MMEL Rev.28 Dated 04-05
CMEL Rev.03 Dated 08-05

AEROFLOT

A319_A320_A321

Minimum Equipment List

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INTRODUCTION

1 - OBJECTIVES

An airplane is being type certificated with all required equipment in operating conditions. If deviations from this type certificated configuration and equipment required by the operating rules were not permitted, the aircraft could not be flown in revenue service unless such equipment was operable.

Experience has proven that the operation of every system or component installed on the aircraft is not necessary, in specific conditions and during limited period, when the remaining instruments and equipment enable an acceptable level of safety. Therefore, certain conditional deviations from the original requirement are authorized to permit continued or uninterrupted operation of the aircraft in revenue flight: they are published in the MINIMUM EQUIPMENT LIST (MEL) related to applicable regulations specific operations or airlines particular definitions.

TO GET APPROVAL FOR OPERATIONS WITH INOPERATIVE ITEMS INCLUDED IN MEL AEROFLOT AS OPERATOR PROPOSED IT TO THE RUSSIAN AIRWORTHINESS AUTHORITIES - SCAA RF.

THIS MEL IS THE REGULAR BASIS ALLOWING AEROFLOT TO UTILIZE THE AIRCRAFT WHEN SOME SYSTEMS OR COMPONENTS ARE INOPERATIVE, IN SPECIFIED CONDITIONS AND FOR A LIMITED PERIOD OF TIME, UNDER THE CONDITION THAT AN ACCEPTABLE SAFETY LEVEL BE MAINTAINED BY APPROPRIATE DESIGN REDUNDANCIES, PROCEDURES AND LIMITATIONS.

2 - PRINCIPLES

For the sake of brevity, the MEL does not include obviously required items such as wings, control surfaces, engines, landing gear, etc... or items which do not affect the airworthiness of the aircraft such as galley equipment, entertainment systems, passenger convenience items, etc...

THUS, ALL ITEMS WHICH ARE RELATED TO THE AIRWORTHINESS OF THE AIRCRAFT AND NOT INCLUDED IN THE LIST ARE AUTOMATICALLY REQUIRED TO BE OPERATIVE FOR EACH FLIGHT.

UNLESS OTHERWISE SPECIFIED IN THE REPAIR CATEGORY / EXCEPTIONS COLUMN, MEL does not define "where or when" an inoperative item is to be repaired or replaced but rather indicates those instruments and items of equipment that may be inoperative for certain flight conditions, with the intend that no revenue flight can take off from an airport with inoperative equipment other than that specified.

The failure of instruments or items of equipment in excess of those allowed to be inoperative by the MEL causes the aircraft to

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be unairworthy. The MEL makes no distinction between what is required for the flight between origin and destination (including the intermediate stops) and what is required for a flight beyond the scheduled arrival point.

However, as MEL is intended to provide for continued operation of the aircraft for a limited period with inoperative equipment, AEROFLOT as operator will make repairs at the first airport where repairs or replacements reasonably may be made, since additional malfunctions may require the aircraft to be taken out of service.

MEL utilization implies that the aircraft is operated within the framework of a controlled and sound program of repairs and parts replacement.

AEROFLOT is responsible for exercising the necessary operational control to assure that no aircraft is dispatched or flown with one or more MEL item inoperative for an indefinite period and without first determining that any interface or interrelationship between inoperative systems or components will not result in a degradation in the level of safety and/or an undue increase in crew workload.

The exposure to additional failures during operation with failed inoperative systems or components must also be considered to determine that an acceptable level of safety in being maintained.

This MEL may not deviate from requirements of the flight manual limitations section, emergency procedures, or airworthiness directives, unless the flight manual or airworthiness directive provides otherwise.

Configuration Deviation Lists (CDL) or their equivalent, are not a part of the MEL. CDLs are used to identify any external components of an aircraft type which may be missing for dispatch, where necessary, they will provide any associated information on performance corrections for such cases (e.g. missing landing gear doors, flap actuator fairings, etc.). Where dispatch with such items missing is approved, the CDL is published as part of the Flight Manual.

MEL conditions and limitations do not relieve the Commander from determining that the aircraft is in a fit condition for safe operation with specified unserviceabilities allowed by the MEL. The decision of the Commander of the flight to have allowable inoperative items corrected prior to flight will take precedence over the provisions contained in the MEL. The Commander may request requirements above the minimum listed, whenever in his judgement such added equipment is essential to the safety of a particular flight under the special conditions prevailing at the time.

Limit of MEL Applicability. The MEL is applicable up to the point when an aircraft begins to move under its own power for the purpose of preparing for take off. If a failure occurs during the taxy phase before the start of the take-off roll, any decision to

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continue the flight shall be subject to pilot judgement and good airmanship. The Commander may refer to the MEL before any decision to continue the flight is taken.

A base for every AEROFLOT MEL revision is AIRBUS INDUSTRIE MMEL revision. AIRBUS INDUSTRIE temporary revisions are valid for AFL MEL and also for Operations/Maintenance Procedures (Chapters 3 and 4 of this book) until the regular revisions are approved. AEROFLOT MEL revision is approved by State Civil Aviation Authority of Russia in accordance with Directive No 24.9-26/1 of 30/11/2000 and Annex 6 Part 1 Item 5.2.4 ICAO.

3 - PRESENTATION OF THE MEL

A) COLUMN 1: "ITEM"

It lists the equipment, components, systems or functions, for which dispatch conditions apply.

B) COLUMN 2: "REPAIR INTERVAL"

This column denotes the repair interval of the item.

Category "A" - Items in this category shall be repaired within the time interval specified in the remarks column. Where a time period is specified it shall start at 00:01 on the calendar day following the day of discovery.

Category "B" - Items in this column shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the Aircraft Maintenance Record/Logbook.

Category "C" - Items in this column shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the Aircraft Maintenance Record/ Technical Logbook.

Category "D" - Items in this column shall be repaired within one hundred twenty (120) consecutive calendar days, excluding the day the malfunction was recorded in the Aircraft Maintenance Record/Logbook.

C) COLUMN 3: "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 column 3 in conjunction with exceptions or remarks listed in column 5, if necessary.

No indication (blank indication) or "dash" symbol indicates that a variable quantity is installed. It denotes that the functionability of a system does not depend on quantity of

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equipment, component or functions. In this case, the limitation are indicated in column 2 (repair interval) and column 5 (remarks or exception).

D) COLUMN 4: "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, when exceptions or remarks are listed in column 5.

No indication (blank indication) or "dash" symbol indicates that a variable quantity is required for dispatch. The functionability of a system does not depend on quantity of equipment, component or functions. In this case, the limitation are indicated in column 2 (repair interval) and column 5 (remarks or exception).

E) COLUMN 5: "REMARKS OR EXCEPTIONS"

"Flight Day" means a 24-hour period (from midnight to midnight) during which at least one flight is initiated for the affected aircraft.

(p) Mark requires inoperative equipment, component, system or function to be placarded in the cockpit. Unless otherwise specified herein, presence, placard wording and location will be determined by the maintenance personnel.

(o) Task mark identifies a crew operational procedure.

(m) Task mark identifies a maintenance procedure.

Note: Both identifiers (o) and (m) used singularly, or in conjunction with each other, require the appropriate procedures to be established, published, and complied with, if flight is accomplished with one item inoperative.

Different possibilities may be considered for an item. They will be identified by a), b), c)...

Within one possibility, different conditions may be required. They will be identified by 1), 2), 3)...

References given in column 5 can either be provided :

- To indicate that an item of equipment has to be considered inoperative as a result of the failure item listed in column 1, or
- To indicate that another document has to be consulted (e.g. Refer to FCOM), or
- To indicate that another ATA chapter of the MEL has to be consulted to determine applicable item (e.g. item 22-61-01 refers to 27-23).

These references are intended to assist with compliance, but do not relieve the AFLT of responsibility for determining such interrelationships, as stated in the preamble.

"Note" in column 5 indicates additional information and references for crewmember or maintenance consideration.

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DEFINITIONS:

1) "Inoperative" means 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.
2) "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 item must also be entered and the associated dispatch conditions must be applied, including the respective (o) and (m) procedures if any.
   In all cases the rectification interval of the initial inoperative item must be applied, even if the rectification interval of the "considered inoperative" item is longer.
3) The Centralized Fault Display System (CFDS) indicates the identity of faulty system for maintenance purpose and is not required for dispatch of the aircraft.
4) "VMC" (Visual Meteorological Conditions) - Under IFR or VFR the crew must maintain Visual Meteorological conditions.
5) "Icing Conditions" means an atmospheric environment that may cause ice to form on the airplane or powerplant.
6) "As required by regulations" means that the listed item must comply with applicable operational regulations. The JAA Leaflet No-26 "Guidance Document for MEL Policy" may be used.
7) "ER" refers to operations according to "Extended Range operations of two engine airplanes" requirements (ETOPS).
8) "Days" - Some items have a time interval given in the remarks column of the MMEL. Except if otherwise specified, "days" must be considered as "calendar days" excluding the calendar day the malfunction was recorded.
9) "Required cabin attendant seat" means a seat required to be occupied by a cabin attendant during critical phases of flight. This cabin attendant is required by the regulations to be part of the cabin crew and to be assigned to a station for the intended flight.
10) "Extended overwater operation" means an operation over water at a horizontal distance of more than 50 nautical miles from the nearest shoreline.

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HANDLING OF MAINTENANCE MESSAGES DISPLAYED ON ECAM STATUS PAGE

At the head of each ATA chapter of this MEL, the related MAINTENANCE messages which may be displayed on ECAM STATUS page are listed with the indication of the associated dispatch status.

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

AFLT must implement procedures to manage MAINTENANCE messages and associated CFDS messages, to handle faults recording and repair within the rectification interval of category C (10 days).

All MAINTENANCE messages have a rectification interval C except the following messages: DAR, DMU and QAR which have an interval D.

Dispatch with a MAINTENANCE message displayed on ECAM STATUS page is allowed without specific conditions except for the following messages :

- AIR BLEED : Refer to MEL 36-00-01

It is left to the AFLT to define the role devoted to flight crew and/or maintenance personnel in these procedures.

CAT2, CAT3 SINGLE, CAT3 DUAL AUTOMATIC APPROACH AND LANDING

- Required equipment are also listed in Flight Manual 4.03.00 page 8, and QRH 5.04.
- Equipment to be operative to get CAT2, CAT3 SINGLE, or CAT3 DUAL capability displayed on FMAs are also listed in QRH.

REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

- Minimum equipment/functions required to begin RVSM operations are also listed in Flight Manual 4.03.00, and FCOM 2.04.50.

REQUIRED NAVIGATION PERFORMANCE (RNP)

- Minimum equipment/functions required to begin RNP operations are also listed in Flight Manual 4.03.00 and FCOM 2.04.51.

Changed in accordance with Aviation Authorities and AFL requirements. Incorporation of the 28 (Apr 2005) normal revision of MMEL.

The revision includes requirements to begin RVSM, RNP operation and to perform CAT2, CAT3 automatic approach and landing.

Title Page

Title Revision number and date updated

Introduction

Changed in accordance with Aviation Authorities requirements.

Log of Pages

Pages and remark

22 pages updated CMEL Rev.03 Dated 08-05

Section 02 - 03 - 04

Highlights are applicable to messages and do not have specific page numbers.

ITEM		PAGE in MEL
21-26-01	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-03 03-21-02 03-21-03 04-21-01 04-21-02
21-26-02	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319-111, A320-214.	02-21-04 03-21-04 03-21-05 04-21-03 04-21-04 04-21-05

ITEM		**PAGE in MEL**
21-26-02	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A321-211.	02-21-05 03-21-06 03-21-07 04-21-06 04-21-07 04-21-08
21-26-03	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-06 03-21-08 04-21-09 04-21-10
21-26-04	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-06 03-21-08 04-21-11 04-21-12 04-21-13
21-26-05	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-06 03-21-09 04-21-14 04-21-15 04-21-16
21-26-06	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-07 03-21-09 04-21-17 04-21-18 04-21-19
21-26-08	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-07 03-21-10 04-21-20 04-21-21

ITEM		PAGE in MEL
21-26-09	Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-08 02-21-09 03-21-10 04-21-22 04-21-23
21-26-10	Technical amendment. Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-09 03-21-11 04-21-24 04-21-25
21-26-11	Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-09 04-21-26
21-26-12	Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-10 04-21-27
21-28-05	Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319-111.	02-21-11 03-21-12 04-21-28
21-28-05	Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A320-214, A321-211.	02-21-12 03-21-13 04-21-29
21-31-02	Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-14 04-21-30 04-21-31
21-31-04	Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-14 04-21-32 04-21-33 04-21-34
21-31-05	Technical Amendment.	02-21-14 03-21-14
21-31-07	Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-14 04-21-35
21-31-08	Amendment of maintenance procedures according to revision 28 of MMEL.	02-21-15 04-21-36

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21-52-01	Technical amendment according to revision 28 of MMEL. Added operational procedures and maintenance procedures according operator requirements. The item apply to A319-111.	02-21-18 03-21-16 04-21-40 04-21-41
21-52-01	Technical amendment according to revision 28 of MMEL. Added operational procedures and maintenance procedures according operator requirements. The item apply to A320-214.	02-21-19 03-21-17 04-21-42 04-21-43
21-52-01	Technical amendment according to revision 28 of MMEL. Added operational procedures and maintenance procedures according operator requirements. The item apply to A321-211.	02-21-20 03-21-18 04-21-44 04-21-45
22-10-01	Adapted to operator requirements. Item includes the requirements to begin RVSM operation and to perform CAT2, CAT3 automatic approach and landing.	02-22-02
22-10-02	Adapted to operator requirements. The item includes requirements to perform automatic approach and landing.	02-22-03 03-22-01
22-10-03	Adapted to operator requirements. The item includes requirements to begin RVSM operation and to perform CAT2, CAT3 automatic approach and landing.	02-22-04 03-22-01
22-10-04	Adapted to operator requirements. The item includes requirements to perform CAT2, CAT3 automatic approach and landing.	02-22-04
22-10-05	Adapted to operator requirements. The item includes requirements to begin RVSM operation and to perform CAT2, CAT3 automatic approach and landing.	02-22-05

ITEM		**PAGE in MEL**
22-10-06	Adapted to Operator Requirements. Technical Amendment.	02-22-05
22-30-01	Adapted to operator requirements. The item includes requirements to perform CAT2, CAT3 automatic approach and landing.	02-22-06
22-30-02	Technical Amendment. Amendment of operational procedures according to revision 28 of MMEL.	02-22-06 03-22-02
22-30-03	Adapted to operator requirements. The item includes requirements to perform CAT2, CAT3 automatic approach and landing.	02-22-06 03-22-02
22-63-01	Adapted to operator requirements. The item includes requirements to perform CAT2, CAT3 automatic approach and landing.	02-22-07 04-22-01 04-22-02 04-22-03
22-66-01	Adapted to operator requirements. Item includes the requirements to perform CAT2, CAT3 automatic approach and landing.	02-22-08 03-22-03 04-22-04
22-66-03	Adapted to Airworthiness Authorities Requirements. Adapted to AFL Fleet. Technical amendment according to revision 28 of MMEL.	02-22-09
22-81-03	Adapted to operator requirements. The item includes requirements to perform CAT2, CAT3 automatic approach and landing.	02-22-12 02-22-13
22-81-04	Adapted to Airworthiness Authorities Requirements. Adapted to Operator Requirements. Technical Amendment.	02-22-14 02-22-15

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22-82-01	Adapted to operator requirements. The item includes requirements to begin RNP-10 operation.	02-22-15
22-83-01	Adapted to operator requirements. The item includes requirements to begin RNP-10 operation. Technical amendment according to revision 28 of MMEL.	02-22-16 03-22-03
22-83-02	Adapted to operator requirements. The item includes requirements to begin RVSM operation and to perform CAT2, CAT3 automatic approach and landing.	02-22-17 02-22-18 03-22-03
23-13-01	Adapted to Operator Requirements. Amendment according to revision 28 of MMEL.	02-23-02
23-28-01	The MEL item is deleted. Adapted to AFL Fleet.	
23-51-02	Amendment according to revision 28 of MMEL.	02-23-05 02-23-06
23-71-02	MEL item is deleted. Adapted to Operator Requirements.	
24-30-01	Adapted to Operator Requirements. Amendment according to revision 28 of MMEL. Amendment of operational procedures according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-24-07 03-24-03 04-24-02
24-30-03	Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A320-214.	02-24-08 03-24-04 04-24-03 04-24-04 04-24-05

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24-30-03	Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319-111, A321-211.	02-24-09 03-24-05 04-24-06
24-41-02	Added new item according to revision 28 of MMEL.	02-24-11 03-24-06
24-56-01	Amendment of maintenance procedures according to revision 28 of MMEL.	02-24-11 03-24-06 04-24-07 04-24-08
25-11-01	Amendment according to revision 28 of MMEL.	02-25-01
25-11-02	Amendment according to revision 28 of MMEL.	02-25-01 03-25-01
25-11-03	Amendment according to revision 28 of MMEL.	02-25-02
25-11-04	Amendment according to revision 28 of MMEL.	02-25-02
25-11-06	Added new item according to revision 28 of MMEL.	02-25-02
25-11-07	Added new item according to revision 28 of MMEL.	02-25-03
25-13-01	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-25-03 04-25-01
25-13-02	Amendment of maintenance procedures according to revision 28 of MMEL.	02-25-03 04-25-02
25-15-01	Adapted to AFL Fleet. Amendment according to revision 28 of MMEL.	02-25-03
25-22	Amendment according to revision 28 of MMEL.	02-25-04

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25-22-01	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-25-05 03-25-01 04-25-03
25-30-00	Added new item according to revision 28 of MMEL.	02-25-05
25-30-01	Added new item according to revision 28 of MMEL.	02-25-06 03-25-01
25-50-02	Amendment according to revision 28 of MMEL.	02-25-06
25-50-03	Technical amendment according to revision 28 of MMEL.	02-25-06
25-60-02	Adapted to airworthiness authorities requirements. Adapted to FODCOM 8/99 requirements. Adapted to AFL fleet. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A320 - 214.	02-25-08 04-25-04 04-25-05 04-25-06 04-25-07 04-25-08 04-25-09
25-60-02	Adapted to airworthiness authorities requirements. Adapted to FODCOM 8/99 requirements. Adapted to AFL Fleet. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319 - 111.	02-25-09 04-25-10 04-25-11 04-25-12 04-25-13 04-25-14 04-25-15
25-60-02	Amendment according to revision 27 of MMEL. Considering TR No 03- 25/05H Issue 01 Jun 2004.	02-25-10 04-25-16 04-25-17 04-25-18 04-25-19 04-25-20 04-25-21

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25-60-04	Adapted to operator requirements. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A320 - 214.	02-25-13 02-25-14 04-25-22 04-25-23 04-25-24 04-25-25 04-25-26 04-25-27 04-25-28 04-25-29
25-60-04	Adapted to operator requirements. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319 - 111.	02-25-15 02-25-16 04-25-30 04-25-31 04-25-32 04-25-33 04-25-34 04-25-35 04-25-36 04-25-37
25-60-04	Adapted to operator requirements. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A321 - 211.	02-25-17 04-25-38 04-25-39 04-25-40
25-60-05	Adapted to AFL fleet. Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A320 - 214.	02-25-18 04-25-41 04-25-42
25-60-05	Adapted to AFL fleet. Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319 - 111.	02-25-19 04-25-43 04-25-44
25-60-05	The item apply to A321 - 211.	02-25-20

ITEM		PAGE in MEL
25-60-11	Amendment according to revision 28 of MMEL. Technical Amendment. The item apply to A320-214, A321-211.	02-25-22
25-60-11	Amendment according to revision 28 of MMEL. Technical Amendment. The item apply to A319-111.	02-25-23
25-60-12	Adapted to Airworthiness Authorities Requirements. Adapted to AFL Fleet.	02-25-24
25-60-13	New item for aircraft with a seat layout capacity of more than 165 persons. Adapted to AFL Fleet. MEL item is deleted.	
25-60-14	New item. Adapted to AFL fleet. MEL item is deleted.	
25-60-15	New Item. Adapted to Airworthiness Authority Requirements.	02-25-24
25-64-02	New item. Adapted to operator requirements. MEL item is deleted.	
26-16-02	Add an operational procedure missing according to revision 28 of MMEL. The item apply to A319-111, A320-214.	02-26-06 03-26-02
26-16-02	The item apply to A321 - 211.	02-26-07
26-17-02	Amendment according to revision 28 of MMEL. The item apply to A319- 111, A320-214.	02-26-09
26-17-02	Amendment according to revision 28 of MMEL. The item apply to A321- 211.	02-26-10
26-21-01	Amendment according to revision 28 of MMEL.	02-26-11 04-26-01 04-26-02 04-26-03

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26-21-02	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-26-11 04-26-04 04-26-05
26-21-03	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-26-11 04-26-06
26-22	The Note has been deleted and incorporated in new dispatch condition for each items related to APU FIRE EXTINGUISHING SYSTEM, and new items have been incorporated. Amendment according to revision 28 of MMEL.	02-26-11
26-22-01	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-26-12 04-26-07 04-26-08
26-22-02	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL.	02-26-12 04-26-09 04-26-10
26-22-03	Amendment according to revision 28 of MMEL.	02-26-12
26-22-04	Amendment according to revision 28 of MMEL.	02-26-13 04-26-11 04-26-12
26-22-05	Amendment according to revision 28 of MMEL.	02-26-13 04-26-13
26-22-06	Added new item according to revision 28 of MMEL.	02-26-13
26-22-07	Added new item according to revision 28 of MMEL.	02-26-13

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26-22-08	Added new item according to revision 28 of MMEL.	02-26-13
26-22-09	Added new item according to revision 28 of MMEL.	02-26-14 04-26-14
26-22-10	Added new item according to revision 28 of MMEL.	02-26-14 04-26-15
26-22-11	Added new item according to revision 28 of MMEL.	02-26-14 04-26-16
26-22-12	Added new item according to revision 28 of MMEL.	02-26-15 04-26-17
26-23	Amendment according to revision 28 of MMEL. The item apply to A319- 111, A320-214.	02-26-16
26-23	Amendment according to revision 28 of MMEL. The item apply to A321- 211.	02-26-17
26-23-01	Amendment according to revision 28 of MMEL. The item apply to A319- 111, A320-214.	02-26-18 02-26-19
26-23-01	Amendment according to revision 28 of MMEL. The item apply to A321- 211.	02-26-20
26-23-02	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A319- 111, A320-214.	02-26-21 04-26-18
26-23-02	Amendment according to revision 28 of MMEL. Amendment of maintenance procedures according to revision 28 of MMEL. The item apply to A321-211.	02-26-22 04-26-19

ITEM		**PAGE in MEL**
27-22-01	Adapted to operator requirements. The item includes requirements to perform CAT2, CAT3 automatic approach and landing.	02-27-04
27-30-01	Amendment of operational procedures according to revision 28 of MMEL.	02-27-05 03-27-02
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	04-56-01	2004-10-15		All
	04-56-02	2004-10-15		All
	04-56-03	2004-10-15		All
*	04-56-04	2005-08-15		All
*	04-56-05	2005-08-15		All
*	04-56-06	2005-08-15		All
*	04-56-07	2005-08-15		All
*	04-56-08	2005-08-15		All
*	04-56-09	2005-08-15		All
*	04-56-10	2005-08-15		All
*	04-56-11	2005-08-15		All
*	04-56-12	2005-08-15		
	04-73-01	2003-09-30		All
*	04-73-02	2005-08-15		
	04-74-01	2003-09-30		All
	04-74-02	2003-09-30		All
*	04-78-01	2005-08-15		All
*	04-78-02	2005-08-15		All
*	04-78-03	2005-08-15		All
*	04-78-04	2005-08-15		All
*	04-78-05	2005-08-15		All
*	04-78-06	2005-08-15		All
*	04-78-07	2005-08-15		All
*	04-78-08	2005-08-15		
	04-79-01	2003-09-30		All
	04-79-02	2003-09-30		All
	04-79-03	2003-09-30		All
	04-79-04	2003-09-30		All
	04-79-05	2003-09-30		All
	04-79-06	2003-09-30		All

	PAGE	DATE	SEQUENCE	EFFECTIVITY
	04-79-07	2003-09-30		All
	04-79-08	2003-09-30		All
	04-79-09	2003-09-30		All
*	04-79-10	2005-08-15		
	04-80-01	2003-09-30		All
	04-80-02	2003-09-30		All
	04-80-03	2003-09-30		All
*	04-80-04	2005-08-15		

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Chapter 01
ECAM Messages

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Before entering in the MEL Section 02, troubleshooting actions should have already been conducted in order to determine and confirm which equipment, component, system or function is inoperative. The objective of the present Section is only to help the airline identify the corresponding MEL ENTRY point (If applicable) when a caution/warning has been displayed on ECAM E/WD. The present Section does not substitute troubleshooting actions.

The following pages give correspondence between ECAM caution/ warning messages and MEL item number.

CAUTION:

1) This section is, normally, not intended to cover false cautions/warnings. However, if a caution/warning is determined to be false by troubleshooting, the crew should refer to the concerned caution/ warning message item (if listed) in the associated ATA chapter of section 02 (MEL).

2) In order to help the crew to determine the MEL ENTRY point corresponding to a caution/warning message, the CONDITION column contains the text :

a) "Actual warning" or "Actual caution".
The associated MEL item number is the MEL ENTRY point which gives the dispatch conditions corresponding to an actual failure of the system/component monitored by the caution/warning.

b) "False warning" or "False caution".
The associated MEL item number is the MEL ENTRY point which gives the dispatch conditions corresponding to the failure of the warning, determined by troubleshooting. The system/component monitored by the caution/warning being still operative.

3) When the CONDITION column contains neither, "Actual caution/warning", nor "False caution/warning" texts, the MEL ENTRY point corresponds to an actual warning which indicates an actual failure of the system/component monitored by the caution/warning.

4) When either an actual, or a false caution/warning is activated, this section gives the MEL ENTRY point to be considered.
But the crew MUST CHECK THAT THE AIRCRAFT SYSTEMS/COMPONENTS ARE IN A CONDITION WHICH COMPLIES WITH THE DISPATCH CONDITIONS. IF NOT, AIRCRAFT DISPATCH IS NOT ALLOWED.

5) When a caution/warning is associated with the wording "Not applicable" in the CONDITION column, this means that the MEL is not the appropriate document to be consulted. When such cautions/warnings have been triggered, application of associated procedure, if any (refer to FCOM Vol 3 Abnormal/Emergency procedures), and/or accomplishment of maintenance action, if required, would permit to fix the problem.

6) "Optional" in the NOTES column indicates that the listed message is not applicable to all models or configurations. "Basic" in the NOTES column indicates that the listed message is applicable to all models or configurations.

EXAMPLES:

1) If the "BAT FAULT" caution message is displayed on ECAM, the crew must refer to the MEL 24-30-02 (Battery channel).
2) If the "AC BUS 1 FAULT" caution message is displayed on ECAM, A/C dispatch is not allowed.
3) If the "GEN 1 OFF" caution message is displayed on ECAM no MEL entry is required, and the text "Not applicable" is written in the CONDITION column.
   In this example, the crew must switch on the GEN pb sw.
4) If "PACK 1+2 FAULT" caution message is displayed the crew must refer to FCOM for "FLIGHT WITHOUT PRESSURIZATION".

Note: The ECAM warnings and cautions listed in section O1 in the column "MESSAGES" are generic. Example: wording FCU 1(2) (1+2) FAULT represents the three messages : "FCU 1 AULT", "FCU 2 FAULT", "FCU 1+2 FAULT".

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
AC BUS 1 FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
AC BUS 2 FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
AC ESS BUS FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
AC ESS BUS SHED	ECAM WARNING	ELEC Basic	Actual caution: NO DISPATCH. False caution: refer MEL 24-27- 07.	24-27-07
ACARS FAULT	ECAM WARNING	COM Optional	Refer to MEL 46-21-01	46-21-01
ADR DISAGREE	ECAM WARNING	F/CTL Basic	NO DISPATCH	
ADR FAULT	ECAM WARNING	NAV Basic	Refer to MEL 34-10-01	34-10-01
AFT BTL SQUIB FAULT	ECAM WARNING	CARGO SMOKE Optional	Refer to MEL 26-23-01-B)	26-23-01
AFT CARGO SMOKE	ECAM WARNING	SMOKE Optional	Actual warning: NO DISPATCH. False warning: refer to MEL 26- 16-04.	26-16-04
AFT CRG DET FAULT	ECAM WARNING	SMOKE Optional	Refer to MEL 26-16-04	26-16-04
AFT CRG DET FAULT	ECAM WARNING	SMOKE Optional	Refer to MEL 26-16-04	26-16-04
AFT CRG DUCT OVHT	ECAM WARNING	COND Optional	If installed refer to MEL 21-43- 02	21-43-02
AFT CRG HEAT FAULT	ECAM WARNING	COND Optional	If installed refer to MEL 21-43- 02	21-43-02

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
AFT CRG ISOL VALVE	ECAM WARNING	COND Optional	If installed refer to MEL 21-28- 05	21-28-05
AFT CRG VENT FAULT	ECAM WARNING	AIR Optional	If installed refer to MEL 21-28- 04	21-28-04
AIL SERVO FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-14-01	27-14-01
ALTN LAW	ECAM WARNING	F/CTL Basic	NO DISPATCH	
ANTI SKID/NWS OFF	ECAM WARNING	BRAKES Basic	Not applicable	
AP OFF	ECAM WARNING	AUTO FLT Basic	Actual warning: refer to MEL 22-10-01. False warning: refer to MEL 22-10-05.	22-10-01 22-10-05
APU BLEED FAULT	ECAM WARNING	AIR Basic	Refer to MEL 36-12-02	36-12-02
APU BLEED LEAK	ECAM WARNING	AIR Basic	Actual caution: refer to MEL 36-12-01. False caution: refer to MEL 36-22-17.	36-12-01 36-22-17
APU FIRE	ECAM WARNING	APU FIRE Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 49- 10-01.	49-10-01
APU GEN FAULT	ECAM WARNING	ELEC Basic	Refer to MEL 24-20-02	24-20-02
APU LP VALVE FAULT	ECAM WARNING	FUEL Basic	Refer to MEL 49-30-02	49-30-02
A/SKID NWS FAULT	ECAM WARNING	BRAKES Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
A/THR LIMITED	ECAM WARNING	AUTO FLT Optional	Not applicable	
A/THR OFF	ECAM WARNING	AUTO FLT Basic	Actual caution: refer to MEL 22-30-01. False caution: refer to MEL 22-30-03.	22-30-01 22-30-03
AUTO BRK FAULT	ECAM WARNING	BRAKES Basic	If normal braking is lost (BRAKE RELEASED message is not displayed on ECAM E/WD): NO DISPATCH. If auto brake function is affected (BRAKE RELEASED message is displayed on ECAM E/WD) refer to MEL 32-42-04. If a tachometer is affected (BRAKE RELEASED message is displayed on ECAM E/WD) refer to MEL 32-42-05.	32-42-04 32-42-05
AUTO (EMER) SHUT DOWN	ECAM WARNING	APU Basic	Refer to MEL 49-10-01	49-10-01
AUTO TRANSFER FAULT	ECAM WARNING	FUEL Optional	Refer to MEL 28-21-02.	28-21-02
AVIONICS SMOKE	ECAM WARNING	SMOKE Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 26- 15-01.	26-15-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
AVNCS SYS FAULT	ECAM WARNING	VENT Basic	If SKIN VALVE FAULT message is present refer to MEL 21-26-04 or refer to MEL 21-26-05. Refer to MEL 21-26-03 or refer to MEL 21-26-08 or refer to MEL 21-26-06 or refer to MEL 21-26-10.	21-26-03 21-26-04 21-26-05 21-26-06 21-26-08 21-26-10
BAT 1 (2) FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
BAT 1 (2) OFF	ECAM WARNING	ELEC Basic	Not applicable	
BCL 1 (2) FAULT	ECAM WARNING	ELEC Basic	Refer to MEL 24-30-03	24-30-03
B+G SYS LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-E).	29-30-04
BLEED STATUS FAULT	ECAM WARNING	ENG Basic	If warning is triggered before first engine start, check that no amber cross is displayed on ECAM ENG page for OIL TEMP indication of affected engine. If amber cross displayed, associated EIU may be the cause of the failure (associated engine start not possible).	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
BLEED 1(2) OFF	ECAM WARNING	AIR Basic	Refer to MEL 36-11-01	36-11-01
BLOWER FAULT	ECAM WARNING	VENT Basic	Actual caution: refer to MEL 21-26-01. False caution: refer to MEL 21-26-11.	21-26-01 21-26-11
BOGIE ALIGN FAULT	ECAM WARNING	L/G Optional	Not applicable	
B+Y SYS LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-E).	
CABIN	ECAM WARNING	DOOR Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 52- 70-01.	52-70-01
CAPT (F/0) (STBY) AOA	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-31-04	30-31-04
CAPT (F/0) (STBY) L(R) STAT	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-31-03	30-31-03
CAPT (F/0) (STBY) PITOT	ECAM WARNING	HYD Basic	Refer to MEL 30-31-02	30-31-02
CAPT (F/0) (STBY) PROBES	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-31-01	30-31-01
CAPT (F/0) TAT	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-31-05	30-31-05
CARGO	ECAM WARNING	DOOR Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 52- 70-01.	52-70-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
CIDS 1 + 2 FAULT	ECAM WARNING	COM Basic	NO DISPATCH	
CKPT (FWD CAB) (AFT CAB) DUCT OVHT	ECAM WARNING	COND Basic	Refer to MEL 21-63-02	21-63-02
COMPRESSOR VANE	ECAM WARNING	ENG Basic	NO DISPATCH	
CTL VALVE FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	
CTR TK PUMP 1(2) LO PR	ECAM WARNING	FUEL Optional	Refer to MEL 28-21-02	28-21-02
CTR TK PUMPS LO PR	ECAM WARNING	FUEL Optional	Refer to MEL 28-21-02	28-21-02
CTR TK PUMPS OFF	ECAM WARNING	FUEL Optional	Not applicable	
CTR TK XFR OFF	ECAM WARNING	FUEL Optional	Not applicable	
DC BAT BUS FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
DC BUS 1 + 2 FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
DC BUS 1 FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
DC BUS 2 FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
DC EMER CONFIG	ECAM WARNING	ELEC Basic	NO DISPATCH	
DC ESS BUS FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
DC ESS BUS SHED	ECAM WARNING	ELEC Basic	NO DISPATCH	
DET FAULT	ECAM WARNING	WINDSHEAR Optional	Refer to MEL 22-66-03	22-66-03
DETECT FAULT	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-81-02	30-81-02
DFDR FAULT	ECAM WARNING	RECORDER Basic	Refer to MEL 31-30-02	31-30-02
DIRECT LAW	ECAM WARNING	F/CTL Basic	NO DISPATCH	
DMC 1 (2) (3) FAULT	ECAM WARNING	EIS Basic	Refer to MEL 31-63-02	31-63-02
DOORS NOT CLOSED	ECAM WARNING	L/G Basic	NO DISPATCH	
DUAL FAILURE	ECAM WARNING	ENG Basic	Not applicable	
EIU FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	
ELAC 1 FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-93-01	27-93-01
ELAC 1 PITCH FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-93-01	27-93-01
ELAC 2 FAULT	ECAM WARNING	F/CTL Basic	NO DISPATCH	
ELAC 2 PITCH FAULT	ECAM WARNING	F/CTL Basic	NO DISPATCH	
ELEV SERVO FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-34-01 or refer to MEL 27-34-02.	27-34-01 27-34-02

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
EMER EXIT	ECAM WARNING	DOOR Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 52- 70-01.	52-70-01
EMER GEN 1 LINE OFF	ECAM WARNING	ELEC Basic	Not applicable	
EMER GONFIG	ECAM WARNING	ELEC Basic	NO DISPATCH	
ENG HP VALVE FAULT	ECAM WARNING	AIR Basic	Refer to MEL 36-11-07	36-11-07
ENG 1 (2) LP VALVE OPEN	ECAM WARNING	FUEL Basic	Refer to MEL 28-24-01	28-24-01
ENG 1 (2) VALVE CLSD or OPEN	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-21-01	30-21-01
ENG 1(2) BLEED ABNORM PR	ECAM WARNING	AIR Basic	Refer to MEL 36-11-01	36-11-01
ENG 1(2) BLEED FAULT	ECAM WARNING	AIR Basic	Refer to MEL 36-11-01	36-11-01
ENG 1(2) BLEED LEAK	ECAM WARNING	AIR Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 36- 22-15.	36-22-15
ENG 1(2) BLEED NOT CLSD	ECAM WARNING	AIR Basic	Refer to MEL 36-11-02	36-11-02
ENG 1(2) FIRE	ECAM WARNING	ENG 1(2) FIRE Basic	NO DISPATCH	
ENG 1(2) (1 + 2) BLEED LO TEMP	ECAM WARNING	AIR Basic	Refer to MEL 36-11-04	36-11-04
ESS BUSSES ON BAT	ECAM WARNING	ELEC Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
EXCESS CAB ALT	ECAM WARNING	CAB PR Basic	Not applicable	
EXTRACT FAULT	ECAM WARNING	VENT Basic	Actual caution: refer to MEL 21-26-02. False caution: refer to MEL 21-26-12.	21-26-02 21-26-12
FAC 1 (2) FAULT	ECAM WARNING	AUTO FLT Basic	Refer to MEL 22-66-01	22-66-01
FAC 1+2 FAULT	ECAM WARNING	AUTO FLT Basic	NO DISPATCH	
FADEC A(B) FAULT	ECAM WARNING	ENG Basic	Refer to MEL 73-20-01	73-20-01
FADEC ALTERNATOR	ECAM WARNING	ENG Basic	NO DISPATCH	
FADEC FAULT	ECAM WARNING	ENG Basic	Refer to MEL 73-20-01	73-20-01
FADEC HI TEMP	ECAM WARNING	ENG Basic	NO DISPATCH	
FAIL	ECAM WARNING	ENG 1(2) Basic	Not applicable	
FCDG FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-95-01	27-95-01
FCU 1 (2) FAULT	ECAM WARNING	AUTO FLT Basic	Refer to MEL 22-81-01	22-81-01
FCU 1+2 FAULT	ECAM WARNING	AUTO FLT Basic	NO DISPATCH	
FDIU FAULT	ECAM WARNING	RECORDER Basic	Refer to MEL 31-30-03	31-30-03

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
FIRE DET FAULT	ECAM WARNING	ENG 1(2) Basic	Refer to MEL 26-12-01	26-12-01
FIRE DET FAULT	ECAM WARNING	APU Basic	Refer to MEL 26-13-01	26-13-01
FIRE LOOP A (B) FAULT	ECAM WARNING	ENG 1(2) Basic	Refer to MEL 26-12-01	26-12-01
FIRE LOOP A(B) FAULT	ECAM WARNING	APU Basic	Refer to MEL 26-13-01	26-13-01
FLAP ATTACH SENSOR	ECAM WARNING	F/CTL Basic	NO DISPATCH	
FLAP LVR NOT ZERO	ECAM WARNING	F/CTL Basic	Not applicable	
FLAP SYS 1 (2) FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-51-01. If maintenance confirms warning to be triggered due to flap motor failure refer to MEL 27-54-01.	27-51-01 27-54-01
FLAP TIP BRK FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-51-02	27-51-02
FLAPS/SLATS FAULT	ECAM WARNING	F/CTL Basic	NO DISPATCH	
FLAPS/SLATS LOCKED	ECAM WARNING	F/CTL Basic	NO DISPATCH	
FLEX TEMP NOT SET	ECAM WARNING	ENG Basic	Refer to MEL 73-20-05	73-20-05
FM/GPS POS DISAGREE	ECAM WARNING	NAV Optional	Not applicable	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
FQI CH 1(2) FAULT	ECAM WARNING	FUEL Basic	Refer to MEL 28-40-02	28-40-02
FUEL CTL FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	
FUEL FILTER CLOG	ECAM WARNING	ENG Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 73- 30-03.	73-30-03
FUEL RETURN VALVE	ECAM WARNING	ENG Basic	Refer to MEL 73-11-01	73-11-01
FWC 1 + 2 FAULT	ECAM WARNING	FWS Basic	NO DISPATCH	
FWC 1 FAULT	ECAM WARNING	FWS Basic	NO DISPATCH	
FWC 2 FAULT	ECAM WARNING	FWS Basic	Refer to MEL 31-53-01	31-53-01
FWD BTL SQUIB FAULT	ECAM WARNING	CARGO SMOKE Optional	Refer to MEL 26-23-01-B)	26-23-01
FWD CARGO SMOKE	ECAM WARNING	SMOKE Optional	Actual warning: NO DISPATCH. False warning: refer to MEL 26- 16-03.	26-16-03
FWD CRG DET FAULT	ECAM WARNING	SMOKE Optional	Refer to MEL 26-16-03	26-16-03
FWD CRG DUCT OVHT	ECAM WARNING	COND Optional	Refer to MEL 21-63-02	21-63-02
FWD CRG HEAT FAULT	ECAM WARNING	COND Optional	If installed refer to MEL 21-43- 01	21-43-01
FWD CRG ISOL VALVE	ECAM WARNING	COND Optional	If installed refer to MEL 21-28- 02	21-28-02

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
FWD CRG VENT FAULT	ECAM WARNING	AIR Optional	If installed refer to MEL 21-28- 01	21-28-01
G ENG 1(2) PUMP LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-I).	29-30-04
G RSVR LO AIR PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-B).	29-30-04
G RSVR LO LVL	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-A).	29-30-04
G RSVR OVHT	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-C).	29-30-04
G SYS LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-F).	29-30-04
GEAR NOT DOWN	ECAM WARNING	L/G Basic	Not applicable	
GEAR NOT DOWNLOCKED	ECAM WARNING	L/G Basic	Not applicable	
GEAR NOT UPLOCKED	ECAM WARNING	L/G Basic	Not applicable	
GEAR UPLOCK FAULT	ECAM WARNING	L/G Basic	Refer to FCOM 2-04-25	
GEN 1 (2) FAULT	ECAM WARNING	ELEC Basic	Refer to MEL 24-20-01	24-20-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
GEN 1 (2) OFF	ECAM WARNING	ELEC Basic	Not applicable	
GEN 1 (2) or APU GEN OVER LOAD	ECAM WARNING	ELEC Basic	Refer to MEL 24-56-01	24-56-01
GND COOL FAULT	ECAM WARNING	VENT Optional	Refer to MEL 21-27-01	21-27-01
GND SPLR FAULT	ECAM WARNING	F/CTL Basic	If bracking system not affected refer to MEL 27-92-02. If bracking system affected refer to MEL 32-42-05.	27-92-02 32-42-05
GND SPLR (1 + 2) (3 + 4) FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-92-02	27-92-02
GPS 1(2) FAULT	ECAM WARNING	NAV Optional	Refer to MEL 34-58-01	34-58-01
GPWS FAULT	ECAM WARNING	NAV Optional	Refer to MEL 34-48-01 or refer to MEL 34-48-02	34-48-01 34-48-02
GPWS TERR DET FAULT	ECAM WARNING	NAV Optional	Refer to MEL 34-48-02	34-48-02
G+Y SYS LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-F).	29-30-04
HDG/ATT/ALTI DISCREPANCY	ECAM WARNING	NAV Basic	Refer to MEL 34-10-01	34-10-01
HF 1 (2) DATA FAULT	ECAM WARNING	COM Basic	Refer to MEL 23-11-01	23-11-01
HF 1 (2) EMITTING	ECAM WARNING	COM Optional	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
HOT	ECAM WARNING	BRAKES Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 32- 60-03-H).	32-60-03
HOT AIR FAULT	ECAM WARNING	COND Basic	If TRIM AIR SYS FAULT warning not present refer to MEL 21-63- 03. If FWD cargo heating installed refer to MEL 21-43-01. If TRIM AIR SYS FAULT warning present refer to MEL 21-63-02.	21-43-01 21-63-02 21-63-03
HP FUEL VALVE	ECAM WARNING	ENG Basic	NO DISPATCH	
HYD SEL FAULT	ECAM WARNING	WHEEL Basic	NO DISPATCH	
ICE DETECTED	ECAM WARNING	ANTI ICE Basic	Not applicable	
IDG 1 (2) OIL LO PR/OVHT	ECAM WARNING	ELEC Basic	Refer to MEL 24-20-01	24-20-01
IGN A (B) (A+B) FAULT	ECAM WARNING	ENG Basic	Actual warning: refer to MEL 74-31-01. False warning: refer to MEL 74-31-03.	74-31-01 74-31-03
ILS 1(2) FAULT	ECAM WARNING	NAV Basic	Refer to MEL 34-36-01	34-36-01
IR DISAGREE	ECAM WARNING	F/CTL Basic	NO DISPATH	
IR FAULT	ECAM WARNING	NAV Basic	Refer to MEL 34-10-01	34-10-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
L + R CAB FAN FAULT	ECAM WARNING	COND Basic	Refer to MEL 21-21-01	21-21-01
L + R ELEV FAULT	ECAM WARNING	F/CTL Basic	NO DISPATCH	
L + R WING TK LO LVL	ECAM WARNING	FUEL Basic	NO DISPATCH	
LAV + CRG DET FAULT	ECAM WARNING	SMOKE Basic	Refer to MEL 26-17-02	26-17-02
LAV + GALLEY FAN FAULT	ECAM WARNING	COND Basic	Refer to MEL 21-23-01	21-23-01
LAVATORY DET FAULT	ECAM WARNING	SMOKE Basic	Refer to MEL 26-17-01	26-17-01
LAVATORY SMOKE	ECAM WARNING	SMOKE Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 26- 17-01.	26-17-01
LDG ELEV FAULT	ECAM WARNING	CAB PR Basic	Refer to MEL 21-31-05	21-31-05
LGCIU 1 FAULT	ECAM WARNING	L/G Basic	NO DISPATCH	
LGCIU 2 FAULT	ECAM WARNING	L/G Basic	Refer to MEL 32-31-01 or refer to MEL 32-31-02.	32-31-01 32-31-02A 32-31-02B
LO DIFF PR	ECAM WARNING	CAB PR Basic	Not applicable	
LOW N1	ECAM WARNING	ENG Basic	NO DISPATCH	
L(R) AFT AVIONICS	ECAM WARNING	DOOR Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 52- 70-01.	52-70-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
L(R) AIL FAULT	ECAM WARNING	F/CTL Basic	NO DISPATCH	
L(R) ELEV FAULT	ECAM WARNING	F/CTL Basic	NO DISPATCH	
L(R) FWD AVIONICS	ECAM WARNING	DOOR Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 52- 70-01.	52-70-01
L(R) HI PR	ECAM WARNING	WING ANTI ICE Basic	NO DISPATCH	
L(R) INNER (OUTER) - TK HI TEMP	ECAM WARNING	FUEL Optional	Actual caution: dispatch possible only if "delay T.O" is not displayed on ECAM. False caution: refer to MEL 28- 40-09-A).	28-40-09
L(R) INNER (OUTER) - TK LO TEMP	ECAM WARNING	FUEL Optional	Actual caution: NO DISPATCH. False caution: refer to MEL 28- 40-09-B).	28-40-09
L(R) SIDESTICK FAULT	ECAM WARNING	F/CTL Basic	Not applicable	
L(R) SIDESTICK FAULT	ECAM WARNING	CONFIG Basic	NO DISPATCH	
L(R) TK PUMP 1 + 2 LO PR	ECAM WARNING	FUEL Basic	Refer to MEL 28-21-01	28-21-01
L(R) TK PUMP 1(2) LO PR	ECAM WARNING	FUEL Basic	Refer to MEL 28-21-01	28-21-01
L(R) VALVE OPEN	ECAM WARNING	WING ANTI ICE Basic	Refer to MEL 30-11-01	30-11-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
L(R) WINDOW	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-42-02	30-42-02
L(R) WINDSHIELD	ECAM WARNING	ANTI ICE Basic	Refer to MEL 30-42-03	30-42-03
L+R WINDSHIELD	ECAM WARNING	ANTI ICE Basic	NO DISPATCH	
L(R) WING LEAK	ECAM WARNING	AIR Basic	NO DISPATCH	
L(R) WING LEAK DET FAULT	ECAM WARNING	AIR Basic	NO DISPATCH	
L(R) WING TK HI TEMP	ECAM WARNING	FUEL Optional	Actual caution: dispatch possible only if "delay T.O." is not displayed on ECAM. False caution: refer to MEL 28-40-09- A).	28-40-09
L(R) WING TK LO LVL	ECAM WARNING	FUEL Basic	Actual caution: NO DISPATCH. False caution: refer to MEL 28- 40-01-E).	28-40-01
L(R) WING TK LO LVL	ECAM WARNING	FUEL Optional	Actual caution: NO DISPATCH. False caution: refer to MEL 28- 40-01-E).	28-40-01
L(R) WING TK OVERFLOW	ECAM WARNING	FUEL Optional	NO DISPATCH	
L(R) XFR VALVE CLOSED or OPEN	ECAM WARNING	FUEL Optional	Refer to MEL 28-15-01	28-15-01
L(R) XFR VALVE FAULT	ECAM WARNING	FUEL Optional	Refer to MEL 28-21-02.	28-21-02

