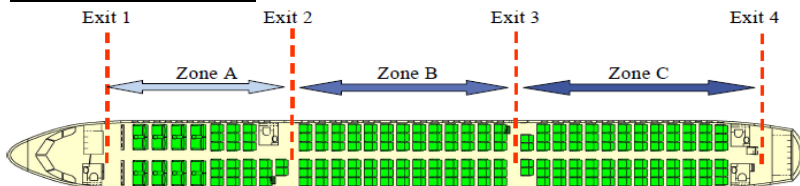
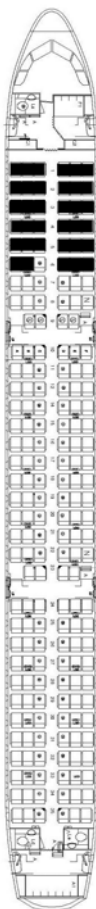


Diagram 3. A321-100(HL7594, HL7703) Seat Block Layout With Inoperative Door

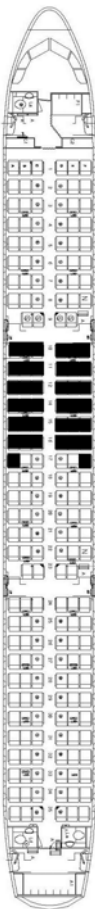
NOTE : Shaded area indicates the number of seats to be blocked.

No.1 Door Inoperative		No.2 Door Inoperative		No.3 Door Inoperative		No.4 Door Inoperative	
Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked
A	35	A	0	A	0	A	0
B	0	B	38	B	21	B	0
C	0	C	0	C	17	C	38
Total	35	Total	38	Total	38	Total	38

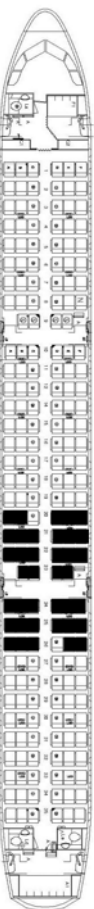
Exit 1 inop



Exit 2 inop



Exit 3 inop



Exit 4 inop

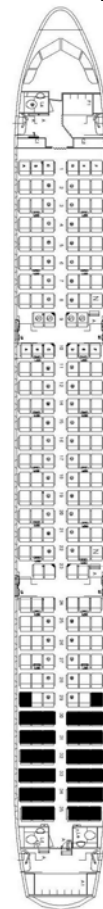


Diagram 4. HL7730, HL7731, HL7735, HL7763 Seat Block Layout With Inoperative Door

NOTE : Shaded area indicates the number of seats to be blocked.

No.1 Door Inoperative		No.2 Door Inoperative		No.3 Door Inoperative		No.4 Door Inoperative	
Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked
A	12	A	0	A	0	A	0
B	0	B	33	B	11	B	0
C	0	C	0	C	22	C	33
Total	12	Total	33	Total	33	Total	33

Exit 1 inop

Exit 2 inop

Exit 3 inop

Exit 4 inop

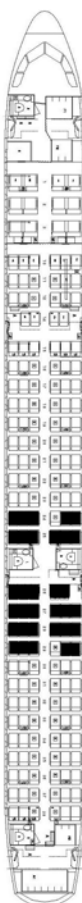


Diagram 5. HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on Seat Block Layout With Inoperative Door

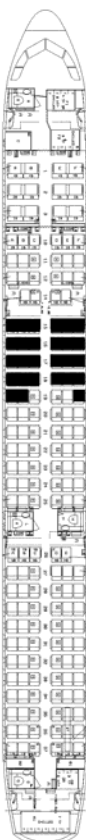
NOTE : Shaded area indicates the number of seats to be blocked.

No.1 Door Inoperative		No.2 Door Inoperative		No.3 Door Inoperative		No.4 Door Inoperative	
Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked
A	6	A	0	A	0	A	0
B	0	B	27	B	11	B	0
C	0	C	0	C	16	C	27
Total	6	Total	27	Total	27	Total	27

Exit 1 inop



Exit 2 inop



Exit 3 inop



Exit 4 inop

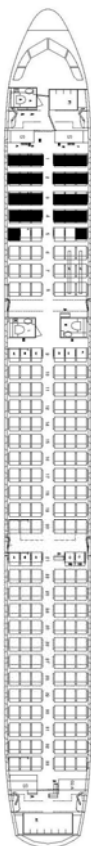


Diagram 6. HL7767 Seat Block Layout With Inoperative Door

NOTE : Shaded area indicates the number of seats to be blocked.

No.1 Door Inoperative		No.2 Door Inoperative		No.3 Door Inoperative		No.4 Door Inoperative	
Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked
A	26	A	0	A	0	A	0
B	0	B	33	B	11	B	0
C	0	C	0	C	22	C	33
Total	26	Total	33	Total	33	Total	33

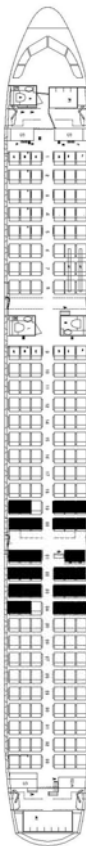
Exit 1 inop



Exit 2 inop



Exit 3 inop



Exit 4 inop

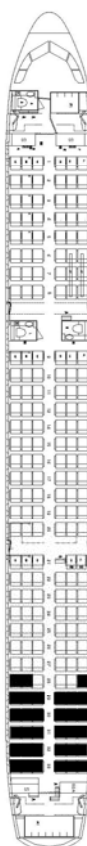


Diagram 7. H8236 Seat Block Layout With Inoperative Door

NOTE : Shaded area indicates the number of seats to be blocked.

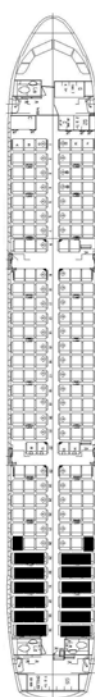
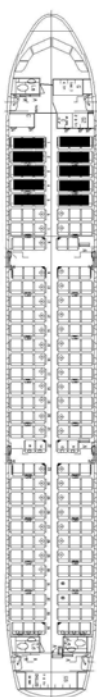
No.1 Door Inoperative		No.2 Door Inoperative		No.3 Door Inoperative		No.4 Door Inoperative	
Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked	Zone	Number of Seat Blocked
A	30	A	0	A	0	A	0
B	0	B	38	B	21	B	0
C	0	C	0	C	17	C	38
Total	30	Total	38	Total	38	Total	38

Exit 1 inop

Exit 2 inop

Exit 3 inop

Exit 4 inop



Reference(s)

(o) *OpsProc 52-10-01A Cabin Passenger Door/Emergency Exit*

Applicable to: ALL

To ensure that:

- All crew members are briefed on the location and condition of the affected door/exit, passenger distribution and modified cabin safety procedures;
- Where the affected door/exit can be opened, the briefing should address the possible use of the door for emergency evacuation in certain circumstances;
- The affected emergency exit, escape paths, and blocked seating layout are checked before each take-off and landing;
- The pre-take-off briefing to passengers accurately represents the current state and condition of the aircraft's escape facilities;
- A verbal briefing by cabin crew, or a briefing using automatic audio/visual presentation, or a briefing by reference to a briefing card, is immediately complemented by a verbal/public announcement to inform passengers that a particular door/exit is inoperative and displays an appropriate placard.

(m) *Refer to following procedure*

To ensure that:

- Affected door/exit is closed and locked if the closing/locking function is not affected;
- If the closing/locking mechanism is affected, the door is secured closed and locked;
- A conspicuous barrier, strap or rope and a placard stating 'DO NOT USE' are placed across the affected door/exit, as applicable, prior to passenger boarding;
- Associated door/exit markings, signs and lights are obscured or removed.

52-10-02

Overwing Emergency Exit

Applicable to: A320

52-10-02A

Repair interval	Nbr installed	Nbr required	Procedure
A	4	3	(o)(m)

One may be inoperative for a maximum of 5 flights provided:

- 1) All cabin passenger doors are operative, and
- 2) The number of passengers carried and the position of the seats which they occupy is in accordance with the diagrams of MEL item 52-10-01, and
 Note: If an overwing emergency exit slide or common exit sign of twin overwing emergency exits is inoperative, apply 'Exit 2A&2B inop' in diagrams to block seats.
- 3) Adequate cabin safety procedures are established and used, and
- 4) Affected door/exit is closed and locked, and
- 5) The affected door/exit is not used for passenger boarding, nor for any nonemergency purpose while passengers are on board, and
- 6) Affected door/exit is marked with a placard to prohibit utilization, as applicable, and
- 7) All the door/exit markings, signs and lights associated with the affected door/exit must be obscured, as applicable.