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
MONITORING FAULT	ECAM WARNING	BLEED Basic	NO DISPATCH	
N/W STRG FAULT	ECAM WARNING	WHEEL Basic	Refer to MEL 32-51-01	32-51-01
N1/N2/EGT OVERLIMIT	ECAM WARNING	ENG Basic	Not applicable	
N1/N2/EGT/FF DISCREPANCY	ECAM WARNING	ENG Basic	NO DISPATCH	
OEB/FWC DISCREPANCY	ECAM WARNING	FWS Basic	NO DISPATCH	
OIL FILTER CLOG	ECAM WARNING	ENG Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 79- 35-02.	79-35-02
OIL HI TEMP	ECAM WARNING	ENG Basic	NO DISPATCH	
OIL LO PR	ECAM WARNING	ENG Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 79- 33-02.	79-33-02
ONE TLA FAULT	ECAM WARNING	ENG Basic	Refer to MEL 76-11-01	76-11-01
OPEN ON GND	ECAM WARNING	WING ANTI ICE Basic	Refer to MMEL 30-11-01	30-11-01
OUTFLOW VALVE NOT OPEN	ECAM WARNING	CAB PR Basic	NO DISPATCH	
OVER SPEED	ECAM WARNING	NAV Basic	Not applicable	
OVSPD PROT FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
PACK 1 + 2 FAULT	ECAM WARNING	AIR Basic	Refer to FCOM 02-04-20	
PACK 1 (2) FAULT or OVHT or OFF	ECAM WARNING	AIR Basic	Refer to MEL 21-52-01	21-52-01
PACK 1 (2) REGUL FAULT	ECAM WARNING	AIR Basic	If turbine bypass valve affected refer to MEL 21-61-02, or refer to MEL 21-61-01.	21-61-01 21-61-02
PARK BRAKE ON	ECAM WARNING	CONFIG Basic	NO DISPATCH	
PITCH TRIM NOT IN T.O. RANGE	ECAM WARNING	CONFIG Basic	NO DISPATCH	
PRED W/S DET FAULT	ECAM WARNING	NAV Optional	Refer to MEL 34-41-02	34-41-02
PTU FAULT	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-G).	29-30-04
RA 1(2) FAULT	ECAM WARNING	NAV Basic	Refer to MEL 34-42-01	34-42-01
RAT FAULT	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-H).	29-30-04
REAC W/S DET FAULT	ECAM WARNING	AUTO FLT Optional	Refer to MEL 22-66-03	22-66-03
REV ISOL FAULT	ECAM WARNING	ENG Optional	Refer to MEL 78-30-04	78-30-04
REV PRESSURIZED	ECAM WARNING	ENG Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
REV SWITCH FAULT	ECAM WARNING	ENG Basic	Refer to MEL 78-30-02	78-30-02
REVERSE UNLOCKED	ECAM WARNING	ENG Basic	NO DISPATCH	
REVERSER FAULT	ECAM WARNING	ENG Basic	Refer to MEL 78-30-01	78-30-01
RUD TRIM NOT IN T.O. RANGE	ECAM WARNING	CONFIG Basic	NO DISPATCH	
RUD TRIM SYS	ECAM WARNING	AUTO FLT Basic	NO DISPATCH	
RUD TRIM 1 (2) FAULT	ECAM WARNING	AUTO FLT Basic	Refer to MEL 27-22-01	27-22-01
RUD TRV LIM SYS	ECAM WARNING	AUTO FLT Basic	NO DISPATCH	
RUD TRV LIM 1 (2)	ECAM WARNING	AUTO FLT Basic	Refer to MEL 27-23-01	27-23-01
SAFETY VALVE OPEN	ECAM WARNING	CAB PR Basic	Actual : refer to FCOM 02- 04-20. False caution: refer MEL 21-31-08.	21-31-08
SATCOM DATA FAULT	ECAM WARNING	COM Optional	Refer to MEL 23-28-01	23-28-01
SATCOM FAULT	ECAM WARNING	COM Optional	Refer to MEL 23-28-01	23-28-01
SDAC 1 + 2 FAULT	ECAM WARNING	FWS Basic	NO DISPATCH	
SDAC 1 FAULT	ECAM WARNING	FWS Basic	NO DISPATCH	
SDAC 2 FAULT	ECAM WARNING	FWS Basic	Refer to MEL 31-55-01	31-55-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
SEC 1(2)(3) FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-94-01	27-94-01
SENSOR/PROBES FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	
SEVERE ICE DETECTED	ECAM WARNING	ANTI ICE Basic	Not applicable	
SHOCK ABSORBER FAULT	ECAM WARNING	L/G Basic	NO DISPATCH	
SHUT DOWN	ECAM WARNING	ENG 1(2) Basic	Not applicable	
SIDESTICK PRIORITY	ECAM WARNING	F/CTL Basic	Refer to FCOM 3.02.27. NO DISPATCH if priority inoperative.	
SKIN VALVE FAULT	ECAM WARNING	VENT Basic	Faulty valve determined on ECAM CAB PRESS page: refer to MEL 21-26-04 or refer to MEL 21-26-05.	21-26-04 21-26-05
SLAT SYS 1 (2) FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-51-01. If maintenance confirms warning to be triggered due to slat motor failure refer to MEL 27-84-01.	27-51-01 27-84-01
SLAT TIP BRK FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-81-01	27-81-01
SLATS and FLAPS FAULT in conf 0	ECAM WARNING	F/CTL Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
SLATS (FLAPS) NOT IN T.O. CONFIG.	ECAM WARNING	CONFIG Basic	NO DISPATCH	
SPD BRK DISAGREE	ECAM WARNING	F/CTL Basic	Refer to MEL 27-92-01	27-92-01
SPD BRK FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-92-01	27-92-01
SPD BRK STILL OUT	ECAM WARNING	F/CTL Basic	Not applicable	
SPD BRK 2 (3 + 4) FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-92-01	27-92-01
SPEED BRK NOT RETRACTED	ECAM WARNING	CONFIG Basic	NO DISPATCH	
SPLR FAULT	ECAM WARNING	F/CTL Basic	Refer to MEL 27-64-01	27-64-01
STABILIZER JAM	ECAM WARNING	F/CTL Basic	NO DISPATCH	
STAIRS	ECAM WARNING	DOOR Optional	Actual caution: NO DISPATCH. False caution: refer to MEL 52- 70-01.	52-70-01
STALL	ECAM WARNING	ENG 1(2) Basic	Not applicable	
START FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	
START VALVE FAULT	ECAM WARNING	ENG Basic	Refer to MEL 80-11-01	80-11-01
STAT INV FAULT	ECAM WARNING	ELEC Basic	NO DISPATCH	
SYS DISAGREE	ECAM WARNING	L/G Basic	NO DISPATCH	

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
SYS FAULT	ECAM WARNING	WING ANTI ICE Basic	Refer to MEL 30-11-01	30-11-01
SYS 1 + 2 FAULT	ECAM WARNING	CAB PR Basic	Refer to FCOM 02-04-20	
SYS 1 (2) FAULT	ECAM WARNING	CAB PR Basic	Refer to MEL 21-31-01	21-31-01
SYS 1 (2) FAULT	ECAM WARNING	BRAKES Basic	Refer to MEL 32-42-03	32-42-03
TCAS FAULT	ECAM WARNING	NAV Optional	Refer to MEL 34-43-01	34-43-01
THR LEVER DISAGREE	ECAM WARNING	ENG Basic	NO DISPATCH	
THR LEVER FAULT	ECAM WARNING	ENG Basic	NO DISPATCH	
THRUST LOCKED	ECAM WARNING	ENG Optional	Not applicable	
TIRE LO PR	ECAM WARNING	WHEEL Optional	Actual caution: NO DISPATCH. False caution: refer to MEL 32- 49-02.	32-49-02
TR 1 (2) or ESS TR FAULT	ECAM WARNING	ELEC Basic	Refer to MEL 24-30-01	24-30-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
TRIM AIR SYS FAULT	ECAM WARNING	COND Basic	If trim air valves are closed when this warning is triggered, it can be disregarded. If AFT CAB/FWD CAB/CKPT TRIM VALVE message displayed on ECAM refer to MEL 21-63-02. If TRIM AIR HI PR message displayed on ECAM refer to MEL 21-63-03 and refer to MEL 21-43-01 (if FWD cargo heating installed).	21-43-01 21-63-02 21-63-03
TYPE DISAGREE	ECAM WARNING	ENG Optional	NO DISPATCH	
VHF 1(2)(3) EMITTING	ECAM WARNING	COM Basic	NO DISPATCH	
VHF 3 DATA FAULT	ECAM WARNING	COM Basic	Refer to MEL 23-12-01	23-12-01
VIB SYS FAULT	ECAM WARNING	ENG Basic	Refer to MEL 77-00-02-I)	77-00-02
X BLEED FAULT	ECAM WARNING	AIR Basic	Refer to MEL 36-12-04	36-12-04
X FEED VALVE FAULT	ECAM WARNING	FUEL Basic	Refer to MEL 28-23-01	28-23-01
XFR VALVES FAULT	ECAM WARNING	FUEL Optional	Refer to MEL 28-21-02.	28-21-02

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
Y ELEC PUMP LO PR	ECAM WARNING	HYD Basic	Actual warning: refer to MEL 29-24-01. False warning: refer to MEL 29-30-04-E).	29-24-01 29-30-04
Y ELEC PUMP OVHT	ECAM WARNING	HYD Basic	Actual warning: refer to MEL 29-24-01. False warning: refer to MEL 29-30-04-D).	
Y ENG 1(2) PUMP LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-I).	29-30-04
Y RSVR LO AIR PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-B).	29-30-04
Y RSVR LO LVL	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-A).	29-30-04
Y RSVR OVHT	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-C).	29-30-04
Y SYS LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-F).	29-30-04
YAW DAMPER SYS	ECAM WARNING	AUTO FLT Basic	NO DISPATCH	
YAW DAMPER 1 (2)	ECAM WARNING	AUTO FLT Basic	Refer to MEL 22-63-01	22-63-01

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
ZONE REGUL FAULT	ECAM WARNING	COND Basic	If the message CAB ZONE AT FIXED TEMPERATURE is displayed refer to MEL 21-63-01 a), and refer to MEL 21-43-01 (if FWD cargo heating installed). If the message PACKS AT FIXED TEMPERATURE is displayed refer to MEL 21-63-01 c), and refer to MEL 21-43-01 (if FWD cargo heating installed).	21-43-01 21-63-01
B ELEC PUMP LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-E).	29-30-04
B ELEC PUMP OVHT	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-D).	29-30-04
B RSVR LO AIR PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-B).	29-30-04
B RSVR LO LVL	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-A).	29-30-04
B RSVR OVHT	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-C).	29-30-04

MESSAGE	LEVEL	NOTES	CONDITION	MEL ITEM
B SYS LO PR	ECAM WARNING	HYD Basic	Actual warning: NO DISPATCH. False warning: refer to MEL 29- 30-04-F).	
C/B TRIPPED	ECAM WARNING	ELEC Basic	Refer to affected system	

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Chapter 02

MINIMUM EQUIPMENT LIST ITEMS

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
21-00-01 PACK	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
21-00-02 ZONE CONTROL	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
21-00-03 AFT CRG HEAT	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
21-21 AIR DISTRIBUTION AND RECIRCULATION				
21-21-01 Cabin fan	C	2	1	Only one may be inoperative
21-21-02 CAB FAN OFF light	C	1	0	(p)
21-23 LAVATORY AND GALLEY VENTILATION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-23-01 Extraction Fan	C	1	0	(o) May be inoperative provided duct temperatures for the cabin are available on ECAM COND page.
21-26 AVIONICS EQUIPMENT VENTILATION				NOTE: During ground operation, proper avionics ventilation should be provided. ATTENTION: This note applicable to all items listed below and related with the associated subsystem.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-01 Blower Fan	C	1	0	(p)(o) a) Except for ER operation, may be inoperative provided: 1) BLOWER pb sw is set at OVRD, and 2) Both air conditioning packs are operative, and 3) VENT AVNCS SYS FAULT ECAM caution is not present. - or -
	C	1	0	(p)(o)(m) b) Except for ER operation, may be inoperative provided : 1) BLOWER pb sw is set at OVRD, and 2) Both air conditioning packs are operative, and 3) Air conditioning inlet valve is checked open before each flight. - or -
	C	1	0	(p)(o)(m) c) Except for ER operation, may be inoperative provided : 1) BLOWER pb sw is set at OVRD, and 2) Both air conditioning packs are operative, and 3) Air conditioning inlet valve is secured open, and 4) Avionic ventilation system is checked before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-02 Extract Fan	C	1	0	(p)(o) a) Except for ER operation, may be inoperative provided: 1) Blower fan is operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) VENT AVNCS SYS FAULT ECAM caution is not present. - or -
	C	1	0	(p)(o)(m) b) Except for ER operation, may be inoperative provided: 1) Blower fan is operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) Air conditioning inlet valve is checked open before each fight. - or -
	C	1	0	(p)(o)(m) c) Except for ER operation, may be inoperative provided: 1) Blower fan is operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) Air conditioning inlet valve is secured open, and 5) Avionic ventilation system is checked before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-02 Extract Fan	C	1	0	(p)(o) a) Except for ER operation, may be inoperative provided: 1) Blower fan is operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) VENT AVNCS SYS FAULT ECAM caution is not present. - or -
	C	1	0	(p)(o)(m) b) Except for ER operation, may be inoperative provided: 1) Blower fan is operative, and 2) EXTRACT pb sw is set at OVRD, and 3) both air conditioning packs are operative, and 4) Air conditioning inlet valve is checked open before each fight. - or -
	C	1	0	(p)(o)(m) c) Except for ER operation, may be inoperative provided: 1) Blower fan is operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) Air conditioning inlet valve is secured open, and 5) Avionic ventilation system is checked before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-03 Skin Exchanger Inlet Bypass Valve	C	1	0	(o)(m) May be inoperative provided : 1) It is manually secured closed, and 2) Avionic ventilation system is checked before each flight.
21-26-04 Skin Air Outlet Valve	C	1	0	(o)(m) May be inoperative provided : 1) Internal flap is manually secured to open position, and 2) Both packs are operative, and 3) Skin Exchanger Isolation Valve is secured open, and 4) Avionic ventilation system is checked before each flight.
21-26-05 Skin Air Inlet Valve	C	1	0	(o)(m) a) May be inoperative provided: 1) It is manually secured closed, and 2) Air conditioning Inlet Valve is open on ground, and 3) Avionic ventilation system is checked before each flight. - or -
	C	1	0	(o)(m) b) May be inoperative provided: 1) It is manually secured closed, and 2) Air conditioning Inlet Valve is secured open, and 3) Avionic ventilation system is checked before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-06 Skin Exchanger Isolation Valve	C	1	0	(o)(m) a) May be inoperative in open position provided status of avionic ventilation system is checked before each flight. - or -
	C	1	0	(o)(m) b) May be inoperative provided : 1) It is secured open, and 2) Avionic ventilation system is checked before each flight. Note: If it cannot be secured open, it can be interchanged with the skin exchanger outlet bypass valve.
21-26-07 Skin Exchanger Outlet Bypass Valve	C	1	0	
21-26-08 Air Conditioning Inlet Valve	C	1	0	(o)(m) May be inoperative provided : 1) It is manually secured open, and 2) Both packs are operative, and 3) Avionic ventilation is checked before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-09 Ventilation Filter	C	1	0	(o) a) May be inoperative (clogged) provided : 1) Blower and extract fans are operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) VENT AVNCS SYS FAULT ECAM caution is not present. - or -
	C	1	0	(o)(m) b) May be inoperative (clogged) provided : 1) Blower and extract fans are operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) Air conditioning Inlet Valve is checked open before each flight. - or -
	C	1	0	(o)(m) c) May be inoperative (clogged) provided : 1) Blower and extract fans are operative, and 2) EXTRACT pb sw is set at OVRD, and 3) Both air conditioning packs are operative, and 4) Air conditioning Inlet Valve is secured open, and 5) Avionic ventilation system is checked before each flight.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-09 Ventilation Filter				
21-26-10 Avionic Equipment Ventilation Computer (AEVC)	C	1	0	(o)(m) Except for ER operations may be inoperative provided : 1) Extract fan is checked operative prior to each flight, and 2} BLOWER and EXTRACT pb sw are set at OVRD, and 3) Air-conditioning inlet valve and extract valve are checked in the correct position prior to each flight, and 4) Both packs are operative, and 5) Skin air inlet valve is secured closed, and 6) VENT BLOWER FAULT and VENT EXTRACT FAULT cautions are not displayed simultaneously on ECAM E/WD.
21-26-11 VENT BLOWER FAULT Caution on ECAM E/WD	C	1	0	(m) a) May be inoperative provided: 1) Blower fan is checked operative prior to each flight, and 2) VENT AVNCS SYS FAULT caution on ECAM is checked operative prior to each flight. - or -
	C	1	0	b) May be inoperative provided blower fan is considered inoperative. Refer to 21-26-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-26-12 VENT EXTRACT FAULT Caution on ECAM E/WD	C	1	0	(m) a) May be inoperative provided: 1) Extract fan is checked operative prior to each flight, and 2) VENT AVNCS SYS FAULT caution on ECAM is checked operative prior to each flight. - or -
	C	1	0	b) May be inoperative provided extract fan is considered inoperative. Refer to 21-26-02.
21-26-13 BLOWER FAULT Light	C	1	0	(p)
21-26-14 EXTRACT FAULT Light	C	1	0	(p)
21-26-15 Indications on ECAM CAB PRESS Page	C	2	0	INLET and EXTRACT indications may be inoperative.
21-28 CARGO COMPARTMENT VENTILATION				
21-28-04 AFT CARGO Extraction Fan	D	1	0	(o)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-28-05 AFT CARGO Isolation Valve	D	2	0	(o)(m) One or both may be inoperative provided both valves are checked closed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-28-05 AFT CARGO Isolation Valve	D	2	0	(o)(m) One or both may be inoperative provided both valves are checked closed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-28-06 AFT ISOL VALVE FAULT Light	D	1	0	(p) a) Except for ER operations, may be inoperative. -or- (p) b) May be inoperative provided isolation valves indications are available on ECAM COND page.
21-31 PRESSURE CONTROL AND MONITORING				NOTE: The whole pressurization system may be inoperative for a non-pressurized flight. Refer to FCOM 2.04.20 ATTENTION: This note applicable to all items listed below and related with the associated subsystem.
21-31-01 Cabin Pressure Automatic Control System (CPC, Outflow Valve AUTO Channel)	C	2	1	(o) a) System 2 may be inoperative provided cabin pressure indications are available on ECAM in manual mode. - or - (o) b) Except for ER operations, one may be inoperative provided cabin pressure indications are available on ECAM in manual mode.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-31-02 Cabin Pressure Manual Control System (Outflow Valve MAN Channel)	C	1	0	(m) May be inoperative provided both automatic systems are checked operative prior to each flight.
21-31-04 Safety Valve	C	2	1	(m) One may be inoperative in closed position provided : 1) Both automatic systems are operative, and 2) The three outflow valve motors are checked operative before the first flight under this item.
21-31-05 Landing Elevation Selection				
A) AUTO Function	C	1	0	(p)(o)
B) MAN Function	C	1	0	(p)(o) May be inoperative provided: 1) AUTO function is operative, and 2) Both FMGC are operative.
21-31-06 MODE SEL FAULT Light	C	1	0	(p)
21-31-07 Safety Valves Position Indication on ECAM CAB PRESS Page	C	1	0	(m) Safety valves may be erroneously indicated open provided both valves are visually checked closed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-31-08 CAB PR SAFETY VALVE OPEN Caution on ECAM	C	1	0	(m) May be erroneously triggered provided both safety valves are visually checked closed.
21-43 CARGO COMPARTMENT HEATING				
21-43-02 AFT CARGO compartment heating	D	1	0	(o) a) Hot air pressure regulating valve or trim air valve may be inoperative provided the heating system is switched OFF and the non defective valve is indicated closed on ECAM COND page. -or-
	D	1	0	(p)(o)(m) b) Hot air pressure regulating valve and trim air valve may be inoperative provided one of these valves is secured closed.
21-51 FLOW CONTROL AND INDICATING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-51-01 Pack flow control valve	C	2	1	(m) a) Except for ER operations one may be inoperative provided: 1) It is secured closed, and 2) Associated pack is considered inoperative. Refer to 21-52-01 - or -
	C	2	0	(m) b) Except for ER operations both may be inoperative for a non pressurized flight provided they are secured closed. Refer to FCOM.
21-51-02 Pack flow selection	C	1	0	(p)
21-51-03 PACK Pb sw				
A) FAULT light	C	2	0	(p)
B) Off light	C	2	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-51-04 Indication on ECAM BLEED page				
A) Pack Outlet Temperature	C	2	0	
B) Pack Turbine Bypass Valve Position	C	2	0	
C) Pack Compressor Outlet Temperature	C	2	0	
D) Pack Flow	C	2	0	
E) Pack Flow Control Valve Position	C	2	0	
21-51-05 Indication on ECAM CAB PRESS page	C			Pack 1 and 2 indications may be inoperative.
21-52 AIR COOLING SYSTEM				NOTE: Both air conditioning packs may be inoperative for a non-pressurized flight. Refer to FCOM 2.04.20.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-52-01 Air Conditioning Pack	C	2	1	(p)(m)(o) a) Except for ER operations, one may be inoperative provided: 1) Flight altitude is limited to 31500 ft (9600 m), and 2) COND ZONE REGUL FAULT caution is not displayed on ECAM E/WD, and 3) Affected PACK 1(2) pb sw is selected OFF, and 4) Affected pack flow control valve is checked closed on ECAM BLEED page. NOTE: This condition does not apply if pack valve has been secured closed as per item 21-51-01. - or -
	C	2	2	(p)(o) b) One may be operated on heat exchanger cooling only (air cycle machine failure) provided: 1) Corresponding pack controller is fully operational, and 2) TAT indication is available on ECAM SD, and 3) The affected pack is not operated until airborne and the TAT is less than 12° C, and 4) Affected pack outlet temperature indication is available on ECAM BLEED page. - or -
	C	2	0	c) Except for ER operations both may be inoperative for a non-pressurized flight. Refer to FCOM 2.04.20.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-52-01 Air Conditioning Pack	C	2	1	(p)(m)(o) a) Except for ER operations, one may be inoperative provided : 1) Flight altitude is limited to 31500 ft (9600 m), and 2) COND ZONE REGUL FAULT caution is not displayed on ECAM E/WD, and 3) Affected PACK 1(2) pb sw is selected OFF, and 4) Affected pack flow control valve is checked closed on ECAM BLEED page. NOTE: This condition does not apply if pack valve has been secured closed as per item 21-51-01. - or -
	C	2	2	(p)(o) b) One may be operated on heat exchanger cooling only (air cycle machine failure) provided: 1) Corresponding pack controller is fully operational, and 2) TAT indication is available on ECAM SD, and 3) The affected pack is not operated until airborne and the TAT is less than 12° C, and 4) Affected pack outlet temperature indication is available on ECAM BLEED page. - or -
	C	2	0	c) Except for ER operations both may be inoperative for a non-pressurized flight. Refer to FCOM 2.04.20.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-52-01 Air Conditioning Pack	C	2	1	(p)(m)(o) a) Except for ER operations, one may be inoperative provided: 1) Flight altitude is limited to 31500 ft (9600 m), and 2) COND ZONE REGUL FAULT caution is not displayed on ECAM E/WD, and 3) Affected PACK 1(2) pb sw is selected OFF, and 4) Affected pack flow control valve is checked closed on ECAM BLEED page. NOTE: This condition does not apply if pack valve has been secured closed as per item 21-51-01. - or -
	C	2	2	(p)(o) b) One may be operated on heat exchanger cooling only (air cycle machine failure) provided: 1) Corresponding pack controller is fully operational, and 2) TAT indication is available on ECAM SD, and 3) The affected pack is not operated until airborne and the TAT is less than 12° C, and 4) Affected pack outlet temperature indication is available on ECAM BLEED page. - or -
	C	2	0	c) Except for ER operations both may be inoperative for a non-pressurized flight. Refer to FCOM 2.04.20.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-52-02 Air Cond Pack Ram Air Inlet Flap	C	2	0	(m) a) One or both may be inoperative in open position.
	C	2	0	b) One or both may be inoperative in closed position provided the associated pack(s) is (are) considered inoperative. Refer to 21-52-01.
21-55 EMERGENCY RAM AIR INLET				
21-55-01 Emergency Ram Air Inlet		1	1	a) All components must be operative - or -
	C	1	0	b) Except for ER operations and extended overwater flight, may be inoperative in open position for a non pressurized flight. Refer to FCOM 2.04.20.
21-55-02 Indication on ECAM BLEED Page	C	1	0	
21-61 PACK TEMPERATURE CONTROL				
21-61-01 Pack Controller Primary Channel	C	2	1	(o)
21-61-02 Turbine Bypass Valve	C	2	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-63 COCKPIT AND CABIN TEMPERATURE CONTROL				
21-63-01 Zone Controller	C	1	1	(o) a) Only primary channel may be inoperative provided hot air pressure regulating valve is checked closed on ECAM COND page. - or -
	C	1	1	b) Only secondary channel may be inoperative. Note: Minimum idle on ground function is inoperative. Refer to 73-20-03. - or -
	C	1	0	(o)(m) c) Primary and secondary channels may be inoperative provided hot air pressure regulating valve is secured closed. Note: Minimum idle on ground function is inoperative. Refer to 73-20-03.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-63-02 Trim Air Valve	C	3	0	(o)(m) a) One or more may be inoperative provided the affected valve(s) is (are) secured closed, - or -
	C	3	0	(o) b) One or more may be inoperative provided HOT AIR pb sw is set at OFF and hot air pressure regulating valve is checked closed on ECAM COND page. Note: Unequal passengers distribution may cause high temperature in the rear cabin.
21-63-03 Hot Air Pressure Regulating Valve	C	1	0	(o)(m) a) May be inoperative provided it is secured closed, - or -
	C	1	0	(o) b) May be inoperative in closed position provided HOT AIR pb sw is set at OFF and hot air pressure regulating valve is checked closed on ECAM COND page. Note: Unequal passengers distribution may cause high temperature in the rear cabin.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
21-63-04 HOT AIR Pb Sw				
A) FAULT Light	C	1	0	(p) May be inoperative provided zone duct temperatures are available on ECAM COND page.
B) OFF Light	C	1	0	(p)
21-63-05 Indication on ECAM				
A) On COND Page	C			One or more indications may be inoperative.
B) On CRUISE Page	C			Cabin and cockpit zone indications may be inoperative.
21-63-06 (Reserved)				

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 22-10 FMGC: AUTOPILOT/FLIGHT DIRECTOR (AP/FD) FUNCTION			NOTE: Required equipment for precision approaches are listed in Aircraft Flight Manual. ATTENTION: This note applicable to all items listed below and related with the associated subsystem.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-10-01 Autopilot (AP)	C	2	1	(p) a) One may be inoperative provided CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). - or -
	A	2	0	(p) b) Except for ER operations, both may be inoperative provided : 1) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04), and 2) Enroute operations do not include airspace with RVSM, (Refer to FCOM 2.04.50), and 3) Operations are permitted to the main base only. NOTE 1: Operators should make every effort to repair the autopilot early in the repair interval, as provided by this relief statement, in consideration of such factors as weather, traffic density and the effects of other inoperative systems. NOTE 2: Any mode which operates normally may be used.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-10-02 Flight Director (FD)	C	2	1	(p)(o) a) May be inoperative provided approach minimums do not require its use. Refer to QRH 5.04. - or -
	A	2	0	(p)(o) b) Both may be inoperative provided : 1) Approach minimums do not require their use (Refer to QRH 5.04), and 2) Alternate takeoff procedures are used, and 3) Operations are permitted to the main base only.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-10-03 Take-Over Pb				
A) Priority Function		2	2	
B) AP Disconnection Function	C	2	1	(o) a) One may be inoperative provided 1) Priority function is verified to operate normally before each departure, and 2) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04). - or -
	A	2	0	b) Except for ER operations both may be inoperative provided : 1) Autopilots is not engaged, and 2) Priority function is verified to operate normally before departure, and 3) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04), and 4) Enroute operations do not include airspace with RVSM, (Refer to FCOM 2.04.50), and 5) Operations are permitted to the main base only.
22-10-04 Autoland Light	C	2	1	(p) One may be inoperative.
	C	2	0	(p) One or both be inoperative provided CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04).

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-10-05 AP Disengagement Warning	A	1	0	(p) Except for ER operations may be inoperative provided : 1) Both autopilots are considered inoperative and not used, and 2) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04), and 3) Enroute operations do not include airspace with RVSM, (Refer to FCOM 2.04.50), and 4) Operations are permitted to the main base only.
22-10-06 Sticks and Rudder Pedals Locking Solenoid in AP Mode	C	3	1	One or two may be inoperative unlocked provided: 1) Autopilot Disconnect Warning operates normally, and 2) Autoland is not used. NOTE: If one of the locking solenoids is inoperative in the unlocked position, the affected side stick or pedals will move freely and the "hard point" will not be felt any longer the by pilots. This may result in an unintentional AP disconnection.
22-30 FMGC: AUTOTHRUST FUNCTION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-30-01 Autothrust Function	C	1	0	(p) Except for ER operations, may be inoperative provided : 1) All thrust lever position sensors are operative, and 2) CAT 3 approaches are not performed (Refer to QRH 5.04). NOTE: Alpha floor is not available with autothrust function inoperative.
22-30-02 Autothrust Instinctive Disconnect Pb	C	2	1	(o) One may be inoperative provided ability to disconnect A/THR by means of the remaining Instinctive Disconnect pb and by the FCU A/THR pb is checked prior to each flight.
22-30-03 Autothrust Disconnection Warning System	C	1	0	(p)(o) Except for ER operations, may be inoperative provided : 1) Autothrust is not used, and 2) CAT 3 approaches are not performed (Refer to QRH 5.04). NOTE: Alpha floor is not available.
22-60 FLIGHT AUGMENTATION				
22-61-01 Rudder travel limiter system				Refer to 27-23

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-62-01 Rudder trim system				Refer to 27-22
22-63-01 Yaw Damper System	C	2	1	(m) May be inoperative provided : 1) System is deactivated, and 2) CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). Note: Application of the maintenance procedure for deactivation of the affected yaw damper system may be delayed as long as : - The aircraft ramains electrically powered and, - The 28VDC circuit breakers of the associated FAC are not opened with both engines stopped. (AUTO FLT/FAC1/28VDC AUTO FLT/FAC2/28VDC)
22-64-01 Configuration and Operational Speed Computation				Refer to 34-13

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-66-01 Flight Augmentation Computer (FAC)				
A) FAC 1		1	1	(m) Note: AUTO FLT FAC 1 FAULT ECAM caution may be triggered with associated C/B AUTO FLT/FAC1/28VDC tripping. This may be due to a short circuit within either rudder trim actuator channel 1 or rudder travel actuator channel 1. In this case, FAC 1 may be recovered provided the affected part of the faulty actuator is deactivated. Refer to 27-22-01 or 27-23-01.
B) FAC 2	C	1	0	(p)(o) May be inoperative provided : 1) Both FCU channels operate normally, and 2) All ADIRS, ELAC, SEC, SFCC, LGCIU and RA are operative, and 3) CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). NOTE: Loss of FAC 1 will result in Direct Law mode at gear down.
22-66-02 FAC Pb Sw				
A) FAULT light	C	2	1	(p)
B) OFF light	C	2	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-66-03 Windshear Detection System				
A) Windshear Detection and Avoidance System (Predictive)	C	1	0	a) May be inoperative provided: 1) Alternate procedures are established and used, and 2) Windshear Warning and Guidance system operates normally.
	C	1	0	b) May be inoperative provided: 1) Alternate procedures are established and used, and 2) Takeoffs and landings are not conducted in known or forecast windshear conditions.
B) Windshear Warning and Flight Guidance System (Reactive)	C	1	0	a) May be inoperative provided: 1) Alternate procedures are established and used, and 2) Windshear Detection and Avoidance system operates normally.
	C	1	0	b) May be inoperative provided: 1) Alternate procedures are established and used, and 2) Takeoffs and landings are not conducted in known or forecast windshear conditions.
22-70 FLIGHT MANAGEMENT SYSTEM (FMS)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-72-01 Lateral navigation	C	2	1	Except for ER operations one may be inoperative.
22-73-01 Performance information and vertical navigation	C	2	0	
22-73-02 Fuel/Time predictions	C	2	0	
22-80 FLIGHT MANAGEMENT AND GUIDANCE SYSTEM (FMGS) COMPONENTS /INTERFACES				
22-81-01 FCU Channels	B	2	1	a) Except for ER operations, one channel may be inoperative provided 2 RMRs, all DUs, both RAs, both LGCIUs, both FACs, both cabin pressure controllers, the three ADIRS and standby altimeter are operative. - or -
	A	2	1	b) For ER operations, one channel may be inoperative for one flight provided 2 RMRs, all DUs, both RAs, both LGCIUs, both FACs, both cabin pressure controllers, the three ADIRs and standby altimeter are operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-81-02 Baro Correction		2	2	Both selected baro reference and pressure value indications must be operative on both PFD.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-81-03 Auto Flight Control Panel				
A) AP Engagement Pb				Refer to 22-10-01.
B) A/THR Arming Pb				Refer to 22-30-01.
C) Mode Engagement Pb				
1) LOC	C	1	0	(p) May be inoperative provided CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04).
2) EXPED	C	1	0	(p) May be inoperative provided crew procedures do not require their use.
3) APPR	C	1	0	(p) May be inoperative provided CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04).
D) Selection Knob		4	4	
E) Selection Window	C	4	1	(p) SPD MACH, HDG TRK, or V/S FPA windows may be inoperative provided : 1) Associated indications are operative on both PFD's and both ND's, and 2) Procedures are not dependent on its use.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-81-03 Auto Flight Control Panel				
F) HDG-V/S TRK-FPA Change Over Pb	C	1	0	May be inoperative provided : 1) HDG-V/S selection is operative, and 2) Crew procedures do not require use of Pb.
G) SPD/MACH Change Over Pb	C	1	0	May be inoperative provided the SPD selection is operative.
H) Meter Selection Pb	C	1	0	May be inopertative provided procedures are not dependent on its use.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-81-04 EFIS Control Panel				
A) Baro Reference Display Window	C	2	1	(p)
B) Baro Reference Sel				
a) Outer Ring (in Hg/hPa)	C	2	1	One may be inoperative provided required unit for the intended flight is available on both EFIS control panels.
b) Inner Knob		2	2	
C) FD Pb				Refer to 22-10-02.
D) ILS Pb	B	2	1	(p)
E) Optional Data Display Pb	C	10	0	(p) May be inoperative provided operation procedures do not require their use.
F) ND Range Sel	C	2	1	(p) One may be inoperative provided the ND unit associated with the operative ND range selector is operative.
G) ND Mode Sel	C	2	1	(p) One may be inoperative provided : 1) The ND unit associated with the operative ND mode selector is operative, and 2) Procedures do not require its use.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-81-04 EFIS Control Panel				
H) ADF/VOR Sel	B	4	3	(p) May be inoperative provided navigation procedures do not require their use.
22-81-05 Auto Flight and EFIS Control Panels Pb Light Bars				
A) AP1, AP2, A/THR, LS and FD Pb Light Bars	C	7	0	One or more may be inoperative provided associated indication is displayed on both PFD's.
B) Mode Engagement (LOC, EXPED, APPR) and Optional Data Display Pb Light Bars	C	13	0	
22-82-01 Multipurpose Control Display Unit (MCDU)	C	2	1	(p) May be inoperative provided navigation procedures do not require their use. NOTE: Two MCDU required by flight time outside radio navaid coverage (RNP-10 in oceanic or remote areas). Refer to FCOM 2.04.51.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-83-01 Flight Management Guidance Computer (FMGC)	B	2	1	(p)(o) Except for ER operations one may be inoperative, provided : 1) Alternate procedures are established and used, and 2) Departure and destination airport weather is at and forecast to remain within VFR minimums for proposed departure and arrival times. Refer to 22-10-01 and Refer to 22-10-02 and Refer to 22-72-01. NOTE 1: If FMGC1 is inoperative, Terrain function of TAWS is also inoperative. Refer to 34-48-02. NOTE 2: Two FMGC required by flight time outside radio navaid coverage (RNP-10 in oceanic or remote areas). Refer to FCOM 2.04.51.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-83-02 FMA Indication on PFD				
A) AP Related Indications	C			a) One or more indications may be inoperative on non-flying pilot FMA. - or -
	A			b) Except for ER operations, one or more indications may be inoperative on both FMA provided : 1) Autopilots/Flight Directors are not engaged, and 2) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04), and 3) Enroute operations do not include airspace with RVSM, (Refer to FCOM 2.04.50), and 4) Operations are permitted to the main base only.
B) A/THR Related Indications	C			a) One or more indications may be inoperative on non-flying pilot FMA. - or -
	C			(o) b) Except for ER operations, one or more indications may be inoperative on both FMA provided : 1) Autothrust is not engaged, and 2) CAT 3 approaches are not performed (Refer to QRH 5.04).