Note: 1. *Weight and balance manifest must be revised as necessary to ensure proper loading limits are observed.*

2: *Cabin attendants may be stationed in vicinity of each door within blocked area.*

Reference(s)

(o) *OpsProc 52-10-02A Overwing Emergency Exit*

Applicable to: ALL

To ensure that:

- All crew members are briefed on the location and condition of the affected door/exit, passenger distribution and modified cabin safety procedures;
- Where the affected door/exit can be opened, the briefing should address the possible use of the door for emergency evacuation in certain circumstances;
- The affected emergency exit, escape paths, and blocked seating layout are checked before each take-off and landing;
- The pre-take-off briefing to passengers accurately represents the current state and condition of the aircraft's escape facilities;
- A verbal briefing by cabin crew, or a briefing using automatic audio/visual presentation, or a briefing by reference to a briefing card, is immediately complemented by a verbal/public announcement to

inform passengers that a particular door/exit is inoperative and displays an appropriate placard.

(m) *Refer to following procedure*

To ensure that:

- Affected door/exit is closed and locked if the closing/locking function is not affected;
- If the closing/locking mechanism is affected, the door is secured closed and locked;
- A conspicuous barrier, strap or rope and a placard stating 'DO NOT USE' are placed across the affected door/exit, as applicable, prior to passenger boarding;
- Associated door/exit markings, signs and lights are obscured or removed.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-10 - Passenger/Crew Door

52-10-03	Passenger Exit Stop Fitting

Applicable to: ALL

52-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	56~104	52~96	

A maximum of one per exit may be inoperative provided that the flight is not pressurized.

52-10-04

Door Damper Function

Applicable to: A320

52-10-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	

One or more may be inoperative.

52-10-04

Door Damper Function

Applicable to: A321

52-10-04A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	

One or more may be inoperative.

52-10-05

Door Emergency Opening Function

Applicable to: A320

52-10-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	–	

One or more may be inoperative provided that the affected door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

52-10-05

Door Emergency Opening Function

Applicable to: A321

52-10-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

One or more may be inoperative provided that the affected door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

52-10-06

DOOR PRESS LOW Message on the Programming and Test Panel
 (PTP) STATUS Page

Applicable to: HL7737, HL7738

52-10-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	(m)

One or more messages may be displayed provided that the door bottle pressure is checked on the associated bottle pressure gauge before the first MEL dispatch and then every 8 days.

_____Reference(s)_____

(m) Refer to AMM 52-00-00-040-001

52-10-06

DOOR PRESS LOW Message on the Programming and Test Panel
 (PTP) STATUS Page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7767, HL8236

52-10-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	(m)

One or more messages may be displayed provided that the door bottle pressure is checked on the associated bottle pressure gauge before the first MEL dispatch and then every 8 days.

_____Reference(s)_____

(m) Refer to AMM 52-00-00-040-001

52-10-06

CHECK DOOR PRESSURE Message on the Flight Attendant Panel (FAP)

Applicable to: HL7769, HL7772, HL7773, HL7776, HL7788

52-10-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	4	0	(m)

One or more messages may be displayed provided that the door bottle pressure is checked on the associated bottle pressure gauge before the first MEL dispatch and then every 8 days.

_____Reference(s)_____

(m) Refer to AMM 52-00-00-040-003

52-10-06

CHECK DOOR PRESSURE Message on the Flight Attendant Panel (FAP)

Applicable to: HL7763, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

52-10-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	8	0	(m)

One or more messages may be displayed provided that the door bottle pressure is checked on the associated bottle pressure gauge before the first MEL dispatch and then every 8 days.

_____Reference(s)_____

(m) Refer to AMM 52-00-00-040-003

52-10-07

Passenger Door Stay Mechanism

Applicable to: A320

52-10-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	–	

One or more may be inoperative provided that the affected door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

52-10-07

Passenger Door Stay Mechanism

Applicable to: A321

52-10-07A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	–	

One or more may be inoperative provided that the affected door is considered inoperative.
Refer to Item 52-10-01 Cabin Passenger Door

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-10 - Passenger/Crew Door

52-10-08	CABIN PRESSURE light (on Doors)

Applicable to: A320

52-10-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative.

52-10-08	CABIN PRESSURE light (on Doors)

Applicable to: A321

52-10-08A

Repair interval	Nbr installed	Nbr required	Procedure
C	8	0	

One or more may be inoperative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-30 - Cargo Door

52-30-01	Cargo Door (FWD, AFT and BULK)

Applicable to: ALL

52-30-01A Cargo door indicated locked on the DOOR/OXY SD page

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	

One or more may be inoperative in the closed and locked position provided that they are indicated locked on the DOOR/OXY SD page.

52-30-01B Visual check of the cargo door

Repair interval	Nbr installed	Nbr required	Procedure
C	3	0	(m)

One or more may be inoperative in the closed and locked position provided that the associated cargo door is visually checked to be closed and locked before each flight.

_____Reference(s)_____

(m) Refer to AMM 52-30-00-040-001

52-30-02

Cargo Door Actuator

Applicable to: ALL

52-30-02A A maximum of one actuator inoperative per cargo door

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

A maximum of one per cargo door may be inoperative provided that:

- 1) The integrity of the yellow hydraulic system is not affected, and
- 2) The wind velocity during loading and unloading operations is below 30 kt, and
- 3) The operation of the door with a single actuator is limited to 100 open/close cycles.

52-30-02B A maximum of one actuator inoperative per cargo door, preventing door operation

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	(m)

A maximum of one actuator per cargo door may be inoperative provided that:

- 1) The affected actuator is deactivated, and
- 2) The integrity of the yellow hydraulic system is not affected, and
- 3) The wind velocity during loading and unloading operations is below 30 kt, and
- 4) The operation of the door with a single actuator is limited to 100 open/close cycles.

_____Reference(s)_____

(m) Refer to AMM 52-36-00-040-001

52-30-02C Two actuators inoperative per cargo door

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(m)

One or more may be inoperative provided that:

- 1) The integrity of the yellow hydraulic system is not affected, and
- 2) The associated cargo door is operated with a crane.

_____Reference(s)_____

(m) Refer to AMM 52-36-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-30 - Cargo Door

52-30-03	Cargo Door Electrical Control

Applicable to: ALL

52-30-03A Cargo door operated using hand pump

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more may be inoperative provided that the associated cargo doors can be operated using the hand pump.

52-30-03B Cargo door considered inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or more may be inoperative provided that the associated cargo doors are considered inoperative.

Refer to Item 52-30-01 Cargo Door

52-30-04

Cargo Door Locking Hooks and Spools (Rollers)

Applicable to: ALL

52-30-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	13	10	

A maximum of one locking hook or one spool per cargo door may be inoperative provided that:

- 1) All the others have no damage, and
- 2) The flight is not pressurized.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-30 - Cargo Door

52-30-05	Cargo Door Hand Pump

Applicable to: ALL

52-30-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	

May be inoperative provided that the integrity of the yellow hydraulic system is not affected.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-30 - Cargo Door

52-30-06	Cargo Door Drift Pin

Applicable to: ALL

52-30-06A

Repair interval	Nbr installed	Nbr required	Procedure
A	4	0	

One or both on each cargo door may be inoperative for one flight.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-30 - Cargo Door

52-30-07	Cargo Doors Open/Locked Indicator light

Applicable to: ALL

52-30-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	(o)

One or both may be inoperative provided that the associated cargo door is in the fully open position during loading and unloading operations.

_____Reference(s)_____

(o) *OpsProc 52-30-07A Cargo Door Open/Locked Indicator light*

Applicable to: ALL

ON GROUND

- When the Cargo Door Open/Locked Indicator light is inoperative, it is necessary to inform the ground personnel:
 - To visually check that the affected cargo door is in the fully open position, with no downward movement after releasing the lever of the manual selector valve.
 - To visually check that the lever of the manual selector valve stays in the neutral position.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-33 - Bulk Cargo Compartment Door

52-33-01	Cargo Door Balance Mechanism

Applicable to: ALL

52-33-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(m)

- May be inoperative or damaged provided that:
- 1) A safety hold device is used to maintain the cargo door in the open position during loading and unloading operations, and
 - 2) The associated cargo door is visually checked to be closed and locked.

_____Reference(s)_____

(m) Refer to AMM 52-33-00-040-001

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-51 - Reinforced Cockpit Door (CDLS)

52-51-01	CDLS Normal System (Normal Control Unit, Switch and Lights on the CKPT DOOR Panel, Buzzer, Keypad)

Applicable to: ALL EXCEPT HL7763, HL8236

52-51-01B

Repair interval	Nbr installed	Nbr required	Procedure
—	1	1	

Must be operative

52-51-01	CDLS Normal System (Normal Control Unit, Switch and Lights on the CKPT DOOR Panel, Buzzer, Keypad)

Applicable to: HL7763, HL8236

52-51-01B

Repair interval	Nbr installed	Nbr required	Procedure
A	1	0	(o)(m)

May be inoperative provided that:

- 1) The CDLS is deactivated, and
- 2) The deadbolt operates normally and is used to lock the door, and
- 3) For locking and unlocking the door, use the dead bolt, and
- 4) Repairs are made within 2 flight days.

_____Reference(s)_____

(o) Refer to followings

1. Cockpit crew must brief cabin crew that CDLS or its components are inoperative, and the cockpit crew must remind the cabin crew to use the cabin interphone system to communicate with cockpit crew to request access to the cockpit.
 2. Two persons must be permanently present in the cockpit throughout the flight.
- In case of only two pilots in the cockpit, position a cabin crew in the cockpit for the door lock or unlock if a flight crew have to leave the cockpit necessarily.