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
22-83-02 FMA Indication on PFD				
C) Special Message	C			(o) "MAN PITCH TRIM ONLY" and "MDH" are required on one side.
D) Approach and Landing Capability	B			a) One or more may be inoperative on one (non-flying pilot) FMA provided CAT 3 approaches are not performed. - or -
	B			b) One or more may be inoperative on both FMA's provided CAT 2 or CAT 3 approaches are not performed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
23-00-01 CIDS	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
23-10 SPEECH COMMUNICATION				
23-11-01 HF Communication System	A	1	0	(p) Except for extended over-water operation may be inoperative provided: 1) Continual VHF coverage is assured, and 2) Repair is made within 30 consecutive calendar days.
23-11-02 CALSEL System	D		0	
23-12-01 VHF Communication System	B	3	2	(p)(o) Except for VHF 1 one may be inoperative. Note: VHF3 can be counted in the number of required VHF provided the VHF3 is selected in voice mode on RMP before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-13-01 Radio Management Panel (RMP)				
A) RMP	B	3	2	(p) RMP 2 or RMP 3 may be inoperative.
B) RMP Selection Key	C			(p) One may be inoperative on each RMP provided : 1) VHF 1 selection key is operative on RMP 1, and 2) HF 1 selection key (if HF 1 is required) is operative on RMP 1 (when continual VHF coverage is not assured).
23-31 PASSENGER ADDRESS SYSTEM				
23-31-01 Passenger Address System	B	1	0	(o) a) May be inoperative provided: 1) Cabin attendant's interphone system is operative, and 2) Both megaphones are operative. - or -
	C	1	1	b) Handset may be inoperative at any non-required cabin attendant station. - or -
	C	1	1	c) Cockpit handset may be inoperative.
23-31-02 PA IN USE light	D	1	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-40 INTERPHONE				
23-42-01 Ground external horn	C	1	0	(o) All functions may be inoperative, provided personnel are available to monitor APU.
23-42-02 Flight attendant call				
A) FWD, MID, EXIT, AFT.	C	4	0	May be inoperative provided passenger address operates normally from the cockpit.
B) ALL	D	1	0	
C) EMER	C	1	0	
23-43-01 Flight interphone system				
A) Flight deck inter communication	C	1	1	Any intercommunication system in excess of that for each person on flight deck duty may be inoperative.
B) Flight deck to ground	B	1	0	(o)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-43-02 Cabin interphone	C	1	0	a) May be inoperative provided passenger address is operative. - or -
	C	1	1	b) Handset may be inoperative at any non required cabin attendant station.
23-44-01 Service interphone jacks				
A) Engine jacks	C	2	0	One or both may be inoperative.
B) Other jacks	D	6	0	One or more may be inoperative.
23-51 AUDIO MANAGEMENT				
23-51-01 SELCAL (in AMU)	C	1	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-51-02 Audio Control Panel				
A) CAPT and F/0 ACP	C	2	1	(p) One may be inoperative provided ACP 3 and audio switching selector are operative.
B) ACP 3	C	1	0	(p)
C) Fourth Occupant ACP (If Installed)	D	1	0	(p)
D) Avionics Compartment ACP (If Installed)	D	1	0	(p)
E) Transmission Key	C			(p) One may be inoperative on each ACP provided : 1) VHF 1 transmission key is operative on either CAPT ACP or F/O ACP, and 2) HF 1 transmission key (if HF 1 is required) is operative on either CAPT ACP or F/O ACP.
F) Reception Knob	C			(p) One may be inoperative on each ACP provided : 1) VHF 1 reception knob is operative on either CAPT ACP or F/O ACP, and 2) HF 1 reception knob (If HF 1 is required) is operative on either CAPT ACP or F/O ACP, and 3) One ILS reception knob (If ILS is required) is operative on either CAPT ACP or F/O ACP.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-51-02 Audio Control Panel				
G) Reception Knob Light	D		0	
23-51-03 Audio switching	C	1	0	Audio selector must operate in NORM Position.
23-51-04 Boomset	B	3	2	Headset function on any boom set in excess of that for each person on flight deck duty may be inoperative provided Flight Data Recorder operates normally. Mike function may be inoperative provided associated handmike is operative.
23-51-05 Hand microphones	C	3	0	One or more may be inoperative provided associated boom mic operates normally.
23-51-06 Cockpit loudspeakers	C	2	1	Only loudspeaker 2 may be inoperative provided at least one crew member on flight deck duty wear a boom set compatible for use with quick donning oxygen masks.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-51-08 Side stick radio selector	C	2	1	(m) One may be inoperative (no transmit capability) provided: 1) INT/RAD switch on CAPT ACP, F/0 ACP and on ACP3 are operative, and 2) Selector is deactivated in the non-transmitting position.
23-71 COCKPIT VOICE RECORDER				
23-71-01 Cockpit voice recorder	A	1	0	(p) May be inoperative provided: a) Flight Data Recorder (FDR) operates normally, and b) Repairs are made within three flight days.
23-73 CABIN INTERCOM-MUNICATION DATA SYSTEM (CIDS)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-01 Cabin Inter - communication Data System (CIDS)				
A) CIDS Director	C	2	1	(m) NOTE: 1) If malfunctioning and disturbing the normal CIDS director operation, the affected director may be removed. 2) Failure of a single CIDS director is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 23-00-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-01 Cabin Inter - communication Data System (CIDS)				
A) CIDS Director	C	2	1	(m) NOTE: 1) If malfunctioning and disturbing the normal CIDS director operation, the affected director may be deactivated. 2) Failure of a single CIDS director is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 23-00-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-02 DEU A and Connected Devices				
A) DEU A	C			a) One or more may be inoperative provided no seat may be occupied from which a passenger cannot clearly hear a passenger address announcement. - or -
	C			b) One or more may be inoperative provided passenger address is considered inoperative. Refer to 23-31-01.
B) Loudspeaker in Cabin	C			a) One or more may be inoperative provided no seat may be occupied from which a passenger cannot clearly hear a passenger address announcement. - or -
	B			b) One or more may be inoperative provided passenger address is considered inoperative. Refer to 23-31-01.
C) Loudspeaker in Toilet	C			One or more may be inoperative provided associated RETURN TO SEAT sign is operative.
D) Signs (NO SMOKING /FASTEN SEAT BELT /RETURN TO SEAT)				Refer to 33-20-02.
E) General illumination				Refer to 33-20-01.
F) Passenger call	C		0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-03 DEU B and Connected Devices				
A) Cabin Attendant Station	C			One Forward and one Aft cabin attendant stations must be operative.
B) Handset	C			May be inoperative provided correspondng cabin attendant station is not required.
C) Area Call Panel	C			a) May be inoperative at a non required cabin attendant station.
	C			b) May be inoperative provided: 1) Corresponding Attendant Information Panel operates normally, 2) Passenger address and cabin interphone at affected station operate normally.
D) Attendant Information Panel	C			a) May be inoperative at a non required cabin attendant station.
	C			b) May be inoperative provided: 1) Corresponding Area Call Panel operates normally, 2) Passenger address and cabin interphone at affected station operate normally.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
ITEM (continued)				
23-73-03 DEU B and Connected Devices				
E) Slides Bottle Pressure Indication				
a) On Programming and Test Panel (PTP)				Refer to 25-60-05-A).
F) Door Bottle Pressure Indication				
a) On Programming and Test Panel (PTP)				Refer to 52-10-05-A).
G) Additional Attendant Panel (AAP)	D	1	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-03 DEU B and Connected Devices				
A) Cabin Attendant Station	C			One Forward and one Aft cabin attendant stations must be operative.
B) Handset	C			May be inoperative provided correspondng cabin attendant station is not required.
C) Area Call Panel	C			a) May be inoperative at a non required cabin attendant station.
	C			b) May be inoperative provided: 1) Corresponding Attendant Information Panel operates normally, 2) Passenger address and cabin interphone at affected station operate normally.
D) Attendant Information Panel	C			a) May be inoperative at a non required cabin attendant station.
	C			b) May be inoperative provided: 1) Corresponding Area Call Panel operates normally, 2) Passenger address and cabin interphone at affected station operate normally.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-03 DEU B and Connected Devices				
E) Slides Bottle Pressure Indication				
a) On Programming and Test Panel (PTP)				Refer to 25-60-05-A).
F) Door Bottle Pressure Indication				
a) On Programming and Test Panel (PTP)				Refer to 52-10-05-A).
G) Additional Attendant Panel (AAP)	D	1	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-03 DEU B and Connected Devices				
A) Cabin Attendant Station	C			One Forward and one Aft cabin attendant stations must be operative.
B) Handset	C			May be inoperative provided correspondng cabin attendant station is not required.
C) Area Call Panel	C			a) May be inoperative at a non required cabin attendant station.
	C			b) May be inoperative provided: 1) Corresponding Attendant Information Panel operates normally, 2) Passenger address and cabin interphone at affected station operate normally.
D) Attendant Information Panel	C			a) May be inoperative at a non required cabin attendant station.
	C			b) May be inoperative provided: 1) Corresponding Area Call Panel operates normally, 2) Passenger address and cabin interphone at affected station operate normally.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-03 DEU B and Connected Devices				
E) Slides Bottle Pressure Indication				
a) On Programming and Test Panel (PTP)				Refer to 25-60-05-A).
F) Door Bottle Pressure Indication				
a) On Programming and Test Panel (PTP)				Refer to 52-10-05-A).
G) Additional Attendant Panel (AAP)	D	1	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
23-73-04 Programming A) Programming and test panel (PTP)				Refer to 25-60-05-A) and Refer to 52-10-05-A) and Refer to 33-50-07.
23-73-05 Prerecorded Announcement and Music Reproducer	C	1	0	Necessary demonstration equipment must be provided onboard.
23-73-06 Programmed CAM	C	1	0	

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REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 24-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
24-00-01 DC BUS TIE	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
24-00-02 GPCU	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
24-00-03 AC GEN	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
24-20 AC GENERATION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-20-01 AC Main Generation (IDG, GCU, Line Contactor)	C	2	1	(p)(o) Except for ER operations one may be inoperative provided : 1) APU and AC auxiliary generation are operative and used throughout the flight, and 2) APU fuel pump is operative, and 3) All busses can be powered, and 4) Indications and warnings for the remaining AC main generation and the AC auxiliary generation are operative, and 5) Flight altitude is limited to 33500 ft, and 6) Galley automatic shedding is operative.
24-20-02 AC Auxiliary Generation (APU Generator, GCU, Line Contactor)	C	1	0	(p) a) Except for ER operations, may be inoperative provided APU GEN pb sw is selected OFF. - or -
	A	1	0	(p) b) Except for ER opertions beyond 120 minutes, may be inoperative for four flights provided APU GEN pb sw is selected OFF.
NOTE: When GPCU and APU Generator are both inoperative, engines can not be started.				
24-20-03 Emergency generator		1	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-20-04 AC bus tie control function		1	1	
24-20-05 Static inverter		1	1	
24-20-06 RAT extension control	C	2	1	(m) a) Except for ER operations automatic control may be inoperative provided manual control is checked operative once each day. - or -
	B	2	1	(p) b) Except for ER operations manual control may be inoperative.
24-20-07 AC ESS FEED control	C	1	1	ALTN function may be inoperative provided: 1) AC ESS FEED pb sw is set at NORM position, and 2) TR 2 is operative.
24-27 AC GENERATION MONITORING AND INDICATING				
24-27-01 IDG FAULT light	C	2	1	(p) One may be inoperative provided frequency and temperature indications of the affected generator are available on ECAM ELEC page, and are monitored.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-27-02 GEN Pb Sw				
A) FAULT light	C	3	1	(p) One GEN and/or APU GEN FAULT light may be inoperative provided associated generator indications are available on ECAM ELEC page.
B) OFF light	C	3	0	(p)
24-27-03 AC ESS FEED FAULT/ALTN light	C	1	0	(p) May be inoperative provided AC ESS bus indication is available on ECAM ELEC page.
24-27-04 GALY & CAB Pb Sw				
A) FAULT Light	C	1	0	(p)(o) May be inoperative provided: 1) AC load indication for each generator channel is available on ECAM ELEC page, and 2) Automatic load shed system is operative.
B) OFF Light	C	1	0	(p)
24-27-05 RAT and EMER GEN FAULT light	B	1	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-27-06 Indications on ECAM ELEC page	C			(o) One or more indications related to AC generation may be inoperative provided: 1) Load, voltage and frequency indications of at least one engine driven generator are operative, and 2) Associated GEN FAULT warning is operative, and 3) Automatic load shed system is operative.
24-27-07 ELEC AC ESS BUS SHED Caution On ECAM E/WD	A	1	0	(o) May be erroneously displayed provided: 1) AC ESS BUS SHED is checked operative prior to each flight, 2) HF1 is deactivated (Refer to 23-11-01), and 3) Repairs are made within two flight days. Note: When the ECAM caution is erroneously displayed: - the AC ESS BUS "SHED" amber indication may appear on ECAM ELEC page. - the CAPT AOA indication may be displayed in the INOP SYS part of the ECAM STATUS page. - the C/B ELEC/AC BUS/8XP/MONG (49VU H11) may trip.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-27-08 AC ESS BUS "SHED" Indication On ECAM ELEC Page	B	1	0	May be erroneously displayed.
24-27-09 COMMERCIAL Pb Sw OFF Light	C	1	0	(p)
24-30 DC GENERATION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-30-01 Transformer/ Rectifier Unit (TR)	B	3	2	(o) Except for ER operations, TR 1 may be inoperative provided: 1) Extract fan operates normally, and 2) Battery voltage indicator operates normally, and 3) Both packs operate normally. - or -
	B	3	2	(o)(m) b) Except for ER operations, TR 2 may be inoperative provided : 1) AC ESS FEED control is checked operative once each day, and 2) Standby IAS indicator is operative, and 3) Standby Altimeter is operative, and 4) Standby Horizon is operative, and 5) Standby Compass is operative, and 6) Extract fan operates normally, and 7) Battery voltage indicator operates normally, and 8) Both packs operate normally.
24-30-02 Battery channel		2	2	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-30-03 Battery Charge Limiter	A	2	1	(o)(m) Except for ER operations, one may be inoperative for maximum 10 flights provided: 1) No APU starting is attempted neither on ground nor in flight, and 2) Both main generator channels are operative, and 3) Refueling is made with external power unit connected, and 4) The battery that will be associated with the inoperative BCL is charged prior to flight following the relevant maintenance procedure.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-30-03 Battery Charge Limiter	A	2	1	(o)(m) Except for ER operations, one may be inoperative for maximum 10 flights provided: 1) No APU starting is attempted neither on ground nor in flight, and 2) Both main generator channels are operative, and 3) Refueling is made with external power unit connected, and 4) The battery that will be associated with the inoperative BCL is charged prior to flight following the relevant maintenance procedure.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-30-04 Battery voltmeter	C	2	0	(p) One or both may be inoperative provided corresponding voltage indication on ECAM is operative.
24-30-05 BAT Pb Sw				
A) FAULT ligh	C	2	0	(p)
B) OFF light	C	2	0	(p)
24-30-06 DC BUS TIE	C	3	2	a) DC TIE contactor 1 (DC BUS 1 - DC BAT BUS) may be inoperative in open position. - or -
	C	3	2	b) DC TIE contactor ESS (DC BAT BUS - DC ESS BUS) may be inoperative in open position.
24-30-07 BUS TIE OFF light	C	1	0	(p)
24-30-08 Indications on ECAM ELEC page	C			One or more indications related to DC generation may be inoperative.
24-41 AC EXTERNAL POWER CONTROL				
24-41-01 AC External Power Control (GPCU)	C	1	0	NOTE: When GPCU and APU Generator are both inoperative, engines can not be started.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
24-41-02 EXT PWR Pb Sw				
A) AVAIL Light	C	1	0	(p)(o)
B) ON Light	C	1	0	(p)
24-56 GALLEY SUPPLY				
24-56-01 GALY and CAB Supply System	C	1	0	(p) a) Automatic load shed system may be inoperative provided GALY & CAB pb sw and GALY & CAB FAULT light in the cockpit are operative. - or -
	C	1	0	(p)(m) b) Automatic and manual load shed systems may be inoperative provided all GALY & CAB loads are disconnected. - or -
	C	1	0	(p)(o)(m) c) Manual load shed system may be inoperative provided COMMERCIAL load shed system is operative.
24-56-02 COMMERCIAL Supply System	C	1	0	(p)(o)

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-11 COCKPIT SEATS				
25-11-01 Pilot Seat Adjustment System				
A) Manual Control				
a) Horizontal Adjustment		2	2	
b) Vertical Adjustment	C	2	0	a) One or both may be inoperative provided electrical control is operative. - or -
	C	2	0	b) One or both may be inoperative provided the seating position is acceptable to the affected crewmembers.
c) Other Adjustments	C			One or both may be inoperative provided the seating position is acceptable to the affected crewmembers.
B) Electrical Control	C	2	0	
25-11-02 Pilot Seat Shoulder Harness	A	2	1	(o) May be inoperative on the F/0 seat for three flights.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-11-03 Pilot Sidestick Armrest Control				
A) Pitch control	C	2	0	One or both may be inoperative provided the associated armrest position is acceptable to the affected crewmembers.
B) Tilt Control	C	2	0	One or both may be inoperative provided the associated armrest position is acceptable to the affected crewmembers.
C) Armrest Memory Position Display	C	2	0	
25-11-04 Pilot Inboard Armrest Vertical Adjustment Control	C	2	0	
25-11-05 Pilot seat headrest	D	2	0	
25-11-06 Third Occupant Seat				
A) Adjustment System	C	1	0	May be inoperative provided the seat is in its stowed position and can be folded away.
B) Shoulder Harness	C	1	0	May be inoperative provided the seat is not occupied at takeoff and landing.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-11-07 Fourth Occupant Seat				
A) Shoulder Harness	D	1	0	May be inoperative provided the seat is not occupied at takeoff and landing.
25-13 LININGS AND FURNISHINGS				
25-13-01 Pilot Sliding Table	D	2	0	a) One or both may be inoperative in its stowed position. - or -
	D	2	0	(m) b) One or both may be removed.
25-13-02 Pilot Retractable Footrest	D	4	0	a) One or more may be inoperative in its stowed position. - or -
	D	4	0	(m) b) One or more may be removed.
25-15 FLIGHT CREW FOOT WARMER				
25-15-01 Pilot Foot Warmer (If Installed)	D	2	0	
25-21 PASSENGER COMPARTMENT SEAT				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-21-01 Passenger Seat	C			May be inoperative provided: 1) Seat does not block an Emergency Exit, and 2) Seat does not restrict any passenger from access to the main aircraft aisle, and 3) Affected seat(s) are blocked and placarded "DO NOT OCCUPY". NOTE 1: A seat with an inoperative seat belt is considered inoperative. NOTE 2: Inoperative seats do not affect the required number of Flight Attendants. NOTE 3: Affected seat(s) may include the seat(s) behind and/or adjacent outboard seats.
A) Recline Mechanism	C			May be inoperative and seat occupied provided seat is secured in the up-right position.
B) Underseat Baggage Restraining Bars	C			May be inoperative provided: 1) Baggage is not stowed under seat with inoperative restraining bar, and 2) Associated seat is placarded "DO NOT STOW BAGGAGE UNDER THIS SEAT", and 3) Procedures are established to alert Cabin Crew of inoperative restraining bar.
25-22 CABIN ATTENDANT SEATS				NOTE: A seat position with an inoperative or missing seat belt or harness is considered inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-22-01 Cabin Attendant Seat	D			(p)(m) a) One or more non-required cabin attendant seats may be inoperative or unusable provided affected seat is secured in its stowed position or removed. - or -
	C			(p)(m)(o) b) One required cabin attendant seats may be inoperative or unusable provided : 1) Cabin attendant assigned to affected seat occupies a passenger seat as close to or closer than nearest seated passenger to associated exit, and 2) Passenger seat to be used by cabin attendant must be properly placarded, and 3) Cabin attendant can reach assigned exit and emergency equipment in nearly the same time as from normally assigned seat, and 4) Direct view of passenger cabin by flight attendants is not impaired, and 5) Alternate procedures are established for displaced flight attendant according to national regulations, and 6) Affected seat is secured in its stowed position or removed.
25-30-00 GALLEY AND BUFFET				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-30-01 Galley Waste Compartment Flapper Door	C			(o)(m) One or more may be inoperative provided the galley waste compartment is empty and associated access is secured to prevent waste introduction. Note: Non-safety related galley equipment is not listed in this MEL.
25-50 CARGO COMPARTMENTS				
25-50-01 Cargo Loading System (if installed)				Refer to Weight and Balance Manual.
25-50-02 Decompression Panel in Cargo Compartment	C			May be damaged or missing provided affected cargo compartment is empty or does not contain inflammable or combustible materials.
25-50-03 Cargo Compartment Lining Panel	C C			a) May be damaged provided affected cargo compartment is empty or does not contain inflammable or combustible materials. - or - b) May be missing provided affected cargo compartment is empty.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-50-04 Cargo Compartment Net				Refer to Weight and Balance Manual.
25-60 EMERGENCY				
25-60-01 EVAC Signal System	D	1	0	(o)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-02 Escape Slide/ Slide Raft				
A) Cabin Passenger Door	4	3		a) One may be inoperative provided associated door is considered inoperative. Refer to 52-10-01. - or -
	4	3		(m) b) One may be removed provided associated door is considered inoperative. Refer to 52-10-01.
B) Overwing Emergency Exit	2	1		a) One may be inoperative provided associated emergency exit is considered inoperative. Note: When an overwing escape slide is inoperative, both emergency exits on the same side are considered inoperative. Refer to 52-10-02. - or -
	2	1		(m) b) One may be removed provided associated emergency exit is considered inoperative. Note: When an overwing escape slide is inoperative, both emergency exits on the same side are considered inoperative. Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-02 Escape Slide/ Slide Raft				
A) Cabin Passenger Door		4	3	a) One may be inoperative provided associated door is considered inoperative. Refer to 52-10-01. - or -
		4	3	(m) b) One may be removed provided associated door is considered inoperative. Refer to 52-10-01.
B) Overwing Emergency Exit		2	1	a) One may be inoperative provided associated emergency exit is considered inoperative. Refer to 52-10-02. - or -
		2	1	(m) b) One may be removed provided associated emergency exit is considered inoperative. Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-02 Escape Slide/ Slide Raft				
A) Cabin Passenger Door		4	3	a) One may be inoperative provided associated door is considered inoperative. Refer to 52-10-01. - or -
		4	3	(m) b) One may be removed provided associated door is considered inoperative. Refer to 52-10-01.
B) (Reserved)				
C) Emergency Exit		4	3	a) One may be inoperative provided associated emergency exit is considered inoperative. Refer to 52-10-01. - or -
		4	3	(m) b) One may be removed provided associated emergency exit is considered inoperative. Refer to 52-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-03 SLIDE ARMED Light	C	6	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-03 SLIDE ARMED Light	C	8	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-04 SLIDE Indication on ECAM DOOR/OXY Page				
A) Passenger Door				
a) Slide Erroneously Indicated Armed	B	4	0	One or more may be erroneously indicated in armed position.
b) Slide Erroneously Indicated Not Armed	C	4	0	a) One or more may be erroneously indicated in not armed position provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to verify that the slide is armed. (m) Note: Correct indication may be recovered by performing associated maintenance procedure. - or -
		4	3	b) One may be erroneously indicated in not armed position provided associated door is considered inoperative. Refer to 52-10-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-04 SLIDE Indication on ECAM DOOR/OXY Page				
B) Emergency Exit				
a) Slide Erroneously Indicated Armed	C	2	0	(m) One or both may be erroneously indicated in armed position provided visual check is made before the first flight of the day to verify that slide is armed.
b) Slide Erroneously Indicated Not Armed	C	2	0	(m) a) One or both may be erroneously indicated in not armed position provided: 1) The aircraft is not operated at night, and 2) A visual check is made before the first flight of the day to verify that the slide is armed. (m) Note: Correct indication may be recovered by performing associated maintenance procedure. - or -
		2	1	b) One may be erroneously indicated in not armed position provided both emergency exits on the same side are considered inoperative. Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-04 SLIDE Indication on ECAM DOOR/OXY Page				
A) Passenger Door				
a) Slide Erroneously Indicated Armed	B	4	0	One or more may be erroneously indicated in armed position.
b) Slide Erroneously Indicated Not Armed	C	4	0	a) One or more may be erroneously indicated in not armed position provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to verify that the slide is armed. (m) Note: Correct indication may be recovered by performing associated maintenance procedure. - or -
		4	3	b) One may be erroneously indicated in not armed position provided associated door is considered inoperative. Refer to 52-10-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-04 SLIDE Indication on ECAM DOOR/OXY Page				
B) Emergency Exit				
a) Slide Erroneously Indicated Armed	C	2	0	(m) One or both may be erroneously indicated in armed position provided visual check is made before the first flight of the day to verify that slide is armed.
b) Slide Erroneously Indicated Not Armed	C	2	0	(m) a) One or both may be erroneously indicated in not armed position provided: 1) The aircraft is not operated at night, and 2) A visual check is made before the first flight of the day to verify that the slide is armed. (m) Note: Correct indication may be recovered by performing associated maintenance procedure. - or -
		2	1	b) One may be erroneously indicated in not armed position provided associated overwing emergency exit is considered inoperative. Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-04 SLIDE Indication on ECAM DOOR/OXY Page				
A) Cabin Passenger Door/Emergency Exit				
a) Slide Erroneously Indicated Armed	B	8	0	One or more may be erroneously indicated in armed position.
b) Slide Erroneously Indicated Not Armed	C	8	0	a) One or more may be erroneously indicated in not armed position provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to verify that the slide is armed (m) Note: Correct indication may be recovered by performing associated maintenance procedure. - or -
		8	7	b) One may be erroneously indicated in not armed position provided associated door is considered inoperative. Refer to 52-10-01.
B) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-05 Slides Bottle Pressure Indication				
A) On Programming and Test Panel (PTP)				
a) Passenger Door	D	4	0	
b) Emergency Exit	D	2	0	(m) a) One or both may be inoperative provided associated slide bottle pressure is checked before the first flight of each day. - or -
		2	1	b) One may be inoperative provided both emergency exits on the same side are considered inoperative. Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-05 Slides Bottle Pressure Indication				
A) On Programming and Test Panel (PTP)				
a) Passenger Door	D	4	0	
b) Emergency Exit	D	2	0	(m) a) One or both may be inoperative provided associated slide bottle pressure is checked before the first flight of each day. - or -
		2	1	b) One may be inoperative provided associated overwing emergency exit is considered inoperative. Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-05 Slides Bottle Pressure Indication				
A) On Programming and Test Panel (PTP)				
a) Passenger Door	D	8	0	
B) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-06 CABIN PRESSURE Light				Refer to 52-70-02.
25-60-07 Cockpit Emergency Flash Light		2	2	
25-60-08 Cabin Emergency Flash Light	C			May be inoperative or missing provided crewmember assigned to associated seat has a flashlight with equivalent characteristics readily available.
25-60-09 Megaphone		2	2	
25-60-10 Emergency Locator Transmitter		1	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-11 Overwing Escape Life Line		4	3	a) One may be inoperative or missing provided the associated emergency exit is considered inoperative. Refer to 52-10-02. - or -
	C	4	3	b) Except for extended overwater flight, one may be inoperative or missing.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-11 Overwing Escape Life Line		2	1	a) One may be inoperative or missing provided the associated emergency exit is considered inoperative. Refer to 52-10-02. - or -
	C	2	1	b) Except for extended overwater flight, one may be inoperative or missing.

REPAIR INTERVAL / ITEM		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
25-60-12 Lifejacket				Lifejacket for each person onboard should be operative.
25-60-15 Crash Axe/ Crowbar		1	1	
25-64 FIRST AID EQUIPMENT				
25-64-01 First Aid Kit	A	2	1	One may be incomplete for a maximum of 2 flight days.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
26-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE					
26-00-01 SDCU	C				Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
26-12 ENGINE FIRE AND OVERHEAT DETECTION					
26-12-01 Fire Detection System					
A) Detection Loop A	C	2	0		Except for ER operations beyond 120 minutes, one may be inoperative on each engine provided : 1) Associated detection loop B is operative, and 2) The engine fire test is made before each flight.
B) Detection Loop B	C	2	0		Except for ER operations beyond 120 minutes, one may be inoperative on each engine provided the engine fire test is made before each flight.
26-12-02 FIRE light on ENG control panel	C	2	0		(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-12-03 ENG FIRE Pb light	C	2	2	Four bulbs in each pb may be inoperative.
26-13 APU FIRE AND OVERHEAT DETECTION				NOTE: Any part of the APU fire and overheat detection system may be inoperative provided APU is not used. Refer to 49-10-01. ATTENTION: This note applicable to all items listed below and related with the associated subsystem.
26-13-01 Fire Detection System				
A) Detection Loop A	C	1	0	Except for ER operations beyond 120 minutes, may be inoperative provided : 1) Associated detection Loop B is operative and, 2) The APU fire test is made before each APU starting, and 3) During ground operations, APU condition is permanently monitored in the cockpit.
B) Detection Loop B	C	1	0	Except for ER operations beyond 120 minutes, may be inoperative provided the APU fire test is made before each APU starting.
26-13-02 APU FIRE Pb light	C	1	1	Four bulbs in the pb may be inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-15 AVIONICS COMPARTMENT SMOKE DETECTION				
26-15-01 AVIONIC SMOKE detection system	A	1	0	(o) Except for ER operations may be inoperative for 3 flights maximum.
26-16 CARGO COMPARTMENT SMOKE DETECTION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-16-01 Smoke Detector in FWD Cargo Compartment	D	2	0	a) Both detectors in the cavity may be inoperative provided the FWD cargo compartment is empty. - or -
	C	2	0	b) Except for ER operations, both detectors in the cavity may be inoperative. - or -
	C	2	0	c) Both detectors in the cavity may be inoperative provided proper liner condition is checked before each flight. Note: 1) Failure of a single detector in a cavity is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 26-00-01. 2) Depending on applicable regulation, smoke detection system may be required for dispatch.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-16-01 Smoke Detector in FWD Cargo Compartment	D	4	0	a) Both detectors in one or both cavities may be inoperative provided the FWD cargo compartment is empty. - or -
	C	4	0	b) Both detectors in one or both cavities may be inoperative provided the FWD cargo compartment does not contain inflammable or combustible materials. Note: Failure of a single detector in the cavity is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 26-00-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-16-02 Smoke Detector in AFT Cargo Compartment	D	4	0	a) Both detectors in one or both cavities may be inoperative provided the AFT cargo compartment is empty. - or -
	C	4	0	(o) b) Except for ER operations, both detectors in one or both cavities may be inoperative provided AFT cargo ventilation is closed. - or -
	C	4	0	(o) c) Both detectors in one or both cavities may be inoperative provided: 1) Proper liner condition is checked before each flight, and 2) AFT cargo ventilation is closed. Note: 1) Failure of a single detector in a cavity is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 26-00-01 2) Depending on applicable regulation, smoke detection system may be required for dispatch.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-16-02 Smoke Detector in AFT Cargo Compartment	D	6	0	a) Both detectors in one or more cavities may be inoperative provided the AFT cargo compartment is empty. - or -
	C	6	0	b) Both detectors in one or more cavities may be inoperative provided the AFT cargo compartment does not contain inflammable or combustible materials. Note: Failure of a single detector in the cavity is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 26-00-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-17 LAVATORY SMOKE DETECTION				
26-17-01 Lavatory Smoke Detection System	C			(o) a) May be inoperative provided: 1) Associated lavatory fire extinguisher system operates normally, and 2) A procedure is used to check periodically absence of smoke in affected lavatory. - or -
	B			(o) b) One may be inoperative provided: 1) The associated lavatory waste receptacle is empty, and 2) During briefing the Pilot-in-Command or the Purser will determine if flight duration is acceptable with a lavatory unusable, and 3) The associated lavatory door is placarded inoperative and locked closed, and 4) The lavatory is not used for any purpose, and 5) A procedure is used to check periodically absence of smoke in affected lavatory.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-17-02 Smoke Detection Control Unit (SDCU)	C	1	0	May be inoperative provided restrictions concerning lavatory smoke detection system and cargo smoke detection system (if installed) are applied. Refer to 26-17-01, and Refer to 26-16-01 (if FWD cargo compartment smoke detection system installed) and Refer to 26-16-02 (if AFT cargo compartment smoke detection system installed). Note: Failure of a single SDCU channel is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 26-00-01.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
26-17-02 Smoke Detection Control Unit (SDCU)	1	1	Note: Failure of a single SDCU channel is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 26-00-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-21 ENGINE FIRE EXTINGUISHING				
26-21-01 AGENT 1 and 2 DISCH Light	C	4	2	(p)(m) a) One may be inoperative on each engine provided the associated bottle pressure is checked before the first flight of each day. - or -
	A	4	2	(p)(m) b) Both may be inoperative on the same engine for four flights or 15 flight hours, whichever occurs first, provided associated bottles pressures are checked before each flight.
26-21-02 AGENT 1 and 2 SQUIB Light	C	4	0	(p)(m) One or more may be inoperative provided engine extinguishing system firing circuit is checked operative before the first flight of the day.
26-21-03 ENG FIRE TEST	C	2	1	(m) May be inoperative provided engine fire extinguishing and detection systems are checked operative before the first flight of the day.
26-22 APU FIRE EXTINGUISHING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-22-01 AGENT "DISCH" Light	C	1	0	(p)(m) a) May be inoperative provided the bottle pressure is checked before the first flight of each day. - or -
		1	0	b) May be inoperative provided the APU is considered inoperative. Refer to 49-10-01.
26-22-02 AGENT "SQUIB" Light	C	1	0	(p)(m) a) May be inoperative provided APU extinguishing system firing circuit is checked operative before the first flight of the day. - or -
		1	0	b) May be inoperative provided the APU is considered inoperative. Refer to 49-10-01.
26-22-03 APU Automatic Fire Extinguishing Control on Ground	C	1	0	a) May be inoperative for all in-flight conditions. - or -
	C	1	0	b) May be inoperative during all APU ground operations provided APU condition is continuously monitored in the cockpit. - or -
		1	0	c) May be inoperative provided the APU is considered inoperative. Refer to 49-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-22-04 APU FIRE TEST	C	1	0	(p)(m) a) May be inoperative provided firing circuit and bottle low pressure detection systems are checked operative before the first flight of the day. - or -
		1	0	b) May be inoperative provided the APU is considered inoperative. Refer to 49-10-01.
26-22-05 Fire Extinguisher Overpressure Indication (Red Disc)	C	1	0	(m) a) May be damaged or missing provided the APU fire extinguisher bottle pressure switch is checked operative before the first flight of each day. - or -
		1	0	b) May be inoperative provided the APU is considered inoperative. Refer to 49-10-01.
26-22-06 APU FIRE PUSH pb		1	0	May be inoperative provided APU is considered inoperative. Refer to 49-10-01.
26-22-07 AGENT pb		1	0	May be inoperative provided APU is considered inoperative. Refer to 49-10-01.
26-22-08 Fire Extinguisher Bottle		1	0	May be inoperative provided APU is considered inoperative. Refer to 49-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-22-09 Squib	C	2	1	(m) a) One may be inoperative provided the remaining squib is checked operative before the first flight of each day. - or - b) One or both may be inoperative provided APU is considered inoperative. Refer to 49-10-01.
		2	0	
26-22-10 APU AUTO EXTING TEST	D	1	0	(p)(m) a) May be inoperative provided APU Automatic Fire Extinguishing System is checked operative. - or - b) May be inoperative provided the APU Automatic Fire Extinguishing Control is considered inoperative. Refer to 26-22-03.
		1	0	
26-22-11 APU FIRE Light on External Power Panel	C	1	0	(p)(m) a) May be inoperative provided APU Automatic Fire Extinguishing System is checked operative. - or - b) May be inoperative provided the APU Automatic Fire Extinguishing Control is considered inoperative. Refer to 26-22-03.
		1	0	

ITEM		REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-22-12	APU SHUT OFF pb on External Power Panel	C	1	0	(p)(m) a) May be inoperative provided APU Automatic Fire Extinguishing System is checked operative. - or -
			1	0	b) May be inoperative provided the APU Automatic Fire Extinguishing Control is considered inoperative. Refer to 26-22-03.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
26-23 CARGO COMPARTMENT FIRE EXTINGUISHING			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-23 CARGO COMPARTMENT FIRE EXTINGUISHING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-23-01 Agent				
A) Bottle	D	1	0	(p) a) May be inoperative provided cargo compartments are empty or do not contain inflammable or combustible materials. - or -
	C	1	0	(p) b) Except for ER operations, may be inoperative. - or -
	C	1	0	(p) c) May be inoperative provided cargo compartments liners integrity is checked before each flight.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-23-01 Agent				
B) Squib				
a) Bottle 1	D	2	0	(p) a) One or both may be inoperative provided each associated cargo compartment is empty or does not contain inflammable or combustible materials. - or -
	C	2	0	(p) b) Except for ER operations, one or both may be inoperative. - or -
	C	2	0	(p) c) One or both may be inoperative provided each associated cargo compartment liners integrity is checked before each flight.
b) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-23-01 Agent				
A) Bottle	D	1	0	(p) a) May be inoperative provided cargo compartments are empty. - or -
	C	1	0	(p) b) May be inoperative provided cargo compartments are empty or do not contain inflammable or combustible materials.
B) Squib				
a) Bottle 1	D	2	0	(p) a) One or both may be inoperative provided the associated cargo compartment is empty. - or -
	C	2	0	(p) b) One or both may be inoperative provided each associated cargo compartment is empty or does not contain inflammable or combustible materials.
b) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-23-02 "DISCH" Light	C		0	(p)(m) a) May be inoperative provided the associated bottle weight is verified before the first flight of each day. - or - 0 (p) b) May be inoperative provided associated bottle is considered inoperative. Refer to 26-23-01-A).

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-23-02 "DISCH" Light	C		0	(p)(m) a) May be inoperative provided the associated bottle weight is verified before the first flight of each day. - or - 0 (p) b) May be inoperative provided associated bottle is considered inoperative. Refer to 26-23-01-A).

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 26-24 PORTABLE FIRE EXTINGUISHER			

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
26-24-01 Portable Fire Extinguisher			
A) Portable Fire Extinguisher located on the Flight Deck	1	1	
B) Portable Fire Extinguishers in Passenger Compartments	3	3	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-24-01 Portable Fire Extinguisher				
A) Portable Fire Extinguisher located on the Flight Deck		1	1	
B) Portable Fire Extinguishers in Passenger Compartments		4	4	

REPAIR INTERVAL		NUMBER INSTALLED		
ITEM			NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
26-25 LAVATORY FIRE EXTINGUISHING				
26-25-01 Lavatory Waste Bin Fire Extinguisher System	C			a) One or more may be inoperative provided associated lavatory smoke detection system operates normally. - or -
	B			(o) b) One may be inoperative provided: 1) The associated lavatory waste receptacle is empty, and 2) During briefing the Pilot-in-Command or the Purser will determine if flight duration is acceptable with a lavatory unusable, and 3) The associated lavatory door is placarded inoperative and locked closed, and 4) The lavatory is not used for any purpose, and 5) A procedure is used to check periodically absence of smoke in affected lavatory.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
27-00-01 F/CTL	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
27-00-02 SFCS	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
27-14 AILERON HYDRAULIC ACTUATION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-14-01 Aileron servo-control	C	4	2	(m) a) One or two associated with ELAC2 (left green and right blue) may be inoperative provided: 1) They remain mechanically connected and hydraulically supplied (damping function is not affected), and 2) All roll spoilers are operative. - or -
	C	4	2	(o)(m) b) One or two associated with ELAC1 (left blue and right green) may be inoperative provided: 1) They remain mechanically connected and hydraulically supplied (damping function is not affected), and 2) All roll spoilers are operative, and 3) TR 1 and TR 2 are operative, and 4) DC TIE contactor 1 is checked closed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-14-02 Indication on ECAM flight control page				
A) Ailerons position indication	C	2	0	(o) One or both may be inoperative provided ability to move affected aileron through each servocontrol is checked visually prior to each flight.
B) Ailerons actuators indication	C	4	0	
27-20 RUDDER				
27-20-01 Rudder position indication on ECAM flight control page	B	1	0	(o) May be inoperative provided visual check of rudder movement is made prior to each flight.
27-20-02 Hydraulic system pressure indication on ECAM flight control page	C	3	0	
27-22 RUDDER TRIM ACTUATION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-22-01 Rudder Trim System	C	2	1	One system may be inoperative provided CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). NOTE: For ER operations Rudder Trim System 1 must be operative.
27-22-02 Manual trim reset function	C	1	0	(p) May be inoperative provided one rudder trim position indication is available.
27-22-03 Rudder trim position indication	C	2	1	(p) a) Indication on ECAM or on pedestal may be inoperative. - or -
	C	2	0	(p) b) Both may be inoperative provided rudder position is checked at zero before each flight.
27-23 RUDDER TRAVEL LIMITING ACTUATION				
27-23-01 Rudder travel limiter system	C	2	1	
27-30 ELEVATOR				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-30-01 Indication On ECAM F/CTL Page				
A) Elevator Position Indication	C	2	0	(o) One or both may be inoperative provided visual check of affected elevator movement is made prior to each flight.
B) Elevator Actuator Indication	C	4	0	
27-34-01 Elevator servocontrol		4	4	
27-34-02 Elevator servocontrol position transducer	C			(m) One per servocontrol must be operative. Number required for dispatch - 4 (four).
27-40 TRIMMABLE HORIZONTAL STABILIZER				
27-40-01 Pitch Trim Position On ECAM F/CTL Page	C	1	0	(o) May be inoperative provided pitch trim handwheel and stabilizer are visually checked to operate synchronously prior to each flight.
27-41-01 Stabilizer mechanical control		1	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-44-01 Stabilizer actuator electrical motor	C	3	2	a) Motor 3 may be inoperative. - or - b) Except for ER operations motor 2 may be inoperative. Note: With motor 2 inoperative, ELAC 1 pitch channel is inoperative. Refer to 27-93-01.
	C	3	2	
27-44-02 Hydraulic System Pressure Indication on ECAM F/CTL page	C	2	0	
27-51 FLAPS ELECTRICAL CONTROL AND MONITORING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-51-01 Slat and Flap Control Computer (SFCC)				
A) Flap Channel	C	2	1	(p)(o)(m) Only SFCC # 2 flap channel may be inoperative provided: 1) Slats and flaps are operable on SFCC 1, and 2) Operation of SFCC 1 WTB's is confirmed by test before each flight, and 3) All ELAC, SEC, LGCIU, RA, FAC and ADIRS are operative. Note: Minimum idle on ground function is inoperative. Refer to 73-20-03.
B) Slat Channel	C	2	1	(p)(o)(m) Only SFCC # 2 slat channel may be inoperative provided: 1) Slats and flaps are operable on SFCC 1, and 2) Operation of SFCC 1 WTB's are confirmed by test before each flight, and 3) All ELAC, SEC, LGCIU, RA, FAC and ADIRS are operative, and 4) Takeoff in CONF 1 + F is not allowed.
27-51-02 Flap Wing Tip Brakes Solenoid	C	4	2	(m) One or two solenoids associated with SFCC 2 may be inoperative provided operation of SFCC 1 WTB's is confirmed by test before each flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-54 FLAPS HYDRAULIC ACTUATION AND POWER TRANSMISSION				
27-54-01 Flap Hydraulic Motor	C	2	1	(p) a) Green motor may be inoperative. - or -
	C	2	1	(p) b) Yellow motor may be inoperative provided blue slat motor is operative.
27-54-02 Flap PCU Valve Block	C	2	1	The valve block associated with SFCC 2 may be inoperative provided SFCC 2 flap channel is considered inoperative. Refer to 27-51-01-A).
27-54-03 Flap Pressure - Off Brakes		2	2	
27-55 FLAPS POSITION INDICATING				
27-55-01 Flap Position Indication on ECAM E/WD		1	1	
27-64 SPOILER HYDRAULIC ACTUATION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-01 Spoiler				
A) Surface 5	C	2	0	(o)(m) One pair of symetrical surfaces 5 may be inoperative in the retracted position. - or -
B) Surface 1 or 3	C	4	2	(o)(m) One pair of symetrical surfaces 1 or 3 may be inoperative in the retracted position provided Flight Manual performance penalties are applied. - or -
C) Surface 2 or 4	C	4	2	(o)(m) One pair of symetrical surfaces 2 or 4 may be inoperative in the retracted position provided: 1) SFCC #2 flap channel is operative, and 2) Flight Manual performance penalties are applied. - or -
D) Surfaces 1 and 2	C	4	0	(o)(m) Two pairs of symetrical surfaces 1 and 2 may be inoperative in the retracted position provided: 1) SFCC #2 flap channel is operative, and 2) Flight Manual performance penalties are applied. - or -

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-01 Spoiler				
E) Surfaces 3 and 4	C	4	0	(o)(m) Two pairs of symetrical surfaces 3 and 4 may be inoperative in the retracted position provided: 1) TR 1 and TR 2 are operative, and 2) DC TIE contactor 1 is checked closed, and 3) SFCC #2 flap channel is operative, and 4) Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-01 Spoiler				
A) Surface 5	C	2	0	(o)(m) One pair of symetrical surfaces 5 may be inoperative in the retracted position. - or -
B) Surface 1 or 3	C	4	2	(o)(m) One pair of symetrical surfaces 1 or 3 may be inoperative in the retracted position provided Flight Manual performance penalties are applied. - or -
C) Surface 2 or 4	C	4	2	(o)(m) One pair of symetrical surfaces 2 or 4 may be inoperative in the retracted position provided: 1) SFCC #2 flap channel is operative, and 2) Flight Manual performance penalties are applied. - or -
D) Surfaces 1 and 2	C	4	0	(o)(m) Two pairs of symetrical surfaces 1 and 2 may be inoperative in the retracted position provided: 1) SFCC #2 flap channel is operative, and 2) Flight Manual performance penalties are applied. - or -

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-01 Spoiler				
E) Surfaces 3 and 4	C	4	0	(o)(m) Two pairs of symetrical surfaces 3 and 4 may be inoperative in the retracted position provided: 1) TR 1 and TR 2 are operative, and 2) DC TIE contactor 1 is checked closed, and 3) SFCC #2 flap channel is operative, and 4) Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-01 Spoiler				
A) Surface 5	C	2	0	(o)(m) One pair of symetrical surfaces 5 may be inoperative in the retracted position. - or -
B) Surface 1 or 3	C	4	2	(o)(m) One pair of symetrical surfaces 1 or 3 may be inoperative in the retracted position provided Flight Manual performance penalties are applied. - or -
C) Surface 2 or 4	C	4	2	(o)(m) One pair of symetrical surfaces 2 or 4 may be inoperative in the retracted position provided: 1) SFCC #2 flap channel is operative, and 2) Flight Manual performance penalties are applied. - or -
D) Surfaces 1 and 2	C	4	0	(o)(m) Two pairs of symetrical surfaces 1 and 2 may be inoperative in the retracted position provided: 1) SFCC #2 flap channel is operative, and 2) Flight Manual performance penalties are applied. - or -

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-01 Spoiler				
E) Surfaces 3 and 4	C	4	0	(o)(m) Two pairs of symetrical surfaces 3 and 4 may be inoperative in the retracted position provided: 1) TR 1 and TR 2 are operative, and 2) DC TIE contactor 1 is checked closed, and 3) SFCC #2 flap channel is operative, and 4) Flight Manual performance penalties are applied.