(m) Refer to AMM 52-51-00-040-006

52-51-03

CDLS Buzzer

Applicable to: ALL

52-51-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The interphone system between the cabin and the cockpit is operative, and
- 2) The CDLS keypad is deactivated.

Reference(s)

(o) *Refer to followings*

1. Before the flight, flight crew will brief flight attendants that the keypad is inoperative and remind the cabin crew to use the cabin interphone system to communicate with cockpit crew to request access to the cockpit.
2. In flight.
 - A. At least two people must always be present in the cockpit throughout the entire flight. Refer to Cabin Crew Manual 2.50.
 - B. Use the routine access via the cabin/cockpit interphone system because keypad is deactivated.

(m) *Refer to AMM 52-51-00-040-007*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-51 - Reinforced Cockpit Door (CDLS)

52-51-04	CDLS Keypad

Applicable to: ALL

52-51-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)(m)

May be inoperative provided that:

- 1) The interphone system between the cabin and the cockpit is operative, and
- 2) The CDLS keypad is deactivated.

_____Reference(s)_____

(o) *OpsProc 52-51-04A CDLS Keypad*

Applicable to: ALL

1. Before the flight, flight crew will brief flight attendants that the keypad is inoperative and remind the cabin crew to use the cabin interphone system to communicate with cockpit crew to request access to the cockpit.
2. In flight.
 - A. At least two people must always be present in the cockpit throughout the entire flight. Refer to Cabin Crew Manual 2.50.
 - B. Use the routine access via the cabin/cockpit interphone system because keypad is deactivated.

(m) *Refer to AMM 52-51-00-040-007*

52-51-05

CDLS Keypad Green and Red LEDs

Applicable to: ALL

52-51-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

May be inoperative

_____Reference(s)_____

(o) Refer to followings

1. Before the flight, flight crew will brief flight attendants that the keypad is inoperative and remind the cabin crew to use the cabin interphone system to communicate with cockpit crew to request access to the cockpit.
2. In flight.
 - A. At least two people must always be present in the cockpit throughout the entire flight. Refer to Cabin Crew Manual 2.50.
 - B. Use the routine access via the cabin/cockpit interphone system.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-51 - Reinforced Cockpit Door (CDLS)

52-51-06	CDLS Door Release Strike (Catch, Spring, Solenoid, Bolt)

Applicable to: ALL

52-51-06A

Repair interval	Nbr installed	Nbr required	Procedure
D	3	2	(m)

May be inoperative.

Note: Apply the maintenance procedure only when the inoperative door release strike is failed in the locked position.

_____Reference(s)_____

(m) Refer to AMM 52-51-00-040-010

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-51 - Reinforced Cockpit Door (CDLS)

52-51-07	CDLS Deadbolt

Applicable to: HL7763, HL8236

52-51-07A

Repair interval	Nbr installed	Nbr required	Procedure
D	1	0	

May be inoperative provided that CDLS is operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-53 - COCKPIT DOOR Panel on the Center Pedestal

52-53-01	COCKPIT DOOR FAULT light

Applicable to: ALL

52-53-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative.

_____Reference(s)_____

(o) Refer to followings

1. Before the first flight under this item: NORM and LOCK functions are verified to operate normally.
 - A. NORM and UNLOCK functions are verified to operate normally.
 - 1) Close the cockpit door and verify by manual inspection that it is locked when the toggle switch of the COCKPIT DOOR panel is in the NORM position.
 - 2) Ask a flight crew to perform the emergency access procedure (FCOM PRO-ABN-25).
 - 3) Set the toggle switch of the COCKPIT DOOR panel to the LOCK position.
 - 4) Verify that the door remains closed and locked and the keypad and buzzer are inhibited

52-53-02

COCKPIT DOOR OPEN light

Applicable to: ALL

52-53-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	1	0	(o)

May be inoperative

Reference(s)

(o) Refer to followings

Before the flight: Flight crew will brief flight attendants that the OPEN light function is inoperative.

NOTE : A minimum of two persons has to be permanently maintained in the cockpit for the duration of the flight. Refer to Cabin Crew Manual 2.50.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 52 - DOORS 52-53 - COCKPIT DOOR Panel on the Center Pedestal

52-53-03	LOCK Function of the COCKPIT DOOR sw

Applicable to: ALL

52-53-03A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	(o)(m)

May be inoperative provided that:

- 1) The interphone system between the cabin and the cockpit is operative, and
- 2) CDLS keypad is deactivated.

_____Reference(s)_____

(o) *Refer to followings*

Before the flight

Cockpit crew will brief cabin crew that the keypad is inoperative. Before departure, remind the cabin crew to use the cabin interphone to communicate with cockpit crew to request access to the cockpit.

In flight

Use the routine access via the cabin/cockpit interphone system because keypad is deactivated.

(m) *Refer to AMM 52-51-00-040-002*

52-53-04

UNLOCK Function of the COCKPIT DOOR sw

Applicable to: ALL

52-53-04A

Repair interval	Nbr installed	Nbr required	Procedure
B	1	0	(o)

May be inoperative provided the interphone system the cabin and the cockpit is operative.

Reference(s) _____

(o) Refer to followings

1. Before the flight: Flight crew will brief flight attendants that the unlock function is inoperative.
 2. Before the first flight under this item: NORM and LOCK functions are verified to operate normally.
 - A. Close the cockpit door and verify by manual inspection that it is locked when the toggle switch of the COCKPIT DOOR panel is in the NORM position.
 - B. Ask a flight crew to perform the emergency access procedure (FCOM PRO-ABN-25).
 - C. Set the toggle switch of the COCKPIT DOOR panel to the LOCK position.
 - D. Verify that the door remains closed and locked and the keypad and buzzer are inhibited.
- NOTE : A minimum of two persons has to be permanently maintained in the cockpit for the duration of the flight. Refer to Cabin Crew Manual 2.50.

ATA 56

Windows

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 56 - WINDOWS 56-10 - Cockpit

56-10-01	Front Windshield

Applicable to: ALL

56-10-01A For SPS Windshields (Except P/N STA320-1-3-1 and STA320-2-3-1) and for PPG Windshields and for PAL Windshields (Only P/N PAL 06282 & 06283)

Repair interval	Nbr installed	Nbr required	Procedure
A	2	2	(o)(m)

One front windshield external ply may be cracked for ten flights provided that:

- 1) The other front windshield is not damaged, and
- 2) The associated windshield heating is deactivated, and
- 3) The visibility through the associated front windshield is acceptable to the flight crew, and
- 4) The aircraft is not operated in known or forecast icing conditions.

Note: A cockpit window with minor damages (as described in the associated maintenance procedure) is considered operative, but the vision through this cockpit window must be acceptable to the flight crew.

_____Reference(s)_____

(o) OpsProc 56-10-01A Front Windshield

Applicable to: ALL

FLIGHT PREPARATION/LIMITATIONS

- When PF side is affected:
Maximum landing capability is CAT 1



- When PM side is affected:

Maximum landing capability is not affected and is still CAT 3 DUAL.

(m) Refer to AMM 56-10-00-040-001

56-10-01B For SPS Windshields (Except P/N STA320-1-3-1 and STA320-2-3-1) and for PPG Windshields and for PAL Windshields (Only P/N PAL 06282 & 06283)

Repair interval	Nbr installed	Nbr required	Procedure
C	2	2	(o)(m)

One front windshield may have burn spots in the bus bar area beyond the limits provided that:

- 1) The other front windshield is not damaged, and
- 2) The associated windshield heating is deactivated, and
- 3) The visibility through the associated front windshield is acceptable to the flight crew, and
- 4) The aircraft is not operated in known or forecast icing conditions.

Note: A cockpit window with minor damages (as described in the associated maintenance procedure) is considered operative, but the vision through this cockpit window must be acceptable to the flight crew.

_____Reference(s)_____

(o) OpsProc 56-10-01B Front Windshield

Refer to item 56-10-01A (o)procedure

(m) Refer to AMM 56-10-00-040-001

56-10-02

Lateral Fixed/Sliding Window

Applicable to: ALL

56-10-02B For Glass Window (SPS Supplier (P/N starting with SPS) and PPG Supplier (P/N starting with NP))

Repair interval	Nbr installed	Nbr required	Procedure
A	4	4	

External ply may be cracked for one flight provided that:

- 1) The other lateral windows are not damaged, and
- 2) The visibility through the affected lateral window is acceptable to the flight crew.

Note: A cockpit window with minor damages (as described in the associated inspection procedure) is considered operative, but the vision through this cockpit window must be acceptable to the flight crew.

56-10-02C For Glass Window (SPS Supplier (P/N starting with SPS) and PPG Supplier (P/N starting with NP))

Repair interval	Nbr installed	Nbr required	Procedure
C	4	4	

One or more lateral windows may have burn spots in the bus bar area provided that:

- 1) The diameter of the mark is less than 10 mm, and
- 2) The visibility through the affected lateral window is acceptable to the flight crew.

Note: A cockpit window with minor damages (as described in the associated inspection procedure) is considered operative, but the vision through this cockpit window must be acceptable to the flight crew.

56-10-03	Sliding Window Opening/Closing Mechanism

Applicable to: ALL

56-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 56 - WINDOWS 56-20 - Cabin

56-20-01	Cabin Window

Applicable to: ALL

56-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	80 ~ 94	0	(m)

One or more may be cracked provided that the flight is not pressurized.

_____Reference(s)_____

(m) Refer to AMM 56-21-13-200-001

ATA 70

ENGINE

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 70 - ENGINE 70-00 - MAINTENANCE Messages on the STATUS SD page

70-00-01	ENG FADEC <u>MAINTENANCE</u> Message

Applicable to: ALL

70-00-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

ENG FADEC MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 70 - ENGINE 70-00 - MAINTENANCE Messages on the STATUS SD page

70-00-02	ENG EIU <u>MAINTENANCE</u> Message

Applicable to: ALL

70-00-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

ENG EIU MAINTENANCE message may be displayed on the STATUS SD page.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 70 - ENGINE 70-00 - MAINTENANCE Messages on the STATUS SD page

70-00-03	ENG EVMU <u>MAINTENANCE</u> Message

Applicable to: ALL

70-00-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	–	–	

ENG EVMU MAINTENANCE message may be displayed on the STATUS SD page.

ATA 73

Engine Fuel & Control

73-07-01

F. USED Indication on the ENGINE SD page

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236

73-07-01A One indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that the fuel quantity indications of the associated tanks are operative on the FUEL SD page.

73-07-01B Both indications inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The fuel quantity indications of the associated tanks are operative on the FUEL SD page.

73-07-01

Fuel USED Indication on the ENGINE SD page

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

73-07-01A One indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that:

- 1) The fuel quantity indication on the associated tanks are operative on the FUEL SD page, and
- 2) The Fuel Used 1+2 Indication is considered inoperative.

Refer to Item 28-07-06-02 Fuel Used 1+2 Indication on the FUEL SD page.

73-07-01B Both indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

Both may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The fuel quantity indication on the associated tanks are operative on the FUEL SD page, and
- 3) The Fuel Used 1+2 Indication is considered inoperative.

Refer to Item 28-07-06-02 Fuel Used 1+2 Indication on the FUEL SD page.

73-07-02

Fuel Filter Clog Indication on the ENGINE SD page

Applicable to: ALL

73-07-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

73-08-01

Fuel Flow Indication on the EWD

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7737, HL7738, HL7767, HL8236, HL8279, HL8038, HL8039 and later on

73-08-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided contingency fuel 3% operations should not be conducted.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

_____Reference(s)_____

(o) Refer to followings

OPERATIONS NOTE

Contingency fuel 3% operations should be decided by the dispatcher.

Contact the dispatcher

73-08-01

Fuel Flow Indication on the EWD

Applicable to: HL7763, HL7769, HL7772, HL7773, HL7776, HL7788, HL7789, HL7790, HL8004, HL8018, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8280, HL8281

73-08-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that the Fuel Flow 1+2 Indication on the FUEL SD page is considered inoperative.

Refer to Item 28-07-05-01 Fuel Flow 1+2 Indication on the FUEL SD page.

FUEL PENALTY ITEM

Contact to OCC or dispatcher for fuel planning.

_____Reference(s)_____

(o) Refer to followings

OPERATIONS NOTE

Contingency fuel 3% operations should be decided by the dispatcher.

Contact the dispatcher

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 73 - ENGINE FUEL AND CONTROL 73-09 - ECAM Alert

73-09-01	<u>ENG 1(2)</u> FUEL FILTER CLOG Alert

Applicable to: ALL

73-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be displayed provided that:

- 1) The alert is confirmed to be false by troubleshooting, and
- 2) The associated filter is replaced every day.

_____Reference(s)_____

(m) Refer to AMM 73-30-00-040-042

73-10-01

Fuel Return Valve

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

73-10-01A Inoperative in closed position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative in the closed position on one engine provided that the APU and the AC auxiliary generation are operative.

73-10-01B Inoperative in open position

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative in the open position provided that the four wing tank pumps are operative.

73-10-03

Fuel Metering Valve

Applicable to: ALL

73-10-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 73 - ENGINE FUEL AND CONTROL 73-10 - Distribution

73-10-04	Engine HP Fuel Valve

Applicable to: ALL

73-10-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Both must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 73 - ENGINE FUEL AND CONTROL 73-20 - Controlling

73-20-01	Flex Takeoff Mode

Applicable to: ALL

73-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
D	2	0	

May be inoperative on one or both engines provided that the maximum thrust is used for takeoff.

73-20-04

EPR Control Mode

Applicable to: ALL

73-20-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

The EPR control mode may be inoperative on one or both engines provided that:

- 1) EDTO is not conducted, and
- 2) The rated N1 control mode is operative on both engines (ENG 1(2) N1 DEGRADED MODE message is not displayed on the STATUS SD page), and
- 3) The Flight Manual performance penalties are applied.

Note: When the EPR Control Mode is inoperative, the Autothrust is inoperative.
 Refer to Item 22-30-01 Autothrust (A/THR).

Reference(s)

(o) OpsProc 73-20-04A EPR Control Mode

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

GENERAL INFORMATION

The autothrust function is inoperative.

α floor is not available.

β target is not available.

Bump (if installed) is inoperative.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The following method may be used for takeoff performance determination if no takeoff data (Predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.

Launch PEP.

Single engine cruise:

See "N1 MODE THRUST CONTROL" in Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL.

Go-Around performance:

See "N1 MODE THRUST CONTROL" in Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL.

BEFORE ENGINE START

- ENG 1 N1 MODE pb-sw ON
- ENG 2 N1 MODE pb-sw ON

FOR TAKEOFF

Flexible takeoff is not permitted.

Applicable to: PRE SB 22-1463 FOR HL7703

GENERAL INFORMATION

The autothrust function is inoperative.

α floor is not available.

β target is not available.

Bump (if installed) is inoperative.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The following method may be used for takeoff performance determination if no takeoff data (Predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.

Method:

- Determine the MTOW and the associated speeds in normal conditions.
- Apply the following decrements function of the MTOW in normal conditions:

Normal TOW (kg/lb)	45 000 / 100 000	50 000 / 110 000	55 000 / 120 000	60 000 / 130 000	65 000 / 140 000	70 000 / 160 000	75 000 / 170 000	80 000 / 180 000	85 000 / 190 000
Weight decrement (kg/lb)	5 900 / 13 000	6 500 / 14 300	7 200 / 15 600	7 800 / 16 900	8 500 / 18 200	9 100 / 20 800	9 800 / 22 100	10 400 / 23 400	11 000 / 24 700
V1 , VR and V2 decrement (kt)	8	9	9	10	11	12	13	14	15

Check that the takeoff speeds are equal to or above the minimum control speeds.

If no minimum speed value is available on the RTOW charts, use the conservative values provided in Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS).

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- If the corrected V1 is lower than the minimum V1 :

Take this last value as V1 .

Further decrease the weight by 1 000 kg (2 200 lb) per kt difference between both values.

Decrease VR and V2 by 1.3 kt per kt increase in V1

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- If the corrected VR is lower than the minimum VR :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMU / VMCA limitation).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

- If the actual TOW is lower than the MTOW calculated using above method:
 - Determine V1 , VR and V2 for the MTOW
 - Decrease V1 , VR and V2 by 1.3 kt per 1 000 kg (0.6 kt per 1 000 lb) difference between the MTOW and the actual TOW

V1 , VR , and V2 must not decrease below the minimum speeds defined above.

Single engine cruise:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL*.

Go-Around performance:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL*.

BEFORE ENGINE START

- ENG 1 N1 MODE pb-sw ON
- ENG 2 N1 MODE pb-sw ON

FOR TAKEOFF

Flexible takeoff is not permitted.

The takeoff must be performed without FD s as follows:

- Set both FD s to OFF
- Select V2 on the FCU
- Acquire pitch attitude about 15 ° to maintain the speed target with two engines operative, about 12.5 ° in the case of an engine failure.
- Above 100 ft AGL , when appropriate:
 - Set both FD s to ON (basic guidance modes engage)
 - Engage OP CLB and select appropriate speed and lateral mode
 - AP use as required.

- When reaching the thrust reduction altitude :
Set both thrust levers to CL detent.
- When reaching the acceleration altitude :
Resume normal acceleration and climb procedures.

Note: CLB or LVR CLB will not flash on the FMA as the A/THR is not available.

GO-AROUND

Note: To perform a manual Go-Around with no FD , the PF simultaneously announces his/her intention, disengages the AP , applies TOGA and initiates the rotation.