ITEM		REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-64-04	Hydraulic system pressure indication on ECAM flight control page	C	3	0	
27-81	SLATS ELECTRICAL CONTROL AND MONITORING				
27-81-01	Slat wing tip brakes solenoids	C	4	2	(m) One or two solenoids associated with SFCC 2 may be inoperative provided the operation of SFCC 1 WTB's is confirmed by test before each flight.
27-84	SLATS HYDRAULIC ACTUATION AND POWER TRANSMISSION				
27-84-01	Slats hydraulic motors	C	2	1	
27-84-02	Slat PCU Valve Block	C	2	1	The valve block associated with SFCC 2 may be inoperative provided SFCC 2 slat channel is considered inoperative. Refer to 27-51-01-B).
27-84-03	Slat Pressure-off brakes		2	2	

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
27-85 SLATS POSITION INDICATING				
27-85-01 Slats Position Indication On ECAM E/WD		1	1	
27-92 CONTROL INPUTS INTERFACE AND POWER SUPPLY				
27-92-01 Speedbrake Control System	C	1	1	(o) a) Speedbrake 2 or speedbrakes 3 and 4 may be inoperative provided Flight Manual performance penalties associated with one or two pairs of spoilers inoperative are applied. - or -
	C	1	0	(p)(o) b) Speedbrake control system may be inoperative provided Flight Manual performance penalties associated with ground spoiler control system inoperative are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-92-02 Ground Spoiler Control System	C	1	0	(p)(o) a) May be inoperative provided Flight Manual take-off and landing performance penalties are applied. - or -
	C	1	1	b) Spoiler 5 may be inoperative. - or -
	C	1	1	(o) c) Spoilers 1 and 2 or spoilers 3 and 4 may be inoperative provided Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-92-02 Ground Spoiler Control System	C	1	0	(p)(o) a) May be inoperative provided Flight Manual take-off and landing performance penalties are applied. - or -
	C	1	1	b) Spoiler 5 may be inoperative. - or -
	C	1	1	(o) c) Spoilers 1 and 2 or spoilers 3 and 4 may be inoperative provided Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-92-02 Ground Spoiler Control System	C	1	0	(p)(o) a) May be inoperative provided Flight Manual take-off and landing performance penalties are applied. - or -
	C	1	1	b) Spoiler 5 may be inoperative. - or -
	C	1	1	(o) c) Spoilers 1 and 2 or spoilers 3 and 4 may be inoperative provided Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-92-03 Take-over pb				Refer to 22-10-03.
27-92-04 Side stick priority lights		4	4	
27-92-05 Spoilers /Speedbrakes indication on ECAM F/CTL and WHEEL page	C	10	0	(o) One or more may be inoperative provided a visual check of affected surface movement is made before each flight.
27-92-06 Side stick dual input warnings				
A) Visual Warnings	D	2	0	
B) Aural Warnings	D	1	0	
27-93 ELEVATOR AILERON COMPUTER (ELAC)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-93-01 ELAC				
A) ELAC 1	C	1	0	(p)(o)(m) Except for ER operations, ELAC 1 or any ELAC 1 function may be inoperative provided : 1) Both accelerometers associated with ELAC 2 are checked operative before each flight, and 2) All sidesticks transducers associated with ELAC 2 and the three SEC's are checked operative before each flight, and 3) All SEC, SFCC, LGCIU, RA, ADIRS and FAC are operative, and 4) All roll spoilers (surfaces 2, 3, 4 and 5) are operative, and 5) TR 1 and TR 2 are operative, and 6) DC TIE contactor 1 is checked closed before each flight, and 7) Elevators and roll spoilers control through the SEC's is checked operative before each flight, and 8) CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). Note: F/0 take-over pb cannot disengage AP1.
B) ELAC 2		1	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-93-01 ELAC				
A) ELAC 1	C	1	0	(p)(o)(m) Except for ER operations, ELAC 1 or any ELAC 1 function may be inoperative provided : 1) Both accelerometers associated with ELAC 2 are checked operative before each flight, and 2) All sidesticks transducers associated with ELAC 2 and the three SEC's are checked operative before each flight, and 3) All SEC, SFCC, LGCIU, RA, ADIRS and FAC are operative, and 4) All roll spoilers (surfaces 2, 3, 4 and 5) are operative, and 5) TR 1 and TR 2 are operative, and 6) DC TIE contactor 1 is checked closed before each flight, and 7) Elevators and roll spoilers control through the SEC's is checked operative before each flight, and 8) Above FL 200, the use of speed brakes lever is limited to its half position, and 9) CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). Note: F/0 take-over pb cannot disengage AP1.
B) ELAC 2		1	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-93-02 ELAC Pb Sw				
A) FAULT light	C	2	1	(p)
B) OFF light	C	2	0	(p)
27-93-03 ELAC indication on ECAM flight control page	C	2	0	
27-93-04 Pitch normal law		1	1	
27-94 SPOILER ELEVATOR COMPUTER (SEC)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-94-01 SEC				
A) SEC 1	C	1	0	(p)(o)(m) Except for ER operations, may be inoperative provided: 1) SEC 2 and SEC 3 are operative, and 2) Sidestick transducers associated with ELAC's and operative SEC's are checked operative before each flight, and 3) All ELAC, SFCC, LGCIU, RA, FAC and ADIRS are operative, and 4) SFCC # 2 flap channel is operative, and 5) All aileron servocontrols and roll spoilers associated with the operative SEC's are operative, and 6) TR 1 and TR 2 are operative, and 7) DC TIE contactor 1 is checked closed, before each flight, and 8) Elevators control through SEC 2 and ELAC's and roll spoilers control through the operative SEC's are checked operative before each flight, and 9) Flight Manual performance penalties for two pairs of spoilers inoperative are applied.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-94-01 SEC				
B) SEC 2	C	1	0	(o)(m) May be inoperative provided: 1) SEC 1 and SEC 3 are operative, and 2) Sidestick transducers associated with ELAC's and operative SEC's are checked operative before each flight, and 3) All ELAC, SFCC, LGCIU, RA, FAC and ADIRS are operative, and 4) All aileron servocontrols and roll spoilers associated with the operative SEC's are operative, and 5) Elevators control through SEC 1 and ELAC's and roll spoilers control through the operative SEC's are checked operative before each flight.
C) SEC 3	C	1	0	(o) May be inoperative provided: 1) SEC 1 and SEC 2 are operative, and 2) SFCC # 2 flap channel is operative, and 3) All aileron servocontrols and roll spoilers associated with the operative SEC's are operative, and 4) Flight Manual performance penalties for two pairs of spoilers inoperative are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
27-94-02 SEC Pb Sw				
A) FAULT light	C	3	2	(p)
B) OFF light	C	3	0	(p)
27-94-03 SEC indication on ECAM flight control page	C	3	0	
27-95 FLIGHT CONTROL DATA CONCENTRATOR (FCDC)				
27-95-01 FCDC	C	2	1	(p)(o) FCDC 2 may be inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
28-00-01 FUEL	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
28-12 TANK VENTING SYSTEM				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-12-01 Overpressure Protector				
A) Between Inner and Outer Cell	C	2	0	(o) One or both may be broken or missing.
B) In Vent Surge Tank	C	2	0	(o) One or both may be broken or missing.
C) In Inner Cell		2	2	
D) Between Center and Inner Tank		1	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-12-01 Overpressure Protector				
A) (Reserved)				
B) In Vent Surge Tank	C	2	0	(o) One or both may be broken or missing.
C) In Wing Tank		2	2	
D) Between Center and Inner Tank		1	1	

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 28-15 INTERCELL TRANSFER SYSTEM			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-15-01 Transfer Valves	C	4	2	a) In each tank one may be inoperativ in closed position. - or -
	C	4	0	(o) b) One or more may be inoperative in open position. - or -
	C	4	0	c) Both in each wing may be inoperative in closed position provided associated outer cell is full and its quantity is considered as unusable.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
28-15-01 (Reserved)			

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
28-16 FUEL RECIRCULATION COOLING			
28-16-01 Fuel Return Valve			Refer to 73-11-01.
28-20 DISTRIBUTION			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-20-01 Automatic Fuel Feed System	C	1	0	(o)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
28-20-01 (Reserved)			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-21 MAIN FUEL PUMP SYSTEM				
28-21-01 Wing Tank Pump	C	4	3	(p) a) One pump may be inoperative provided JP4/JET B is not used. - or -
	C	4	3	(p)(m) b) Pump 2 LH or pump 2 RH may be inoperative when JP4/JET B is used provided fuel return valve is checked operative prior to each flight and fuel temperature is less than 30°C.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-21-02 Center Tank Pump	C	2	0	(p)(o) a) One or both may be inoperative provided: 1) There is no fuel in this tank or fuel in this tank is considered as unusable and as part of ZFW and is taken into account for CG determination, and 2) Center tank pumps are switched off. - or -
	C	2	1	(o) b) One may be inoperative provided flight routes allow a landing at a suitable airport if the remaining center tank transfer pump fails with fuel in center tank.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-21-02 Center Tank Transfer Valve	C	2	0	(p) a) One or both may be inoperative in closed position provided there is no fuel in this tank or fuel in this tank is considered as unusable and as part of ZFW and is taken into account for CG determination. - or -
	C	2	1	(o) b) One transfer valve may be inoperative in closed position provided flight routes allow a landing at a suitable airport if the remaining center tank transfer valve fails with fuel in center tank. - or -
	C	2	0	c) One or both may be inoperative in open position provided there is no fuel in the center tank.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-21-03 Wing Tank Pump Sequence Valve	C	4	3	One may be inoperative provided the corresponding pump is switched OFF when center tank is feeding.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
28-21-03 (Reserved)			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-22 APU FUEL PUMP SYSTEM				
28-22-01 APU Fuel Pump	C	1	0	(p)(o) a) Except for ER operations, may be inoperative. - or -
	A	1	0	(p)(o) b) Except for ER operations beyond 120 minutes, may be inoperative for four flights.
28-23 CROSSFEED SYSTEM				
28-23-01 Crossfeed Valve		1	1	
28-23-02 X FEED Pb Sw	C	1	1	ON and OPEN light may be inoperative provided X FEED indication on ECAM FUEL page is operative.
28-24 ENGINE LP FUEL SHUT-OFF				
28-24-01 Engine LP Valve		2	2	
28-25 REFUEL/DEFUEL SYSTEM				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-25-01 Fuel Quantity Preselector System	C	1	0	(p)
28-25-02 Fuel Quantity Panel (Refueling Panel)	C	1	0	(p) One or more indications may be inoperative provided they are not required for fueling and defueling procedures.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-25-03 High Level Detection System				
A) INNER TK	C	2	0	(p) One or both may be inoperative provided continuous monitoring of fuel quantity is applied during refueling.
B) CENTER TK	C	1	0	(p) May be inoperative provided continuous monitoring of fuel quantity is applied during refueling.
C) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-25-03 High Level Detection System				
A) WING TK	C	2	0	(p) One or both may be inoperative provided continuous monitoring of fuel quantity is applied during refueling.
B) CENTER TK	C	1	0	(p) May be inoperative provided continuous monitoring of fuel quantity is applied during refueling.
C) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-25-04 Refuel Valve	C	3	0	(p)(m) a) One or more may be inoperative provided aircraft is manually refueled. - or -
	C	3	0	(p) b) One or more may be inoperative provided overwing gravity refueling is performed. Refer to FCOM 2.01.30
28-25-05 Transfer Defuel Valve	C	1	0	(p)(m) May be inoperative provided it is secured in the closed position.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-25-06 Refuel/ Defuel Control Panel				
A) Exterior Control Panel	C	1	0	(p)(m) May be inoperative provided aircraft is manually refuelled.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-25-06 Refuel/ Defuel Control Panel				
A) Exterior Control Panel	C	1	0	(p)(m) May be inoperative provided aircraft is manually refuelled.
B) Cockpit Control Panel (If Installed)	D	1	0	May be inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-29 APU LP FUEL SHUT-OFF				
28-29-01 APU LP Valve	C	1	0	(p)(m) a) May be inoperative in secured closed position provided APU is considered inoperative. Refer to 49-10-01. - or -
	C	1	0	(p)(o) b) May be inoperative in closed position provided : 1) It is indicated closed on ECAM, and 2) APU is considered inoperative. Refer to 49-10-01.
28-40 INDICATING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-01 Fuel Level Sensing Control Unit				
A) Intercell Transfer				Refer to 28-15-01.
B) Automatic Fuel Feed System				Refer to 28-20-01.
C) High Level Detection System				Refer to 28-25-03.
D) Fuel Recirculation				Refer to 73-11-01.
E) Low Level Warning	C	2	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-01 Fuel Level Sensing Control Unit				
A) (Reserved)				
B) (Reserved)				
C) High Level Detection System				Refer to 28-25-03.
D) Fuel Recirculation				Refer to 73-11-01.
E) Low Level Warning	C	2	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-02 Fuel Quantity Indicating Computer (FQIC) Channel	A	2	1	Except for ER operations, one may be inoperative for 10 calendar days.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-03 TK PUMP FAULT Light	C	6	0	(p) One or more may be inoperative provided corresponding pump is switched OFF when tank is empty.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-03 Wing TK PUMP FAULT Light and CTR TK XFR Valve FAULT Light	C	6	0	(p) One or more may be inoperative provided corresponding pump or transfer valve is switched OFF when tank is empty.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-04 TK PUMP OFF Light	C	6	0	(p) One or more may be inoperative provided corresponding pump indication is available on ECAM.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-04 Wing TK PUMP OFF Light and CTR TK XFR Valve OFF Light	C	6	0	(p) One or more may be inoperative provided corresponding pump or transfer valve indication is available on ECAM.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-05 MODE SEL FAULT Light	C	1	0	(p)(o) May be inoperative provided all tank pumps indications on ECAM FUEL page are operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-05 MODE SEL FAULT Light	C	1	0	(p) May be inoperative provided all wing tank pumps and center tank transfer valves indications on ECAM FUEL page are operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-06 Indication on ECAM FUEL Page				
A) Wing and Center Tank Pump Indication	C	6	0	
B) Engine LP Valve Indication	C	2	0	(m) May be inoperative provided the associated LP valve is checked operative before each flight.
C) APU LP Valve Indication	C	1	0	(p)(m) May be inoperative provided the APU LP valve is secured closed and APU is not used. Refer to 49-10-01.
D) X Feed Indication	C	1	0	(m) May be inoperative provided operation of the X feed valve is verified prior to first flight of each day. For ER operations, operation of cross feed valve must be verified prior to each flight.
E) Transfer Valve Indication	C	2	0	(o)(m) One or both may be inoperative provided: 1) Associated inner and outer cells fuel quantity indications are operative, and 2) Transfer valve operation is checked before each flight and when used in flight.
F) Fuel Temperature Indication	C	4	2	One in each wing or both in one wing may be inoperative.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-06 Indication on ECAM FUEL Page				
G) Fuel On Board Indication	C	1	0	
H) Fuel Used Indication				Refer to 73-30-02.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-06 Indication on ECAM FUEL Page				
I) Fuel Quantity Indication				(o) Note: An indication with dashes on two last digits is considered operative. The loss of accuracy (see operational procedure in section 03 or FCOM 3.04.28) must be taken into account for the fuel planning.
a) Outer Cell	C	2	1	(o)(m) One may be inoperative provided: 1) Fuel quantity in associated tank is checked after each refueling by manual magnetic indicators or by corresponding fuel quantity indicator on refuel/defuel panel, and 2) Associated fuel used indication is operative, and 3) Associated inner cell indication is operative.
b) Inner Cell	C	2	1	(o)(m) One may be inoperative provided: 1) Fuel quantity in associated tank is checked after each refueling by manual magnetic indicators or by corresponding fuel quantity indicator on refuel/defuel panel, and 2) Associated fuel used indication is operative.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-06 Indication on ECAM FUEL Page				
I) Fuel Quantity Indication				
c) Center Tank	C	1	0	(o)(m) a) May be inoperative provided: 1) Fuel quantity in the center tank is checked after each refueling by manual magnetic indicators or by coresponding fuel quantity indicator on refuel/defuel panel, and 2) All wing tanks fuel quantity indications are operative, and 3) Both fuel used indications are operative. - or -
	C	1	0	b) May be inoperative provided there is no fuel in this tank or fuel in this tank is considered as unusable and as part of ZFW and is taken into account for CG determination.
J) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-06 Indication on ECAM FUEL Page				
A) Wing Tank Pump and Center Tank Transfer Valve Indication	C	6	0	
B) Engine LP Valve Indication	C	2	0	(m) May be inoperative provided the associated LP valve is checked operative before each flight.
C) APU LP Valve Indication	C	1	0	(p)(m) May be inoperative provided the APU LP valve is secured closed and APU is not used. Refer to 49-10-01.
D) X Feed Indication	C	1	0	(m) May be inoperative provided operation of the X feed valve is verified prior to first flight of each day. For ER operations, operation of cross feed valve must be verified prior to each flight.
E) (Reserved)				
F) Fuel Temperature Indication	C	2	1	One may be inoperative.
G) Fuel On Board Indication	C	1	0	
H) Fuel Used Indication				Refer to 73-30-02.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
28-40-06 Indication on ECAM FUEL Page			
I) Fuel Quantity Indication			(o) Note: An indication with dashes on two last digits is considered operative. The loss of accuracy (see operational procedure in section 03 or FCOM 3.04.28) must be taken into account for the fuel planning.
a) (Reserved)			
b) Wing Tank	C 2	1	(o)(m) One may be inoperative provided: 1) Fuel quantity in associated tank is checked after each refueling by manual magnetic indicators or by corresponding fuel quantity indicator on refuel/defuel panel, and 2) Associated fuel used indication is operative.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-06 Indication on ECAM FUEL Page				
I) Fuel Quantity Indication				
c) Center Tank	C	1	0	(o)(m) a) May be inoperative provided: 1) Fuel quantity in the center tank is checked after each refueling by manual magnetic indicators or by corresponding fuel quantity indicator on refuel/defuel panel, and 2) All wing tanks fuel quantity indications are operative, and 3) Both fuel used indications are operative. - or -
	C	1	0	b) May be inoperative provided there is no fuel in this tank or fuel in this tank is considered as unusable and as part of ZFW and is taken into account for CG determination.
J) (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-07 Manual Magnetic Indicator	C	11	0	One or more may be inoperative provided associated fuel quantity indication on ECAM is operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-07 Manual Magnetic Indicator	C	15	0	One or more may be inoperative provided associated fuel quantity indication on ECAM is operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-08 Fuel Quantity Attitude Monitor	D	1	0	May be inoperative provided it is not required for fueling and defueling procedures.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-09 Warning and Caution on ECAM E/WD				
A) FUEL L(R) INNER (OUTER) TK HI TEMP	C	4	2	(o) a) One in each wing or both in one wing may be inoperative provided fuel temperature indications on the ECAM FUEL system page are available for the non affected tanks and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual. - or -
	C	4	0	(o) b) May be inoperative provided fuel temperature indications on the ECAM FUEL system page are available and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-09 Warning and Caution on ECAM E/WD				
B) FUEL L(R) INNER (OUTER) TK LO TEMP	C	4	2	(o) a) One in each wing or both in one wing may be inoperative provided fuel temperature indications on the ECAM FUEL system page are available for the non affected tanks and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual. - or -
	C	4	0	(o) b) May be inoperative provided fuel temperature indications on the ECAM FUEL system page are available and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
28-40-09 Warning and Caution on ECAM E/WD			
A) FUEL L(R) INNER (OUTER) TK HI TEMP	C	2	1 (o) a) One may be inoperative provided fuel temperature indications on the ECAM FUEL system page are available for the opposite wing and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual. - or -
	C	2	0 (o) b) May be inoperative provided fuel temperature indications on the ECAM FUEL system page are available and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
28-40-09 Warning and Caution on ECAM E/WD				
B) FUEL L(R) INNER (OUTER) TK LO TEMP	C	2	1	(o) a) One may be inoperative provided fuel temperature indications on the ECAM FUEL system page are available for the opposite wing and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual. - or -
	C	2	0	(o) b) May be inoperative provided fuel temperature indications on the ECAM FUEL system page are available and fuel temperature is monitored prior to takeoff and during the flight. Note: For fuel temperature limitations refer to Flight Manual.

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REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
29-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE			

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
29-00-01 Blue RSVR	C		Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
29-00-01 (Reserved)			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
29-10 MAIN HYDRAULIC POWER				
29-10-01 Engine driven pumps	C	2	2	Depressurization function may be inoperative on one pump.
29-10-02 Blue system electric pump	C	1	1	(o) Automatic control may be inoperative provided the pump is manually operated.
29-10-03 Hydraulic system accumulator	C	3	0	
29-10-04 Yellow brake accumulator		1	1	
29-10-06 Engine pump Fire valve		2	2	
29-10-07 Filters				
A) System filters	C	8	7	a) One LP filter may be inoperative - or -
	C	8	7	b) Reservoir filling filter may be inoperative.
B) Case drain filters	C	3	2	(m) One may be inoperative provided it is removed.

ITEM		REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
29-22	BLUE AUXILIARY HYDRAULIC POWER				
29-22-01	Ram Air Turbine		1	1	
29-23	POWER TRANSFER				
29-23-01	Power Transfer Unit	C	1	1	(o) PTU may run continuously when selected AUTO provided operation of the PTU in both directions is checked before first flight of the day.
29-24	YELLOW AUXILIARY HYDRAULIC POWER				
29-24-01	Yellow system electric pump	C	1	0	(p)(o) May be inoperative provided associated pb sw is set at OFF.
29-30	INDICATING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
29-30-01 PUMP Pb Sw				
A) FAULT light	C	4	0	(p) One or more may be inoperative provided the associated reservoir quantity indication is operative. Note: Illumination of two FAULT lights (one from the Blue ELEC PUMP pb and one from ENG 1(2) PUMP pb) with engines off, may be due to a failed engine oil low pressure switch. In this case, the ENG OIL LO PRESS warning is inoperative. Refer to 79-33-02.
B) OFF light	C	4	0	(p)
29-30-02 PTU Pb Sw				
A) FAULT light	C	1	0	(p) May be inoperative provided yellow and green reservoir quantity indications are operative.
B) OFF light	C	1	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
29-30-03 Indications on the ECAM HYD page				
A) Reservoir quantity	C	3	2	(m) One may be inoperative provided quantity is checked prior to each flight and associated LO LVL warning is checked operative before the first flight under this item.
B) Fire valve	C	2	0	
C) RAT	C	1	0	May be inoperative provided visual check that RAT is stowed is made prior to each flight.
D) Yellow ELEC pump	C	1	0	
E) PTU	C	1	0	
F) Pumps	C	3	0	
G) System label	C	3	0	(o) One or more may be inoperative provided corresponding system pressure availability is checked prior to each flight.
H) System pressure	C	3	2	(o) One may be inoperative provided associated system label indication is operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
29-30-04 Warning and cauthion on ECAM				
A) RSVR LO LVL	C	3	2	One may be inoperative provided corresponding reservoir quantity indication is checked normal prior to each flight. Note: 1) If the ECAM caution is erroneously triggered, associated PUMP FAULT light and PTU FAULT light (if G or Y system affected) may spuriously illuminate simultaneously. Refer to 29-30-01 and Refer to 29-30-02. 2) If blue reservoir is affected, "EMER GEN" may appear on ECAM STATUS INOP SYS before engines are running.
B) RSVR LO AIR PR	C	3	2	(m) One may be inoperative provided air pressure is checked on the reservoir prior to each flight.
C) RSVR OVHT	C	3	2	Green or yellow RSVR OVHT warning may be inoperative.
D) Electrical pump OVHT	C	2	0	
E) ELEC PUMP LO PR	C	2	0	One or both may be inoperative provided associated system pressure indication is operative.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
29-30-04 Warning and cauthion on ECAM				
F) SYS LO PR	C	3	0	(o) One or more may be inoperative provided corresponding system pressure indication availability is checked prior to each flight.
G) PTU FAULT	C	1	0	(o) May be inoperative provided PTU is checked operative prior to each flight.
H) RAT FAULT	C	1	0	(m) May be inoperative provided RAT integrity is verified prior to each flight.
I) ENG PUMP LO PR	C	2	0	(o) One or both may be inoperative provided: 1) Associated system pressure indication is operative and, 2) Engine pumps operation is checked prior to each flight if warning is erroneously displayed.
29-30-05 LEAK MEASUREMENT VALVES OFF light	C	3	0	(p)

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
30-00-01 ICE DETECT	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
30-11 WING ICE PROTECTION				
30-11-01 Anti-ice Control Valve	C	2	1	(o)(m) a) Only the RH valve may be inoperative in open position provided associated ECAM procedure is applied. - or -
	C	2	0	(p)(m) b) Except for ER operations one or both may be inoperative in the closed position provided the aircraft is not operated in icing conditions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-11-02 WING ANTI ICE Pb Sw				
A) FAULT Light	C	1	0	(p)(o) a) May be inoperative provided the anti-ice "arrow" on ECAM BLEED page is operative. - or -
	C	1	0	(p)(m) b) Except for ER operations may be inoperative provided wing anti-ice control valves are deactivated and considered inoperative. Refer to 30-11-01 b).
B) ON Light	C	1	0	(p)
30-11-03 Indications on ECAM BLEED page				
A) ANTI ICE	C	2	0	
B) Arrow	C	2	0	
30-21 ENGINE ICE PROTECTION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-21-01 Engine Anti-ice Valve	C	2	0	(p)(o)(m) a) One or both may be inoperative in the OPEN position provided Fight Manual performance penalties are applied. - or -
	C	2	1	(p)(o)(m) b) Except for ER operations one may be inoperative in the closed position provided the aircraft is not operated in icing conditions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-21-01 Engine Anti-ice Valve	C	2	0	(p)(o)(m) a) One or both may be inoperative in the OPEN position provided Fight Manual performance penalties are applied. - or -
	C	2	1	(p)(o)(m) b) Except for ER operations one may be inoperative in the closed position provided the aircraft is not operated in icing conditions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-21-01 Engine Anti-ice Valve	C	2	0	(p)(o)(m) a) One or both may be inoperative in the OPEN position provided Fight Manual performance penalties are applied. - or -
	C	2	1	(p)(o)(m) b) Except for ER operations one may be inoperative in the closed position provided the aircraft is not operated in icing conditions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-21-02 ANTI-ICE ENG 1(2) Pb Sw				
A) FAULT Light	C	2	1	(p) a) One may be inoperative provided the associated engine anti-ice valve is considered inoperative in closed position. Refer to 30-21-01. - or -
	C	2	0	(p) b) One or both may be inoperative provided the associated engine anti-ice valve is considered inoperative in open position. Refer to 30-21-01.
B) ON Light	C	2	0	(p)
30-31 PROBE ICE PROTECTION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-31-01 Probe Heat Computer	C	3	2	(m) a) One may be inoperative provided associated probe heating is checked operative prior to each flight. - or -
	C	3	2	(o)(m) b) Only F/O may be inoperative provided ADR, heaters and failure warnings associated with the operative units are checked operative once each day. - or -
	C	3	2	(m) c) Except for ER operations only STBY may be inoperative provided: 1) ADR, heaters and failure warnings associated with the operative units are checked operative once each day, and 2) The aircraft is not operated in visible moisture or icing condtions, and 3) Ambient temperature at the departure airport is greater than 5°C when the taxiway or the runway are covered with water or slush.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-31-02 Pitot Heaters	C	3	2	(o)(m) a) Only F/0 may be inoperative provided ADR, heaters and failure warnings associated with CAPT and STBY probes (pilot, static, AOA, TAT) are checked operative once each day. - or -
	C	3	2	(m) b) Except for ER operations, only CAPT may be inoperative provided : 1) ADR, heaters and failure warnings associated with F/0 and STBY probes (pitot, static, AOA, TAT) are checked operative once each day, and 2) The aircraft is not operated in visible moisture or icing conditions. - or -
	C	3	2	(m) c) Except for ER operations, only STBY may be inoperative provided : 1) ADR, heaters and failure warnings associated with CAPT and F/0 probes (pitot, static, AOA, TAT) are checked operative once each day, and 2) The aircraft is not operated in visible moisture or icing conditions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-31-03 Static Ports Heaters	C	6	5	a) One STBY may be inoperative. - or -
	C	6	4	(o)(m) b) One or both F/0 may be inoperative provided ADR, heaters and failure warnings associated with CAPT and STBY probes (pitot, static, AOA, TAT) are checked operative once each day. - or -
	C	6	4	(m) c) One or both CAPT may be inoperative provided: 1) ADR, heaters and failure warnings associated with F/0 and STBY probes (pitot, static, AOA, TAT) are checked operative once each day, and 2) Ambient temperature at the departure airport is greater than 5°C when the runway is contaminated with water or slush. - or -
	C	6	4	(m) d) Both STBY may be inoperative provided: 1) ADR, heaters and failure warnings associated with CAPT and F/0 probes (pitot, static, AOA, TAT) are checked operative once each day, and 2) Ambient temperature at the departure airport is greater than 5°C when the runway is contaminated with water or slush.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-31-03 Static Ports Heaters				
30-31-04 Angle of attack probes heating	C	3	2	(m) a) Only F/0 may be inoperative provided ADR, heaters and failure warnings associated with CAPT and STBY probes (pitot, static, AOA, TAT) are checked operative once each day. - or -
	C	3	2	(m) b) Only STBY may be inoperative provided ADR, heaters and failure warnings associated with CAPT and F/0 probes (pitot, static, AOA, TAT) are checked operative once each day. - or -
	C	3	2	(m) c) Except for ER operations only CAPT may be inoperative provided: 1) ADR, heaters and failure warnings associated with F/0 and STBY probes (pitot, static, AOA, TAT) are checked operative once each day, and 2) The aircraft is not operated in visible moisture or icing conditions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-31-05 TAT probes heating	C	2	1	a) One may be inoperative. - or -
	C	2	0	b) Except for ER operations both may be inoperative provided aircraft is not operated in visible moisture or icing conditions.
30-42 WINDSHIELD ANTI-ICING AND DEFOGGING				
30-42-01 Window heat computer	C	2	1	(m) Except for ER operations one may be inoperative provided: 1) The aircraft is not operated in icing conditions and 2) All heaters and failure warnings on the front and sliding windows associated with the operative unit are checked operative once each day.
30-42-02 Fixed lateral window and sliding window heating	C	4	0	One or more may be inoperative.
30-42-03 Windshield heating	C	2	1	One may be inoperative provided the aircraft is not operated in icing condtions.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-42-04 PROBES/WINDOW HEAT AUTO control	C	1	0	(p) Automatic control may be inoperative provided PROBES/WINDOW HEAT system is manually selected.
30-45 WINDSHIELD RAIN PROTECTION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
30-45-01 Windshield Wiper					
A) Wiper	A	2	1		(p) a) One may be inoperative on the pilot non-flying side for three flights. - or -
	C	2	0		(p) b) One or both may be inoperative provided : 1) The aircraft is not operated in precipitation within arrival and departure areas, and 2) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04). - or -
	C	2	1		(p) c) One may be inoperative provided the associated rain repellent system is operative. Note: This exception c) must not be used when the rain repellent system is not installed or when it is installed but intentionally deactivated.
B) High Speed Function (FAST Position)	C	2	0		(p) One or both may be inoperative provided the associated low speed function is operative.
C) Low Speed Function (SLOW Position)	C	2	0		(p)

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
30-45-02 Rain Repellent System	D	2	0	(p) NOTE: No entry in the logbook is required when it is installed but intentionnally deactivated.
30-71 DRAIN MAST ICE PROTECTION				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-71-01 Waste Water Drain Mast Heating System	C	2	0	(m) One or both may be inoperative provided: 1) The associated galley and washbasins are not used, and 2) The associated washbasin water supplies are closed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-71-01 Waste Water Drain Mast Heating System	C	3	0	(m) One or more may be inoperative provided: 1) The associated galley and washbasins are not used, and 2) The associated washbasin water supplies are closed.

ITEM		REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
30-71-02	Waste water drain line ice protection system	D	1	0	
30-71-03	Cargo compartment drain line and drain mast ice protection system	D	1	0	
30-81	ICE DETECTION				
30-81-01	Visual icing indicator				Refer to Flight Manual CDL.
30-81-02	Ice detection system	C	1	0	(p) May be inoperative provided the airplane is not operated in known or forecast icing conditions.
30-81-03	External visual ice indicator lighting	D	1	0	

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REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 31-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				NOTE: Required equipment for precision approaches are listed in Aircraft Flight Manual. ATTENTION: This note applicable to all items listed below and related with the associated subsystem.
31-00-01 QAR	D			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
31-00-02 DMU	D			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
31-00-04 CFDIU	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
31-00-05 (Reserved)				
31-20 INDEPENDENT INSTRUMENTS				
31-21-01 Electrical Clock	C	1	0	(p)(o) May be inoperative provided: 1) Time base from CFDIU is available on ECAM, and 2) Chrono indication is available on at least one ND.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-30 CENTRALIZED FAULT DISPLAY SYSTEM (CFDS) AND RECORDING DATA SYSTEM				
31-30-01 Centralized Fault Display System (CFDS)	C	1	0	
31-30-02 Digital Flight Data Recorder (DFDR)	A	1	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a airport where repairs or replacements can be made, and c) Repairs are made within three flight days.
31-30-03 Flight Data Interface Unit (FDIU)	A	1	0	May be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, b) Airplane is not dispatched from a airport where repairs or replacements can be made, and c) Repairs are made within three flight days. NOTE: If FDIU is inoperative the DFDR and the QAR are inoperative. Refer to 31-30-02. Refer to 31-30-05.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-30-05 Quick Access Recorder (QAR)	D	1	0	Note: Failure of QAR is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 31-00-01.
31-30-07 Data Management Unit (DMU)	D	1	0	Note: Failure of DMU part of FDIMU is indicated by a MAINTENANCE message on ECAM STATUS page. Refer to 31-00-02.
31-30-08 Printer	D	1	0	
31-38 UP AND DOWN DATA LOADING SYSTEM ACQUISITION / INTERFACE				
31-38-01 Up and Down Data Loading System Acquisition/ Interface				
A) DATA LOADING Selector	D	1	0	(p)
B) Data Loading Routing Box (DLRB)	D	1	0	
31-38-02 Multipurpose Disk Drive Unit (MDDU)	D	1	0	

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
31-53 FLIGHT WARNING COMPUTER (FWC)				
31-53-01 FWC	C	2	1	FWC 2 may be inoperative provided CAT 3 DUAL approaches are not performed (Refer to QRH 5.04).
31-53-02 Cockpit loudspeaker				Refer to 23-51-06.
31-55 SYSTEM DATA ACQUISITION CONCENTRATOR (SDAC)				
31-55-01 SDAC	C	2	1	Only SDAC 2 may be inoperative provided both automatic cabin pressure controllers are operative.
31-56 ECAM CONTROL PANEL				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-56-01 ECAM Control panel				
A) System page manual call Pb	C	11	0	(p)
B) ALL Pb		1	1	
C) RCL Pb		1	1	
D) STS Pb	B	1	0	(p)(o) May be inoperative provided RCL Pb and CLR Pb are operative.
E) CLR Pb	C	2	1	(p)
F) EMER CANC Pb		1	1	
G) T.O CONFIG Pb	C	1	0	(p)(o) May be inoperative provided T/O configuration is verified before each departure.
31-58 WARNING/CAUTION MESSAGE LOGIC				
31-58-01 MASTER WARN				
A) Light	C	2	1	(p)
B) Cancel function	C	2	1	
31-58-02 MASTER CAUT				
A) Light	C	2	1	(p)
B) Cancel function	C	2	1	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-60 ELECTRONIC INSTRUMENT SYSTEM (EIS)				
31-61-01 EIS switching system				
A) ATT HDG switching	C	1	0	May be inoperative provided it works in normal position.
B) AIR DATA switching	C	1	0	May be inoperative provided it works in normal position.
C) EIS DMC switching	C	1	0	May be inoperative provided it works in normal position.
D) ECAM/ND XFR	C	1	0	May be inoperative provided: 1) It works in normal position, and 2) Both ECAM DU are operative.
E) PFD/ND XFR	C	2	0	(p)(o) One or both may be inoperative provided: 1) PFD and ND units are operative, and 2) PFD to ND automatic switching is checked operative on the Pilot Flying side before each flight.
F) EFIS Control Panel				Refer to 22-81-04.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-63-01 Display Unit (DU)				
A) Primary Flight Display (PFD)	C	2	1	(o) PFD 2 may be inoperative provided : 1) All other DU's are operative, and 2) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04), and 3) Enroute operations do not include airspace with RVSM (Refer to FCOM 2.04.50).
B) Navigation Display (ND)	C	2	1	(o) ND 2 may be inoperative provided : 1) All other DU's are operative, and 2) CAT 3 approaches are not performed (Refer to QRH 5.04), and 3) Enroute operations do not include airspace with BRNAV (Refer to FCOM 2.04.51).
C) Engine/Warning Display (E/WD)		1	1	
D) System Display (SD)	C	1	0	(o) May be inoperative provided all other DU's are operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-63-02 Display Management Computer (DMC)	C	3	2	a) Only DMC 1 or DMC 3 may be inoperative provided : 1) Standby IAS Indicator is operative, and 2) Standby Altimeter is operative, and 3) Standby Horizon is operative, and 4) Standby Compass is operative. - or -
	C	3	2	(o)(m) b) Only DMC 2 may be inoperative provided : 1) AC ESS FEED control is checked operative once each day, and 2) AC ESS FEED FAULT light is checked operative once each day, and 3) Standby IAS Indicator is operative, and 4) Standby Altimeter is operative, and 5) Standby Horizon is operative, and 6) Standby Compass is operative.
31-64-01 Primary Flight Display (PFD)				Refer to 31-63-01, and Refer to 34-13-01, and Refer to 34-14-01.
31-65-01 Navigation Display (ND)				Refer to 31-63-01, and Refer to 34-13-02, and Refer to 34-14-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
31-66-01 Engine/Warning Display (E/WD)				
A) Engine Parameters				Refer to 77-00-01.
B) Fuel On Board (FOB) Indication				Refer to 28-40-06-G).
C) Slats/Flaps Position				Refer to 27-55-01, and Refer to 27-85-01.
D) MEMO Message	C		0	
31-67-01 System Display (SD)				
A) Indications on System Pages				Refer to corresponding item in associated ATA chapter.
B) Permanent Data	C			TAT indication must be operative.

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REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
32-11 MAIN GEAR				
32-11-01 Torque link damper	A	2	0	One or both may be inoperative for 7 flights maximum.
32-12 MAIN GEAR DOORS				
32-12-01 Ground Opening Cable	C	2	0	(m) May be broken or missing.
32-31 NORMAL EXTENSION AND RETRACTION				
32-31-00 Landing gear retracting system	C	1	0	(o) May be inoperative provided airplane is operated in accordance with the appropriate Flight Manual gear down appendix.
32-31-01 Landing Gear Control and Interface Unit (LGCIU)	A	2	1	(o) Only LGCIU 2 may be inoperative for 7 flights maximum provided: 1) All ELAC, SEC, SFCC, RA, FAC, and ADIRS are operative, and 2) Flexible take-off thrust is not used, and 3) Operation of avionic equipment is time limited on ground, and 4) Both air conditioning packs are operative, and 5) Both thrust lever position sensors of engine 2 are operative.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
32-31-02A Proximity Detectors System 1	16	16	

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
32-31-02B) Proximity Detectors System 2			

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
32-31-02B) Proximity Detectors System 2			
a) L/G Shock Absorber			
1) RH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) Both radioaltimeters are operative, and 2) Both thrust lever position sensors of engine 2 are operative. 3) The origin of the failure is checked to be electrical before the first flight under this item, and 4) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
32-31-02B) Proximity Detectors System 2			
a) L/G Shock Absorber			
2) LH	A 1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) Both radioaltimeters are operative, and 2) Both thrust lever position sensors of engine 2 are operative. 3) The origin of the failure is checked to be electrical before the first flight under this item, and 4) Other proximity detectors are operative. - or -
	A 1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

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REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
32-31-02B) Proximity Detectors System 2			
a) L/G Shock Absorber			
3) Nose	A	1	0 (o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0 b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-31-02B) Proximity Detectors System 2				
b) L/G Down Lock				
1) RH	C	1	0	(o)(m) a) May be inoperative provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.
2) LH	C	1	0	(o)(m) a) May be inoperative provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
32-31-02B) Proximity Detectors System 2			
b) L/G Down Lock			
3) Nose	C 1	0	(o)(m) a) May be inoperative provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A 1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-31-02B) Proximity Detectors System 2				
c) L/G Up Lock				
1) RH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.
2) LH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
32-31-02B) Proximity Detectors System 2			
c) L/G Up Lock			
3) Nose	A 1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A 1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-31-02B) Proximity Detectors System 2				
d) L/G Doors Open				
1) RH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.
2) LH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-31-02B) Proximity Detectors System 2				
d) L/G Doors Open				
3) Nose	A	2	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	2	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-31-02B) Proximity Detectors System 2				
e) L/G Doors Closed				
1) RH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.
2) LH	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-31-02B) Proximity Detectors System 2				
e) L/G Doors Closed				
3) Nose	A	1	0	(o)(m) a) May be inoperative for 7 flights maximum provided : 1) The origin of the failure is checked to be electrical before the first flight under this item, and 2) Other proximity detectors are operative. - or -
	A	1	0	b) May be inoperative for 7 flights maximum provided LGCIU 2 is considered inoperative. Refer to 32-31-01.
f) (Reserved)				
32-33-00 FREE FALL EXTENSION				
32-33-01 Landing Gear Gravity Extension System	C	1	0	(p)(o) Except for ER operations, may be inoperative provided the aircraft is operated in accordance with the appropriate Flight Manual gear down appendix.
32-41 WHEELS				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-41-01 Nose wheel tie bolts	A			(m) One bolt may be missing for 15 flights. When this bolt is fitted back, both adjacent bolts (one on each side) shall be replaced.
32-41-02 Main wheel tie bolts	A			(m) One bolt may be missing for 15 flights. When this bolt is fitted back, both adjacent bolts (one on each side) shall be replaced.
32-42 NORMAL BRAKING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-01 Main Wheel Brake	C	4	3	(o)(m) Except for runway with a width below 45 meters, one brake may be inoperative provided: 1) Anti skid system is operative, and 2) Nose wheel steering is operative, and 3) Affected brake is deactivated or removed, and 4) Both reversers are operative, and 5) Green and yellow systems are operative on operative brakes, and 6) Tachometers associated with operative brakes are operative, and 7) Flight Manual performance penalty is applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-01 Main Wheel Brake	C	4	3	(o)(m) Except for runway with a width below 45 meters, one brake may be inoperative provided: 1) Anti skid system is operative, and 2) Nose wheel steering is operative, and 3) Affected brake is deactivated or removed, and 4) Both reversers are operative, and 5) Green and yellow systems are operative on operative brakes, and 6) Tachometers associated with operative brakes are operative, and 7) Flight Manual performance penalty is applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-01 Main Wheel Brake	C	4	3	(o)(m) Except for runway with a width below 45 meters, one brake may be inoperative provided: 1) Anti skid system is operative, and 2) Nose wheel steering is operative, and 3) Affected brake is deactivated or removed, and 4) Both reversers are operative, and 5) Green and yellow systems are operative on operative brakes, and 6) Tachometers associated with operative brakes are operative, and 7) Flight Manual performance penalty is applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-02 Green Brake System	C	1	1	(o)(m) Except for runway with a width below 45 meters, braking on one wheel may be inoperative provided: 1) Green hydraulic supply of affected brake is deactivated, and 2) Anti skid system is operative, and 3) Nose wheel steering is operative, and 4) Both reversers are operative, and 5) Tachometers associated with operative brakes are operative, and 6) Flight Manual performance penalty is applied.
32-42-03 Braking/ Steering Control Unit (BSCU)	C	1	1	BSCU system 1 or BSCU system 2 may be inoperative.
32-42-04 AUTO/BRK Function	C	1	0	(p) May be inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-05 Tachometer	C	4	3	(o)(m) Except for runway with a width below 45 meters, one may be inoperative provided: 1) Anti skid system is operative, and 2) Nose wheel steering is operative, and 3) Both reversers are operative, and 4) Green and yellow systems are operative on operative brakes, and 5) Tachometers are checked operative on the non affected wheels prior to each flight, and 6) Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-05 Tachometer	C	4	3	(o)(m) Except for runway with a width below 45 meters, one may be inoperative provided: 1) Anti skid system is operative, and 2) Nose wheel steering is operative, and 3) Both reversers are operative, and 4) Green and yellow systems are operative on operative brakes, and 5) Tachometers are checked operative on the non affected wheels prior to each flight, and 6) Flight Manual performance penalties are applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-42-05 Tachometer	C	4	3	(o)(m) Except for runway with a width below 45 meters, one may be inoperative provided: 1) Anti skid system is operative, and 2) Nose wheel steering is operative, and 3) Both reversers are operative, and 4) Green and yellow systems are operative on operative brakes, and 5) Tachometers are checked operative on the non affected wheels prior to each flight, and 6) Flight Manual performance penalties are applied.