The Go-Around must be performed without FD s as follows:

- Set AP (if engaged) to OFF
- Set both FD s (if engaged) to OFF
- Acquire pitch attitude about 15 ° to maintain the speed target with two engines operative, about 12.5 ° in the case of an engine failure.
- Adjust pitch to maintain VAPP .
- When appropriate:
 - Set both FD s to ON (basic guidance modes engage)
 - Engage OP CLB and select appropriate speed and lateral mode
 - AP use as required.
- When reaching the thrust reduction altitude :
Set both thrust levers to CL detent.
- When reaching the acceleration altitude :
Resume normal acceleration and climb procedures.

Note: CLB or LVR CLB will not flash on the FMA as the A/THR is not available. FMS does not engage the GO AROUND phase.

Applicable to: PRE SB 22-1463 FOR HL7731, HL7735, HL7767, HL8255, HL8257, HL8265, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

GENERAL INFORMATION

The autothrust function is inoperative.
 α floor is not available.
 β target is not available.
Bump (if installed) is inoperative.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The following method may be used for takeoff performance determination if no takeoff data

(Predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.

Method:

- Determine the MTOW and the associated speeds in normal conditions.
- Apply the following decrements function of the MTOW in normal conditions:

Normal TOW (kg/lb)	55 000 / 120 000	60 000 / 130 000	65 000 / 140 000	70 000 / 150 000	75 000 / 160 000	80 000 / 170 000	85 000 / 180 000	90 000 / 190 000
Weight decrement (kg/lb)	7 150 / 15 600	7 800 / 16 900	8 450 / 18 200	9 700 / 19 500	9 750 / 20 800	10 400 / 22 100	11 050 / 23 400	11 570 / 24 700
V1 , VR and V2 decrement (kt)	9	10	10	11	11	11	11	12

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- If the corrected V1 is lower than the minimum V1 :

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 620 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- If the corrected VR is lower than the minimum VR :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation.

Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

- If the actual TOW is lower than the MTOW calculated using above method:

The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Single engine cruise:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL*.

Go-Around performance:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL*.

BEFORE ENGINE START

- ENG 1 N1 MODE pb-sw ON
- ENG 2 N1 MODE pb-sw ON

FOR TAKEOFF

Flexible takeoff is not permitted.

The takeoff must be performed without FD s as follows:

- Set both FD s to OFF
- Select V2 on the FCU
- Acquire pitch attitude about 15 ° to maintain the speed target with two engines operative, about 12.5 ° in the case of an engine failure.
 - Above 100 ft AGL , when appropriate:
 - Set both FD s to ON (basic guidance modes engage)
 - Engage OP CLB and select appropriate speed and lateral mode
 - AP use as required.
 - When reaching the thrust reduction altitude :
 - Set both thrust levers to CL detent.
 - When reaching the acceleration altitude :
 - Resume normal acceleration and climb procedures.

Note: CLB or LVR CLB will not flash on the FMA as the A/THR is not available.

GO-AROUND

Note: To perform a manual Go-Around with no FD , the PF simultaneously announces his/her intention, disengages the AP , applies TOGA and initiates the rotation.

The Go-Around must be performed without FD s as follows:

- Set AP (if engaged) to OFF
- Set both FD s (if engaged) to OFF
- Acquire pitch attitude about 15 ° to maintain the speed target with two engines operative, about 12.5 ° in the case of an engine failure.
- Adjust pitch to maintain VAPP .
 - When appropriate:
 - Set both FD s to ON (basic guidance modes engage)
 - Engage OP CLB and select appropriate speed and lateral mode

- AP use as required.
- When reaching the thrust reduction altitude :
Set both thrust levers to CL detent.
- When reaching the acceleration altitude :
Resume normal acceleration and climb procedures.

Note: CLB or LVR CLB will not flash on the FMA as the A/THR is not available. FMS does not engage the GO AROUND phase.

Applicable to: PRE SB 22-1463 FOR HL7738, HL7769, HL7776

GENERAL INFORMATION

The autothrust function is inoperative.

α floor is not available.

β target is not available.

Bump (if installed) is inoperative.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The following method may be used for takeoff performance determination if no takeoff data (Predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.

Method:

- Determine the MTOW and the associated speeds in normal conditions.
- Apply the following decrements function of the MTOW in normal conditions:

Normal TOW kg (lb)	40 000 (90 000)	45 000 (100 000)	50 000 (110 000)	55 000 (120 000)	60 000 (130 000)
Weight decrement kg (lb)	5 200 (11 700)	5 900 (13 000)	6 500 (14 300)	7 200 (15 600)	7 800 (16 900)
V1 , VR and V2 decrement (kt)	7	8	9	9	10

Normal TOW kg (lb)	65 000 (140 000)	70 000 (160 000)	75 000 (170 000)	80 000 (180 000)	85 000 (190 000)
Weight decrement kg (lb)	8 500 (18 200)	9 100 (20 800)	9 800 (22 100)	10 400 (23 400)	11 000 (24 700)
V1 , VR and V2 decrement (kt)	11	12	13	14	15

Check that the takeoff speeds are equal to or above the minimum control speeds.

If no minimum speed value is available on the RTOW charts, use the conservative values

provided in Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS).

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- If the corrected V1 is lower than the minimum V1 :

Take this last value as V1 .

Further decrease the weight by 1 000 kg (2 200 lb) per kt difference between both values.

Decrease VR and V2 by 1.3 kt per kt increase in V1

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- If the corrected VR is lower than the minimum VR :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMU / VMCA limitation).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

- If the actual TOW is lower than the MTOW calculated using above method:

- Determine V1 , VR and V2 for the MTOW
- Decrease V1 , VR and V2 by 1.3 kt per 1 000 kg (0.6 kt per 1 000 lb) difference between the MTOW and the actual TOW

V1 , VR , and V2 must not decrease below the minimum speeds defined above.

Single engine cruise:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL.*

Go-Around performance:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL.*

BEFORE ENGINE START

- ENG 1 N1 MODE pb-sw ON
- ENG 2 N1 MODE pb-sw ON

FOR TAKEOFF

Flexible takeoff is not permitted.

The takeoff must be performed without FD s as follows:

- Set both FD s to OFF
- Select V2 on the FCU
- Acquire pitch attitude about 15 ° to maintain the speed target with two engines operative, about 12.5 ° in the case of an engine failure.
- Above 100 ft AGL , when appropriate:
 - Set both FD s to ON (basic guidance modes engage)
 - Engage OP CLB and select appropriate speed and lateral mode
 - AP use as required.
- When reaching the thrust reduction altitude :
Set both thrust levers to CL detent.
- When reaching the acceleration altitude :
Resume normal acceleration and climb procedures.

Note: CLB or LVR CLB will not flash on the FMA as the A/THR is not available.

GO-AROUND

Note: To perform a manual Go-Around with no FD , the PF simultaneously announces his/her intention, disengages the AP , applies TOGA and initiates the rotation.

The Go-Around must be performed without FD s as follows:

- Set AP (if engaged) to OFF
- Set both FD s (if engaged) to OFF
- Acquire pitch attitude about 15 ° to maintain the speed target with two engines operative, about 12.5 ° in the case of an engine failure.
- Adjust pitch to maintain VAPP.
- When appropriate:
 - Set both FD s to ON (basic guidance modes engage)
 - Engage OP CLB and select appropriate speed and lateral mode
 - AP use as required.
- When reaching the thrust reduction altitude :
Set both thrust levers to CL detent.
- When reaching the acceleration altitude :
Resume normal acceleration and climb procedures.

Note: CLB or LVR CLB will not flash on the FMA as the A/THR is not available. FMS does not engage the GO AROUND phase.

Applicable to: HL7594, HL7730, HL7763, HL7789, HL7790, HL8004, HL8018, HL8236, HL8256, HL8266
POST SB 22-1463 FOR A321

GENERAL INFORMATION

The autothrust function is inoperative.

α floor is not available.

β target is not available.

Bump (if installed) is inoperative.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The following method may be used for takeoff performance determination if no takeoff data (Predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.

Method:

- Determine the MTOW and the associated speeds in normal conditions.
- Apply the following decrements function of the MTOW in normal conditions:

Normal TOW (kg/lb)	55 000 / 120 000	60 000 / 130 000	65 000 / 140 000	70 000 / 150 000	75 000 / 160 000	80 000 / 170 000	85 000 / 180 000	90 000 / 190 000
Weight decrement (kg/lb)	7 150 / 15 600	7 800 / 16 900	8 450 / 18 200	9 700 / 19 500	9 750 / 20 800	10 400 / 22 100	11 050 / 23 400	11 570 / 24 700
V1 , VR and V2 decrement (kt)	9	10	10	11	11	11	11	12

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- If the corrected V1 is lower than the minimum V1 :

Take this last value as V1 .

Further decrease the weight by 3 000 kg (6 620 lb) per kt difference between both values.

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- If the corrected VR is lower than the minimum VR :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMCA limitation).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation.

Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

- If the actual TOW is lower than the MTOW calculated using above method:
 The speeds determined without failure and associated with the actual TOW may be retained provided that they are all lower than the speeds calculated using above method.

Single engine cruise:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL*.

Go-Around performance:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL*.

BEFORE ENGINE START

- ENG 1 N1 MODE pb-sw ON
- ENG 2 N1 MODE pb-sw ON

FOR TAKEOFF

Flexible takeoff is not permitted.

Applicable to: HL7737, HL7772, HL7773, HL7788 POST SB 22-1463 FOR A320

GENERAL INFORMATION

The autothrust function is inoperative.

α floor is not available.

β target is not available.

Bump (if installed) is inoperative.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The following method may be used for takeoff performance determination if no takeoff data (Predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available.

Method:

- Determine the MTOW and the associated speeds in normal conditions.

- Apply the following decrements function of the MTOW in normal conditions:

Normal TOW kg (lb)	40 000 (90 000)	45 000 (100 000)	50 000 (110 000)	55 000 (120 000)	60 000 (130 000)
Weight decrement kg (lb)	5 200 (11 700)	5 900 (13 000)	6 500 (14 300)	7 200 (15 600)	7 800 (16 900)
V1 , VR and V2 decrement (kt)	7	8	9	9	10

Normal TOW kg (lb)	65 000 (140 000)	70 000 (160 000)	75 000 (170 000)	80 000 (180 000)	85 000 (190 000)
Weight decrement kg (lb)	8 500 (18 200)	9 100 (20 800)	9 800 (22 100)	10 400 (23 400)	11 000 (24 700)
V1 , VR and V2 decrement (kt)	11	12	13	14	15

Check that the takeoff speeds are equal to or above the minimum control speeds.

If no minimum speed value is available on the RTOW charts, use the conservative values provided in Refer to FCOM/PER-TOF-TOD-25-20 MINIMUM V2 LIMITED BY VMU/VMCA (KT IAS).

Check that the corrected V1 is equal to or above the minimum V1 value shown on the RTOW chart (due to VMCG limitation).

- If the corrected V1 is lower than the minimum V1 :

Take this last value as V1 .

Further decrease the weight by 1 000 kg (2 200 lb) per kt difference between both values.

Decrease VR and V2 by 1.3 kt per kt increase in V1

Check that the corrected VR is equal to or above the minimum VR value shown on the RTOW chart (due to VMCA limitation).

- If the corrected VR is lower than the minimum VR :

Takeoff cannot be performed using this method.

Check that the corrected V2 is equal to or above the minimum V2 value shown on the RTOW chart (due to VMU / VMCA limitation).

- If the corrected V2 is lower than the minimum V2 :

Takeoff cannot be performed using this method.

- If the actual TOW is lower than the MTOW calculated using above method:

- Determine V1 , VR and V2 for the MTOW

- Decrease V1 , VR and V2 by 1.3 kt per 1 000 kg (0.6 kt per 1 000 lb) difference between the MTOW and the actual TOW
V1 , VR , and V2 must not decrease below the minimum speeds defined above.

Single engine cruise:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL.*

Go-Around performance:

See "N1 MODE THRUST CONTROL" in *Refer to FCOM/PER-THR-N1 MODE THRUST CONTROL.*

BEFORE ENGINE START

- ENG 1 N1 MODE pb-sw ON
- ENG 2 N1 MODE pb-sw ON

FOR TAKEOFF

Flexible takeoff is not permitted.

73-20-05

Minimum Idle on Ground

Applicable to: ALL

73-20-05A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative provided that the Flight Manual performance penalties are applied.

Reference(s)

(o) *OpsProc 73-20-05A Minimum Idle on Ground*

Applicable to: HL8038, HL8039, HL8059, HL8060 and later on

GENERAL INFORMATION

Continuous ignition is permanently on.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

The takeoff performance must be determined by using OCTOPUS program or other equivalent program with present failure case.

Launch PEP.

Landing performance:

No penalty.

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

GENERAL INFORMATION

Continuous ignition is permanently on.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

Use the following penalties for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available. Takeoff must be performed with full thrust.

	VMCG/VMCA limitation	No VMCG/VMCA limitation
Weight decrement (kg/lb)	2 900/6 400	400/900
V1, VR, V2 decrement (kt IAS)	0	1

Landing performance:

No penalty.

Applicable to: HL7594, HL7703

GENERAL INFORMATION

Continuous ignition is permanently on.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

Use the following penalties for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available. Takeoff must be performed with full thrust.

	VMCG/VMCA limitation	No VMCG/VMCA limitation
Weight decrement (kg/lb)	1 000/2 300	300/700
V1, VR, V2 decrement (kt IAS)	0	2

Landing performance:

No penalty.

Applicable to: HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8004, HL8018, HL8236, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281

GENERAL INFORMATION

Continuous ignition is permanently on.

FLIGHT PREPARATION/LIMITATIONS

Takeoff performance:

Use the following penalties for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case taken into account) is available. Takeoff must be performed with full thrust.

	VMCG/VMCA limitation	No VMCG/VMCA limitation
Weight decrement (kg/lb)	1 300/2 900	400/900
V1, VR, V2 decrement (kt IAS)	0	1

Landing performance:

No penalty.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 73 - ENGINE FUEL AND CONTROL 73-20 - Controlling

73-20-06	EEC ACFT 28V Power Supply

Applicable to: ALL

73-20-06A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

The channel B power supply may be inoperative on one or both engines.

ATA 74

Ignition

	MEL ITEMS 74 - IGNITION 74-07 - Indications on the ENGINE SD page

74-07-01	Selected Igniter Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

74-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	(o)

One or more may be inoperative provided that the associated ENG 1(2) IGN A(B)(A+B) FAULT alert is checked operative.

_____Reference(s)_____

(o) *OpsProc 74-07-01A Selected Igniter Indication on the ENGINE SD page*

Applicable to: ALL

AFTER ENGINE START

- If engine 1 is affected:
 - ENGINE/1 AND 2/IGN/SYS A (49VU A03) C/B PULL
 - ENGINE/IGN/ENG 1/ SYS A BAT (121VU P39) C/B PULL
 - ENGINE/IGN/ENG 1/ SYS B (121VU P41) C/B PULL
- If engine 2 is affected:
 - ENGINE/1 AND 2/IGN/SYS A (49VU A03) C/B PULL
 - ENGINE/IGN/ENG 2/ SYS A BAT (121VU P40) C/B PULL
 - ENGINE/IGN/ENG 2/ SYS B (121VU P42) C/B PULL

On the EWD, check that the ENG 1(2) A+B IGN FAULT alert is displayed.

- If engine 1 is affected:
 - ENGINE/1 AND 2/IGN/SYS A (49VU A03) C/B PUSH
 - ENGINE/IGN/ENG 1/ SYS A BAT (121VU P39) C/B PUSH
 - ENGINE/IGN/ENG 1/ SYS B (121VU P41) C/B PUSH
- If engine 2 is affected:
 - ENGINE/1 AND 2/IGN/SYS A (49VU A03) C/B PUSH
 - ENGINE/IGN/ENG 2/ SYS A BAT (121VU P40) C/B PUSH
 - ENGINE/IGN/ENG 2/ SYS B (121VU P42) C/B PUSH

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 74 - IGNITION 74-09 - ECAM Alert

74-09-01	<u>ENG 1(2)</u> IGN A(B)(A+B) FAULT Alert

Applicable to: ALL

74-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	2	

One or two may be displayed.

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 74 - IGNITION 74-31 - Ignition Starting and Continuous Relight

74-31-01	Ignition System A

Applicable to: ALL

74-31-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The associated engine ignition system B is operative.

Note: System A is considered inoperative on both engines (NO DISPATCH) when the common power supply line from 401XP 115VAC ESS BUS is inoperative as a result of either a loss of electrical continuity or a short circuit (ENGINE/1 AND 2 IGN/SYS A (49VUA03) C/B tripped).

_____Reference(s)_____

- (o) OpsProc 74-31-01A Ignition System A

Applicable to: ALL

BEFORE ENGINE START

On ground, if the FADEC selects the Ignition System A during an automatic start, the engine fails to start and the ENG 1(2) START FAULT [IGNITION FAULT] alert appears on the EWD. Then, the FADEC automatically initiates a second engine start attempt with both ignition systems selected. To prevent a possible start abort with the triggering of the ENG 1(2) START FAULT [IGNITION FAULT] alert, perform a manual engine start. Refer to FCOM/PRO-SUP-70 Manual Engine Start - Manual Engine Start Procedure.

74-31-02

Ignition System B

Applicable to: ALL

74-31-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative.

Reference(s) _____

(o) *OpsProc 74-31-02A Ignition System B*

Applicable to: ALL

BEFORE ENGINE START

On ground, if the FADEC selects the Ignition System B during an automatic start, the engine fails to start and the ENG 1(2) START FAULT [IGNITION FAULT] alert appears on the EWD. Then, the FADEC automatically initiates a second engine start attempt with both ignition systems selected. To prevent a possible start abort with the triggering of the ENG 1(2) START FAULT [IGNITION FAULT] alert, perform a manual engine start. *Refer to FCOM/PRO-SUP-70 Manual Engine Start - Manual Engine Start Procedure.*

ATA 76

ENGINE CONTROLS

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 76 - ENGINE CONTROLS 76-11 - Throttle Control

76-11-01	Thrust lever Position Sensor

Applicable to: ALL

76-11-01A

Repair interval	Nbr installed	Nbr required	Procedure
A	4	3	

One may be inoperative on one engine for three days provided that:

- 1) The A/THR is operative, and
- 2) Both LGCIUs are operative, and
- 3) The L/G shock absorbers proximity detectors are operative.