REPAIR INTERVAL / ITEM		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-44 ALTERNATE BRAKING				
32-44-01 Yellow Brake System	C	1	1	(m) Braking on one wheel may be inoperative provided: 1) Yellow hydraulic supply of affected brake is deactivated, and 2) Both reversers are operative.
32-44-02 ACCU PRESS Indicator	C	1	0	(p) May be inoperative provided: 1) Both brakes pressure indicators are operative, and 2) Pressure on both brakes pressure indicators is checked with parking brake on.
32-44-03 BRAKES Pressure Indicator	C	2	0	(p) One or both may be inoperative provided both channels of the BSCU are operative.
32-45 PARKING/ULTIMATE EMERGENCY BRAKING				
32-45-01 Parking Brake	C	1	1	(m) Note: One electrical motor of the parking brake control valve may be inoperative provided both thrust reversers are operative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-47 BRAKE SYSTEM TEMPERATURE				
32-47-01 Brake Temperature Monitoring Unit	C	2	0	(o) One or both may be inoperative provided brake cooling time is applied.
32-51 STEERING				
32-51-01 Nose Wheel Steering Control System	A	1	0	(p)(o) Except for runway with a width below 45 meters, nose wheel steering control system may be inoperative for three flights provided : 1) The failure is detected by the BSCU (WHEEL N.W.STRG FAULT is displayed on ECAM E/WD), and 2) The runway is not contaminated, and 3) The crosswind component is not higher than 20 kt, and 4) CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04). Note: For Nose Wheel Steering offset, Refer to FCOM 3.04.32
32-51-02 PEDALS DISC Pb	C	2	0	(p) One or both may be inoperative provided the Nose Wheel Steering by rudder pedals is operative for both pilots.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-51-03 Nose Wheel Steering Control System Deactivation Device (for A/C Towing)	C	1	0	(o) May be inoperative provided: a) Engine start is delayed until Parking Brake is set and Tow Bar is removed, and b) Alternate procedures are established and used.
32-60 POSITION AND WARNING				
32-60-01 LDG GEAR Indicator Panel	C	1	0	(p) May be inoperative provided: a) Both landing gear position indications (on ECAM wheel page) for all three landing gear operate normally, and b) Upper and lower ECAM display units operate normally.
32-60-02 Gear Not Down Warning	C	1	1	(p)(m) Down arrow light may be inoperative provided ECAM warning is checked operative before the first flight under this item.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-60-03 Indications on ECAM WHEEL Page				
A) L/G Position	C	6	0	May be inoperative provided gear position indications are available on L/G indicator panel.
B) UP LOCK	C	3	0	
C) L/G Doors Position	C	3	0	(o)
D) L/G CTL	C	1	0	
E) Release	C	4	0	
F) ANTI SKID	C	1	0	May be inoperative provided Anti Skid system operates normally.
G) AUTO BRK	C	1	0	
H) Brakes Temperature	C	4	0	(o) a) One or more may be inoperative provided ground brake cooling time is applied. - or -
	C	4	0	(o)(m) b) One or more may indicate an unreliable high temperature value when associated brake is cold provided ground brake cooling time is applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-60-03 Indications on ECAM WHEEL Page				
A) L/G Position	C	6	0	May be inoperative provided gear position indications are available on L/G indicator panel.
B) UP LOCK	C	3	0	
C) L/G Doors Position	C	3	0	(o)
D) L/G CTL	C	1	0	
E) Release	C	4	0	
F) ANTI SKID	C	1	0	May be inoperative provided Anti Skid system operates normally.
G) AUTO BRK	C	1	0	
H) Brakes Temperature	C	4	0	(o) a) One or more may be inoperative provided ground brake cooling time is applied. - or -
	C	4	0	(o)(m) b) One or more may indicate an unreliable high temperature value when associated brake is cold provided ground brake cooling time is applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
32-60-03 Indications on ECAM WHEEL Page				
A) L/G Position	C	6	0	May be inoperative provided gear position indications are available on L/G indicator panel.
B) UP LOCK	C	3	0	
C) L/G Doors Position	C	3	0	(o)
D) L/G CTL	C	1	0	
E) Release	C	4	0	
F) ANTI SKID	C	1	0	May be inoperative provided Anti Skid system operates normally.
G) AUTO BRK	C	1	0	
H) Brakes Temperature	C	4	0	(o) a) One or more may be inoperative provided ground brake cooling time is applied. - or -
	C	4	0	(o)(m) b) One or more may indicate an unreliable high temperature value when associated brake is cold provided ground brake cooling time is applied.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-10 COCKPIT				
33-10-01 Cockpit and Instrument Lighting	C	-	-	May be inoperative provided : 1) Lights are sufficient to clearly illuminate all instruments and controls must be provided, and 2) RH dome light is operative, and 3) Left main instrument panel lighting is operative.
33-10-02 Annunciator Lighting				
A) Test Function	C	1	0	
B) Dim Function	C	1	0	Dim lighting may be inoperative provided bright lighting is operative.
C) Bright Function	C	1	0	Bright lighting may be inoperative for night operation.
33-20 CABIN				
33-20-01 Cabin lighting	C			Lighting must be sufficient for cabin attendants to perform their duties.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-20-02 Cabin Signs (No Smoking/ Fasten Seat Belt/ Return to Seat)	C			a) One or more signs may be inoperative and affected passenger seat or cabin attendant seat may be occupied provided : 1) The passenger address system is operative, and can be clearly heard throughout the cabin during the flight, and 2) The passenger address system is used to alert the cabin attendants and passengers when return to seat is requested, seat belts should be fastened and smoking is prohibited. - or -
	C			(p)(m) b) One or more "No Smoking/Fasten Seat Belt" signs may be inoperative and passengers may be carried provided : 1) No passenger seat is occupied from which a passenger cannot see a readily ligible "No smoking/Fasten Seat Belt" sign, and 2) The affected seat is blocked and placarded inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-20-03 Lavatory Sign (Return to Seat)	C	-	-	(p)(o) One or more may be inoperative and affected lavatory may be used provided : 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.
33-20-04 AUTO Function				
A) SEAT BELTS SIGNS Sel	D	1	0	
B) NO SMOKING SIGNS Sel	D	1	0	
33-30 CARGO AND SERVICE COMPARTMENT				
33-30-01 Cargo and service compartment lighting system	D	1	0	
33-40 EXTERIOR				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-40-01 Navigation Light				
A) NAV 1	C	3	0	(p) a) One or more may be inoperative for daylight operation. - or -
	C	3	0	(p) b) One or more may be inoperative provided NAV 2 is operative.
B) NAV 2	C	3	0	(p)
33-40-02 Landing lights				
A) Lights	C	2	0	(p) a) One or both may be inoperative for daylight operation. - or -
	C	2	1	(p) b) One may be inoperative provided nose, taxi and take-off lighting is available.
B) Extension/ Retraction system	C	2	0	(o) a) One or both may be inoperative in the extended position. - or -
	C	2	0	b) One or both may be inoperative in the retracted position provided the associated light(s) is (are) considered inoperative. Refer to 33-40-02-A).
33-40-03 Runway turn-off light	C	2	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-40-04 Taxi and take-off lights	C	2	0	(p)
33-40-05 Logo Lights	D	2	0	(p)
33-40-06 Beacon lights	C	2	0	One or both may be inoperative provided strobe lights are operative.
33-40-07 Wing scan lights	C	2	0	(p) a) One or both may be inoperative for daylight operation. - or -
	C	2	1	b) One may be inoperative for night operation.
33-40-08 Strobe lights	D	3	0	
33-50 EMERGENCY LIGHTING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-01 EXIT Sign				
A) Exit Marking Sign	C	6	6	a) Up to three non-adjacent LEDs may be inoperative in one or more signs. - or -
		6	5	b) One may be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.
B) Exit location sign in the Main Aisle	C			Up to three non-adjacent LEDs may be inoperative in one or more signs.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-01 EXIT Sign				
A) Exit Marking Sign	C	8	8	a) Up to three non-adjacent LEDs may be inoperative in one or more signs. - or -
		8	7	b) One may be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.
B) Exit Location Sign in the Main Aisle	C			Up to three non-adjacent LEDs may be inoperative in one or more signs.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-02 Overhead Emergency Lighting System				
A) In the main aisle	C			A maximum of 2 non-adjacent overhead emergency lights may be inoperative.
B) In the door vicinity				One or more may be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-02 Overhead Emergency Lighting System				
A) In the main aisle	C			A maximum of 3 non-adjacent overhead emergency lights may be inoperative.
B) In the door vicinity				One or more may be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-03 Floor Proximity Emergency Escape Path Marking				
A) Lighting System in the Main Aisle	C	1	1	One or more lights may be inoperative and passengers may be carried provided: 1) No seat is occupied from which a passenger cannot see a emergency light, and 2) That seat is blocked and placarded "DO NOT OCCUPY".
B) (Reserved)				
C) Exit Marker		6	5	One may be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-03 Floor Proximity Emergency Escape Path Marking				
A) Lighting System in the Main Aisle	C	1	1	One or more lights may be inoperative and passengers may be carried provided: 1) No seat is occupied from which a passenger cannot see a emergency light, and 2) That seat is blocked and placarded "DO NOT OCCUPY".
B) (Reserved)				
C) Exit Marker		8	7	One may be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
33-50-04 Emergency Overwing Light	C		a) May be inoperative for day operation. - or - b) May be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
33-50-04 (Reserved)			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
33-50-05 Escape Slide Lighting	C	-	-	a) May be inoperative for day operation. - or -
	C	-	-	b) May be inoperative provided associated exit is considered inoperative. Refer to 52-10-01 and Refer to 52-10-02.
33-50-06 Lavatory auxiliary lights	C		0	
33-50-07 EMER LIGHT TEST				
A) BAT TEST	C	1	0	May be inoperative provided batteries are properly charged.
B) SYS TEST	C	1	0	(m) May be inoperative provided the operational test of emergency lighting system is made as an alternative to this test.
33-50-08 EMER EXIT LT OFF light on SIGNS overhead panel	C	1	0	(p)(m) May be inoperative provided emergency lighting system is verified operative once each day.

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
34-00	MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE			NOTE: Required equipment for precision approaches are listed in Aircraft Flight Manual. ATTENTION: This note applicable to all items listed below and related with the associated subsystem.
34-00-01	ADR	C		Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
34-00-02	IR	C		Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
34-10	AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS)			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-10-01 ADIRS				
A) IR	C	3	2	(o) a) IR2 or IR3 may be inoperative provided CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). Note: with IR2 inoperative, takeoff shall not be performed in CONF 1+F. - or -
	C	3	3	(o) b) NAV mode may be inoperative in one IR. Note: If NAV mode of IR1 is inoperative, terrain function of TAWS is inoperative. Refer to 34-48-02.
B) ADR	C	3	2	(o) ADR 2 or 3 may be inoperative provided CAT 3 DUAL approaches are not performed (Refer to QRH 5.04). Note: with ADR 2 inoperative, takeoff shall not be performed in CONF 1+F.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-10-02 ADIRS CDU				
A) Mode Rotary Selector	C	3	2	(p) ADIRS 2 or 3 mode rotary selector may be inoperative provided associated ADIRS is considered inoperative. Refer to 34-10-01.
B) DATA Selector	C	1	0	(p) a) May be inoperative provided MCDU 1 and MCDU 2 are operative. - or -
	C	1	0	b) May be inoperative provided navigation is not planned on inertial data.
C) SYS Selector	C	1	0	(p) a) May be inoperative provided: 1) MCDU 1 and MCDU 2 are operative, and 2) IRS initialization is available through FMGS. - or -
	C	1	0	b) May be inoperative provided navigation is not planned on inertial data.
D) Display	C	1	0	a) May be inoperative provided MCDU 1 and MCDU 2 are operative. - or -
	C	1	0	b) May be inoperative provided navigation is not planned on inertial data.
E) ADR FAULT light	C	3	0	(p)

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-10-02 ADIRS CDU				
F) ADR OFF light	C	3	0	(p)
G) IR FAULT light	C	3	0	(p)
H) IR ALIGN light	C	3	0	(p)
I) ON BAT light	C	1	0	(p)
J) Keyboard	C	1	0	May be inoperative provided MCDU 1 and MCDU 2 are fully operative.
34-10-03 EIS switching system				
A) ATT HDG				Refer to 31-61-01.
B) AIR DATA				Refer to 31-61-01.
34-11 SENSORS				
34-11-01 Angle of attack sensor				Refer to 34-10-01-B).
34-13 AIR DATA				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-13-01 INDICATIONS ON PFD				
A) Actual Airspeed Reference Line and Scale		2	2	
B) Mach Number	C	2	1	a) One may be inoperative. - or -
	C	2	0	b) Both may be inoperative provided SPD/MACH selection window on FCU is operative. - or -
	C	2	0	c) Both may be inoperative provided: 1) The flight altitude is limited to 25000 ft, and 2) The flight is not conducted in MNPS airspace.
C) VMO/MMO		2	2	
D) Altitude		2	2	
E) Vertical Speed	C	2	2	Inertial mode may be inoperative.
F) Other Air Data Related Indication	C			(o) One or more may be inoperative on one or both sides.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-13-02 INDICATIONS ON ND				
A) Ground Speed	C	2	0	(p)
B) True Air Speed	C	2	0	(p)
C) Wind	C	2	0	(p)
34-14 ATTITUDE, HEADING AND POSITION				
34-14-01 INDICATIONS ON PFD AND ND				
A) Attitude Display	C	2	1	Except for ER operations, one may be inoperative for day VMC flight only.
B) EIS Heading Display	C	4	3	(p)
C) Position (aircraft symbol)		1	1	
D) Navigation Station Information	C		0	(p)
E) Chrono	C	2	0	(p)
34-15 ANGLE OF ATTACK INDICATING				
34-15-01 (Reserved)				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-21 STANDBY ALTITUDE AND AIRSPEED				
34-21-01 Standby IAS indicator		1	1	
NOTE: Dispatch with the standby IAS (Indicated Airspeed) indicator inoperative is no longer authorized according AD (AD No U2003-373(B) Date: 24 september 2003).				
34-21-02 Standby Altimeter	B	1	0	(o) May be inoperative provided: 1) The three ADR's are operative, and 2) AIR DATA, PFD/ND and EIS DMC switchings are operative, and 3) The aircraft is operated in day VMC during the entire flight.
NOTE: Dispatch with inoperative standby altimeter may be authorized provided that the crew maintains VMC (Visual Meteorological Conditions) during the entire flight and day-light conditions (AD No U2003-373(B) Date: 24 september 2003).				
34-21-03 Standby metric altimeter	D	1	0	
34-22 STANDBY ATTITUDE AND HEADING				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-22-01 Standby Horizon	B	1	0	(o) May be inoperative provided: 1) CAPT attitude indication is supplied by ADIRU 1, and 2) F/0 attitude indication is supplied by ADIRU 2, and 3) ADIRU 3 attitude indication is available on both sides, and 4) The three DMC are operative, and 5) ATT HDG switching is operative on both sides, and 6) EIS DMC switching is operative on both sides, and 7) The aircraft is operated in day VMC during the entire flight.
NOTE: Dispatch with inoperative standby horizon may be authorized provided that the crew maintains VMC (Visual Meteorological Conditions) during the entire flight and day-light conditions (AD No U2003-373(B) Date: 24 september 2003).				
34-22-02 Standby Compass				
A) Indicator	C	1	0	(o) a) May be inoperative provided : 1) The three IR's are operative, and 2) ATT/HDG, EIS DMC and PFD/ND switchings are operative. - or -
	C	1	0	b) May be inoperative provided: 1) The three IR's are operative, and 2) The DDRMI is operative.
B) Lighting	C	1	0	

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
34-30 LANDING AND TAXING AIDS			
34-34-01 (Reserved)			
34-35-01 (Reserved)			
34-36-01 ILS Navigation System	B	2	1	(p) One may be inoperative provided CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04). NOTE: GPWS Glideslope Deviation Light(s) will be inoperative with the loss of the #1 ILS.
34-40 INDEPENDENT POSITION DETERMING			
34-41-01 Weather Radar System	A	1	0	May be inoperative provided no CB-activity is predicted and any hazardous conditions that can be detected by Weather Radar are not forecasted. Flight ops are permited to the mainbase or place where repairs can be made.
34-41-02 Predictive Windshear Detection System				Refer to 22-66-03.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-42-01 Radio Altimeter System	C	2	1	(o) One may be inoperative provided : 1) Both FCU channels, all ELAC, SEC, ADIRS, SFCC, LGCIU and FAC are operative, and 2) CAT 3 approaches are not performed (Refer to QRH 5.04). Note: If radio altimeter 1 is inoperative GPWS or TAWS is inoperative. Refer to 34-48-01 or Refer to 34-48-02.
34-42-02 Automatic Call-Out	C	1	0	May be inoperative provided CAT 2 or CAT 3 approaches are not performed (Refer to QRH 5.04).

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-43-01 Traffic Alert/Collision Avoidance Systems (TCAS II)	B	1	0	(p) May be inoperative provided system is deactivated and secured.
A) Combined Traffic Alert (TA) and Resolution Advisory (RA) Dual Display System(s)	C	2	1	(p) May be inoperative on the non-flying pilot side provided : 1) TA and RA visual display is operative on the flying pilot side, and 2) TA and RA audio function is operative on the flying pilot side.
B) Resolution Advisory (RA) Display Systems	C	2	1	(p) a) One may be inoperative on the non-flying pilot side.
	C		0	(p) b) May be inoperative provided : 1) All Traffic Alert (TA) visual display and audio functions are operative, and 2) TA only mode is selected by the crew.
C) Traffic Alert Display Systems	C		0	(p) May be inoperative provided RA visual display and audio functions are operative.
34-48-01 GPWS (Ground Proximity Warning System)	A	1	0	(o) May be inoperative provided : 1) Alternate procedures are established and used, and 2) Repairs are made within two flight days.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-48-02 TAWS (Terrain Awareness and Warning System)	C	1	0	(p)
34-48-03 GPWS FAULT Light	C	1	0	a) May be inoperative provided GPWS is verified to operate normally before each flight. - or - b) May be inoperative provided GPWS is considered inoperative and not used. Refer to 34-48-01.
34-50 DEPENDENT POSITION DETERMING				
34-51-01 DME	B	2	1	(p) One may be inoperative provided GPS is operative.
34-52-01 ATC Transponders and Automatic Altitude Reporting Systems	C	2	1	(p)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
34-52-02 (Reserved)			

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
34-52-02 Remote ATC Box	1	0	May be inoperative provided it is not required by operational regulations for the intended flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
34-53-01 ADF	C	2	1	(p) Both must be operative if navigation is based only on NDB signals.
34-55-01 VOR	B	2	1	(p) Both must be operative if navigation is based only on VOR signals.
34-55-02 Marker Beacon	C	2	0	(p)
34-57-01 DDRMI	C	1	0	(p)
34-57-02 RMI ADF (if installed)	D	1	0	(p)
34-58-01 Satellite Navigation A) Global Positioning System (GPS)	C	1	0	(p) May be inoperative provided alternate procedures are established and used. NOTE: GPS required by flight time outside radio navaid coverage (RNP-10 in oceanic or remote areas). Refer to FCOM 2.04.51.

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
35-10 CREW OXIGEN				
35-10-01 Quick donning cockpit oxygen mask and mike	C	4		Any in excess of that for each cockpit occupant may be inoperative. Mike must be operative for the pilots.
35-10-02 Indications on DOOR/OXY ECAM Page				
A) OXY High Pressure Indication	C	1	0	(m) May be inoperative provided oxygen pressure is checked by direct reading prior to each flight.
B) REGUL LO PR Indication	C	1	0	
35-10-03 (Reserved)				
35-10-04 Exterior Oxygen Overpressure Indicator Disc (green disc)	C	-	-	(o) May be missing or damaged.
35-10-05 CREW SUPPLY OFF light	C	1	0	(p)
35-20 PASSENGER OXIGEN				
35-20-01 (Reserved)				

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
35-20-02 (Reserved)			
35-20-03 (Reserved)			
35-20-04 (Reserved)			
35-20-05 (Reserved)			
35-20-06 (Reserved)			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
35-21-01 Passenger Oxygen Storage				
A) Cabin Individual Oxygen Module	C			a) One or more may be inoperative provided associated seats are not occupied. - or -
	C			b) Up to 70% may be inoperative and associated seats may be occupied provided 1) The operating altitude is limited to 15000 ft, and 2) Flight is not conducted where the minimum enroute altitude is above 10000 feet MSL. NOTE: Flight planning may be affected.
	C			c) Up to 90 % may be inoperative and associated seats may be occupied provided the operating altitude is limited to 10000 ft.
B) Lavatory Oxygen Module	B			One or more may be inoperative provided the associated lavatory is not used.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
35-21-01 Passenger Oxygen Storage			
C) Galley Oxygen Module	C		a) One or more may be inoperative provided associated galley area is not occupied. - or -
	C		b) One or more may be inoperative and the associated galley area may be occupied provided the operating altitude is limited to 10000 ft. - or -
	C		c) One or more may be inoperative and associated galley area may be occupied provided cabin attendant portable oxygen devices are available for the associated galley area occupants.
35-22-01 Manual Release Tool	D	- -	One must be operative at each pair of exit doors.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
35-23-01 Passenger Oxygen Control and Indicating				
A) MASK MAN ON Pb				
a) Manual Control	C	1	0	(p) May be inoperative provided operating altitude is limited to FL 150.
b) AUTO Control	C	1	0	(p) May be inoperative provided operating altitude is limited to FL 300.
B) PASSENGER SYS ON Light	C	1	0	(p)
C) (Reserved)				
35-30 PORTABLE OXIGEN				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
35-32-01 Cabin Attendants Portable Device	C	4	3	(p) May be inoperative provided the inoperative device is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
35-32-01 Cabin Attendants Portable Device	4	4	

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
36-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
36-00-01 AIR BLEED	C			(o) Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted provided ENG BLEED pb sw are selected OFF for takeoff with APU bleed supplying the air conditioning packs.
36-11 ENGINE BLEED AIR SUPPLY SYSTEM				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
36-11-01 Bleed Air Supply System	C	2	1	(p)(o) Except for ER operations, one may be inoperative provided: 1) Associated BLEED VALVE switch is set to OFF position, and 2) Icing conditions are not predicted, and 3) Altitude is limited to 31500 ft, and 4) Cross bleed valve is selected open. Note: HP ground connection is very close to the engine 1 hazardous area. If bleed n°2 is inoperative, it is preferable to use APU bleed for engine start. If APU bleed is not available, a ground cart can be used as long as the pneumatic pipe is kept out of the hazardous area.
36-11-02 Bleed valve (PRV)	C	2	1	(p)(m) Except for ER operations, one may be inoperative provided: 1) It is secured closed, and 2) Associated bleed air system is considered inoperative. Refer to 36-11-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
36-11-03 Overpressure valve	C	2	0	(p) a) One or both may be inoperative provided neither ENG BLEED FAULT nor ENG BLEED ABNORM PR caution was triggered during previous flight. - or -
	C	2	1	b) Except for ER operations, one may be inoperative on a bleed air system considered inoperative. Refer to 36-11-01.
36-11-04 Fan air valve (FAV)	C	2	1	(p) Except for ER operations, one may be inoperative on a bleed air system considered inoperative. Refer to 36-11-01.
36-11-05 Bleed air Precooler exchanger	C	2	1	(p) Except for ER operations, one may be inoperative on a bleed air system considered inoperative. Refer to 36-11-01.
36-11-06 Intermediate Pressure Check Valve (IP)	C	2	1	a) One may be inoperative provided associated bleed air system is considered inoperative. Refer to 36-11-01. - or -
	C	2	1	(o)(m) b) One may be inoperative in the open position provided associated HP valve is secured closed.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
36-11-07 High Pressure valve (HPV)	C	2	1	a) One may be inoperative in the closed position provided associated bleed air system is considered inoperative. Refer to 36-11-01. - or -
	C	2	1	(o)(m) b) One may be inoperative provided it is secured closed.
36-12 APU BLEED AIR SUPPLY AND CROSS BLEED SYSTEM				
36-12-01 APU bleed air supply system	C	1	0	(p) May be inoperative provided APU BLEED switch is set to OFF position.
36-12-02 APU BLEED valve	C	1	0	(p)(m) a) May be inoperative in secured closed position provided APU bleed air system is considered inoperative. Refer to 36-12-01. - or -
	C	1	0	(p)(o) b) May be inoperative in the open position provided APU is not used in flight. Refer to 49-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
36-12-03 APU bleed check valve	C	1	0	May be inoperative provided APU bleed air system is considered inoperative. Refer to 36-12-01.
36-12-04 CROSS BLEED VALVE	C	1	1	(p)(o) Automatic control may be inoperative provided manual control is checked operative.
36-20 INDICATING				
36-20-01 ENG BLEED Pb Sw				
A) FAULT light	C	2	0	(p)
B) OFF light	C	2	0	(p)
36-20-02 APU BLEED Pb Sw				
A) FAULT light	C	1	0	(p)
B) ON light	C	1	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
36-20-03 Indications on ECAM BLEED page				
A) ENG BLEED pressure	C	2	0	
B) ENG BLEED temperature	C	2	0	
C) ENG BLEED valve	C	2	0	
D) ENG HP valve	C	2	0	
E) APU BLEED valve	C	1	0	
F) X BLEED valve	C	1	0	
36-22 LEAK DETECTION				
36-22-15 Pylon leak detection loop system	C	2	0	
36-22-16 Wing Leak Detection System		2	2	Note: Failure of one loop in one or both wing leading edges is indicated by a MAINTENANCE message displayed on ECAM STATUS page (Refer to 36-00-01).
36-22-17 APU leak detection loop	C	1	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
46-21 AIR TRAFFIC AND INFORMATION MANAGEMENT SYSTEM				
46-21-01 Air Traffic Service Unit (ATSU)	B	1	0	(p) May be inoperative provided alternate procedures are used.

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
49-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
49-00-01 APU	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
49-10 POWER PLANT				
49-10-01 APU	C	1	0	(p) a) Except for ER operations, may be inoperative provided: 1) Master switch is in OFF position, and 2) Procedures are not depending upon its availability. - or -
	A	1	0	(p) b) Except for ER operations beyond 120 minutes, may be inoperative for four flights provided : 1) Master switch is in OFF position, and 2) Procedures are not depending upon, its availability.

Note: Any of the APU equipment may be inoperative on an APU inoperative or considered to be inoperative.

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
49-10-02 Air Intake Flap	A	1	0	(m) a) May be inoperative in open position for 10 days maximum. - or -
	C	1	0	b) May be inoperative in closed position provided APU is not used. Refer to 49-10-01.
49-30 ENGINE FUEL AND CONTROL				
49-30-01 APU Fuel Pump				Refer to 28-22-01.
49-30-02 APU LP Valve				Refer to 28-29-01.
49-70 INDICATING				
49-70-01 MASTER Sw ON Light	C	1	0	(p)
49-70-02 MASTER Sw FAULT Light	C	1	0	(p) May be inoperative provided N and EGT indications are available on ECAM APU page.
49-70-03 START ON Light	C	1	0	(p)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
49-70-04 START AVAIL Light	C	1	0	(p) May be inoperative provided N indication is available on ECAM APU page.
49-70-05 Indications on ECAM APU Page	C			One or more indications may be inoperative provided procedures are not depending upon their availability.

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REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 52-10 PASSENGER/CREW			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-01 Cabin Passenger Door	A	4	3	(p)(m)(o) One door may be inoperative provided: 1) It is not reasonably practicable to repair the inoperative door before the commencement of the flight, and 2) Not more than 72 hours have elapsed since the door became inoperative, and 3) The aeroplane does not exceed 5 further flights with the door inoperative, and 4) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 5) Passenger number reduction must be considered.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-01 Cabin Passenger Door	A	4	3	(p)(m)(o) One door may be inoperative provided: 1) It is not reasonably practicable to repair the inoperative door before the commencement of the flight, and 2) Not more than 72 hours have elapsed since the door became inoperative, and 3) The aeroplane does not exceed 5 further flights with the door inoperative, and 4) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 5) Passenger number reduction must be considered.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-01 Cabin Passenger Door/Emergency Exit	A	8	7	(p)(m)(o) One may be inoperative provided: 1) It is not reasonably practicable to repair the inoperative door before the commencement of the flight, and 2) Not more than 72 hours have elapsed since the door became inoperative, and 3) The aeroplane does not exceed 5 further flights with the door inoperative, and 4) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 5) Passenger number reduction must be considered.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-02 Overwing Emergency Exit	A	2	1	(p)(m)(o) One exit may be inoperative provided: 1) It is not reasonably practicable to repair the inoperative exit before the commencement of the flight, and 2) Not more than 72 hours have elapsed since the exit became inoperative, and 3) The aeroplane does not exceed 5 further flights with the exit inoperative, and 4) A visual check is made prior to each flight to make sure that the affected exit is closed and locked, and 5) Passenger number reduction must be considered.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-02 Overwing Emergency Exit	A	4	3	(p)(m)(o) One exit may be inoperative provided: 1) It is not reasonably practicable to repair the inoperative exit before the commencement of the flight, and 2) Not more than 72 hours have elapsed since the exit became inoperative, and 3) The aeroplane does not exceed 5 further flights with the exit inoperative, and 4) A visual check is made prior to each flight to make sure that the affected exit is closed and locked, and 5) Passenger number reduction must be considered. NOTE: All of overwing emergency exits may be considered inoperative, but actually only one overwing emergency exit may be inoperative.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
52-10-02 (Reserved)			

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
52-10-03 Passenger Exit Stop Fitting	C			One per exit may be inoperative for a non-pressurized flight.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-04 Door Damper and Emergency Operation Cylinder				
A) Damper Function	D	4	0	May be inoperative.
B) Emergency Opening Function		4	3	One may be inoperative provided affected door is considered inoperative. Refer to 52-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-04 Door Damper and Emergency Operation Cylinder				
A) Damper Function	D	8	0	May be inoperative.
B) Emergency Opening Function		8	7	One may be inoperative provided affected exit is considered inoperative. Refer to 52-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-05 Door Bottle Pressure Indication				
A) On Programming and Test Panel (PTP)	D	4	0	

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
52-10-05 Door Bottle Pressure Indication				
A) On Programming and Test Panel (PTP)	D	8	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-10-06 Passenger Door Stay Mechanism		4	3	One may be inoperative provided affected door is considered inoperative. Refer to 52-10-01.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
52-10-06 Passenger Door Stay Mechanism	8	7	One may be inoperative provided affected door is considered inoperative. Refer to 52-10-01.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-30 CARGO				
52-30-01 Cargo door actuator	C	4	2	a) One per door may be inoperative provided: 1) The integrity of yellow hydrauic system is not affected, and 2) Wind velocity does not exceed 30 kt, and 3) The operation of the door with a single actuator is limited to 100 open/close cycles. - or -
	C	4	0	(m) b) One or more may be inoperative provided: 1) The integrity of yellow hydrauic system is not affected, and 2) Affected door is manually closed and locked.
52-30-02 Cargo door locking hooks and spools (rollers)	C			One locking hook or one spool per door may be inoperative for a non-pressurized flight provided all the others are without any damage.
52-30-03 Hand pump	C	1	0	May be inoperative provided the integrity of yellow hydraulic system is not affected.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-30-04 Cargo Doors	C		0	a) One or more may be inoperative in closed and locked position provided they are indicated locked on ECAM. - or - (m) b) One or more may be inoperative in closed and locked position provided visual check is made prior to each flight to determine that affected doors are closed and locked.
	C		0	
52-30-05 Cargo Door Drift Pin	A	4	0	One or both on each door may be inoperative for one flight.
52-30-06 Cargo Doors Electrical Control	C		0	a) One or more may be inoperative provided affected doors can be operated using hand pump - or -
	C		0	b) One or more may be inoperative provided affected doors are considered inoperative. Refer to 52-30-04.
52-33 BULK CARGO				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-33-01 Cargo Door Balance Mechanism	C	1	0	(p)(m) May be inoperative or damaged provided: 1) A safety hold device is used to maintain the door in the open position, and 2) A visual check is made to confirm that the door is correctly closed and locked.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM 52-33-01 (Reserved)			

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
52-50 FIXED INTERIOR			

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-50-02 Cockpit Door Locking System (CDLS)				(p)(o)(m) NOTE: Any part of the Cockpit Door Locking System may be inoperative provided the complete system is deactivated in the unlocked position and is not required by operational regulations for the intended flight.
A) COCKPIT DOOR Toggle Switch				
1) UNLOCK Function	C	1	0	(p)(o) May be inoperative provided: 1) The interphone system between the cabin and the cockpit is operative, and 2) LOCK and NORM functions are verified to operate normally, and 3) In any phase of flight not less then three person must be present in the cockpit.
2) LOCK Function	C	1	0	(p)(o)(m) May be inoperative provided: 1) The interphone system between the cabin and the cockpit is operative, and 2) The keypad is deactivated, and 3) UNLOCK and NORM functions are verified to operate normally, and 4) In any phase of flight not less then three person must be present in the cockpit.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-50-02 Cockpit Door Locking System (CDLS)				
B) OPEN Light	C	1	0	(p)(o) May be inoperative provided buzzer is operative.
C) FAULT Light	C	1	0	(p)(o)(m) May be inoperative provided: 1) NORM and LOCK functions are verified to operate normally, and 2) Control Unit LED's operate normally. NOTE: Latches positions have to be checked by an operational procedure and monitored via the 3 STRIKE LED’s on the CKPT DOOR CONT Panel.
D) Buzzer	C	1	0	(p)(o)(m) May be inoperative provided: 1) The interphone system between the cabin and the cockpit is operative, and 2) The keypad is deactivated, and 3) In any phase of flight not less then three person must be present in the cockpit.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-50-02 Cockpit Door Locking System (CDLS)				
E) Keypad				
1) Keypad	C	1	0	(p)(o)(m) May be inoperative provided: 1) The interphone system between the cabin and the cockpit is operative, and 2) The keypad is deactivated, and 3) In any phase of flight not less then three person must be present in the cockpit.
2) Green and Red LED's	C	2	0	(p)(o) The Locked/Unlocked status of the door can be checked by manual inspection of the door or confirmation by cockpit crew of the door status through the interphone system.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-50-02 Cockpit Door Locking System (CDLS)				
F) Door Release Strike (Catch, Spring, Solenoid, Bolt)	D	3	2	(p)(o)(m) a) One may be inoperative. (m) Note: Application of the maintenance procedure is only necessary when the inoperative door release strike is failed in locked position. - or -
	C	3	1	(p)(o) b) Two may be inoperative for operation from/to countries not following JAA or FAA regulations. (m) Note: Application of the maintenance procedure is only necessary when the inoperative door release strike is failed in locked position.
G) Pressure Rate Sensor	A	2	1	(p)(m) One may be inoperative for a period of time not exceeding 60 consecutive calendar days provided the remaining pressure rate sensor is checked operative.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-50-02 Cockpit Door Locking System (CDLS)				
H) CKPT DOOR CONT Panel LED's	C	5	0	(p)(o) One or more may be inoperative provided the FAULT light is checked operative.
52-70 DOOR WARNINGS				

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			(m) NOTE: Correct indication may be recovered by performing associated maintenance procedure.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued) 52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD A) Passenger Door			

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD					
A) Passenger Door					
a) Door Erroneously Indicated Open	C	4			(o) a) One or more may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected doors are closed and locked, and 2) The white SLIDE ARMED light on the affected door does not illuminate when the door is closed and locked and the slide arming lever is on the armed position. - or -
	B	4			(o) b) One or more may be erroneously indicated open when actually closed provided a visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
	C	4			(o) c) One or more may be erroneously indicated open when actually closed provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
A) Passenger Door			
a) Door Erroneously Indicated Open			to each flight to make sure that the affected doors are closed and locked. - or -
	4	3	(o) d) One may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 2) Slide of affected door is not armed, and 3) Affected door is considered inoperative. Refer to 52-10-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
A) Passenger Door				
b) Door Erroneously Indicated Closed	C	4		(o) a) One or more may be erroneously indicated closed when actually open provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
		4	3	(o) b) One may be erroneously indicated closed when actually open provided: 1) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 2) Affected door is considered inoperative. Refer to 52-10-01.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued) 52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD B) Overwing Emergency Exit			NOTE: Refer to general note of 52-70-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD					
B) Overwing Emergency Exit					
a) Exit Erroneously Indicated Open	C	2			(o)(m) a) One or both may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected exits are closed and locked, and 2) Relevant SLIDE indication on the ECAM DOOR page is normaly displayed in white. - or -
	B	2			(o)(m) b) One or both may be erroneously indicated open when actually closed provided a visual check is made prior to each flight to make sure that the affected exits are closed and locked. - or -
	C	2			(o)(m) c) One or both may be erroneously indicated open when actually closed provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected exits are

(continued)

REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)				
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
B) Overwing Emergency Exit				
a) Exit Erroneously Indicated Open		2	1	closed and locked. - or - (o)(m) d) One may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected exit is closed and locked, and 2) Affected exit is considered inoperative. Refer to 52-10-02.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
B) Overwing Emergency Exit				
b) Exit Erroneously Indicated Closed	C	2		(o)(m) a) One or both may be erroneously indicated closed when actually open provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected exits are closed and locked. - or -
		2	1	(o)(m) b) One may be erroneously indicated closed when actually open provided: 1) A visual check is made prior to each flight to make sure that the affected exit is closed and locked, and 2) Affected exit is considered inoperative. Refer to 52-10-02.
C) Cargo Door	C			(o)(m) One or more cargo door indications may be inoperative provided visual check is made prior to each flight to determine that doors are closed and locked.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
D) Avionics Compartment Access Door	C		(o)(m) One or more avionics compartment access door indications may be inoperative provided visual check is made prior to each flight to determine that doors are closed and locked.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			(m) NOTE: Correct indication may be recovered by performing associated maintenance procedure.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued) 52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD A) Passenger Door			

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD					
A) Passenger Door					
a) Door Erroneously Indicated Open	C	4			(o) a) One or more may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected doors are closed and locked, and 2) The white SLIDE ARMED light on the affected door does not illuminate when the door is closed and locked and the slide arming lever is on the armed position. - or -
	B	4			(o) b) One or more may be erroneously indicated open when actually closed provided a visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
	C	4			(o) c) One or more may be erroneously indicated open when actually closed provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
A) Passenger Door			
a) Door Erroneously Indicated Open			to each flight to make sure that the affected doors are closed and locked. - or -
	4	3	(o) d) One may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 2) Slide of affected door is not armed, and 3) Affected door is considered inoperative. Refer to 52-10-01.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
A) Passenger Door				
b) Door Erroneously Indicated Closed	C	4		(o) a) One or more may be erroneously indicated closed when actually open provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
		4	3	(o) b) One may be erroneously indicated closed when actually open provided: 1) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 2) Affected door is considered inoperative. Refer to 52-10-01.

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REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
B) Overwing Emergency Exit			NOTE: Refer to general note of 52-70-01.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
B) Overwing Emergency Exit				
a) Exit Erroneously Indicated Open	C	4		(o)(m) a) One or more may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected exits are closed and locked, and 2) Relevant SLIDE indication on the ECAM DOOR page is normally displayed in white. - or -
	B	4		(o)(m) b) One or more may be erroneously indicated open when actually closed provided a visual check is made prior to each flight to make sure that the affected exits are closed and locked. - or -
	C	4		(o)(m) c) One or more may be erroneously indicated open when actually closed provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected exits are

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
B) Overwing Emergency Exit			
a) Exit Erroneously Indicated Open			closed and locked. - or - 4 3 (o)(m) d) One may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected exit is closed and locked, and 2) Both exits on the same side are considered inoperative. Refer to 52-10-02.

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
B) Overwing Emergency Exit				
b) Exit Erroneously Indicated Closed	C	4		(o)(m) a) One or more may be erroneously indicated closed when actually open provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected exits are closed and locked. - or -
		4	3	(o)(m) b) One may be erroneously indicated closed when actually open provided: 1) A visual check is made prior to each flight to make sure that the affected exit is closed and locked, and 2) Both exits on the same side are considered inoperative. Refer to 52-10-02.
C) Cargo Door	C			(o)(m) One or more cargo door indications may be inoperative provided visual check is made prior to each flight to determine that doors are closed and locked.

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REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
D) Avionics Compartment Access Door	C		(o)(m) One or more avionics compartment access door indications may be inoperative provided visual check is made prior to each flight to determine that doors are closed and locked.

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			(m) NOTE: Correct indication may be recovered by performing associated maintenance procedure.

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued) 52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD A) Passenger Door/ Emergency Exit			

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH		REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD					
A) Passenger Door/ Emergency Exit					
a) Door Erroneously Indicated Open	C	8			(o) a) One or more may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected doors are closed and locked, and 2) The white SLIDE ARMED light on the affected door does not illuminate when the door is closed and locked and the slide arming lever is on the armed position. - or -
	B	8			(o) b) One or more may be erroneously indicated open when actually closed provided a visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
	C	8			(o) c) One or more may be erroneously indicated open when actually closed provided: 1) The aircraft is not operated at night, and

(continued)

REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
A) Passenger Door/ Emergency Exit			
a) Door Erroneously Indicated Open			2) A visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
	8	7	(o) d) One may be erroneously indicated open when actually closed provided: 1) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 2) Slide of affected door is not armed, and 3) Affected door is considered inoperative. Refer to 52-10-01.

(continued)

ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD				
A) Passenger Door/ Emergency Exit				
b) Door Erroneously Indicated Closed	C	8		(o) a) One or more may be erroneously indicated closed when actually open provided: 1) The aircraft is not operated at night, and 2) A visual check is made prior to each flight to make sure that the affected doors are closed and locked. - or -
		8	7	(o) b) One may be erroneously indicated closed when actually open provided: 1) A visual check is made prior to each flight to make sure that the affected door is closed and locked, and 2) Affected door is considered inoperative. Refer to 52-10-01.
B) (Reserved)				

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REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM (continued)			
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD			
C) Cargo Door	C		(o)(m) One or more cargo door indications may be inoperative provided visual check is made prior to each flight to determine that doors are closed and locked.
D) Avionics Compartment Access Door	C		(o)(m) One or more avionics compartment access door indications may be inoperative provided visual check is made prior to each flight to determine that doors are closed and locked.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-02 CABIN PRESSURE Light (on doors)	C	4	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
52-70-02 CABIN PRESSURE Light (on doors)	C	8	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
56-10 COCKPIT				NOTE: A cockpit window with minor damages (as described in associated maintenance procedure) is considered operative, but the cockpit window must be acceptable to the pilot. ATTENTION: This note applicable to all items listed below and related with the associated subsystem.
56-10-01 Front Windshields				
A) SPS windshields (except P/N STA320-1-3-1 and STA320-2-3-1) and PPG windshields and PAL windshields (only P/N PAL 06282 & 06283)	A	2	2	(m) External ply may be cracked for ten flights provided: 1) Vision through the affected front windshield is not unacceptably impaired, and 2) The aircraft is not operated in icing conditions, and 3) The other front windshield is not damaged.
B) SPS windshields (P/N STA320-1-3-1 and STA320-2-3-1)	A	2	2	(m) External ply may be cracked for one flight provided: 1) Vision through the affected front windshield is not unacceptably impaired, and 2) The aircraft is not operated in icing conditions, and 3) The other front windshield is not damaged.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
56-10-02 Lateral Fixed/ Sliding Window				(m) Note: A cockpit window with minor damages (as described in associated maintenance procedure) is considered operative, but the vision through this cockpit window must be acceptable to the pilot.
A) Acrylic Window (LUCAS/ACT supplier, P/N NH ...)		4	4	
B) Glass Window (SPS supplier, P/N SPS ... and PPG supplier, P/N NP ...)	A	4	4	External ply may be cracked for one flight provided : 1) Vision through the affected lateral window is not unacceptably impaired, 2) The aircraft is not operated in icing conditions, and 3) The opposite lateral window is not damaged.
56-10-03 Sliding Window opening/closing mechanism		2	2	
56-20 CABIN				
56-21-01 Passenger compartment windows	C			One or more may be cracked for a non pressurized flight.

REPAIR INTERVAL		NUMBER INSTALLED		
ITEM			NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
70-00 MAINTENANCE MESSAGE DISPLAYED ON ECAM STATUS PAGE				
70-00-01 ENG FADEC	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
70-00-02 ENG EIU	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.
70-00-03 ENG EVMU	C			Dispatch with this MAINTENANCE message displayed on ECAM STATUS page is granted.

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
73-10 DISTRIBUTION				
73-11-01 Fuel Return Valve	C	2	1	a) One may be inoperative in closed position on one engine provided APU and AC auxiliary generation are operative. - or -
	C	2	0	b) One or both may be inoperative in open position provided the four wing tank pumps are operative.
73-11-03 Fuel Metering Valve		2	2	
73-20 CONTROLLING (FADEC SYSTEM)				
73-20-01 FADEC (ECU)				
A) Channel A		2	2	
B) Channel B		2	2	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
73-20-03 Minimum Idle On Ground	C	2	0	(o)

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
73-20-03 Minimum Idle On Ground	C	2	0	(o)

REPAIR INTERVAL		NUMBER INSTALLED		
			NUMBER REQUIRED FOR DISPATCH	
ITEM				REMARKS OR EXCEPTIONS
73-20-05 Flex Temp input	C	2	0	One or both may be invalid provided maximum thrust is used at take-off.
73-20-08 Thrust lever position sensor				Refer to 76-11-01.
73-30 INDICATING				
73-30-01 Fuel Flow Indication				Refer to 77-00-01.
73-30-02 Fuel Used Indication	C	2	0	One or both may be inoperative provided associated tank fuel quantity indications are operative.
73-30-03 Fuel Filter Clog caution on Ecam E/WD	C	2	1	(m) One may be inoperative provided associated filter is changed once each day.
73-30-04 Fuel Filter Clog Indication on ECAM lower display	C	2	0	

REPAIR INTERVAL / ITEM		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
74-31 IGNITION STARTING AND CONTINUOUS RELIGHT				
74-31-01 Ignition System				
A) System A	C	2	1	(o) Except for ER operations, one may be inoperative provided the associated engine ignition system B is operative.
B) System B	C	2	1	(o)
74-31-02 Indication on ECAM ENGINE page				
A) Selected igniter	C	2	0	(o) One or both may be inoperative provided associated ENG 1(2)IGN FAULT caution is operative on ECAM E/WD.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
74-31-03 Warning and Caution on ECAM E/WD				
A) ENG 1(2)IGN FAULT	C	4	3	(m) a) One may be inoperative provided associated ignition system is checked operative once each day. - or -
	C	4	2	(m) b) Two may be inoperative provided associated ignition systems are checked operative prior to each flight.

REPAIR INTERVAL		NUMBER INSTALLED		
ITEM			NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
76-11 THROTTLE CONTROL				
76-11-01 Thrust lever position sensor	A	4	3	One may be inoperative on one engine for 3 days provided A/THR is operative.

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REPAIR INTERVAL		NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
ITEM				
77-00 ENGINE INDICATING				
77-00-01 On ECAM upper display	C			One fuel flow indication may be inoperative.

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
77-00-02 On ECAM lower display				
A) Fuel used				Refer to 73-30-02.
B) Oil quantity				Refer to 79-31-01.
C) Oil pressure				Refer to 79-33-01.
D) Oil temperature				Refer to 79-32-01.
E) Selected igniter				Refer to 74-31-02.
F) Start valve position				Refer to 80-11-04.
G) Engine bleed pressure				Refer to 36-20-03-A).
H) Nacelle temperature	C	2	0	

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ITEM (continued)	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
77-00-02 On ECAM lower display				
I) Vibrations				
a) N1	C	2	1	a) One may be inoperative. - or -
	A	2	0	b) Except for ER operations both may be inoperative for 3 flights maximum provided no vibration advisory has occured during the previous flight.
b) N2	C	2	1	a) One may be inoperative. - or -
	A	2	0	b) Except for ER operations both may be inoperative for 3 flights maximum provided no vibration advisory has occured during the previous flight.

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
78-30 THRUST REVERSER				
78-30-01 Thrust Reverser	C	2	0	(p)(o)(m) One or both may be inoperative provided: 1) The inoperative reverser is deactivated and secured in the stowed position, and no operation or procedure is predicated on thrust reversers use, and 2) All stow and deploy switches circuits are operative on the inoperative reverser, and 3) No REV PRESSURIZED warning is displayed on ECAM.
78-30-02 Reverser inhibition relay switch	C	4	0	One or more may be inoperative provided the associated reverser is deactivated. Refer to 78-30-01.
78-30-03 T/R indication		2	2	
78-30-04 Thrust Reverser Shut off valve	C	2	0	One or both may be inoperative in open position.

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ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
79-20 DISTRIBUTION				
79-20-02 EMCD Visual Pop-Out Indicator	D	2	0	
79-31 OIL QUANTITY INDICATING SYSTEM				
79-31-01 Indication on ECAM ENGINE Page A) Oil Quantity	C	2	1	(m) One may be inoperative provided the associated oil quantity is checked prior to each flight.
79-32 OIL TEMPERATURE INDICATING SYSTEM				
79-32-01 Indication on ECAM Engine Page A) Oil Temperature		2	2	
79-33 OIL PRESSURE INDICATING SYSTEM				

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
79-33-01 Indication and Advisory on ECAM ENGINE Page				
A) Oil Pressure	C	2	1	Except for ER operations, one may be inoperative provided: 1) The associated ENG 1(2) OIL LO PRESS Warning is operative on ECAM E/WD, and 2) The associated oil quantity indication is operative. Note: Illumination of two FAULT lights (one from the Blue ELEC PUMP pb and one from ENG 1(2) PUMP pb) with engines off, may be due to a failed engine oil low pressure switch. In this case, the ENG 1(2) OIL LO PRESS warning is inoperative.
79-33-02 ENG 1(2) OIL LO PRESS Warning on ECAM E/WD	C	2	0	(o)
79-35 OIL FILTER CLOGGING WARNING SYSTEM				
79-35-01 Indication on ECAM ENGINE Page				
A) CLOG	C	2	0	

ITEM	REPAIR INTERVAL	NUMBER INSTALLED	NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
79-35-02 Warning and Caution on ECAM E/WD				
A) ENG 1(2) OIL FILTER CLOG	C	2	1	(m) a) One may be inoperative provided: 1) The associated filter is replaced once each day, and 2) The visual indicator (pop-out) of the electrical master chip detector is checked operative before the first flight under this item, and 3) The visual indicator (pop-out) of the electrical master chip detector is inspected when the filter is replaced and does not reveal the presence of magnetic chips. - or -
	C	2	1	(m) b) One may be inoperative provided: 1) The associated filter is replaced once each day, and 2) The electrical master chip detector is inspected when the filter is replaced and does not reveal the presence of magnetic chips.
79-40 IDG OIL COOLING SYSTEM				
79-40-01 Fuel Recirculation Valve				Refer to 73-11-01.

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REPAIR INTERVAL		NUMBER INSTALLED		
ITEM			NUMBER REQUIRED FOR DISPATCH	REMARKS OR EXCEPTIONS
80-11 PNEUMATIC STARTER AND VALVE SYSTEM				
80-11-01 Start valve	C	2	1	(o)(m) One may be inoperative provided the start valve is manually closed after engine start.
80-11-02 MAN START control	C	2	0	(p)
80-11-03 ENG FAULT light on pedestal	C	2	0	(p)
80-11-04 Start valve position indication on ECAM lower display	C	2	0	(m) One or both may be inoperative provided the start valve is checked closed after engine start.

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Chapter 03
OPERATIONAL PROCEDURES

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21-23-01 Extraction Fan

Cabin zone temperature sensors are normally ventilated by the air extracted by the fan.

Therefore, cabin zone temperature is constant (15°C or 59°F).

Cockpit temperature regulation is normal.

Separate control of cockpit and cabin temperatures may be recovered :
- Select HOT AIR pb sw to OFF on overhead AIR COND panel.
- Set the COCKPIT selector to control cockpit temperature.
- Set FWD or AFT CABIN selector to control cabin temperature.

21-26-01 Blower Fan

a)
On ground:
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set BLOWER pb sw at OVRD. Check that VENT AVNCS SYS FAULT and VENT EXTRACT FAULT cautions are not displayed on ECAM E/WD.

Note: If VENT EXTRACT FAULT caution is displayed on ECAM E/WD, it means that blower fan may be seized. The aircraft can be dispatched provided blower and extract fans are interchanged (i.e. blower fan serviceable and extract fan seized). Only an VENT EXTRACT FAULT caution will then be displayed on ECAM E/WD and item 21-26-02 (in section 02 of MEL) must be reffered to.

b)
On ground:
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set BLOWER pb sw at OVRD. Check that VENT EXTRACT FAULT cautions is not displayed on ECAM E/WD.

Note: If VENT EXTRACT FAULT caution is displayed on ECAM E/WD, it means that blower fan may be seized. The aircraft can be dispatched provided blower and extract fans are interchanged (i.e. blower fan serviceable and extract fan seized). Only a VENT EXTRACT FAULT caution will then be displayed on ECAM E/WD and item 21-26-02 (in section 02 of MEL) must be applied.

c)
On ground:
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set BLOWER pb sw at OVRD. Check that VENT_ EXTRACT FAULT cautions is not displayed on ECAM E/WD.

After maintenance procedure has been performed, clear VENT AVNCS SYS FAULT caution on ECAM by pressing ECAM CLR pb.

VENT AVNCS SYS FAULT will be displayed after landing.

Note: If VENT EXTRACT FAULT caution is displayed on ECAM E/WD, it means that blower fan may be seized. The aircraft can be dispatched provided blower and extract fans are interchanged

(continued)

21-26-01 Blower Fan

(i.e. blower fan serviceable and extract fan seized). Only a VENT EXTRACT FAULT caution will then be displayed on ECAM E/WD and item 21-26-02 in section 02 of MEL.

21-26-02 Extract Fan

a)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Clear VENT EXTRACT FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb. Pull C/B AVNCS VENT/EXCT/FAN (123VU AE2).
Check that VENT AVNCS SYS FAULT is not displayed on ECAM E/WD.
Time limitation on ground with electrical network supplied :

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

Note : The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

b)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Clear VENT EXTRACT FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb. Pull C/B AVNCS VENT/EXTC/FAN (123VU AE2).
Time limitation on ground with electrical network supplied :

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

Note : The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

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21-26-02 Extract Fan

c)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Clear VENT EXTRACT FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb. Pull C/B AVNCS VENT/EXTC/FAN (123VU AE2).
After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT caution E/WD by pressing ECAM CLR pb.
VENT AVNCS SYS FAULT will be displayed after landing.
Time limitation on ground with electrical network supplied :

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

Note : The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

21-26-02 Extract Fan

a)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Clear VENT EXTRACT FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb. Pull C/B AVNCS VENT/EXCT/FAN (123VU AC4).
Check that VENT AVNCS SYS FAULT is not displayed on ECAM E/WD.
Time limitation on ground with electrical network supplied :

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

Note : The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

b)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Clear VENT EXTRACT FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb. Pull C/B AVNCS VENT/EXTC/FAN (123VU AC4).
Time limitation on ground with electrical network supplied :

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

Note : The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

(continued)

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21-26-02 Extract Fan

c)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Clear VENT EXTRACT FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb. Pull C/B AVNCS VENT/EXTC/FAN (123VU AC4).
After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT caution on ECAM E/WD by pressing ECAM CLR pb.
VENT AVNCS SYS FAULT will be displayed after landing.
Time limitation on ground with electrical network supplied :

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

Note : The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

21-26-03 Skin Exchanger Inlet Bypass Valve

After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT cautions displayed on ECAM E/WD by pressing ECAM CLR pb. VENT AVNCS SYS FAULT will be displayed after landing.

21-26-04 Skin Air Outlet Valve

After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT cautions displayed on ECAM E/WD by pressing ECAM CLR pb. VENT AVNCS SYS FAULT 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 case of ECAM warning AVIONICS SMOKE, apply associated ECAM procedure even if the smoke is not perceptible.

21-26-05 Skin Air Inlet Valve

a)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD. Check on ECAM CAB PRESS page that the skin air inlet valve is closed.
Clear VENT AVNCS SYS FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb.

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

After take-off :
Set EXTRACT pb sw at AUTO.

After landing :
Set EXTRACT pb sw at OVRD.

b)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD. Check on ECAM CAB PRESS page that the skin air inlet valve is closed.
After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb.
VENT AVNCS SYS FAULT will be displayed after landing.

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

After takeoff :
Set EXTRACT pb sw at AUTO.

After landing :
Set EXTRACT pb sw at OVRD.

21-26-06 Skin Exchanger Isolation Valve

After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb.

21-26-08 Air Conditioning Inlet Valve

After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb.

21-26-09 Ventilation Filter

a)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
Check that VENT AVNCS SYS FAULT is not displayed on ECAM E/WD.

b)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.

c)
On ground :
Just after having supplied the aircraft electrical network, check that air conditioning is operating with both air conditioning packs selected ON and set EXTRACT pb sw at OVRD.
After the maintenance procedure has been performed, clear VENT AVNCS SYS FAULT on ECAM E/WD by pressing the ECAM CLR pb.
VENT AVNCS SYS FAULT will be displayed after landing.

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

On ground :

Just after having supplied the aircraft electrical network, check that conditioning is operating with both air conditioning packs selected ON and set BLOWER and EXTRACT pb sw at OVRD.

Note: The ground horn may be activated. If so, horn may be silenced by pulling associated C/B/EIS/HORN/SPLY (P09 on 121VU). C/B must be closed again after first engine start. If horn is triggered after landing when engines are shut down, it can be silenced again. In this case, the ADIRS must be switched off before leaving the aircraft.

Clear VENT AVNCS SYS FAULT caution displayed on ECAM E/WD by pressing ECAM CLR pb.

In flight :

In case of pack failure, cabin altitude may reach about 9700 ft (CAB PR EXCESS CAB ALT caution may be displayed on ECAM E/WD).

21-28-04 AFT CARGO Extraction Fan

For livestock transportation refer to livestock transportation manual.

21-28-05 AFT CARGO Isolation Valve

Set AFT ISOL VALVE pb sw to OFF and check that associated FAULT light is not illuminated. If FAULT light illuminates, the isolation valves must be secured closed.

For livestock transportation refer to livestock transportation manual.

21-28-05 AFT CARGO Isolation Valve

Set AFT ISOL VALVE pb sw to OFF and check that associated FAULT light is not illuminated. If FAULT light illuminates, the isolation valves must be secured closed.

For livestock transportation refer to livestock transportation manual.

21-31-01 Cabin Pressure Automatic Control System (CPC, Outflow Valve AUTO Channel)

a) and b)

During cockpit preparation:

Pull C/B of affected system:
- If CPC 1 affected
  C/B AIR COND/CAB/PRESS/CTL 1 (49 VU D09).....Pull
- If CPC 2 affected
  C/B AIR COND/CAB/PRESS/CTL 2 (122 VU Y22).....Pull

MODE SEL.....MAN
Check on ECAM CAB PRESS page that cabin differential pressure, cabin vertical speed, cabin altitude and outflow valve position are available.
Select MAN V/S CTL toggle switch on CABIN PRESS panel at DN and check on ECAM CAB PRESS page outflow valve movement.
MODE SEL.....AUTO

21-31-05 Landing Elevation Selection

A) AUTO Function

Before take-off, set LDG ELEV selector on CABIN PRESS panel at destination airport altitude.
Check on ECAM CAB PRESS page that LDG ELEV MAN is displayed.

B) MAN Function

Check that the CAB PRESS page displays LDG ELEV AUTO 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 ECAM CAB PRESS page. It is automatically corrected after first engine start.

21-43-02 AFT CARGO compartment heating

a)
CARGO HEAT HOT AIR.....OFF
Check on ECAM COND page that the non defective valve (either HOT AIR pressure regulating valve or trim air valve) is indicated closed.
For livestock transportation, refer to livestock transportation manual.

b)
For livestock transportation, refer to livestock transportation manual.

21-52-01 Air Conditioning Pack

a)
The check of single pack operation on ground (AFL procedure):
(1) The remaining pack is running on engine or APU bleed air supply.
(2) Irrespective of which position the PACK FLOW selector 5HB is set to (LO, NORM or HI), make sure that the pack flow indicator moves to the HI indicating area (between the 1 o'clock and the HI position) for remaining pack on the ECAM BLEED page.

During cockpit preparation :
PACK FLOW.....HI

In flight :
If BLOWER and EXTRACT pb sw are set at OVRD, cabin altitude may reach about 9700 ft (CAB PR EXCESS CAB ALT caution may be displayed on ECAM E/WD).

b)
Operate the pack in "heat exchanger cooling only" configuration at TAT equal or less than 12°C. If the non affected pack fails, limit the altitude at 31500 ft (9600 m) and check that pack outlet temperature is not too high to obtain correct conditioning of zones.

If temperature is too high close air conditioning pack at the end of descent before landing.

21-52-01 Air Conditioning Pack

a)
The check of single pack operation on ground (AFL procedure):
(1) The remaining pack is running on engine or APU bleed air supply.
(2) Irrespective of which position the PACK FLOW selector 5HB is set to (LO, NORM or HI), make sure that the pack flow indicator moves to the HI indicating area (between the 1 o'clock and the HI position) for remaining pack on the ECAM BLEED page.

During cockpit preparation :
PACK FLOW.....HI

In flight :
If BLOWER and EXTRACT pb sw are set at OVRD, cabin altitude may reach about 9700 ft (CAB PR EXCESS CAB ALT caution may be displayed on ECAM E/WD).

b)
Operate the pack in "heat exchanger cooling only" configuration at TAT equal or less than 12°C. If the non affected pack fails, limit the altitude at 31500 ft (9600 m) and check that pack outlet temperature is not too high to obtain correct conditioning of zones.

If temperature is too high close air conditioning pack at the end of descent before landing.

21-52-01 Air Conditioning Pack

a)
The check of single pack operation on ground (AFL procedure):
(1) The remaining pack is running on engine or APU bleed air supply.
(2) Irrespective of which position the ECON FLOW pushbutton switch 5HB is set to (ON or OFF), make sure that the pack flow indicator moves to the HI indicating area (between the 1 o'clock and the HI position) for remaining pack on the ECAM BLEED page.

During cockpit preparation :
ECON FLOW.....OFF

In flight :
If BLOWER and EXTRACT pb sw are set at OVRD, cabin altitude may reach about 9700 ft (CAB PR EXCESS CAB ALT caution may be displayed on ECAM E/WD).

b)
Operate the pack in "heat exchanger cooling only" configuration at TAT equal or less than 12°C. If the non affected pack fails, limit the altitude at 31500 ft (9600 m) and check that pack outlet temperature is not too high to obtain correct conditioning of zones.

If temperature is too high close air conditioning pack at the end of descent before landing.

21-61-01 Pack Controller Primary Channel

- 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 pack outlet temperature is controlled by the anti-ice valve to a nominal value of 15°C.

21-63-01 Zone Controller

a) and c)
Select HOT AIR pb sw at OFF.
For livestock transportation in aft cargo compartment refer to livestock transportation manual.

21-63-02 Trim Air Valve

a)
- If affected zone temperature becomes uncomfortable select HOT AIR pb sw at OFF.
- One trim air valve being secured closed, at each power up the zone controller closes all trim air valves and the hot air pressure regulating valve.

To recover normal operation of the operative valves, apply following procedure :
After pack start :
If COND HOT AIR FAULT caution is displayed on ECAM E/WD, reset following C/B's :
AIR COND/ZONE TEMP CTL/115 VAC/SYS 1 (122 VU V17)
AIR COND/ZONE TEMP CTL/115 VAC/SYS 2 (122 VU V18)
AIR COND/ZONE TEMP CTL/28 VDC/SYS 1 (122 VU V19)
AIR COND/ZONE TEMP CTL/28 VDC/SYS 2 (122 VU V20)
If COND HOT AIR FAULT caution is still displayed on ECAM E/WD, refer to 21-63-03 in section 2 of MEL.

b)
For livestock transportation in aft cargo compartment, refer to livestock transportation manual.
HOT AIR.....OFF
Check on ECAM COND page that the hot air pressure regulating valve is closed.

21-63-03 Hot Air Pressure Regulating Valve

a)
For livestock transportation in aft cargo compartment, refer to livestock transportation manual.

b)
Refer to 21-63-02 exception b) in section OPERATIONAL PROCEDURES of MEL.

22-10-02 Flight Director (FD)

A take off or a go around without FDs provides :
. No FD bars.
. No A/THR arming.
. No guidance available.
. Target speed on PFD as selected on the FCU or defaulted to 100 kt.
. No A/THR activation when thrust levers are set to CL detent.

When a take off or a go around is performed without FDs proceed as follows :
. Acquire pitch attitude about 15° to maintain the speed target with two engines operative or
. Adapt pitch to maintain at least V2 (pitch about 12.5°) in case of engine failure.
  - When reaching THRUST REDUCTION ALTITUDE and ACCELERATION ALTITUDE
    . Select CLB speed on the FCU
    . Set thrust levers to CL detent
    . Use manual thrust or activate A/THR if applicable

Note: If AP 1 or AP 2 can be engaged, basic mode will engage and other AP modes are available.
For go around with no FD, thrust reduction and acceleration altitude should be the same.

22-10-03 Take-Over Pb

B) AP Disconnection Function

a)
Before engines start :

AP1.....ON
Operative take-over pb.....PRESS
Check that the red AP OFF message appears on ECAM
AP2.....ON
Operative take-over pb.....PRESS
Check that the red AP OFF message appears on ECAM

Note: If one is inoperative and if autopilot is used for approach, pilot flying will be the one provided with the operative button.

22-30-02 Autothrust Instinctive Disconnect Pb

After IRS alignment

Note : Disregard ECAM warnings. Use the EMER CANCEL pb on ECAM control panel as necessary.

1 –
ENG/FADEC GND PWR 1 and 2 . . . . . ON
THRUST LEVERS . . . . . MCT
FD . . . . . OFF
C/B AUTO FLT/FMGC/2 (121 VU M17) . . . . . PULL
A/THR . . . . . ON
Check that green SPEED and white A/THR indications appear on PFD and that A/THR pb sw is illuminated

2 –
A/THR instinctive disconnect pb sw (non affected throttle) . . . . . PUSH
Check that the A/THR pb sw is extinguished, that green SPEED and white A/THR indications are no more displayed on PFD.
A/THR . . . . . ON
Check that the A/THR pb sw is illuminated and that green SPEED and white A/THR indications are displayed on PFD
A/THR (pb sw on FCU) . . . . . OFF
Check that the A/THR pb sw is extinguished, that green SPEED and white A/THR indications are no more displayed and that amber THR LK flashes on PFD
A/THR . . . . . ON

3 –
C/B AUTO FLT/FMGC/2 (121VU M17) . . . . . PUSH
C/B AUTO FLT/FMGC/1 (49VU B02) . . . . . PULL
Wait at least 2 minutes, then repeat check of § 2.

4 –
A/THR . . . . . OFF
C/B AUTO FLT/FMGC/1 (49VU B02) . . . . . PUSH
ENG/FADEC GND PWR 1 and 2 . . . . . OFF
THRUST LEVER . . . . . IDLE
RCL pb sw on ECAM control panel . . . . . PUSH
Wait at least 2 minutes before using MCDU and FD.

22-30-03 Autothrust Disconnection Warning System

After engines start, push either autothrottle instinctive disconnect pb for at least 15 seconds.

Note: The A/THR system is permanently disconnected for the remainder of the flight. All A/THR functions including ALPHA FLOOR are lost.

22-66-01 Flight Augmentation Computer (FAC)

B) FAC 2

Only if FAC 2 FAULT caution is present or in case of erroneous speeds, open C/B AUTO FLT/FAC 2/28VDC (121VU M19) and set FAC 2 pb sw at OFF.

22-83-01 Flight Management Guidance Computer (FMGC)

If FMGC 1 affected :
C/B AUTO FLT/FMGC/1 (49VU B02 or 121VU M16).....PULL

If FMGC 2 affected :
C/B AUTO FLT/FMGC/2 (121VU M17).....PULL

22-83-02 FMA Indication on PFD

B) A/THR Related indications

b)
After engines start, push either autothrottle instinctive disconnect pb for at least
15 seconds. Check that A/THR is displayed in INOP SYS on ECAM STATUS page.

C) Special messages
If MDA is inoperative on one side, pilot flying must be on the non-affected side.

BLANK

23-12-01 VHF Communication System

To deactivate the ATSU, apply :

C/B ATSU 1 SWTG (121 VU L15).....PULL
C/B ATSU 1 SWTG (121 VU L16).....PULL

23-31-01 Passenger Address System

Alternate normal and emergency procedures and/or operating restrictions will be established before departure in order to remind the crew to use cabin interphone system to communicate with cabin crew if necessary.

23-42-01 Ground external horn

- Avionic ventilation must be monitored in the cockpit when aircraft electrical network is supplied.
- Before leaving aircraft, switch OFF the ADIRS.

23-43-01 Flight interphone system

B) Flight deck to ground
Procedure to be established by each airline.

BLANK

24-20-01 AC Main Generation (IDG, GCU, Line Contactor)

On ground with electrical network supplied from APU or external power:

GALLEY & CAB..... .....CHECK AUTO
C/B ELEC/GALLEY/GND/FLT/LOGIC (122VU S24).....PULL
Check that a part of the operative galley equipment does not operate.
C/B ELEC/GALLEY/GND/FLT/LOGIC (122VU S24).....PUSH

Note: Disregard this procedure if main galleys are not connected.

After engines start, with APU running:

GEN 1 .....OFF
GEN 2.....OFF
Check on ECAM ELEC page that all AC BUS are supplied.
GEN (operative).....ON
APU GEN.....OFF
Check on ECAM ELEC page that all AC BUS are supplied.
APU GEN.....ON

Note: If necessary, the IDG may be disconnected.

APU fuel consumption with APU GEN ON:

FL GND - 130 KG/H (287 LB/H)
FL 200 - 65 KG/H (144 LB/H)
FL 250 - 65 KG/H (144 LB/H)
FL 300 - 51 KG/H (113 LB/H)
FL 350 - 43 KG/H (95 LB/H)
FL 390 - 39 KG/H (86 LB/H)

24-27-04 GALY & CAB Pb Sw

On ground with electrical network supplied from APU or external power :

GALLEY & CAB.....CHECK AUTO
C/B ELEC/GALLEY/GND/FLT/LOGIC (122VU S24).....PULL
Check that a part of the operative galley equipment does not operate.
C/B ELEC/GALLEY/GND/FLT/LOGIC (122VU S24).....PUSH

Note:
Disregard this procedure if main galleys are not connected.

24-27-06 Indications on ECAM ELEC page

During cockpit preparation :
Check that FAULT light of GEN 1(2) pb sw is ON (pb at ON position)

On ground with electrical network supplied from APU or external power:
GALLEY.....CHECK AUTO
C/B ELEC/GALLEY/GND/FLT/LOGIC (122VU S24).....PULL
Check that a part of operative galley equipment does not operate.
C/B ELEC/GALLEY/GND/FLT/LOGIC (122VU S24).....PUSH

Note:
Disregard this procedure if main galleys are not connected.

24-27-07 ELEC AC ESS BUS SHED Caution On ECAM E/WD

C/B COM/HF1 (49VU HA14).....PULL

On ground with electrical network supplied from APU or external power:

Check that CAPT right DU is operative.

On ground or in flight:

If either the "ANTI ICE F/0 AOA" amber caution or the "ANTI ICE F/0 PROBES" amber caution is displayed, and icing conditions cannot be avoided :
ADR2.....OFF
AIR DATA SWTG.....F/0 3

If either the "ANTI ICE STBY AOA" amber caution or the "ANTI ICE STBY PROBES" amber caution is displayed, and anti icing conditions cannot be avoided :
ADR3.....OFF

Note:
If ADR 2 is selected off, take off in CONF 1+F is not allowed.

24-30-01 Transformer/ Rectifier Unit (TR)

a)
If TR 1 inoperative :
TR 1/CNTOR/SPLY C/B (125VU CF01) . . . . . PULL

b)
If TR 2 inoperative :
TR 2/CNTOR/SPLY C/B (124VU BC01) . . . . . PULL
AC ESS FEED . . . . . ALTN

Check the integrity of the remaining TR's by checking on ECAM ELEC page TR voltage above 27V.

Check on the battery voltage indicator that BAT 1 and BAT 2 voltages are both above 25.5 V (batteries selected to OFF during this check).

In flight
In the event of failure of AC BUS 2, all DU's will be lost. If occurs, select AC ESS FEED back to Norm position.
– If ELEC AC BUS 1 FAULT caution is triggered on ECAM E/WD :
on hydraulic panel :
RAT MAN ON . . . . . Select

24-30-03 Battery Charge Limiter

Do not start APU.
Use a ground power unit to start the engines on ground.

24-30-03 Battery Charge Limiter

Do not start APU.
Use a ground power unit to start the engines on ground.

24-41-02 EXT PWR Pb Sw

A) AVAIL Light

Before pushback : Confirm the external power disconnection either on ECAM ELEC AC Page or with the ground mechanic.

On parking :

If APU is not available, set EXT PWR at ON and confirm the external power connection either on ECAM ELEC Page or with the ground mechanic before setting ENG MASTERS OFF.

24-56-01 GALY and CAB Supply System

c)
If SMOKE/AVNCS SMOKE emergency procedure has to be applied, replace the step :

GALY & CAB.....OFF

by the steps :

EMER EXIT LT.....AS RQRD
COMMERCIAL.....OFF

Note: Selecting ON the EMER EXIT LT selector allows to get minimum cabin lighting (Normal cabin lighting being switched off by action on COMMERCIAL pb sw).

24-56-02 COMMERCIAL Supply System

If SMOKE/AVNCS SMOKE emergency procedure has to be applied, replace the step :
COMMERCIAL.....OFF
by the steps :
BUS TIE.....OFF
GEN 2.....OFF
The F/0's PFD and ND, and the ECAM lower display are lost.
If smoke still persists or before L/G extension :
GEN 2.....ON
BUS TIE.....AUTO
All busbars recovered when GEN 2 restored but TR2 remains inoperative.

25-11-02 Pilot Seat Shoulder Harness

The F/O must tightly fasten operative harness straps to cope with any potential turbulence situation.

25-22-01 Cabin Attendant Seat

Procedures to be established by operator.

25-30-01 Galley Waste Compartment Flapper Door

A procedure must be established by operator to ensure that sufficient galley waste receptacles are available to accomodate all waste that may be generated on a flight.

25-60-01 EVAC Signal System

In case of necessity, the information will be given through PUBLIC ADDRESS or CABIN INTERPHONE.

BLANK

26-15-01 AVIONIC SMOKE detection system

In case of electrical smoke in flight, apply AVIONICS SMOKE procedure. Refer to Quick Reference Handbook.

26-16-02 Smoke Detector in AFT Cargo Compartment

b) and c)

During cockpit preparation:

AFT ISOL VALVE.....OFF

For livestock transportation, refer to livestock transportation manual.

26-17-01 Lavatory Smoke Detection System

a) and b)
Procedure to be established by each airline.

26-25-01 Lavatory Waste Bin Fire Extinguisher System

b)
Procedure to be established by each airline.

BLANK

27-14-01 Aileron servo- control

b)
During cockpit preparation :
Aircraft supplied either by APU generator or by external power:
Check on ECAM ELEC page link between DC BUS 1 and DC BAT BUS.

27-14-02 Indication on ECAM flight control page

A) Ailerons Position Indication

During cockpit preparation :

YELLOW ELEC PUMP.....ON
PTU.....CHECK AUTO
BLUE ELEC PUMP.....CHECK AUTO
BLUE PUMP OVRD.....ON
ELAC 1 and 2.....ON
Move the stick from left stop to right stop and check visually the full travel of ailerons. If the expected aileron movement does not occur, maintenance action is due.
ELAC 1.....OFF
Move the stick from left stop to right stop and check visually the full travel of ailerons. If the expected aileron movement does not occur, maintenance action is due.
ELAC 1.....ON
YELLOW ELEC PUMP.....OFF
BLUE ELEC PUMP.....OFF then AUTO

27-20-01 Rudder position indication on ECAM flight control page

During cockpit preparation :

YELLOW ELEC PUMP.....ON
Establish communications with ground personnel.

On the CAPT or F/0 side :
Apply full left rudder.

Visually check rudder moves to full left.

On the CAPT or F/0 side :
Apply full right rudder.

Visually check rudder moves to full right.

On the CAPT or F/0 side :
Release pedals.

Visually check rudder at neutral.

YELLOW ELEC PUMP.....OFF

27-30-01 Indication On ECAM F/CTL Page

A) Elevator Position Indication

During cockpit preparation :
YELLOW ELEC PUMP.....ON
PTU.....CHECK AUTO
BLUE ELEC PUMP.....CHECK AUTO
BLUE PUMP OVRD.....ON
Establish communications with ground personnel.
On the CAPT or F/0 side :
- Put the side stick in the maximum nose down position
- Check the left and right elevators move down
On the CAPT or F/0 side :
- Put the side stick in the maximum nose up position
- Check the left and right elevators move up
On the CAPT or F/0 side :
- Put the side stick in the neutral position
- Check the left and right elevators go back to the neutral position
YELLOW ELEC PUMP.....OFF
BLUE ELEC PUMP.....OFF then AUTO

27-40-01 Pitch Trim Position On ECAM F/CTL Page

During cockpit preparation :
YELLOW ELEC PUMP.....ON
Establish communications with ground personnel.
Pitch trim handwheel.....move to full DN position
Visually check that stabilizer moves to full down position.
Pitch trim handwheel.....move to full UP position
Visually check that stabilizer moves to full up position.
Pitch trim.....set as required
YELLOW ELEC PUMP.....OFF

27-51-01 Slat and Flap Control Computer (SFCC)

A) Flap Channel

- Disregard and clear the F/CTL FLAP SYS 2 FAULT caution displayed on ECAM E/WD.
- Status messages "ENG 2 APPR IDLE ONLY" and "FLAPS SLOW" are displayed.

B) Slat Channel

- Disregard and clear the F/CTL SLAT SYS 2 FAULT caution displayed on ECAM E/WD.
- Status messages "SLATS SLOW" is displayed.

27-64-01 Spoiler

A) Surface 5

After engines start, check on ECAM HYD page the absence of amber data

Note : No performance penalty applies when spoiler 5 is inoperative.

B) Surfaces 1 or 3

After engines start, check on ECAM HYD page the absence of amber data.
Performance penalty with one pair of ground spoilers inoperative :

– Take-off performance
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Take-off must be performed with full thrust.
Determine maximum take-off weight and associated speeds in normal conditions on dry runway.
Decrease maximum take-off weight by 800 kg (1770 lb).
Decrease V1, VR and V2 by 1 kt.

Note : These weight and speed corrections may also be applied to the performance established for take-off on wet runway, provided reverse thrust is used for deceleration.
Take-off with one or more spoilers inoperative and reverser inoperative is not recommended on wet runway.
Do not use this method for take-off on contaminated runway.
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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

(continued)

(continued)

27-64-01 Spoiler

Note : 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 minimum VR, takeoff performance cannot be determined with 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 minimum V2, takeoff performance cannot be determined with this method.
Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

– Landing performance :
Increase landing distance by 10 %.

C) Surface 2 or 4

After engines start, check on ECAM HYD page the absence of amber data.
For performance penalty Refer to 27-64-01-B) in section 02.

(continued)

(continued)

27-64-01 Spoiler

D) Surfaces 1 and 2

SEC 3 . . . . . OFF
C/B FLIGHT CONTROLS/SEC3/SPLY (121 VU Q19) . . . . . PULL
Performance penalty with two pairs of ground spoilers inoperative :

Takeoff Performance
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Method

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. It should not be used with takeoff charts computed with other conditions.
This method is not applicable with tailwind.

Note : The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used.
Takeoff with present failure case and one or more thrust reversers inoperative is not recommended on wet runway.
Do not use this method for takeoff on contaminated runway.

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 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 tables to determine the MTOW and speed decrements.
– Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note : 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.

(continued)

(continued)

27-64-01 Spoiler

– Perform the takeoff using full thrust.

Note : Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN TWO PAIRS OF SPOILERS ARE INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	1.4/3	3	2	2	1/2.2	4	3	3	1/2.2	4	2	2
2000	1/2.2	3	2	2	0.8/1.7	3	2	2	1.2/2.6	4	3	3
2500	0.8/1.7	2	1	1	0.8/1.7	3	2	2	1/2.2	3	2	2
3000	0.8/1.7	4	3	3	0.8/1.7	4	3	3	0.8/1.7	4	3	3
3500	0.8/1.7	4	3	3	0.6/1.3	5	4	4	0.4/0.8	4	3	3
4000 and above	0.8/1.7	5	3	3	0.8/1.7	4	6	6	0.2/0.4	0	2	2

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing Performance

Increase landing distances by 20 %.

(continued)

(continued)

27-64-01 Spoiler

D) Surfaces 1 and 2 (Cont'd)

In flight :
In case of further SEC 1 and SEC 2 failures :
– AUTOLAND IS NOT ALLOWED
– DISENGAGE AP at 500 ft RA before landing in DIRECT LAW

Note : As soon as AP is disengaged when the three SECs are failed, it cannot be engaged again.

– CAT 1 ONLY

E) Surfaces 3 and 4

Do not use speedbrakes.
For performance penalties, Refer to 27-64-01-D) in section 02.
For DC tie contactor 1 check, Refer to 27-14-01 in section 02.

27-64-01 Spoiler

A) Surface 5

After engines start, check on ECAM HYD page the absence of amber data

Note : No performance penalty applies when spoiler 5 is inoperative.

B) Surfaces 1 or 3

After engines start, check on ECAM HYD page the absence of amber data.
Performance penalty with one pair of ground spoilers inoperative:

– Takeoff performance
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Takeoff must be performed with full thrust.
Determine maximum takeoff weight and associated speeds in normal conditions on dry runway.
Decrease maximum takeoff weight by 800 kg (1770 lb).
Decrease V1 by 1 kt. Keep VR and V2 unchanged.

Note : 1) These weight and speed corrections may also be applied to the performance established for takeoff on wet runway, provided reverse thrust is used for deceleration.
Takeoff with one or more spoilers inoperative and reverser inoperative is not recommended on wet runway. Do not use this method for takeoff on contaminated runway.

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 they are all lower than the speeds calculated using above method.

3) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

– Landing performance
Increase landing distances by 10 %.

(continued)

(continued)

27-64-01 Spoiler

C) Surface 2 or 4

After engines start, check on ECAM HYD page the absence of amber data.
For performance penalty Refer to 27-64-01-B) in section 02.

D) Surfaces 1 and 2

SEC 3 . . . . . OFF
C/B FLIGHT CONTROLS/SEC3/SPLY (121 VU Q19) . . . . . PULL
Performance penalty with two pairs of ground spoilers inoperative :

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) is available.

Method

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 computed by using OCTOPUS program and established at optimum V2/VS, optimum V1/VR, minimum V1. It should not be used with takeoff charts computed with other conditions or by TLC program.
This method is not applicable with tailwind.

Note : The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used.
Takeoff with present failure case and one or more thrust reversers inoperative is not recommended on wet runway.
Do not use this method for takeoff on contaminated runway.

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 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 tables to determine the MTOW and speed decrements.**
- **Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.**

Note : 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.

(continued)

(continued)

27-64-01 Spoiler

– Perform the takeoff using full thrust

Note : Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN TWO PAIRS OF SPOILERS ARE INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	1.4/3	3	1	1	1.3/2.8	3	1	1	1.3/2.8	2	1	1
2000	1.9/4.1	2	0	0	1.3/2.8	1	0	0	1/2.2	1	0	0
2500	1/2.2	2	1	1	1.2/2.6	2	1	1	1.1/2.4	2	1	1
3000	1.3/2.8	4	4	4	1.3/2.8	4	3	3	1/2.2	4	3	3
3500	1.7/3.7	7	6	6	1/2.2	4	3	3	0.9/1.9	5	3	3
4000 and above	0.9/1.9	4	2	2	0.9/1.9	4	3	3	0.8/1.7	5	3	3

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing Performance

Increase landing distances by 10 %.

(continued)

(continued)

27-64-01 Spoiler

D) Surfaces 1 and 2 (Cont'd)

In flight :
In case of further SEC 1 and SEC 2 failures :
– AUTOLAND IS NOT ALLOWED
– DISENGAGE AP at 500 ft RA before landing in DIRECT LAW

Note : As soon as AP is disengaged when the three SECs are failed, it cannot be engaged again.

– CAT 1 ONLY

E) Surfaces 3 and 4

Do not use speedbrakes.
For performance penalties, Refer to 27-64-01-D) in section 02.
For DC tie contactor 1 check, Refer to 27-14-01 in section 02.

27-64-01 Spoiler

A) Surface 5

After engines start, check on ECAM HYD page the absence of amber data

Note : No performance penalty applies when spoiler 5 is inoperative.

B) Surfaces 1 or 3

After engines start, check on ECAM HYD page the absence of amber data.
Performance penalty with one pair of ground spoilers inoperative :

– Take-off performance
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Take-off must be performed with full thrust.
Determine maximum take-off weight and associated speeds in normal conditions on dry runway.
Decrease maximum take-off weight by 800 kg (1770 lb).
Decrease V1 by 1 kt. Keep VR and V2 unchanged.

Note : 1) These weight and speed corrections may also be applied to the performance established for take-off on wet runway, provided reverse thrust is used for deceleration.
Take-off with one or more spoilers inoperative and reverser inoperative is not recommended on wet runway.
Do not use this method for take-off on contaminated runway.

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 they are all lower than the speeds calculated using above method.

3) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

– Landing performance
Increase landing distances by 10 %.

(continued)

(continued)

27-64-01 Spoiler

C) Surface 2 or 4

After engines start, check on ECAM HYD page the absence of amber data.
For performance penalty Refer to 27-64-01-B) in section 02.

D) Surfaces 1 and 2

SEC 3 . . . . . OFF
C/B FLIGHT CONTROLS/SEC3/SPLY (121 VU Q19) . . . . . PULL
Performance penalty with two pairs of ground spoilers inoperative :

Takeoff Performance

The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Method

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. It should not be used with takeoff charts computed with other conditions.
This method is not applicable with tailwind.

Note : The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used.
Takeoff with present failure case and one or more thrust reversers inoperative is not recommended on wet runway.
Do not use this method for takeoff on contaminated runway.

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 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 tables to determine the MTOW and speed decrements.
– Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note : 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.

(continued)

(continued)

27-64-01 Spoiler

– Perform the takeoff using full thrust

Note : Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN TWO PAIRS OF SPOILERS ARE INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	0.4/0.9	1	0	0	0.4/0.9	1	0	0	0.5/1.1	1	0	0
2000	0.5/1.1	1	0	0	0.5/1.1	1	0	0	0.5/1.1	2	1	1
2500	0.5/1.1	1	0	0	0.5/1.1	2	1	1	0.5/1.1	3	1	1
3000	0.5/1.1	2	1	1	0.5/1.1	3	2	2	0.5/1.1	3	2	2
3500	1.0/2.2	3	2	2	0.9/2.0	3	3	3	0.5/1.1	3	2	2
4000 and above	1.0/2.2	3	2	3	0.9/2.0	3	3	3	0.5/1.1	3	2	2

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing Performance

Increase landing distances by 5 %.

(continued)

(continued)

27-64-01 Spoiler

D) Surfaces 1 and 2 (Cont'd)

In flight :
In case of further SEC 1 and SEC 2 failures :
– AUTOLAND IS NOT ALLOWED
– DISENGAGE AP at 500 ft RA before landing in DIRECT LAW

Note : As soon as AP is disengaged when the three SECs are failed, it cannot be engaged again.

– CAT 1 ONLY

E) Surfaces 3 and 4

Do not use speedbrakes.
For performance penalties, Refer to 27-64-01-D) in section 02.
For DC tie contactor 1 check, Refer to 27-14-01 in section 02.

27-92-01 Speedbrake Control System

a)
In case of speedbrake 2 failure :
- Apply performance penalties associated with spoiler surface 2 inoperative. Refer to 27-64-01-C) in section OPERATIONAL PROCEDURES.

In case of speedbrakes 3 and 4 failure :
- Do not use the speedbrakes.
- Apply performance penalties associated with two pairs of spoilers inoperative. Refer to 27-64-01-D) in section OPERATIONAL PROCEDURES.

b)
Refer to 27-92-02-a) in section OPERATIONAL PROCEDURES.

27-92-02 Ground Spoiler Control System

a)

Take-off performance :
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Method:
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. It should not be used with takeoff charts computed with other conditions.
This method is not applicable with tailwind.

Note:
The MTOW and associated speeds (VI, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used.
Takeoff with present failure case and one or more thrust reversers imperative is not recommended on wet runway.
Do not use this method for takeoff on contaminated runway.

How to proceed?

- Read, in 0 kt wind column of the takeoff chart computed in normal conditions, the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note:
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.

(continued)

(continued)

27-92-02 Ground Spoiler Control System

- Perform the takeoff using full thrust.

Note:
Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN GROUND SPOILER CONTROL SYSTEM IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	2.2/4.8	6	1	1	2.4/5.2	8	7	7	2.4/5.2	8	6	6
2000	1.6/3.5	6	3	3	1.4/3	7	4	4	1.8/3.9	8	4	4
2500	1.6/3.5	6	3	3	1.4/3	7	4	4	1.8/3.9	9	5	5
3000	1.2/2.6	7	4	4	1.2/2.6	8	5	5	1.4/3	9	6	6
3500	1.2/2.6	8	5	5	0.8/1.7	8	5	5	0.8/1.7	8	6	6
4000 and above	1.2/2.6	9	5	5	1/2.2	9	7	7	0.2/0.4	1	2	2

Note:
1) *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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 Ib) per kt difference between both values.*

2) *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 minimum VR, takeoff performance cannot be determined with this method.*

3) *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 minimum V2, takeoff performance cannot be determined with this method.*

4) *Check that the corrected V2 is equal to or above me minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in*

(continued)

(continued)

27-92-02 Ground Spoiler Control System

FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance
Increase landing distances by 45 %.

c)
For performance penalty Refer to 27-64-01 D) in section OPERATIONAL PROCEDURES for surfaces 1 and 2 or 27-64-01-E) in section OPERATIONAL PROCEDURES for surfaces 3 and 4.

27-92-02 Ground Spoiler Control System

a)
Take-off performance:
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Method:
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 computed by using OCTOPUS performance program and established at optimum V2/VS, optimum V1/VR, minimum V1. It should not be used with takeoff charts computed with other conditions or by using TLC program.
This method is not applicable with tailwind.

Note: The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used.
Takeoff with present failure case and one or more thrust reversers inoperative is not recommended on wet runway.
Do not use this method for takeoff on contaminated runway.

How to proceed?
- Read, in 0 kt wind column of the takeoff chart computed in normal conditions, the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note: 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.

- Perform the takeoff using full thrust.

(continued)

(continued)

27-92-02 Ground Spoiler Control System

Note: Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN GROUND SPOILER CONTROL SYSTEM IS INOPERATIVE

RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	2.4/5.2	6	2	2	2.6/5.7	7	2	2	2.1/4.6	6	2	2
2000	2.4/5.2	6	2	2	2.2/4.8	4	1	1	2.2/4.8	6	2	2
2500	1.5/3.3	3	1	1	1.7/3.7	3	1	1	2/4.4	5	2	2
3000	2.5/5.5	10	9	9	2.2/4.8	7	7	7	1.6/3.5	8	5	5
3500	1.7/3.7	7	6	6	1.8/3.9	7	6	6	1.5/3.3	9	5	5
4000 and above	1.4/3	7	4	4	1.5/3.3	8	5	5	1.3/2.8	9	5	5

Note: 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 Ib) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance

Increase landing distances by 35 %.

c)

For performance penalty Refer to 27-64-01 D) in section Operation

(continued)

(continued)

27-92-02 Ground Spoiler Control System

Procedures for surfaces 1 and 2 or 27-64-01-E) in section Operation Procedures for surfaces 3 and 4.

27-92-02 Ground Spoiler Control System

a)

Take-off performance :
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Method:
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. It should not be used with takeoff charts computed with other conditions.
This method is not applicable with tailwind.

Note:
The MTOW and associated speeds (VI, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used.
Takeoff with present failure case and one or more thrust reversers imperative is not recommended on wet runway.
Do not use this method for takeoff on contaminated runway.

How to proceed?

- Read, in 0 kt wind column of the takeoff chart computed in normal conditions, the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note:
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.

(continued)

(continued)

27-92-02 Ground Spoiler Control System

- Perform the takeoff using full thrust.

Note:
Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN GROUND SPOILER CONTROL SYSTEM IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	1.0/2.2	3	1	1	1.0/2.2	3	1	1	1.5/3.3	4	1	1
2000	1.0/2.2	4	1	1	1.3/2.9	4	1	1	1.0/2.2	5	2	2
2500	1.0/2.2	4	1	1	1.3/2.9	5	2	2	1.0/2.2	8	3	3
3000	1.0/2.2	5	2	2	1.3/2.9	6	3	3	1.0/2.2	10	4	4
3500	2.0/4.4	8	3	3	2.0/4.4	8	4	4	1.3/2.9	11	5	5
4000 and above	2.0/4.4	9	3	3	2.0/4.4	9	5	5	1.5/3.3	9	4	4

Note:
1) *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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 Ib) per kt difference between both values.*

2) *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 minimum VR, takeoff performance cannot be determined with this method.*

3) *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 minimum V2, takeoff performance cannot be determined with this method.*

4) *Check that the corrected V2 is equal to or above me minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in*

(continued)

(continued)

27-92-02 Ground Spoiler Control System

FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance
Increase landing distances by 20 %.

c)
For performance penalty refer to 27-64-01-D) for surfaces 1 and 2 or 27-64-01-E) for surfaces 3 and 4.