ATA 77

Engine Indicating

77-07-01-01

N1 Vibration Indication on the CRUISE SD page

Applicable to: ALL

77-07-01-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 77-07-02-05 N1 Vibration Indication on the ENGINE SD page

77-07-01-02

N2 Vibration Indication on the CRUISE SD page

Applicable to: ALL

77-07-01-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 77-07-02-06 N2 Vibration Indication on the ENGINE SD page

77-07-01-03

F. USED (Fuel Used) Indication on the CRUISE SD page

Applicable to: ALL

77-07-01-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 73-07-01 Fuel Used Indication on the ENGINE SD page

77-07-01-04

OIL QT (Oil Quantity) Indication on the CRUISE SD page

Applicable to: ALL

77-07-01-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 79-07-03 Oil Quantity Indication on the ENGINE SD page

77-07-02-01

Engine Bleed Pressure Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 36-07-04 Engine Bleed Precooler Inlet Pressure Indication on the BLEED SD page

77-07-02-02

Fuel Filter Clog Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 73-07-02 Fuel Filter CLOG Indication on the ENGINE SD page

77-07-02-03

Fuel Used Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 73-07-01 Fuel Used Indication on the ENGINE SD page

77-07-02-04

Nacelle Temperature Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-04A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

77-07-02-05

N1 Vibration Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-05A One indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

77-07-02-05B Both indications inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	

Both may be inoperative for three flights provided that:

- 1) EDTO is not conducted, and
- 2) No vibration advisory was displayed during the previous flight.

77-07-02-06

N2 Vibration Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-06A One indication inoperative

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative.

77-07-02-06B Both indications inoperative

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	

Both may be inoperative for three flights provided that:

- 1) EDTO is not conducted, and
- 2) No vibration advisory was displayed during the previous flight.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 77 - ENGINE INDICATING 77-07 - Indications on SD pages 77-07-02 - Indications on the ENGINE SD page

77-07-02-07	Oil Filter Clog Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

77-07-02-07A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 79-07-01 CLOG Indication on the ENGINE SD page

77-07-02-08	Oil Pressure Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

77-07-02-08A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 79-07-02 Oil Pressure Indication and Advisory on the ENGINE SD page

77-07-02-09	Oil Quantity Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

77-07-02-09A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 79-07-03 Oil Quantity Indication on the ENGINE SD page

77-07-02-10	Oil Temperature Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

77-07-02-10A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 79-07-04 Oil Temperature Indication on the ENGINE SD page

MEL ITEMS
 77 - ENGINE INDICATING
 77-07 - Indications on SD pages
 77-07-02 - Indications on the ENGINE SD page

77-07-02-11

Selected Igniter Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-11A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 74-07-01 Selected Igniter Indication on the ENGINE SD page

77-07-02-12

Start Valve Position Indication on the ENGINE SD page

Applicable to: ALL

77-07-02-12A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 80-07-01 Start Valve Position Indication on the ENGINE SD page

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 77 - ENGINE INDICATING 77-08 - Indications on the EWD

77-08-01	EGT Indication on the EWD

Applicable to: ALL

77-08-01A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 77 - ENGINE INDICATING 77-08 - Indications on the EWD

77-08-02	EPR Indication on the EWD

Applicable to: ALL

77-08-02A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 73-20-04 EPR Control Mode

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 77 - ENGINE INDICATING 77-08 - Indications on the EWD

77-08-03	F.F. (Fuel Flow) Indication on the EWD

Applicable to: ALL

77-08-03A

Repair interval	Nbr installed	Nbr required	Procedure
–	–	–	–

Refer to Item 73-08-01 Fuel Flow Indication on the EWD

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 77 - ENGINE INDICATING 77-08 - Indications on the EWD

77-08-04	N1 Indication on the EWD

Applicable to: ALL

77-08-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 77 - ENGINE INDICATING 77-08 - Indications on the EWD

77-08-05	N2 Indication on the EWD

Applicable to: ALL

77-08-05A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Must be operative.



ATA 78

Exhaust

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 78 - EXHAUST 78-08 - Indications on the EWD

78-08-01	REV Indication on the EWD

Applicable to: ALL

78-08-01B

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative provided that the associated thrust reverser is considered inoperative.
Refer to Item 78-30-01 Thrust Reverser

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 78 - EXHAUST 78-30 - Thrust Reversers

78-30-01	Thrust Reverser

Applicable to: ALL

78-30-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)(m)

One or both may be inoperative provided that:

- 1) The inoperative reverser is deactivated and secured in the stowed position, and
- 2) Both LVDT s on the inoperative reverser are checked operative, and
- 3) The ENG 1(2) REV PRESSURIZED alert is not displayed on the EWD after deactivation, and
- 4) The appropriate performance adjustments are applied.

_____Reference(s)_____

(o) *OpsProc 78-30-01A Thrust Reverser*

Applicable to: HL7594, HL7703, HL7730, HL7731, HL7735, HL7763, HL7767, HL7789, HL7790, HL8236.

FLIGHT PREPARATION/LIMITATIONS

Performance Adjustments:

	Runway State	Performance Adjustments
One Thrust Reverser Inoperative	Takeoff Dry, or Landing Dry, or Landing Wet	No performance adjustments necessary (basic performance data is computed without thrust reversers).
	Takeoff Wet, or Takeoff Contaminated, or Landing Contaminated	Use performance data computed with either: - All thrust reversers inoperative, or - One thrust reverser inoperative.

	Runway State	Performance Adjustments
Both Thrust Reversers Inoperative	Takeoff Dry, or Landing Dry, or Landing Wet	No performance adjustments necessary (basic performance data is computed without thrust reversers).
	Takeoff Wet, or Takeoff Contaminated, or Landing Contaminated	Use performance data computed with all thrust reversers inoperative.

FOR TAKEOFF

During the takeoff briefing, the flight crew must review:

- The status of the thrust reversers, and
- The use of the thrust reversers

REJECTED TAKEOFF

Ensure that both engine thrust levers are set to IDLE detent, then:

- If one thrust reverser is inoperative:

Use both thrust levers when applying reverse thrust.

Note: *ENG (AFFECTED SIDE) REVERSER FAULT alert is displayed on the EWD after selection of the reverse thrust.*

- If both thrust reversers are inoperative:
Do not move the thrust levers to reverse.

IN FLIGHT

- Should a failure occur with "LDG DIST PROC.....APPLY" message displayed on the STATUS SD page,
and
Whatever the actual thrust reversers selection at landing:
To calculate the LDG DIST with the in-flight failure, do not take credit of the inoperative thrust reversers (Refer to QRH PER-C).

DURING APPROACH

During the approach briefing, the flight crew must review:

- The status of the thrust reversers, and
- The use of the thrust reversers

FOR LANDING

Before the touchdown, ensure that both engine thrust levers are set to IDLE detent for the flare.

- After touchdown, if one thrust reverser is inoperative:
Use both thrust levers when applying reverse thrust.

For automatic roll-out with one thrust reverser inoperative, *Refer to AFM/LIM-22-FGS CAT II / CAT III Operations.*

Note: *ENG (AFFECTED SIDE) REVERSER FAULT alert is displayed on the EWD after selection of the reverse thrust.*

- After touchdown, if both thrust reversers are inoperative:
Do not move the thrust levers to reverse.

Applicable to: HL7737, HL7738, HL7769, HL7772, HL7773, HL7776, HL7788

FLIGHT PREPARATION/LIMITATIONS

Performance Adjustments:

	Runway State	Performance Adjustments
One Thrust Reverser Inoperative	Takeoff Dry, or Landing Dry, or Landing Wet	No performance adjustments necessary (basic performance data is computed without thrust reversers).

ASIANA AIRLINES  A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 78 - EXHAUST 78-30 - Thrust Reversers

	Takeoff Wet, or Takeoff Contaminated, or Landing Contaminated	Use performance data computed with either: - All thrust reversers inoperative, or - One thrust reverser inoperative.

	Runway State	Performance Adjustments
Both Thrust Reversers Inoperative	Takeoff Dry, or Landing Dry, or Landing Wet	No performance adjustments necessary (basic performance data is computed without thrust reversers).
	Takeoff Wet, or Takeoff Contaminated, or Landing Contaminated	Use performance data computed with all thrust reversers inoperative.

FOR TAKEOFF

During the takeoff briefing, the flight crew must review:

- The status of the thrust reversers, and
- The use of the thrust reversers

REJECTED TAKEOFF

Ensure that both engine thrust levers are set to IDLE detent, then:

- If one thrust reverser is inoperative:

Use both thrust levers when applying reverse thrust.

Note: *ENG (AFFECTED SIDE) REVERSER FAULT alert is displayed on the EWD after selection of the reverse thrust.*

- If both thrust reversers are inoperative:

Do not move the thrust levers to reverse.