27-92-05 Spoilers /Speedbrakes indication on ECAM F/CTL and WHEEL page

During cockpit preparation:

- If surface 1 affected :
CAUTION : Aircraft must be stopped.
YELLOW ELEC PUMP.....ON
PTU.....CHECK AUTO
SPD BRK.....FULL
Check visually surface 1 slightly extends (approximately 6°).
YELLOW ELEC PUMP.....OFF

- If surface 3 affected :
BLUE ELEC PUMP.....CHECK AUTO
BLUE PUMP OVRD.....ON
Move the stick from left stop to right stop and check visually the correct movement of surface 3.
BLUE ELEC PUMP.....OFF then AUTO

- If surface 2, 4 or 5 affected :
YELLOW ELEC PUMP.....ON
PTU.....CHECK AUTO
Move the stick from left stop to right stop and check visually the correct movement of surfaces 2, 4 and 5.
YELLOW ELEC PUMP.....OFF

27-93-01 ELAC

1 . In case of "ELAC 1 FAULT" caution on ECAM E/WD :

Note : 1) After the maintenance procedure has been applied, the warning C/B TRIPPED ON R ELEC BAY and C/B TRIPPED ON OVHD PNL are triggered.

2) After first engine starting, the ECAM caution F/CTL ALTN LAW may be spuriously triggered during a very short period. It normally disappears after a few seconds when ELAC 2 auto test is accomplished.

During cockpit preparation :

1 — Check that elevator and roll spoilers control is operative through the SEC's :

YELLOW ELEC PUMP . . . . . ON
PTU . . . . . CHECK AUTO
BLUE ELEC PUMP . . . . . CHECK AUTO
BLUE PUMP OVRD . . . . . ON
ELAC 2 . . . . . ON
SEC 1, 2 and 3 . . . . . ON

After 5 seconds do the following checks :

. 1 a) Check elevator control through SEC 1 and spoilers control through SEC 1 and SEC 3 :

BLUE ELEC PUMP . . . . . OFF then AUTO

Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.

After 5 seconds :

BLUE PUMP OVRD . . . . . ON
ELAC 2 . . . . . OFF
SEC 2 . . . . . OFF

Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 3 + 4 and the full travel of both elevators.

If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

(continued)

(continued)

27-93-01 ELAC

. 1 b) Check elevator control through SEC 2 and spoilers control through SEC 2 and SEC 3 :
ELAC 2 . . . . . ON
SEC 2 . . . . . ON
After 5 seconds :
YELLOW ELEC PUMP . . . . . OFF
Wait for hydraulic circuits depressurization and check on ECAM F/CTL page that yellow and green elevator actuators symbols become amber.
After 5 seconds :
YELLOW ELEC PUMP . . . . . ON
ELAC 2 . . . . . OFF
SEC 1 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 5 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

. 1 c) Return to normal configuration :
YELLOW ELEC PUMP . . . . . OFF
BLUE ELEC PUMP . . . . . OFF then AUTO
ELAC 1 . . . . . OFF
ELAC 2 . . . . . ON
SEC 1 . . . . . ON

Before engines start :
AP1 . . . . . ON
CAPT take-over pb . . . . . PRESS
Check that the red AP OFF message appears on ECAM.
If AP1 is used for approach, pilot flying will be the captain.

Note : Due to the fact that ELAC 1 is not electrically supplied, F/O take-over pb cannot disengage AP1.

3 – Check of DC TIE contactor 1 operation.
Aircraft supplied either by APU generator or by external power : check on ECAM ELEC page link between DC BUS 1 and DC BAT BUS

(continued)

(continued)

27-93-01 ELAC

2 . In case of "ELAC 1 PITCH FAULT" caution on ECAM E/WD :

Note : After first engine starting, the ECAM caution F/CTL ALTN LAW may be spuriously triggered during a very short period. It normally disappears after a few seconds when ELAC 2 auto test is accomplished.

During cockpit preparation :
1 — Check that elevator and roll spoilers control is operative through the SEC's :
YELLOW ELEC PUMP . . . . . ON
PTU . . . . . CHECK AUTO
BLUE ELEC PUMP . . . . . CHECK AUTO
BLUE PUMP OVRD . . . . . ON
ELAC 1 . . . . . ON
ELAC 2 . . . . . ON
SEC 1, 2 and 3 . . . . . ON
After 5 seconds do the following checks :

. 1 a) Check elevator control through SEC 1 and spoilers control through SEC 1 and SEC 3 :
BLUE ELEC PUMP . . . . . OFF then AUTO
Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.
After 5 seconds :
BLUE PUMP OVRD . . . . . ON
ELAC 1 . . . . . OFF
ELAC 2 . . . . . OFF
SEC 2 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 3 + 4 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

(continued)

(continued)

27-93-01 ELAC

. 1 b) Check elevator control through SEC 2 and spoilers control through SEC 2 and SEC 3 :
ELAC 1 . . . . . ON
ELAC 2 . . . . . ON
SEC 2 . . . . . ON
After 5 seconds :
YELLOW ELEC PUMP . . . . . OFF
Wait for hydraulic circuits depressurization and check on ECAM F/CTL page that yellow and green elevator actuators symbols become amber.
After 5 seconds :
YELLOW ELEC PUMP . . . . . ON
ELAC 1 . . . . . OFF
ELAC 2 . . . . . OFF
SEC 1 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 5 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

. 1 c) Return to normal configuration :
YELLOW ELEC PUMP . . . . . OFF
BLUE ELEC PUMP . . . . . OFF then AUTO
ELAC 1 . . . . . ON
ELAC 2 . . . . . ON
SEC 1 . . . . . ON
Set ELAC 1 pb sw at OFF only if required by ECAM.

2 – Check of DC TIE contactor 1 operation.
Aircraft supplied either by APU generator or by external power : check on ECAM ELEC page link between DC BUS 1 and DC BAT BUS.

27-93-01 ELAC

1 . In case of "ELAC 1 FAULT" caution on ECAM E/WD :

Note : 1) After the maintenance procedure has been applied, the warning C/B TRIPPED ON R ELEC BAY and C/B TRIPPED ON OVHD PNL are triggered.

2) After first engine starting, the ECAM caution F/CTL ALTN LAW may be spuriously triggered during a very short period. It normally disappears after a few seconds when ELAC 2 auto test is accomplished.

During cockpit preparation :
1 — Check that elevator and roll spoilers control is operative through the SEC's :
YELLOW ELEC PUMP . . . . . ON
PTU . . . . . CHECK AUTO
BLUE ELEC PUMP . . . . . CHECK AUTO
BLUE PUMP OVRD . . . . . ON
ELAC 2 . . . . . ON
SEC 1, 2 and 3 . . . . . ON
After 5 seconds do the following checks :

. 1 a) Check elevator control through SEC 1 and spoilers control through SEC 1 and SEC 3 :
BLUE ELEC PUMP . . . . . OFF then AUTO
Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.
After 5 seconds :
BLUE PUMP OVRD . . . . . ON
ELAC 2 . . . . . OFF
SEC 2 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 3 + 4 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

(continued)

(continued)

27-93-01 ELAC

. 1 b) Check elevator control through SEC 2 and spoilers control through SEC 2 and SEC 3 :
ELAC 2 . . . . . ON
SEC 2 . . . . . ON
After 5 seconds :
YELLOW ELEC PUMP . . . . . OFF
Wait for hydraulic circuits depressurization and check on ECAM F/CTL page that yellow and green elevator actuators symbols become amber.
After 5 seconds :
YELLOW ELEC PUMP . . . . . ON
ELAC 2 . . . . . OFF
SEC 1 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 5 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

. 1 c) Return to normal configuration :
YELLOW ELEC PUMP . . . . . OFF
BLUE ELEC PUMP . . . . . OFF then AUTO
ELAC 1 . . . . . OFF
ELAC 2 . . . . . ON
SEC 1 . . . . . ON

Before engines start :
AP1 . . . . . ON
CAPT take-over pb . . . . . PRESS
Check that the red AP OFF message appears on ECAM.
If AP1 is used for approach, pilot flying will be the captain.

Note : Due to the fact that ELAC 1 is not electrically supplied, F/O take-over pb cannot disengage AP1.

3 – Check of DC TIE contactor 1 operation.
Aircraft supplied either by APU generator or by external power : check on ECAM ELEC page link between DC BUS 1 and DC BAT BUS

(continued)

(continued)

27-93-01 ELAC

2 . In case of "ELAC 1 PITCH FAULT" caution on ECAM E/WD :

Note : After first engine starting, the ECAM caution F/CTL ALTN LAW may be spuriously triggered during a very short period. It normally disappears after a few seconds when ELAC 2 auto test is accomplished.

During cockpit preparation :
1 — Check that elevator and roll spoilers control is operative through the SEC's :
YELLOW ELEC PUMP . . . . . ON
PTU . . . . . CHECK AUTO
BLUE ELEC PUMP . . . . . CHECK AUTO
BLUE PUMP OVRD . . . . . ON
ELAC 1 . . . . . ON
ELAC 2 . . . . . ON
SEC 1, 2 and 3 . . . . . ON
After 5 seconds do the following checks :

. 1 a) Check elevator control through SEC 1 and spoilers control through SEC 1 and SEC 3 :
BLUE ELEC PUMP . . . . . OFF then AUTO
Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.
After 5 seconds :
BLUE PUMP OVRD . . . . . ON
ELAC 1 . . . . . OFF
ELAC 2 . . . . . OFF
SEC 2 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 3 + 4 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

(continued)

(continued)

27-93-01 ELAC

. 1 b) Check elevator control through SEC 2 and spoilers control through SEC 2 and SEC 3 :
ELAC 1 . . . . . ON
ELAC 2 . . . . . ON
SEC 2 . . . . . ON
After 5 seconds :
YELLOW ELEC PUMP . . . . . OFF
Wait for hydraulic circuits depressurization and check on ECAM F/CTL page that yellow and green elevator actuators symbols become amber.
After 5 seconds :
YELLOW ELEC PUMP . . . . . ON
ELAC 1 . . . . . OFF
ELAC 2 . . . . . OFF
SEC 1 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop. Check on ECAM F/CTL page the correct movement of spoilers 2 + 5 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O Stick.

. 1 c) Return to normal configuration :
YELLOW ELEC PUMP . . . . . OFF
BLUE ELEC PUMP . . . . . OFF then AUTO
ELAC 1 . . . . . ON
ELAC 2 . . . . . ON
SEC 1 . . . . . ON
Set ELAC 1 pb sw at OFF only if required by ECAM.

2 – Check of DC TIE contactor 1 operation.
Aircraft supplied either by APU generator or by external power : check on ECAM ELEC page link between DC BUS 1 and DC BAT BUS.

In flight
Above FL200, limit the use of speed brakes lever to its half position.

27-94-01 SEC

a)
If SEC 1 affected :
During cockpit preparation :

Note : After the maintenance procedure has been applied, the warnings C/B TRIPPED ON OVHD PNL and C/B TRIPPED ON R ELEC BAY are triggered.

– Check that no hidden failure affecting the elevator control exists in the operative computers :
YELLOW ELEC PUMP . . . . . ON
PTU . . . . . Check AUTO
BLUE ELEC PUMP . . . . . Check AUTO
BLUE PUMP OVRD . . . . . ON
ELAC 1 and 2 . . . . . ON
SEC 2 and 3 . . . . . ON
After 5 seconds :
BLUE ELEC PUMP . . . . . OFF then AUTO
Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.
After 5 seconds :
BLUE PUMP OVRD . . . . . ON
ELAC 2 . . . . . OFF
SEC 2 . . . . . OFF
Move the stick from forward stop to aft stop. Check on ECAM F/CTL page the full elevator travel. If the expected elevator movement does not occur, do not attempt any computer reset. Maintenance action is due.
ELAC 2 . . . . . ON
SEC 2 . . . . . ON
After 5 seconds :
YELLOW ELEC PUMP . . . . . OFF
Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that yellow and green elevator actuators symbols become amber.
After 5 seconds :
YELLOW ELEC PUMP . . . . . ON
ELAC 1 and 2 . . . . . OFF

(continued)

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27-94-01 SEC

Move the CAPT stick from right stop to left stop, then from forward stop to aft stop (each stop applied during 3 seconds). Check on ECAM F/CTL page the correct movement of the spoilers 2 + 5 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O stick.
YELLOW ELEC PUMP . . . . . OFF
ELAC 1 and 2 . . . . . ON
BLUE ELEC PUMP . . . . . OFF then AUTO
– Check of DC TIE contactor 1 operation : Refer to 27-14-01 in section 02.
Takeoff and landing performance :
Apply performance penalties for spoilers 3 and 4
Refer to 27-64-01-E) in section 02.
In flight :
DO NOT USE SPD BRK
In case of further SEC 2 and SEC 3 failures :
– AUTOLAND IS NOT ALLOWED
– DISENGAGE AP AT 500 ft RA before landing in DIRECT LAW

Note : As soon as AP is disengaged when the three SECs are failed, it cannot be engaged again.

– CAT 1 ONLY

b)
If SEC 2 affected :
During cockpit preparation :

Note : After the maintenance procedure has been applied, the warnings C/B TRIPPED REAR PNL N-R is triggered.

YELLOW ELEC PUMP . . . . . ON
PTU . . . . . Check AUTO
BLUE ELEC PUMP . . . . . Check AUTO
BLUE PUMP OVRD . . . . . ON
ELAC 1 and 2 . . . . . ON
SEC 1 and 3 . . . . . ON
After 5 seconds :
BLUE ELEC PUMP . . . . . OFF then AUTO
Wait for hydraulic circuit depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.

(continued)

(continued)

27-94-01 SEC

After 5 seconds :
BLUE PUMP OVRD . . . . . ON
ELAC 2 . . . . . OFF
SEC 1 . . . . . OFF
Move the stick from forward stop to aft stop. Check on ECAM F/CTL page the full elevator travel. If the expected elevator movement does not occur, do not attempt any computer reset. Maintenance action is due.
ELAC 2 . . . . . ON
SEC 1 . . . . . ON
After 5 seconds :
BLUE ELEC PUMP . . . . . OFF then AUTO
Wait for hydraulic circuits depressurization and check on ECAM F/CTL page that blue elevator actuator symbol becomes amber.
After 5 seconds :
BLUE OVRD PUMP . . . . . ON
ELAC 1 and 2 . . . . . OFF
Move the CAPT stick from right stop to left stop, then from forward stop to aft stop (each stop applied during 3 seconds). Check on ECAM F/CTL page the correct movement of the spoilers 2 + 3 + 4 and the full travel of both elevators.
If an expected spoiler or elevator movement does not occur, do not attempt any reset : maintenance action is due. Perform same check from F/O stick.
YELLOW ELEC PUMP . . . . . OFF
ELAC 1 and 2 . . . . . ON
BLUE ELEC PUMP . . . . . OFF then AUTO
In flight :
In case of further SEC 1 and SEC 3 failures :
– AUTOLAND IS NOT ALLOWED
– DISENGAGE AP at 500 ft RA before landing in DIRECT LAW

Note : As soon as AP is disengaged when the three SECs are failed, it cannot be engaged again.

– CAT 1 ONLY

c)
If SEC 3 affected :
During cockpit preparation :
SEC 3 . . . . . OFF
C/B FLIGHT CONTROLS/SEC 3/SPLY (121VU Q19) . . . . . PULL

(continued)

(continued)

27-94-01 SEC

Take-off and landing performance :
Apply performance penalties for spoilers 1 and 2.
Refer to 27-64-01-D) in section 02.

In flight :
In case of further SEC 1 and SEC 2 failures :
– AUTOLAND IS NOT ALLOWED
– DISENGAGE AP at 500 ft RA before landing in DIRECT LAW

Note : As soon as AP is disengaged when the three SECs are failed, it cannot be engaged again.

– CAT 1 ONLY

27-95-01 FCDC

C/B FLIGHT CONTROLS/FCDC2/SPLY (121VU Q20).....PULL

BLANK

28-12-01 Overpressure Protector

A) Between inner and outer cell

The dispatch condition results in an unusual distribution of fuel quantity: outer cell of affected wing will be partially empty with transfer valves normally closed. Fuel management should be performed with care.

B) Overpressure protectors in vent surge tank

Lateral accelerations should be avoided in order to reduce the possibility of fuel spill during taxi and climb out. When established in cruise check that no fuel spillage occured and that sufficient FOB is available to destination with adequate reserve.

28-12-01 Overpressure Protector

A) (Reserved)

B) Overpressure protectors in vent surge tank

Lateral accelerations should be avoided in order to reduce the possibility of fuel spill during taxi and climb out. When established in cruise check that no fuel spillage occured and that sufficient FOB is available to destination with adequate reserve.

28-15-01 Transfer Valves

b)
The dispatch condition results in an unusual distribution of fuel quantity: outer cell of affected wing will not be full with inner cell not empty.

28-20-01 Automatic Fuel Feed System

If the center tank is empty for the flight:
FUEL MODE SEL.....MAN
CTR TK PUMP 1 AND 2.....OFF
If the center tank is not empty apply following procedure :
Before engines start:
FUEL MODE SEL.....MAN
3 minutes after engines start:
CTR TK PUMP 1 AND 2.....OFF
After slats retraction and when fuel in one wing less than 5000 kg (11000 Ib) :
CTR TK PUMP 1 AND 2.....ON
When CTR TK PUMP LO PR warning illuminates :
CTR TK PUMP 1 AND 2.....OFF

28-21-02 Center Tank Pump

a)
CTR TK PUMP 1 AND 2.....OFF

b)
During cockpit preparation :
FUEL X FEED.....check OFF
Affected CTR TK PUMP.....OFF
After slats retraction :
FUEL X FEED.....ON
When CTR TK empty :
FUEL X FEED.....OFF

28-21-02 Center Tank Transfer Valve

b)
Disregard the FUEL L(R) XFR VALVE FAULT ECAM procedure
FUEL MOD SEL.....AUTO
Affected XFR VALVE.....OFF

When difference between fuel quantities in two wings is greater than 1500 kg (3300 Ib) :
- Follow FUEL IMBALANCE FCOM procedure provided no fuel leak is suspected.

Until the fuel is balanced :
L(R) wing PUMPS (lighter side).....OFF

28-22-01 APU Fuel Pump

For APU start operation, pressurize the LH fuel manifold with at least one fuel tank pump.

28-29-01 APU LP Valve

b)
Check on ECAM FUEL page that APU LP valve is indicated closed.

28-40-05 MODE SEL FAULT Light

After engine start, with slats retracted, check center tank pumps in line (if any fuel in center tank).

After slats extension, check center tank pumps cross line.

After take-off, after slats retraction, check center tank pumps in line (if any fuel in center tank).

28-40-06 Indication on ECAM FUEL Page

E) Transfer Valve Indication

When any inner cell fuel quantity reaches 750 kg (1650 lb), check on ECAM fuel page associated outer cell transfer.

I) Fuel Quantity Indication

If, on upper ECAM E/WD, the FOB indication is displayed with two dashes across the two last digits, the FQI is in degraded mode.
In this case, the ECAM FUEL page must be called on ECAM lower display to determine which tank is affected.
The resulting loss of accuracy must be taken into account by using the two following parameters :
. Fq : The extra fuel quantity to be loaded.
. 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	1670

– Preselect the fuel quantity required for the mission :
. Fm
– When the auto refuel stops, enter the table and determine Fq and W values for the affected tank.

(continued)

(continued)

28-40-06 Indication on ECAM FUEL Page

– The auto refuel must be started again 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 fuel density. Therefore the mission or the aircraft load must be amended to match the minimum fuel quantity known to be onboard.

– When the auto refuel stops again, the FOB value to be considered for TOW calculation is :
. FOB = Fm + Fq + W

Note : 1) If all tanks reach high level before having loaded Fq value, then the extra fuel quantity known to be onboard is :
. Fq with : Fq* < Fq*
and, the FOB value to be considered for TOW calculation is :
*. FOB = Fm + Fq * + W*

2) If the resulting TOW is higher than the MTOW, the aircraft load must be reduced.

a) Outer Cell

Refer to FCOM 2.01.30

b) Inner Cell

Refer to FCOM 2.01.30

c) Center Tank

Refer to FCOM 2.01.30

28-40-06 Indication on ECAM FUEL Page

E) (Reserved)

I) Fuel Quantity Indication

If, on upper ECAM E/WD, the FOB indication is displayed with two dashes across the two last digits, the FQI is in degraded mode.
In this case, the ECAM FUEL page must be called on ECAM lower display to determine which tank is affected.
The resulting loss of accuracy must be taken into account by using the two following parameters :
. Fq : The extra fuel quantity to be loaded.
. 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)
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)		
	Fq (lb)	W (lb)
WING TANK	290	690
CENTER TANK	290	290
ALL TANKS	860	1670

– Preselect the fuel quantity required for the mission :
. Fm
– When the auto refuel stops, enter the table and determine Fq and W values for the affected tank.

(continued)

(continued)

28-40-06 Indication on ECAM FUEL Page

– The auto refuel must be started again 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 fuel density. Therefore the mission or the aircraft load must be amended to match the minimum fuel quantity known to be onboard.

– When the auto refuel stops again, the FOB value to be considered for TOW calculation is :
. FOB = Fm + Fq + W

Note : 1) If all tanks reach high level before having loaded Fq value, then the extra fuel quantity known to be onboard is :
. Fq with : Fq* < Fq*
and, the FOB value to be considered for TOW calculation is :
*. FOB = Fm + Fq * + W*

2) If the resulting TOW is higher than the MTOW, the aircraft load must be reduced.

a) (Reserved)

b) Wing Tank

Refer to FCOM 2.01.30

c) Center Tank

Refer to FCOM 2.01.30

28-40-09 Warning and Caution on ECAM E/WD

A) FUEL L(R) INNER (OUTER) TK HI TEMP

Refer to Flight Manual for fuel temperature limits.
Monitor fuel temperature on ECAM FUEL system page prior to takeoff and periodically during the flight.

If fuel temperature reaches limits :
- Before takeoff, delay takeoff and shutdown engine of affected side.
- In flight, increase engine fuel flow of affected side and if necessary use APU GEN and switch off IDG of affected side if opposite GEN is available.

B) FUEL L(R) INNER (OUTER) TK LO TEMP

Refer to Flight Manual for fuel temperature limits.
Monitor fuel temperature on ECAM FUEL SYSTEM page prior to takeoff and periodically during the flight.

If fuel temperature reaches limits :
- Before takeoff, delay takeoff.
- In flight, consider descending to a lower altitude and/or increasing mach to increase TAT.

28-40-09 Warning and Caution on ECAM E/WD

A) FUEL L(R) INNER (OUTER) TK HI TEMP

Refer to Flight Manual for fuel temperature limits.
Monitor fuel temperature on ECAM FUEL system page prior to takeoff and periodically during the flight.

If fuel temperature reaches limits :
- Before takeoff, delay takeoff and shutdown engine of affected side.
- In flight, increase engine fuel flow of affected side and if necessary use APU GEN and switch off IDG of affected side if opposite GEN is available.

B) FUEL L(R) INNER (OUTER) TK LO TEMP

Refer to Flight Manual for fuel temperature limits.
Monitor fuel temperature on ECAM FUEL SYSTEM page prior to takeoff and periodically during the flight.

If fuel temperature reaches limits :
- Before takeoff, delay takeoff.
- In flight, consider descending to a lower altitude and/or increasing mach to increase TAT.

29-10-02 Blue system electric pump

On ground :
- If blue electric pump runs continuously :

At electrical power supply application :
BLUE ELEC PUMP . ...OFF

After engines start :
BLUE ELEC PUMP.....AUTO

After engines shut-down :
BLUE ELEC PUMP.....OFF

- If blue electric pump does not start automatically :

After engines start :
BLUE ELEC PUMP.....AUTO
BLUE PUMP OVRD.....ON
Check blue hydraulic pressure available on ECAM HYD page.

After engines shut-down :
BLUE ELEC PUMP.....OFF

29-23-01 Power Transfer Unit

After both engines start:

GREEN ENG 1 PUMP.....OFF
Check that green system pressure is correct (3000 PSI ± 200 PSI) and check the PTU arrow indication.
GREEN ENG 1 PUMP.....ON
PTU.....OFF
YELLOW ENG 2 PUMP.....OFF
YELLOW ELEC PUMP.....CHECK OFF
Let the pressure in the yellow hydraulic system decrease to 200 psi or less, then
PTU.....ON
Check that yellow system pressure is correct (3000 PSI ± 200 PSI) and check the PTU arrow indication.
YELLOW ENG 2 PUMP.....ON

Note:

1) The PTU pressurizes the system to a nominal value of 3000 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 system between 2100 and 3200 PSI.

2) For passengers comfort, PTU may be switched off during the taxi after landing provided both hydraulic engine pumps are operative and running. PTU must be selected AUTO before leaving the aircraft.

29-24-01 Yellow system electric pump

If the pump is continuously running and does not stop when selected OFF, it can be stopped by pulling associated C/B 1MJ DOORS/CARGO (T12 on 122 VU). If unsuccessful, consider pulling C/B 3801 GX Y HYD/ELEC PUMP/NORM (AB 03 on 123 VU) and C/B 3802 GX Y HYD/ELEC/PUMP (AB 06 on 123 VU).

29-30-03 Indications on the ECAM HYD page

G) System label
During cockpit preparation :

YELLOW ELEC PUMP.....ON
BLUE ELEC PUMP.....CHECK AUTO
BLUE PUMP OVRD.....ON
PTU.....CHECK AUTO
Move the stick left or right and check spoilers movement on ECAM FLT CTL page.
YELLOW ELEC PUMP.....OFF
BLUE ELEC PUMP.....OFF then AUTO

H) System pressure
During cockpit preparation :

- If blue system affected

  Check on ECAM HYD page that BLUE system label is amber.
  BLUE ELEC PUMP.....CHECK AUTO
  BLUE PUMP OVRD.....ON
  Check that BLUE system label is white and arrow is green.
  BLUE ELEC PUMP.....OFF then AUTO

- If yellow system affected

  Note: PTU FAULT warning is on.

  YELLOW ELEC PUMP.....OFF
  Check on ECAM HYD page that YELLOW system label is amber.
  YELLOW ELEC PUMP.....ON
  Check that YELLOW system label is white and arrow is green.
  YELLOW ELEC PUMP.....OFF

- If green system affected

  Note: PTU FAULT warning is on.

  Check on ECAM HYD page that GREEN system label is amber.
  YELLOW ELEC PUMP.....ON
  PTU.....CHECK AUTO
  Check that GREEN system label is white and arrow is green.
  YELLOW ELEC PUMP.....OFF

29-30-04 Warning and cauthion on ECAM

F) SYS LO PR

During cockpit preparation:

YELLOW ELEC PUMP.....ON
BLUE ELEC PUMP.....CHECK AUTO
BLUE PUMP OVRD.....ON
PTU.....CHECK AUTO
Move the stick left or right and check spoilers movement on ECAM FLT CTL page.
YELLOW ELEC PUMP.....OFF
BLUE ELEC PUMP.....OFF then AUTO

G) PTU FAULT

During cockpit preparation:

YELLOW ELEC PUMP.....ON
PTU.....CHECK AUTO
Check on ECAM HYD page that green hydraulic pressure (if indication available) is normal. If hydraulic pressure indication is not available, check on ECAM HYD page that GREEN system label is white and arrow is green.
YELLOW ELEC PUMP.....OFF

I) ENG PUMP LO PR

- If warning is erroneously displayed:

  After both engines start:

  PTU.....OFF
  Check that green and yellow hydraulic systems pressure is correct (3000 PSI ± 200 PSI) on the ECAM HYD page.
  PTU.....AUTO

  Note: PTU remains indicated running on the ECAM HYD page.

30-11-01 Anti-ice Control Valve

– On ground :
. Maintain X BLEED selector at SHUT before engines start when APU bleed is used.
. ENG 1 must be started first.
. Maintain X BLEED selector at SHUT during ENG 1 start.
. Use "CROSS BLEED ENG START" procedure to start ENG 2.

– After engines start :
ENG BLEED 2 pb sw . . . . . OFF
X BLEED sel (If not closed) . . . . . SHUT

– Before takeoff :
ENG BLEED 1 and 2 pb sw . . . . . OFF

– In flight :
. At thrust reduction, or no later than 1,500 ft :
Apply the Automatic Recall of the WING ANTI ICE R VALVE OPEN procedure displayed on ECAM E/WD :
ENG BLEED 1 and 2 pb sw . . . . . ON
WING ANTI ICE pb sw . . . . . As Required

– After landing :
Apply the Automatic Recall of the WING ANTI ICE R VALVE OPEN procedure displayed on ECAM E/WD :
WING ANTI ICE . . . . . OFF
ENG BLEED 2 pb sw . . . . . OFF
X BLEED (if not closed) . . . . . SHUT

– Flight Planning :
. Fuel consumption is increased by 1 %.

30-11-02 WING ANTI ICE Pb Sw

Make sure that airbleed system is available.
ANTI ICE WING Pb Sw . . . . . ON
Check that the anti-ice "arrow" appears amber on ECAM BLEED page and go off after 30 seconds.
ANTI ICE WING Pb Sw . . . . . OFF

30-21-01 Engine Anti-ice Valve

ANTI-ICE ENG 1(2) pb sw (Inoperative valve) . . . . . ON
An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in open position.
– Takeoff performance :

Note : 1) Following decrements 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.

2) Performance penalties apply whatever one or both valves are inoperative.

Method :
Apply following corrections on maximum takeoff weight and speeds if takeoff with full thrust is performed or on temperature if flex takeoff is performed.

OAT	< ISA + 24	≥ ISA + 24
Weight decrement (kg) (lb)	300 700	3000 6700
V1 Vr and V2 decrement (kt)	0	3
Temperature correction	Subtract 1°C	Subtract 6°C

– Flight planning :
Take into account the following increase in fuel consumption : 3 %

– Single engine cruise :
Drift down ceilings are decreased by :
1000 ft when OAT ≤ ISA + 15
2000 ft when OAT > ISA + 15

– Approach climb performance :

OAT	< ISA + 24	≥ ISA + 24
Approach climb limiting weight decrement (kg) (lb)	700 1600	6000 13300

30-21-01 Engine Anti-ice Valve

ANTI-ICE ENG 1(2) pb sw (Inoperative valve) . . . . . ON
An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in open position.
– Takeoff performance :

Note : 1) Following decrements 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.

2) Performance penalties apply whatever one or both valves are inoperative.

Method :
Apply following corrections on maximum takeoff weight and speeds if takeoff with full thrust is performed or on temperature if flex takeoff is performed.

OAT		< ISA + 23	≥ ISA + 23
Weight decrement	(kg)	300	2500
	(lb)	700	5500
V1 Vr and V2 decrement (kt)		0	3
Temperature correction		Subtract 1°C	Subtract 4°C

– Flight planning :
Take into account the following increase in fuel consumption : 3.5 %

– Single engine cruise :
Drift down ceilings are decreased by 2000 ft.

– Approach climb performance :

OAT		< ISA + 23	≥ ISA + 23
Approach climb limiting weight decrement	(kg)	300	2500
	(lb)	700	5500

30-21-01 Engine Anti-ice Valve

ANTI-ICE ENG 1(2) pb sw (Inoperative valve) . . . . . ON
An higher idle speed is set on both engines when an engine anti-ice valve is inoperative in open position.
– Takeoff performance :

Note : 1) Following decrements 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.

2) Performance penalties apply whatever one or both valves are inoperative.

Method :
Apply following corrections on maximum takeoff weight and speeds if takeoff with full thrust is performed or on temperature if flex takeoff is performed.

OAT	< ISA + 9	≥ ISA + 9
Weight decrement (kg) (lb)	400 880	4800 10600
V1, VR and V2 decrement (kt)	2	2
Temperature correction	Subtract 1°C	Subtract 10°C

– Flight planning :
Fuel consumption is increased by 4 %.

– Single engine cruise :
Decrease drift down net ceilings by the following values :
. 250 ft when OAT is at or below ISA + 5°C
. 1600 ft when OAT is above ISA + 5°C and at or below ISA + 15°C
. 2200 ft when OAT is above ISA + 15°C

– Approach climb performance :
Decrease maximum climb limiting weight by the following values :
. 400 kg (880 lb) when OAT ≤ ISA + 9°C.
. 5500 kg (12200 lb) when OAT > ISA + 9°C.

30-31-01 Probe Heat Computer

b)
AIR DATA SELECTOR.....F/03
In icing conditions:
ADR 2 .....OFF
Take off in CONF 1 + F is not allowed when ADR 2 is selected off.

30-31-02 Pitot Heaters

a)
Refer to 30-31-01.

30-31-03 Static Ports Heaters

b)
Refer to 30-31-01

BLANK

31-21-01 Electrical Clock

After any electrical power interruption (loss of UTC on ECAM lower display), initialize UTC and date through the MCDU (Refer to FCOM 1 45.20).

31-56-01 ECAM Control panel

D) STS Pb

Use RCL Pb and CLR Pb for selection of STATUS page.

G) TO CONFIG pb

When aligned on the runway

PARKING BRK.....ON
THRUST LEVERS.....SET AT 50 % N1
ONE THRUST LEVER.....FLX or TO
Check that ECAM warning CONFIG PARK BRAKE ON appears.
THRUST LEVER.....RETARD TO 50 % N1
PARKING BRK.....RELEASE
Proceed with take-off procedure.

31-61-01 EIS switching system

E) PFD/ND XFR

- During cockpit preparation :

On the side where the PFD/ND pb is inoperative :
PFD Brightness control knob.....OFF
Check that the PFD image is automatically transfered on ND.
PFD Brightness control knob.....ON

CAUTION: If the PFD image is not automatically transferred on the associated ND unit, 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 Transfer Sel (Affected side).....CAPT (F/0)
Check that the PFD image is transferred on the associated ND unit.
PFD Brightness control knob.....ON
EIS DMC Transfer Sel (Affected side).....NORM

- In flight:

If a PFD unit fails with no automatic transfer to associated ND unit:
PFD Brightness control knob.....OFF
EIS DMC Transfer Sel (Affected side).....CAPT (F/0)
Check that the PFD image is transferred on the associated ND unit.

31-63-01 Display Unit (DU)

Set corresponding knob at OFF.

D)
If System Display inoperative:
In case of warning on ECAM upper display, use ECAM/ND XFR to get system page on ND.

31-63-02 Display Management Computer (DMC)

b)
DMC 2

In the event of failure of AC BUS 1, all DU's will be lost.
If occurs, apply AC ESS BUS FAULT procedure of FCOM 3.02.24
(select AC ESS FEED at ALTN) to recover AC ESS BUS and DMC 1.

BLANK

32-31-00 Landing gear retracting system

Refer to FCOM 2-04-25

32-31-01 Landing Gear Control and Interface Unit (LGCIU)

During cockpit preparation:

C/B HYDRAULIC/LGCIU/SYS2 (121VU Q35).....PULL

The following table gives the consequences on the systems affected when LGCIU2 is inoperative and above mentioned C/B is pulled.

SYSTEMS	CONSEQUENCES	PROCEDURE
AVNCS VENT (on ground)	. Sytem remains in closed circuit configuration . Ground cooling system (if installed) inop	. TIME LIMITATIONS ON GRND FOR ELEC PWR SUPPLY : – OAT ≤ 43°C : NO LIMITATION – OAT = 52°C : 3 HOURS – OAT = 61°C : 0.5 HOUR . CHECK AIR COND OPERATIVE
HYD (on ground)	. PTU runs after first engine start until second engine started	
	. Blue and yellow PUMPS FAULT lights are on when engines are stopped	
TPIS (if installed)	Tyre low pressure warning threshold is set at flight level	
ATC 2 (on ground)	ATC 2 is not inhibited	On ground : ATC . . . . . SYS 1
ACARS (in flight)	ACARS (if installed) is inoperative	
LIGHTS	Strobe lights (if installed) are not inhibited on ground when AUTO is selected	On ground : STROBE . . . . . OFF
	With flaps retracted, logo lights do not illuminate on ground.	
	Taxi, runway turn-off and take-off lights are inoperative on ground and in flight	
SIGNS (in flight)	NO SMOKING and EXIT signs permanently illuminate in flight when AUTO is selected	
ELEC (on ground)	With APU generator only main galleys are not supplied	
ENG 2 (on ground)	. FADEC supply permanently on	
	. Automatic start abort inop	. USE MAN START PROC.
	. Minimum idle inop with slats/flaps extended	
	. When FLX TO selected MCT thrust is set	. USE TO GA FOR TAKE OFF
	. Reverser inop.	
	. Bump (if installed) inop	. DO NOT USE BUMP

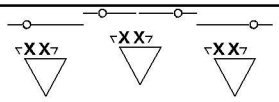
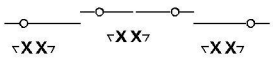
Landing Gear Control and Interface Unit (LGCIU) - Continued

(continued)

(continued)

32-31-01 Landing Gear Control and Interface Unit (LGCIU)

SLATS (on ground)	Slats are slow from 1 to 0	
AIR COND (on ground)	Packs 1 and 2 ram air inlets do not close	
WING A ICE (on ground)	When selected ON on ground, WING A ICE valve do not close at the end of test sequence (30 sec). ECAM warning WING A ICE OPEN ON GRND will appear.	
ADIRU and AVNCS VENT warning	Horn + light are inoperative.	
WATER SERVICING (on ground)	Preselect water servicing is inop	
CARGO DOOR (FWD and AFT)	Manual control only is available	
RECORDERS (on ground)	CVR : test and erase functions are inop CVR and DFDR do not stop after engine shutdown	
BRAKES (on ground)	Brakes cooling (if installed) is inoperative	
AIRSTAIRS (if installed)	Airstairs (if installed) cannot be extended	
WEIGHT AND BALANCE SYSTEM (if installed)	WBS (if installed) is inoperative	

ECAM	**- on ECAM WHEEL page:** **Gear locked DOWN:**  **Gear locked UP:**  **- on ECAM waming CRT: << LGCIU 2 FAULT >> waming is ON.**

In case of loss of the second LGCIU, AP and FD are lost, consequently CAT II and CAT III approaches are not possible. For CAT I approaches, refer to applicable regulations.

32-31-02B Proximity Detectors System 2)

B) System 2
a) RH L/G shock absorber

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	F/O pitot at high heating level when EXT PWR at OFF	EXT PWR . . . . . KEEP ON Keep the EXT PWR at ON until engine start.
AVNCS VENT (on ground)	. System remains in closed circuit configuration . Ground cooling system (if installed) inop	. TIME LIMITATIONS ON GROUND FOR ELEC PWR SUPPLY : – OAT ≤ 43°C : no limitation – OAT = 52°C : 3 hours – OAT = 61°C : 0.5 hour . CHECK AIR COND OPERATIVE
ADIRU and AVNCS VENT warning (on ground)	Horn + light inop	
HYD warnings (on ground)	Blue and yellow pump FAULT lights are on when engines are stopped	
WING A/ICE (on ground)	Wing A/ICE is not inhibited	DO NOT SET WING A/ICE PB SW AT ON ON GROUND FOR MORE THAN 30 S. IF REQUIRED, SET IT AT ON JUST BEFORE T/O
TPIS (if installed) (on ground)	TYRE LOW PR warning threshold is set at flight level	
ATC 2 (on ground)	ATC 2 is not inhibited	On ground : ATC 1 . . . . . SYS 1
LIGHTS (on ground)	Strobe lights (if installed) are not inhibited	On ground : STROBE . . . . . OFF
	With flaps retracted, logo lights do not illuminate	
ELEC (on ground)	With APU generator only, main galleys are not supplied	
ENG 2 (on ground)	. FADEC supply permanently on	
	. Automatic start abort inop	. USE MAN START PROC.
	. Minimum idle inop	
	. When FLX TO selected MCT thrust is set	. USE TO GA FOR TAKE OFF
	. Reverser inop.	
	. Bump (if installed) inop	. DO NOT USE BUMP
SLATS (on ground)	Slats are slow from 1 to 0	
AIR COND (on ground)	Pack 2 ram air inlet does not close	
CARGO DOOR (on ground)	Manual control only is available	
WATER SERVICING (on ground)	Preselect water servicing is inop	
AIRSTAIRS (if installed) (on ground)	Airstairs cannot be extended	
RECORDERS (on ground)	CVR : test and manual erase functions are inop CVR and DFDR do not stop after engine shutdown	
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p2 "ECAM" line	

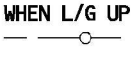
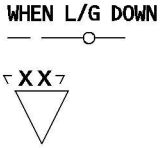
LH L/G shock absorber

(continued)

(continued)

32-31-02B Proximity Detectors System 2)

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	CAPT pitot at high heating level when EXT PWR at OFF	EXT PWR . . . . . KEEP ON Keep the EXT PWR at ON until engine start.
AVNCS VENT (on ground)	. System remains in closed circuit configuration . Ground cooling system (if installed) inop	. TIME LIMITATIONS ON GROUND FOR ELEC PWR SUPPLY : – OAT ≤ 42°C : no limitation – OAT = 53°C : 3 hours – OAT = 61°C : 0.5 hour . CHECK AIR COND OPERATIVE
ADIRU and AVNCS VENT warning (on ground)	Horn + light inop	
HYD warnings (on ground)	Blue and yellow pump FAULT lights are on when engines are stopped	
TPIS (if installed) (on ground)	TYRE LO PR warning threshold is set at flight level	
LIGHTS (on ground)	With flaps retracted, logo lights do not illuminate. Strobe lights (if installed) are not inhibited	
ELEC (on ground)	With APU generator only, main galleys are not supplied	
ENG 2 (on ground)	. FADEC supply permanently on	
	. Automatic start abort inop	. USE MAN START PROC.
	. Minimum idle inop	
	. When FLX TO selected MCT thrust is set	. USE TO GA FOR TAKE OFF
	. Reverser inop.	
	. Bump (if installed) inop	. DO NOT USE BUMP
SLATS (on ground)	Slats are slow from 1 to 0	
AIR COND (on ground)	Pack 1 ram air inlet does not close	
CARGO DOOR	Manual control only is available	
WATER SERVICING (on ground)	Preselect water servicing is inop	
RECORDERS (on ground)	CVR and DFDR do not stop after engine shutdown CVR test and erase functions are inoperative	

ECAM (in flight and on ground)	- on ECAM WHEEL page: WHEN L/G UP  WHEN L/G DOWN  - on ECAM warning CRT: << LGCIU 2 FAULT >> warning is ON.

Nose L/G shock absorber

(continued)

(continued)

32-31-02B Proximity Detectors System 2)

SYSTEMS	CONSEQUENCES	PROCEDURES
PITOTS (on ground)	STBY pitot at high heating level when EXT PWR at off	EXT PWR — — KEEP ON Keep the EXT PWR at ON until engine start
HYD (on ground)	PTU runs after first engine start until second engine started	
ENG 2 (on ground)	. Minimum idle is inoperative when flaps/slats are extended	
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.	

b) L/G downlock

RH

SYSTEMS	CONSEQUENCES	PROCEDURES
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.	

LH

SYSTEMS	CONSEQUENCES	PROCEDURES
BRAKES	Brakes cooling (if installed) is inoperative	
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.	

Nose

(continued)

(continued)

32-31-02B Proximity Detectors System 2
)

SYSTEMS	CONSEQUENCES
WBS (if installed) (in flight and on ground)	WBS is inoperative
LIGHTS (in flight and on ground)	Taxi and take-off lights are inoperative
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.

c) L/G uplock

RH or LH

SYSTEMS	CONSEQUENCES
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.

Nose

SYSTEMS	CONSEQUENCES
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.

d) L/G doors open (RH, LH or nose)

SYSTEMS	CONSEQUENCES
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.

(continued)

(continued)

32-31-02B Proximity Detectors System 2
)

e) L/G doors closed (RH, LH or nose)

SYSTEMS	CONSEQUENCES
ECAM (in flight and on ground)	For ECAM WHEEL page display and ECAM warning refer to 02.32 p 2 "ECAM" line.

32-33-01 Landing Gear Gravity Extension System

Refer to FCOM 2-04-25.

32-42-01 Main Wheel Brake

Note : 1) In case of engine failure at takeoff, retract landing gear when positive climb. Vibrations may be present during 1 or 2 minutes after landing gear retraction. If both engines are operative, keep landing gear down for one minute.

2) Autobrake, if available, must not be used at takeoff and landing.

Take-off performance :

The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Method :

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. It should not be used with takeoff charts computed with other conditions. This method is not applicable with tailwind.

Note : The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are used.
Do not use this method for takeoff on contaminated runway.

How to proceed ?

– Read, in 0 kt wind column of the takeoff chart computed in normal conditions, the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.
– Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note : 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.

(continued)

(continued)

32-42-01 Main Wheel Brake

– Perform the takeoff using full thrust.

Note : Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN ONE BRAKE IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	2.4/5.2	8	2	2	2.4/5.2	8	2	2	2.4/5.2	7	6	6
2000	2.6/5.7	7	6	6	1.8/3.9	7	5	5	1.6/3.5	7	4	4
2500	2.2/4.8	10	5	5	1.8/3.9	9	5	5	1.8/3.9	8	5	5
3000	3.8/8.3	22	11	11	3.4/7.4	21	12	12	3.8/8.3	15	13	13
3500	3.2/7	22	12	12	7.8/17.1	15	13	13	6.8/14.9	12	10	10
4000 and above	5/11	21	19	19	5.8/12.7	18	18	18	2/4.4	13	12	12

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance

Increase landing distances by 25 %.

32-42-01 Main Wheel Brake

Note: 1) In case of engine failure at takeoff, retract landing gear when positive climb. Vibrations may be present during 1 or 2 minutes after landing gear retraction. If both engines are operative, keep landing gear down for one minute.
2) Autobrake, if available, must not be used at takeoff and landing.

Take-off performance:
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Method:
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 computed by using OCTOPUS program and established at optimum V2/VS, optimum V1/VR, minimum V1. It should not be used with takeoff charts computed with other conditions or by TLC program. This method is not applicable with talwind.

Note: The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used. Takeoff with present failure case and one or more thrust reversers inoperative is not recommended on wet runway.
Do not use this method for take off on contaminated runway.