IN FLIGHT

- Should a failure occur with "LDG DIST PROC.....APPLY" message displayed on the STATUS SD page,
and

Whatever the actual thrust reversers selection at landing:

To calculate the LDG DIST with the in-flight failure, do not take credit of the inoperative thrust reversers (Refer to QRH PER-C).

DURING APPROACH

During the approach briefing, the flight crew must review:

- The status of the thrust reversers, and
- The use of the thrust reversers

FOR LANDING

Before the touchdown, ensure that both engine thrust levers are set to IDLE detent for the flare.

- After touchdown, if one thrust reverser is inoperative:

Use both thrust levers when applying reverse thrust.

Note: ENG (AFFECTED SIDE) REVERSER FAULT alert is displayed on the EWD after selection of the reverse thrust.

- After touchdown, if both thrust reversers are inoperative:

Do not move the thrust levers to reverse.

Applicable to: HL8004, HL8018, HL8038, HL8039, HL8059, HL8060, HL8255, HL8256, HL8257, HL8265, HL8266, HL8267, HL8277, HL8278, HL8279, HL8280, HL8281 and later on

FLIGHT PREPARATION/LIMITATIONS

Performance Adjustments:

	Runway State	Performance Adjustments
One Thrust Reverser Inoperative	Takeoff Dry, or Landing Dry, or Landing Wet	No performance adjustments necessary (basic performance data is computed without thrust reversers).
	Takeoff Wet, or Takeoff Contaminated, or Landing Contaminated	Use performance data computed with either: - All thrust reversers inoperative, or - One thrust reverser inoperative.

	Runway State	Performance Adjustments
Both Thrust Reversers Inoperative	Takeoff Dry, or Landing Dry, or Landing Wet	No performance adjustments necessary (basic performance data is computed without thrust reversers).
	Takeoff Wet, or Takeoff Contaminated, or Landing Contaminated	Use performance data computed with all thrust reversers inoperative.

DURING COCKPIT PREPARATION

- If the affected engine is equipped with EEC Software Standard SCN21 or subsequent EEC Software standards:

- After application of the maintenance procedure
and

When the FADEC have power:

Check that the ENG (AFFECTED SIDE) REV INHIBITED alert is displayed on the EWD.

Note: If you need to check EEC software version, it is found in a name plate of EEC after opening a fan cowl.

FOR TAKEOFF

During the takeoff briefing, the flight crew must review:

- The status of the thrust reversers, and
- The use of the thrust reversers

REJECTED TAKEOFF

Ensure that both engine thrust levers are set to IDLE detent, then:

- If one thrust reverser is inoperative:

Use both thrust levers when applying reverse thrust.

Note: • *If the affected engine is neither equipped with EEC Software Standard SCN21 nor subsequent EEC Software standards:*

ENG (AFFECTED SIDE) REVERSER FAULT alert is displayed on the EWD after selection of the reverse thrust.

- If both thrust reversers are inoperative:

Do not move the thrust levers to reverse.

IN FLIGHT

- Should a failure occur with "LDG DIST PROC.....APPLY" message displayed on the STATUS SD page,
and

Whatever the actual thrust reversers selection at landing:

To calculate the LDG DIST with the in-flight failure, do not take credit of the inoperative thrust reversers (Refer to QRH PER-C).

DURING APPROACH

During the approach briefing, the flight crew must review:

- The status of the thrust reversers, and
- The use of the thrust reversers

FOR LANDING

Before the touchdown, ensure that both engine thrust levers are set to IDLE detent for the flare.

- After touchdown, if one thrust reverser is inoperative:

Use both thrust levers when applying reverse thrust.

For automatic roll-out with one thrust reverser inoperative, *Refer to AFM/LIM-22-FGS CAT II / CAT III Operations.*

Note: • *If the affected engine is neither equipped with EEC Software Standard SCN21 nor subsequent EEC Software standards:*

ENG (AFFECTED SIDE) REVERSER FAULT alert is displayed on the EWD after selection of the reverse thrust.

- After touchdown, if both thrust reversers are inoperative:

Do not move the thrust levers to reverse.

(m) Refer to AMM 78-30-00-040-013

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 78 - EXHAUST 78-30 - Thrust Reversers

78-30-02	Thrust Reverser Inhibition Relay sw

Applicable to: ALL

78-30-02A

Repair interval	Nbr installed	Nbr required	Procedure
C	4	0	

One or more may be inoperative provided that the associated thrust reverser is considered inoperative.

Refer to Item 78-30-01 Thrust Reverser

78-30-03

Thrust Reverser Shutoff Valve

Applicable to: ALL

78-30-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative in the open position.

ATA 79

Oil

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 79 - OIL 79-07 - Indications on the ENGINE SD page

79-07-01	CLOG Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

79-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

79-07-02

Oil Pressure Indication and Advisory on the ENGINE SD page

Applicable to: ALL

Note: Simultaneous illumination of the BLUE ELEC PUMP pb-sw FAULT light and the ENG 1(2) PUMP pb-sw FAULT light with engines off may be due to a failed engine oil low pressure switch. In this case, the ENG 1(2) OIL LO PR alert is inoperative.
Refer to Item 79-09-01 ENG 1(2) OIL LO PR Alert

79-07-02C

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	

One may be inoperative provided that:

- 1) EDTO is not conducted, and
- 2) The associated ENG 1(2) OIL LO PR alert is operative, and
- 3) The associated oil quantity indication is operative on the ENGINE SD page .

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 79 - OIL 79-07 - Indications on the ENGINE SD page

79-07-03	Oil Quantity Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

79-07-03A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(m)

One may be inoperative provided that the associated oil quantity is checked before each flight.

_____Reference(s)_____

(m) Refer to AMM 79-31-00-040-041

79-07-04

Oil Temperature Indication on the ENGINE SD page

Applicable to: ALL

79-07-04A

Repair interval	Nbr installed	Nbr required	Procedure
–	2	2	

Must be operative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 79 - OIL 79-09 - ECAM Alerts

79-09-01	<u>ENG 1(2)</u> OIL LO PR Alert

Applicable to: ALL

79-09-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be displayed.

Reference(s)

(o) *OpsProc 79-09-01A ENG 1(2) OIL LO PR Alert*

Applicable to: ALL

AFTER ENGINE START

- If both engines are affected:
RCDR GND CTL pb-sw CHECK ON

79-09-03

ENG 1(2) BEARING 4 OIL SYS Alert

Applicable to: ALL

79-09-03A

Repair interval	Nbr installed	Nbr required	Procedure
A	2	0	

One or both may be displayed for 3 days provided that the ENG 1(2) BEARING 4 OIL SYS alert is not associated with the HI PRESS message.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 79 - OIL 79-20 - Distribution

79-20-01	Air Cooled Oil Cooler (ACOC) Modulating Valve

Applicable to: ALL

79-20-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(o)

One or both may be inoperative in the open position provided that the fuel temperature in the inner tank is checked to be above -20 °C .

Reference(s)

(o) *OpsProc 79-20-01A Air Cooled Oil Cooler (ACOC) Modulating Valve*

Applicable to: ALL

BEFORE TAKEOFF

On the FUEL SD page, check that the fuel temperature in the inner tank is above -20 °C.



ATA 80

Starting

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 80 - STARTING 80-01 - ENG MAN START Overhead Panel

80-01-31	ENG MAN START pb-sw

Applicable to: ALL

80-01-31A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 80 - STARTING 80-07 - Indication on the ENGINE SD page

80-07-01	Start Valve Position Indication on the <u>ENGINE</u> SD page

Applicable to: ALL

80-07-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	(m)

One or both may be inoperative provided that the associated start valve is checked closed after the start of the affected engine.

Note: *If the following maintenance procedures should be performed after the entry door(s) closed, the maintenance personnel should inform the flight crew of the result by interphone system and do not make an entry in the Flight & Maintenance Log.*

_____Reference(s)_____

(m) Refer to AMM 80-11-00-040-042

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 80 - STARTING 80-11 - Pneumatic Starter and Valve System

80-11-01	Start Valve

Applicable to: ALL

80-11-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	1	(o)(m)

One may be inoperative provided that the start valve is manually closed after the start of the affected engine.

Note: *If the following maintenance procedures should be performed after the entry door(s) closed, the maintenance personnel should inform the flight crew of the result by interphone system and do not make an entry in the Flight & Maintenance Log.*

_____Reference(s)_____

(o) *OpsProc 80-11-01A Start Valve*

Applicable to: ALL

BEFORE ENGINE START

Refer to FCOM/PRO-SUP-70 Start Valve Manual Operation.

IN FLIGHT

If the affected engine shuts down, attempt to restart it only using windmilling relight..

(m) *Refer to AMM 80-11-00-040-043*

ASIANA AIRLINES A320 FAMILY MINIMUM EQUIPMENT LIST	MEL ITEMS 80 - STARTING 80-12 - ENG MASTER Panel on the Center Pedestal

80-12-01	FAULT light on the ENG MASTER Panel

Applicable to: ALL

80-12-01A

Repair interval	Nbr installed	Nbr required	Procedure
C	2	0	

One or both may be inoperative.