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 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 tables to determine the MTOW and speed decrements.
- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

(continued)

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32-42-01 Main Wheel Brake

Note: 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.

- Perform the takeoff using full thrust.

Note: Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN ONE BRAKE IS INOPERATIVE

RUNWAY LENGTH (m)	CONFIGURATION 1 + F				CONFIGURATION 2				CONFIGURATION 3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	2.7/5.9	7	2	2	3.2/7	8	3	3	3/6.6	8	2	2
2000	3.6/7.9	8	2	2	3.8/8.3	8	3	3	3.1/6.8	8	3	3
2500	5.6/12.3	16	5	5	5.1/11.2	15	5	5	4.8/10.5	16	5	5
3000	9.9/21.8	16	10	10	7.2/15.8	17	7	7	5.1/11.2	21	8	8
3500	9.3/20.5	17	15	15	7.4/16.3	19	19	19	6.8/14.9	20	14	14
4000 and above	9.8/21.6	15	13	13	7.2/15.8	20	21	21	6.5/14.3	19	17	17

Note: 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 Ib) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be

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32-42-01 Main Wheel Brake

determined with this method.

Landing performance
Increase landing distances by 20 %.

32-42-01 Main Wheel Brake

Note : 1) In case of engine failure at takeoff, retract landing gear when positive climb. Vibrations may be present during 1 or 2 minutes after landing gear retraction. If both engines are operative, keep landing gear down for one minute.

2) Autobrake, if available, must not be used at takeoff and landing.

Take-off performance :

The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.

Method :

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. It should not be used with takeoff charts computed with other conditions. This method is not applicable with tailwind.

Note : The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are used.
Do not use this method for takeoff on contaminated runway.

How to proceed ?

– Read, in 0 kt wind column of the takeoff chart computed in normal conditions, the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.
– Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note : 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.

(continued)

(continued)

32-42-01 Main Wheel Brake

– Perform the takeoff using full thrust.

Note : Do not extrapolate below the shortest runway length provided by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN ONE BRAKE IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	3.5/7.7	11	3	3	3.5/7.7	11	3	3	3.0/6.6	9	3	3
2000	3.5/7.7	11	3	3	3.5/7.7	11	3	3	3.0/6.6	10	4	4
2500	7.0/15.5	13	4	4	5.0/11.0	12	5	5	3.0/6/6	14	5	5
3000	9.0/19.9	19	7	7	5.5/12.2	22	8	8	3.0/6.6	20	8	8
3500	10.0/22.1	20	8	8	6.5/14.4	22	9	9	3.5/7.7	24	9	9
4000 and above	10.0/22.1	18	8	8	6.5/14.4	21	9	9	3.5/7.7	22	9	9

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,620 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance
Increase landing distances by 20 %

32-42-02 Green Brake System

Refer to 32-42-01 in section Operational procedures.

32-42-05 Tachometer

Note : 1) In case of engine failure at take-off, retract landing gear when positive climb. Vibrations may be present during 1 or 2 minutes after landing gear retraction. If both engines are operative, keep landing gear down for one minute.

2) Autobrake, if available, must not be used at takeoff and landing (automatic disengagement at BSCU gene tachy test).

3) Associated wheel will not brake.

Take-off performance :
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Method :
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 condtions (i.e. all systems operative).
The method is based on the use of RTOW charts estblish at optimum V2/VS, optimum V1/VR, minimum V1. It should not be used with takeoff charts computed with other conditions.

Note : 1) The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are used.

2) Take-off on contaminated runway is not allowed with this method.

3) Take-off with tail wind is not allowed with this method.

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32-42-05 Tachometer

How to proceed ?

– Read, in 0 kt wind column of the takeoff chart computed in normal conditions the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.

Note : When the decrements are replaced by an asterisk, the method is not valid and the takeoff chart must be computed using OCTOPUS.

– Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note : 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.

– Perform the takeoff with full thrust

Note : Do not extrapolate below the shortest runway length provided by the tables.

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32-42-05 Tachometer

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN ONE TACHOMETER IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	3.6/7.9	12	3	3	3.8/8.3	13	3	3	4/8.8	14	4	4
2000	3/6.6	12	7	7	3.4/7.4	13	10	10	2.8/6.1	14	7	7
2500	3.6/7.9	16	7	7	2.8/6.1	16	8	8	3/6.6	16	8	8
3000	5.6/12.3	28	16	16	5.4/11.9	27	18	18	6.4/14.1	21	18	18
3500	6.8/14.9	27	22	22	10.4/22.9	21	18	18	7.4/16.3	20	18	18
4000 and above	10.8/23.8	23	21	21	10.8/23.8	21	18	18	4/8.8	19	18	18

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance

Increase landing distances by 25 %.

32-42-05 Tachometer

Note: 1) In case of engine failure at takeoff, retract landing gear when positive climb. Vibrations may be present during 1 or 2 minutes after landing gear retraction. If both engines are operative, keep landing gear down for one minute.
2) Autobrake, if available, must not be used at takeoff and landing (automatic disengagement at BSCU gene tachy test).
3) Associated wheel will not brake.

Take-off performance:
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Method:
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 establish at optimum V2/VS, optimum V1/VR, minimum V1. It should not be used with takeoff charts computed with other conditions.

Note: 1) The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are operative, and used. Takeoff with present failure case and one or more thrust reversers inoperative is not recommended on wet runway.
2) Take-off on contaminated runway is not allowed with this method.
3) Take-off with tail wind is not allowed with this method.

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 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 tables to determine the MTOW and speed decrements.

Note: When the decrements are replaced by an asterisk, the method is not valid and the takeoff chart must be

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32-42-05 Tachometer

computed using OCTOPUS.

- Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note: 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.

- Perform the takeoff will full thrust.

Note: Do not extrapolate below the shortest runway length provide by the tables.

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN ONE TACHOMETER IS INOPERATIVE

RUNWAY LENGTH (m)	CONFIGURATION 1 + F				CONFIGURATION 2				CONFIGURATION 3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	3.3/7.2	9	3	3	3.2/7	9	3	3	3.1/6.8	9	3	3
2000	3.7/8.1	9	3	3	3.8/8.3	9	3	3	3.1/6.8	9	3	3
2500	7.6/16.7	18	7	7	5.9/13	19	6	6	5.8/12.7	20	6	6
3000	11.9/26.2	17	12	12	9.1/20	22	22	22	7.7/16.9	23	11	11
3500	11/24.2	19	17	17	9.3/20.5	21	21	21	9.4/20.7	22	17	17
4000 and above	11/24.2	18	17	17	8.5/18.7	21	22	22	11.2/24.6	20	18	18

Note: 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,600 Ib) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the

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32-42-05 Tachometer

minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance

Increase landing distances by 20 %.

32-42-05 Tachometer

Note : 1) In case of engine failure at take-off, retract landing gear when positive climb. Vibrations may be present during 1 or 2 minutes after landing gear retraction. If both engines are operative, keep landing gear down for one minute.

2) Autobrake, if available, must not be used at takeoff and landing (automatic disengagement at BSCU gene tachy test).

3) Associated wheel will not brake.

Take-off performance :
The following penalties may be used for takeoff performance determination if no takeoff data (predetermined by using OCTOPUS program or other equivalent program with present failure case) is available.
Method :
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 condtions (i.e. all systems operative).
The method is based on the use of RTOW charts estblish at optimum V2/VS, optimum V1/VR, minimum V1. It should not be used with takeoff charts computed with other conditions.

Note : 1) The MTOW and associated speeds (V1, VR, V2) determined by this method may be retained for takeoff on wet runways provided all thrust reversers are used.

2) Take-off on contaminated runway is not allowed with this method.

3) Take-off with tail wind is not allowed with this method.

(continued)

(continued)

32-42-05 Tachometer

How to proceed ?

– Read, in 0 kt wind column of the takeoff chart computed in normal conditions the MTOW and associated speeds (V1, VR, V2) corresponding to the actual temperature, even in 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 tables to determine the MTOW and speed decrements.

Note : When the decrements are replaced by an asterisk, the method is not valid and the takeoff chart must be computed using OCTOPUS.

– Applying these decrements, calculate the MTOW and associated speeds corresponding to the actual temperature.

Note : 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.

– Perform the takeoff with full thrust

Note : Do not extrapolate below the shortest runway length provided by the tables.

(continued)

(continued)

32-42-05 Tachometer

DECREMENTS (ΔW, ΔV1, ΔVR, ΔV2) WHEN ONE TACHOMETER IS INOPERATIVE												
RUNWAY LENGTH (m)	CONFIGURATION											
	1 + F				2				3			
	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt	ΔW kg/lb (×1,000)	ΔV1 kt	ΔVR kt	ΔV2 kt
1500	***	***	***	***	***	***	***	***	***	***	***	***
2000	6.0/13.3	13	3	3	6.0/13.3	14	4	4	4.5/9.9	15	5	5
2500	8.5/18.8	15	4	4	7.0/15.5	16	5	5	5.0/11.1	16	6	6
3000	14.0/30.9	23	11	11	10.0/22.1	27	11	11	6.0/13.3	30	12	12
3500	16.0/35.3	24	14	14	12.0/26.5	28	16	16	6.0/13.3	33	20	20
4000 and above	16.0/35.3	26	18	18	12.0/26.5	30	20	20	6.0/13.3	34	24	24

Note : 1) 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 minimum V1, take this last value as V1, and further decrease the weight by 3,000 kg (6,620 lb) per kt difference between both values.

2) 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 minimum VR, takeoff performance cannot be determined with this method.

3) 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 minimum V2, takeoff performance cannot be determined with this method.

4) Check that the corrected V2 is equal to or above the minimum V2 due to VMU limitation (see "MINIMUM V2 LIMITED BY VMU" tables in FCOM 2.02.25). If the corrected V2 is lower than minimum V2, takeoff performance cannot be determined with this method.

Landing performance

Increase landing distances by 20 %.

32-47-01 Brake Temperature Monitoring Unit

C/B HYDRAULIC/BRK/TEMP/DET/UNIT/(121VU M37).....PULL

Determine brake cooling time in 32-60-03-H) operational procedures.

32-51-01 Nose Wheel Steering Control System

DISPATCH IS NOT ALLOWED FROM (OR TO) CONTAMINATED RUNWAYS.

The electrical and hydraulic control of NWS is inoperative.
DO NOT RESET WHEEL N.W. STEER FAULT ECAM caution with A/SKID & N/W STRG switch.
The ECAM caution WHEEL N.W. STEER FAULT indicates that no hydraulic pressure is applied on the NWS actuator.

TAXIING PROCEDURES:

- Avoid high thrust settings, taxi speed limited to 20 kt.

- Check brakes temperature (if available) before take off and if necessary apply :
  BRAKES FAN (IF INSTALLED).....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 a/c by towing).

DISENGAGE AP AT TOUCHDOWN WHEN AUTOLAND IS PERFORMED.

DO NOT USE AUTOBRAKE FOR LANDING.

MAXIMUM CROSSWIND COMPONENT FOR TAKE OFF AND LANDING : 20 KT.

OPERATING INSTRUCTIONS WITH CROSSWIND COMPONENT > 5 KT :

1) Flight planning :
   - Reduce maximum take off performance limiting weight by 1 ton (2200 lb)

2) Take off:
   - Set full nose down elevator till 80 kt regardless of A/C loading

(continued)

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32-51-01 Nose Wheel Steering Control System

- Apply N1 = 50 % on the brakes
- Release the brakes, and smoothly apply take off 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.

3) Landing :
- 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.

32-51-03 Nose Wheel Steering Control System Deactivation Device (for A/C Towing)

Before conventional or towbarless pushback :
A/SKID and NOSE WHEEL.....OFF
After pushback :
A/SKID and NOSE WHEEL.....ON

32-60-03 Indications on ECAM WHEEL Page

C) L/G Doors Position Indication

MAX SPEED 250 kt/M0.60

H) Brakes Temperature

In case of false BRAKE HOT caution :
After engine start clear the brakes hot caution by depressing the EMER CANC pb.

Note : In-case of erroneous triggering of the ECAM caution BRAKES HOT due to a faulty BTMU or a faulty BSCU, after having performed the TO CONFIG TEST, the T.O. MEMO display line will not be replaced by the line "TO CONFIG NORMAL" and will remain displayed. Consider normal configuration for TO provided no warning presented during TO CONFIG TEST.

CAUTION : The TO CONFIG TEST pb must be maintained pressed while checking no warning presented.

(continued)

(continued)

32-60-03 Indications on ECAM WHEEL Page

The brake energy graph and the brake cooling time table given hereafter allow to determine the ground brake cooling time.

BRAKE ENERGY GRAPH

– Enter the brake energy graph :

WITH THRUST REVERSERS USE, if MAX REV was selected for all reversers during the braking phase,
or
WITHOUT THRUST REVERSERS USE, if MAX REV was NOT selected for all reversers during the braking phase.

– Determination of the brake energy accumulated during a REJECTED TAKEOFF (RTO) :
. Enter with the aircraft takeoff weight (TOW) and with V1 (Decision 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 with touch down speed in kt IAS.
. Apply airport pressure altitude, temperature, wind and runway slope corrections.
. Correct for brake setting with a preselected autobrake setting AUTO/BRK (LO, MED) or with MAX PEDAL braking in the other cases.

BRAKE COOLING TIME TABLE

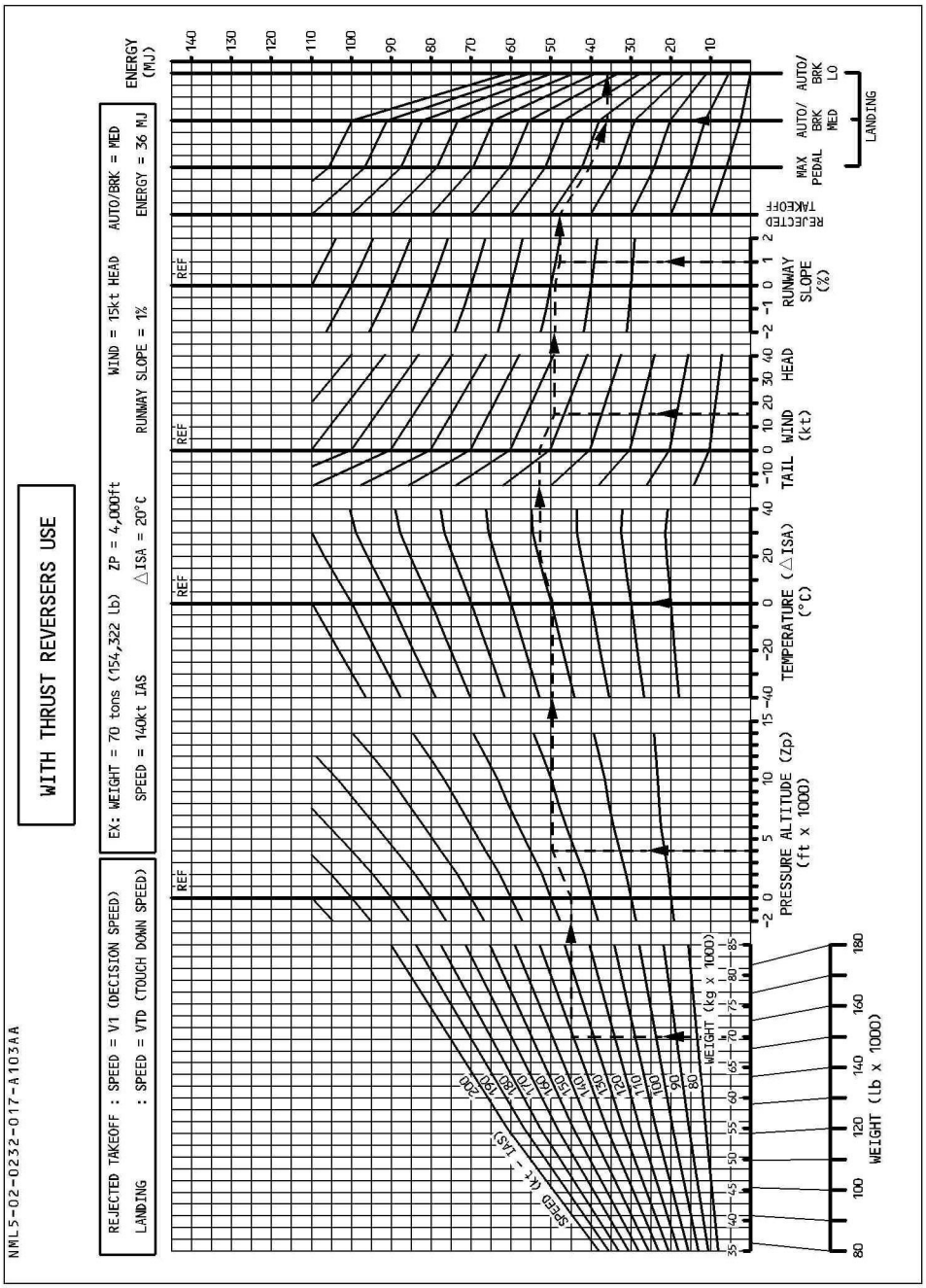
– Determination of the ground brake cooling time :

Enter the following table with the energy and the OAT to determine the ground brake cooling time.

(continued)

(continued)

32-60-03 Indications on ECAM WHEEL Page



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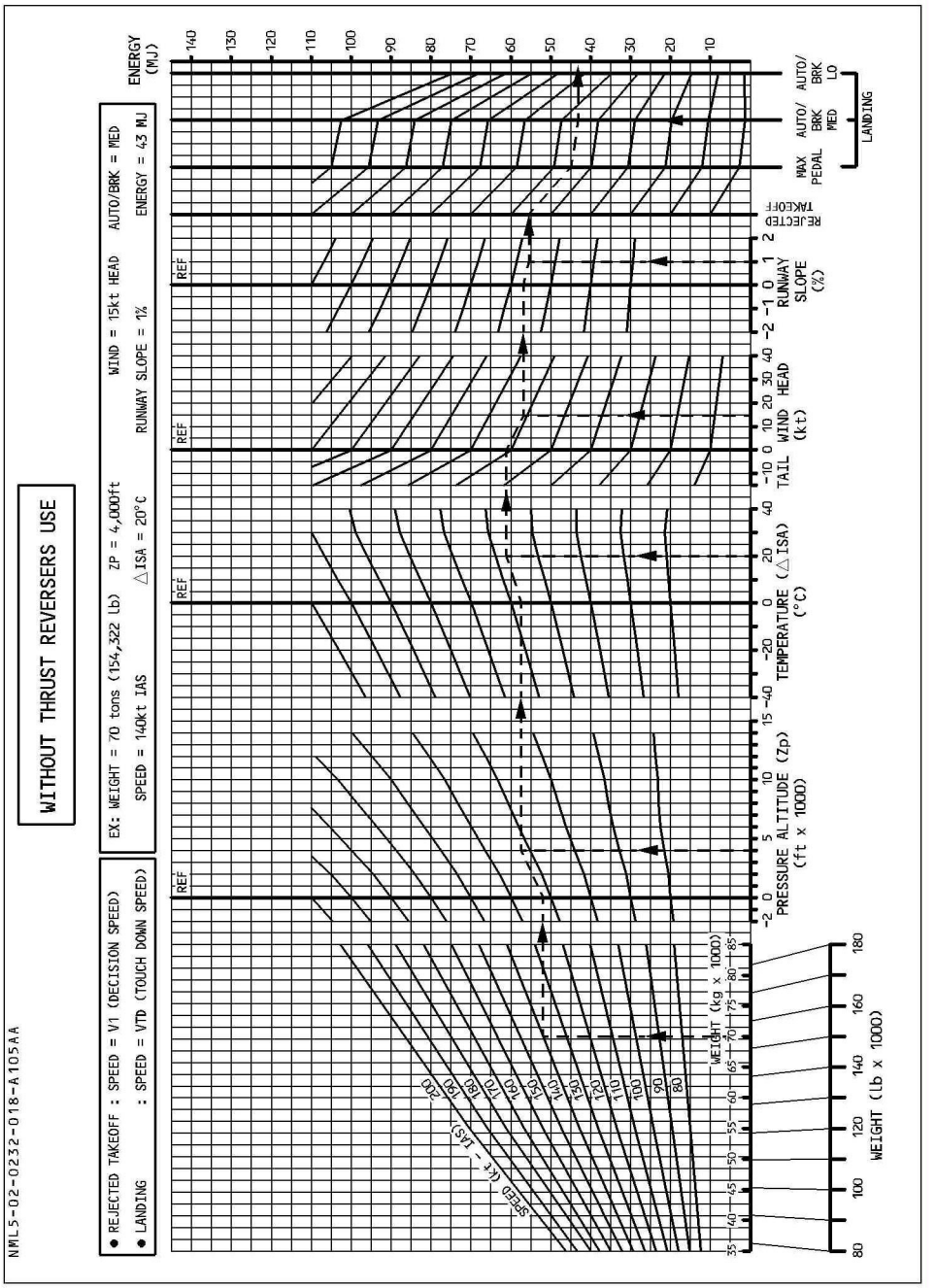
32-60-03 Indications on ECAM WHEEL Page



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32-60-03 Indications on ECAM WHEEL Page

GROUND BRAKE COOLING TIME (MN)

ENERGY PER WHEEL (MJ)	OAT (DEGREES 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*

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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, take 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 Minutes
- With brake cooling fan : 57 Minutes

32-60-03 Indications on ECAM WHEEL Page

C) L/G Doors Position Indication

MAX SPEED 250 kt/M0.60

H) Brakes Temperature

In case of false BRAKE HOT caution :
After engine start clear the brakes hot caution by depressing the EMER CANC pb.

Note : In-case of erroneous triggering of the ECAM caution BRAKES HOT due to a faulty BTMU or a faulty BSCU, after having performed the TO CONFIG TEST, the T.O. MEMO display line will not be replaced by the line "TO CONFIG NORMAL" and will remain displayed. Consider normal configuration for TO provided no warning presented during TO CONFIG TEST.

CAUTION : The TO CONFIG TEST pb must be maintained pressed while checking no warning presented.

(continued)

(continued)

32-60-03 Indications on ECAM WHEEL Page

The brake energy graph and the brake cooling time table given hereafter allow to determine the ground brake cooling time.

BRAKE ENERGY GRAPH

– Enter the brake energy graph :

WITH THRUST REVERSERS USE, if MAX REV was selected for all reversers during the braking phase,
or
WITHOUT THRUST REVERSERS USE, if MAX REV was NOT selected for all reversers during the braking phase.

– Determination of the brake energy accumulated during a REJECTED TAKEOFF (RTO) :
. Enter with the aircraft takeoff weight (TOW) and with V1 (Decision 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 with touch down speed in kt IAS.
. Apply airport pressure altitude, temperature, wind and runway slope corrections.
. Correct for brake setting with a preselected autobrake setting AUTO/BRK (LO, MED) or with MAX PEDAL braking in the other cases.

BRAKE COOLING TIME TABLE

– Determination of the ground brake cooling time :

Enter the following table with the energy and the OAT to determine the ground brake cooling time.

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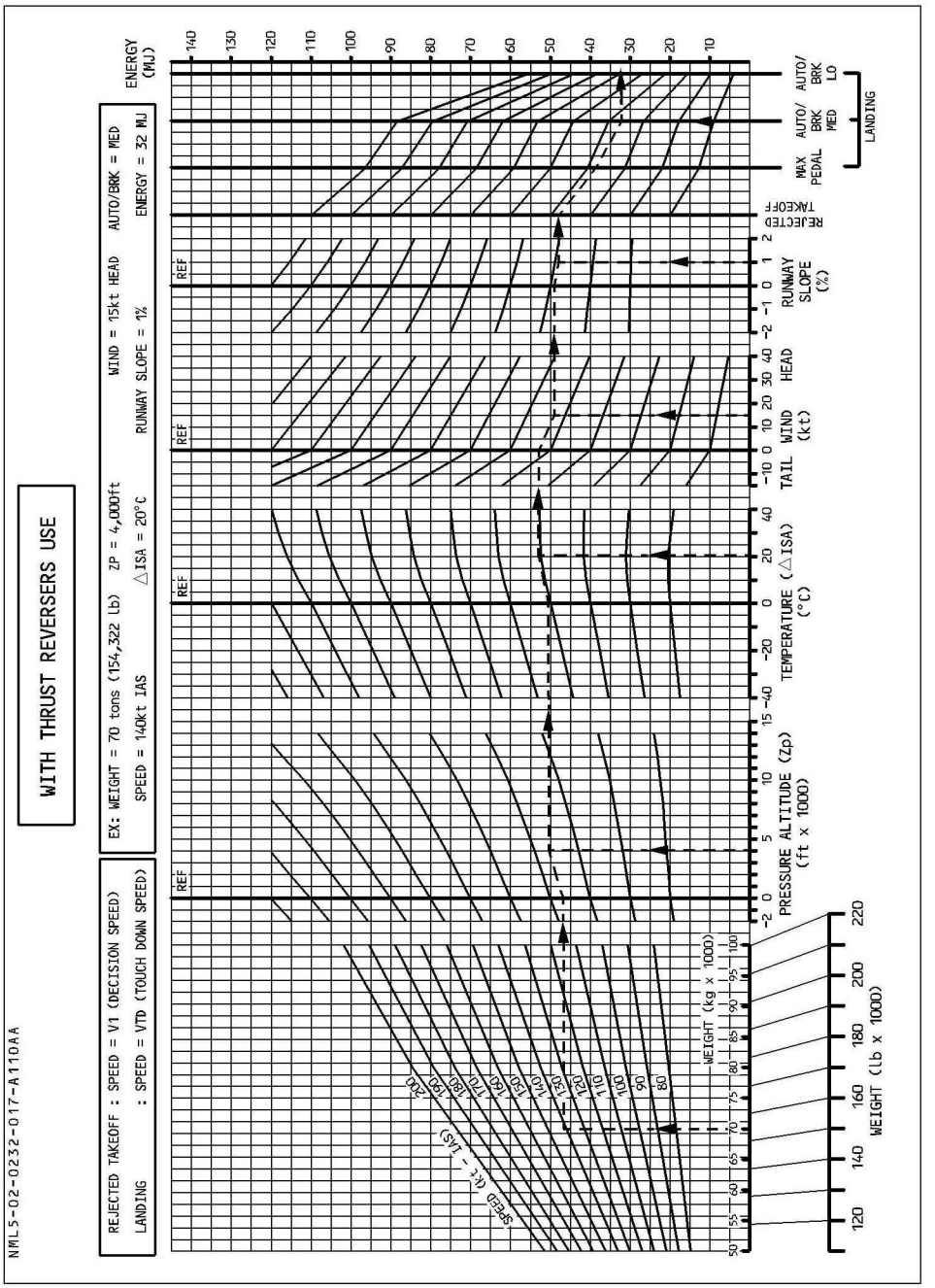
32-60-03 Indications on ECAM WHEEL Page



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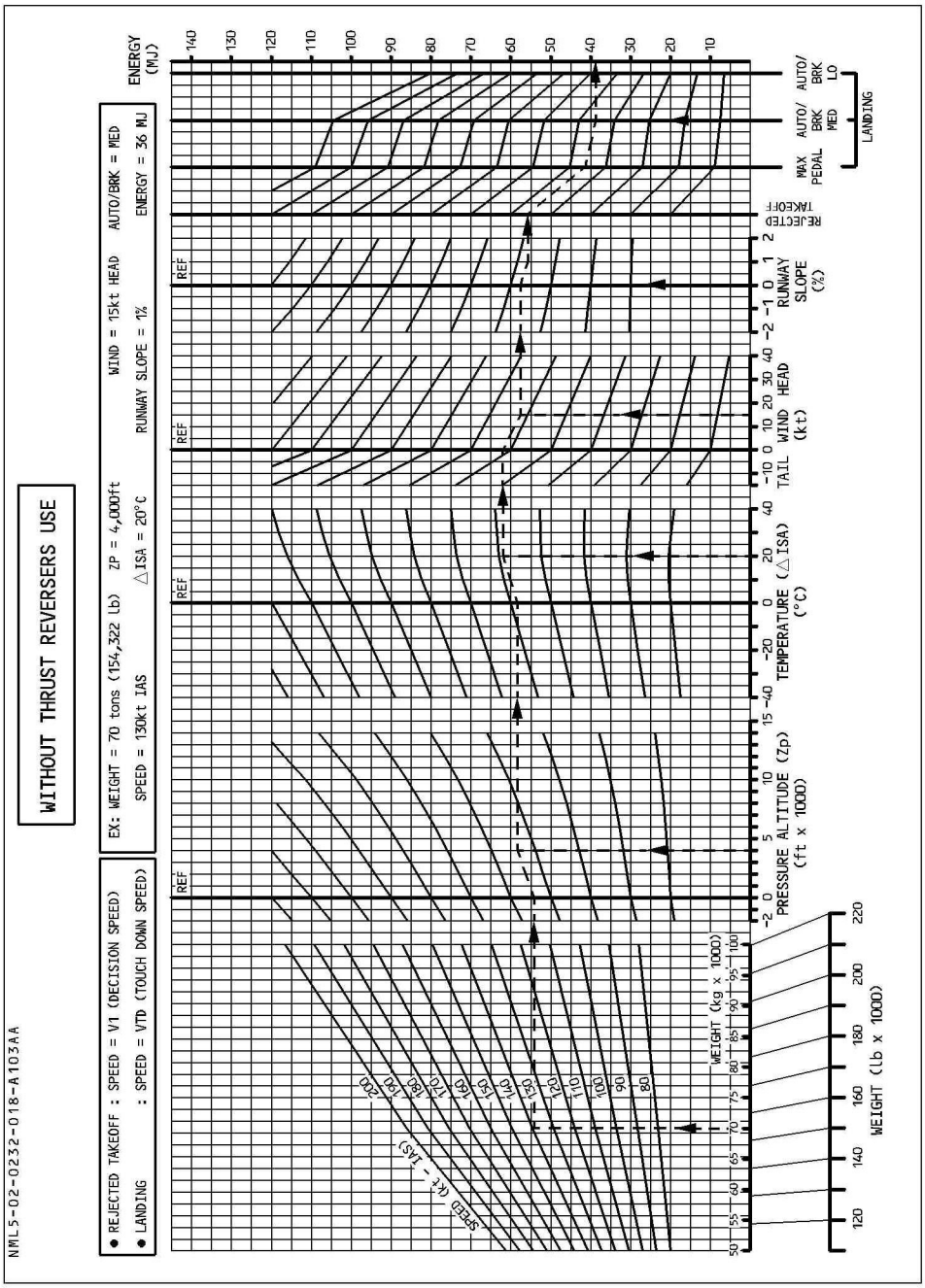
32-60-03 Indications on ECAM WHEEL Page



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32-60-03 Indications on ECAM WHEEL Page

GROUND BRAKE COOLING TIME (MN)

ENERGY PER WHEEL (MJ)	OAT (DEGREES 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*

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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, take 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 Minutes
- With brake cooling fan : 57 Minutes

32-60-03 Indications on ECAM WHEEL Page

C) L/G Doors Position Indication

MAX SPEED 250 kt/M0.60

H) Brakes Temperature

In case of false BRAKE HOT caution :
After engine start clear the brakes hot caution by depressing the EMER CANC pb.

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CAUTION : The TO CONFIG TEST pb must be maintained pressed while checking no warning presented.

(continued)

(continued)

32-60-03 Indications on ECAM WHEEL Page

The brake energy graph and the brake cooling time table given hereafter allow to determine the ground brake cooling time.

BRAKE ENERGY GRAPH

– Enter the brake energy graph :

WITH THRUST REVERSERS USE, if MAX REV was selected for all reversers during the braking phase,
or
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– Determination of the brake energy accumulated during a LANDING :
. Enter with the aircraft landing weight and with touch down speed in kt IAS.
. Apply airport pressure altitude, temperature, wind and runway slope corrections.
. Correct for brake setting with a preselected autobrake setting AUTO/BRK (LO, MED) or with MAX PEDAL braking in the other cases.

BRAKE COOLING TIME TABLE

– Determination of the ground brake cooling time :

Enter the following table with the energy and the OAT to determine the ground brake cooling time.

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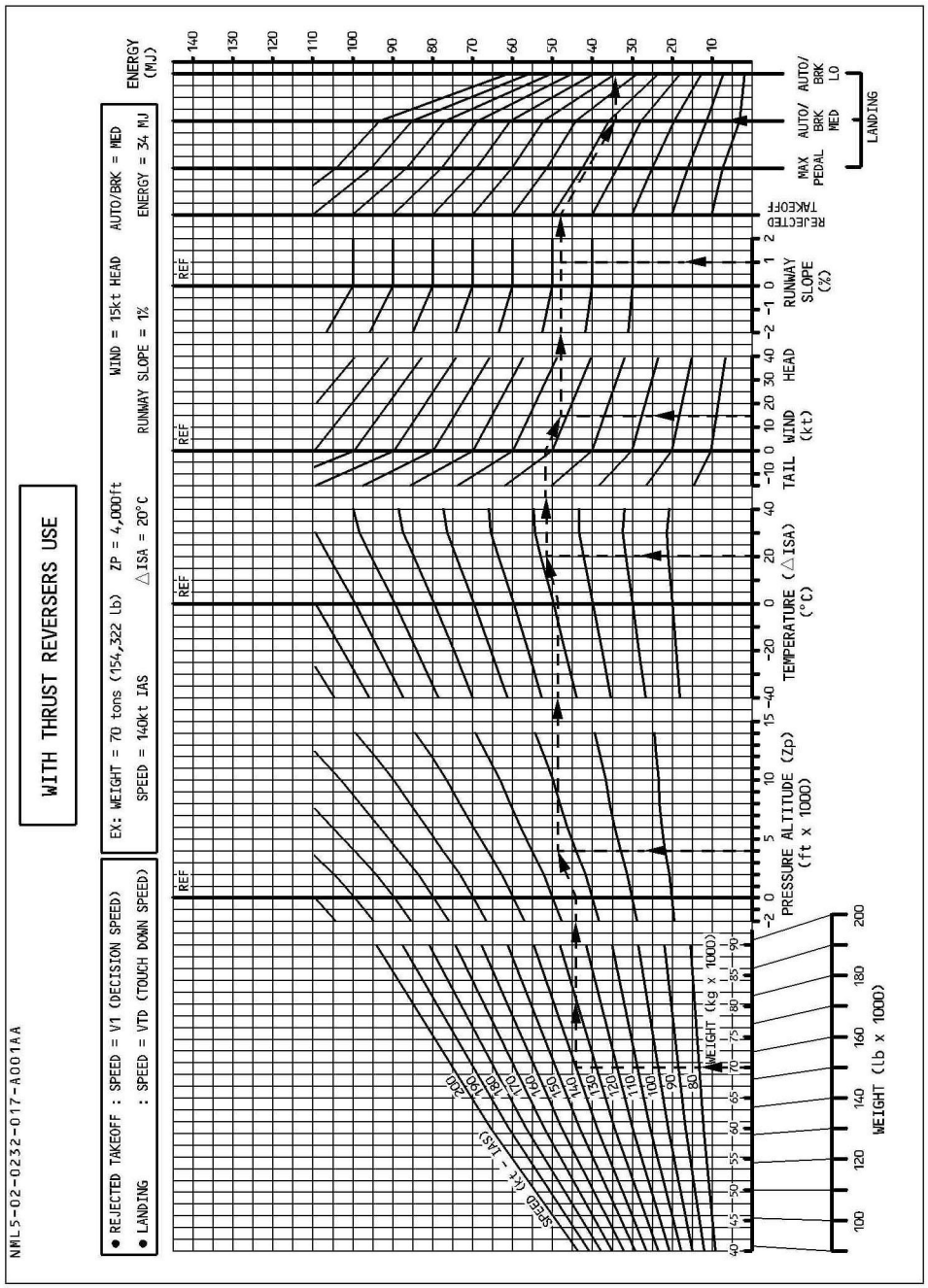
32-60-03 Indications on ECAM WHEEL Page



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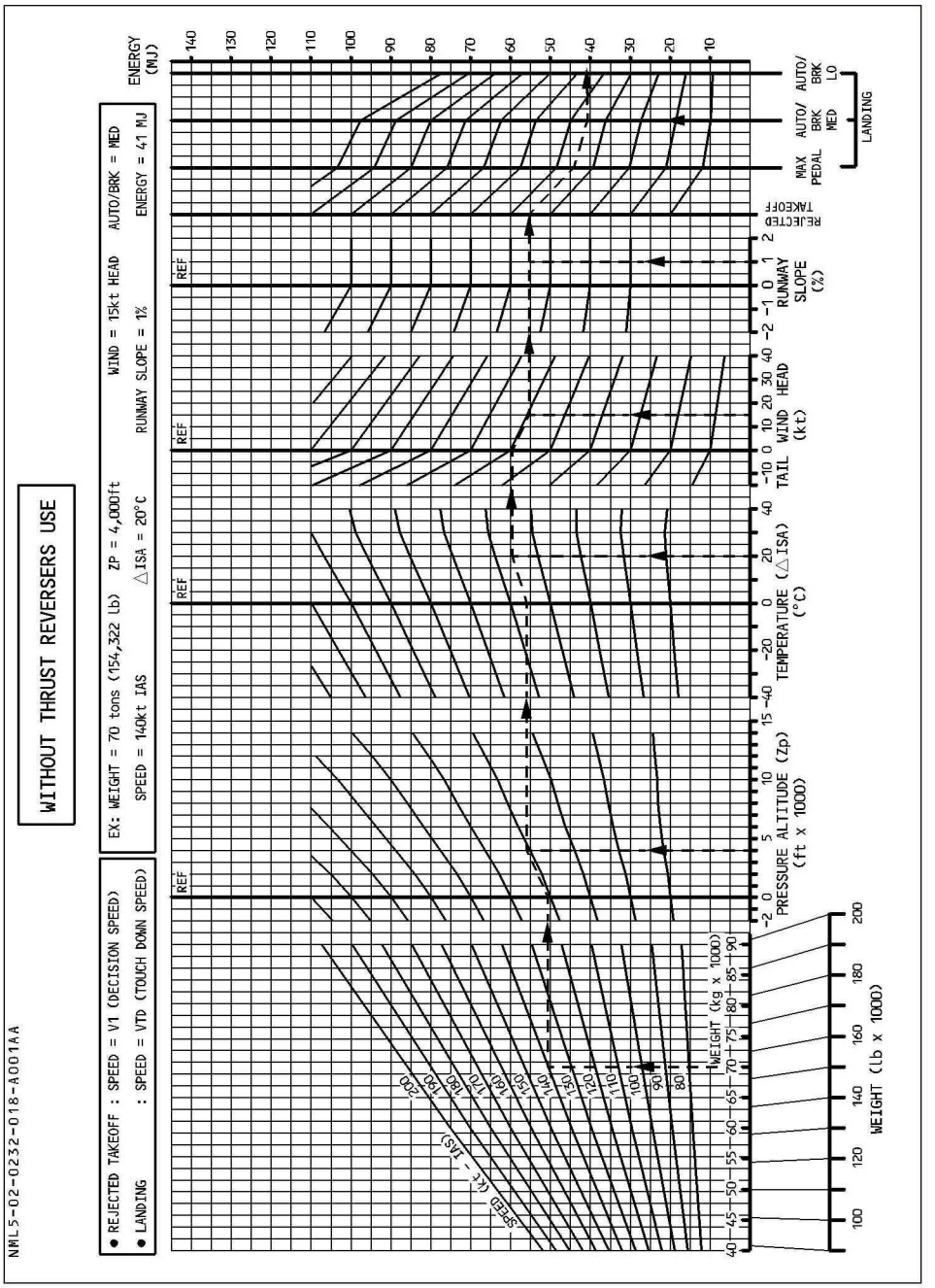
32-60-03 Indications on ECAM WHEEL Page



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32-60-03 Indications on ECAM WHEEL Page

GROUND BRAKE COOLING TIME (MN)

ENERGY PER WHEEL (MJ)	OAT (DEGREES 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*

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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, take 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 Minutes
- With brake cooling fan : 57 Minutes

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33-20-03 Lavatory Sign (Return to Seat)

Check that the passenger address system is operative in the affected lavatory with the door closed.

33-40-02 Landing lights

40-02 Landing Lights
B) Extension/Retraction system
a)
Fuel consumption is increased by 1 % per landing light extended.

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34-10-01 ADIRS

A) IR

a)
Set corresponding IR mode rotary selector at OFF.
If IR 2 affected :
ATT HDG selector.....F/O 3
AIR DATA SELECTOR.....F/O 3
Take off in CONF 1+F is not allowed when IR2 is selected off.

Note: Associated ADR is consequently selected OFF.

b)
- If IR1 NAV mode is inoperative :
  ATT HDG selector.....CAPT 3
  IR1 mode selector.....ATT
- If IR2 NAV mode is inoperative :
  ATT HDG selector.....F/O 3
  IR2 mode selector.....ATT
  The heading must be entered through the CDU keyboard for the affected IR and has to be reset frequently (refer to IR ALIGNMENT IN ATT MODE procedure in FCOM 3.02.34).

B) ADR

Set corresponding ADR pb sw at OFF.

- If ADR2 inoperative.
  AIR DATA SELECTOR.....F/O 3
  Open C/B ADIRS/ADIRU/2/26VAC AND AOA (location 121VU N08 or N09 (alternate location))
  Take off in CONF 1+F is not allowed when ADR2 is selected off.

- If ADR3 inoperative :
  Open C/B ADIRS/ADIRU/3/26VAC AND AOA (location 121VU N07 or N08 (alternate location))

After engine start :
Use RCL pb sw on ECAM CTL panel, in order to recall ADR FAULT warning.
Check that ECAM does not display the associated "ADR....OFF" procedure.

34-13-01 INDICATIONS ON PFD

F) Other Air Data Related Indications

For F, S, Green Dot or VAPP determination, Refer to QRH.
For VFE, or VLE determination, Refer to corresponding placard in the cockpit.

34-21-02 Standby Altimeter

Refer to 34-21-01 in section Operational procedures.

34-22-01 Standby Horizon

During cockpit preparation :

ATT HDG sel.....CAPT 3
Check normal display on CAPT PFD, ND and RMI VOR
ATT HDG sel.....F/0 3
Check normal display on F/0 PFD, ND
ATT HDG sel.....NORM
EIS DMC.....CAPT 3
Check normal display on CAPT PFD, ND
EIS DMC.....F/0 3
Check normal display on F/0 PFD, ND
EIS DMC.....NORM

34-22-02 Standby Compass

During cockpit preparation :

ATT HDG sel.....CAPT 3
Check normal display on CAPT PFD, ND and RMI VOR
ATT HDG sel.....F/0 3
Check normal display on F/0 PFD, ND
ATT HDG sel.....NORM
EIS DMC.....CAPT 3
Check normal display on CAPT PFD, ND
EIS DMC.....F/0 3
Check normal display on F/0 PFD, ND
EIS DMC.....NORM
CAPT PFD/ND.....XFR
Check that CAPT PFD and ND images are interchanged
CAPT PFD/ND.....XFR
F/0 PFD/ND.....XFR
Check that F/0 PFD and ND images are interchanged
F/0 PFD/ND.....XFR

34-42-01 Radio Altimeter System

- If R/A1 inoperative.
  C/B COM NAV/RAD ALTM/1 (121VU K11).....PULL
- If R/A2 inoperative.
  C/B COM NAV/RAD ALTM/2 (121VU K12).....PULL

34-48-01 GPWS (Ground Proximity Warning System)

Establish alternate procedures for use when the GPWS or advisory callouts are inoperative. 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 FMGS) and approach altitude callouts.

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35-10-04 Exterior Oxygen Overpressure Indicator Disc (green disc)

During cockpit preparation before the first flight of each day verify as follows that oxygen pressure is not decreasing :

- check OXY pressure indication on ECAM DOOR/OXY page twice with a 15 minutes interval between each check.

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36-00-01 AIR BLEED

Takeoff :

If APU bleed supplies the air conditioning packs :
ENG BLEED.....OFF
Above acceleration altitude and before FL200
ENG BLEED.....ON
APU BLEED.....OFF

36-11-01 Bleed Air Supply System

For take off, switch OFF the packs or use APU bleed.

36-11-06 Intermediate Pressure Check Valve (IP)

b)
At low power setting (During taxiing and during descent when engines operate in thrust idle) :
- Associated ENG 1(2) BLEED pb sw.....OFF
- X BLEED sel.....OPEN

If WING ANTI ICE is required :
- ONE PACK.....OFF

During take-off, climb, and cruise :
- Associated ENG 1(2) BLEED pb sw.....ON
- X BLEED sel.....AUTO

36-11-07 High Pressure valve (HPV)

b)
Refer to 36-11-06 in Operational procedures section.

36-12-02 APU BLEED valve

b)
When APU is running, APU BLEED pb sw must be set at ON.
After APU has been switched OFF, APU BLEED pb sw must be set at OFF.

36-12-04 CROSS BLEED VALVE

During cockpit preparation
X BLEED sel.....OPEN
Check on ECAM BLEED page that the crossbleed valve position indication shows open.
X BLEED sel.....SHUT
Check on ECAM BLEED page that the crossbleed valve position indication shows closed.
X BLEED sel.....AUTO

52-10-01 Cabin Passenger Door

One Cabin Passengers Door/Emergency Exit may be inoperative providing the following policy is strictly followed:

1. Passenger seating layout is divided into two zones: ZONE A (rows from 1 to 7) and ZONE B (rows from 8 to 21), as shown on the aeroplane plan.

   Note: The A319 has three pair of exits (front, overwing and aft). Exit pair number 4 is the pair of aft exits, the exit numbering system is retained from the A320 series for documentary commonality between the two aircraft series.

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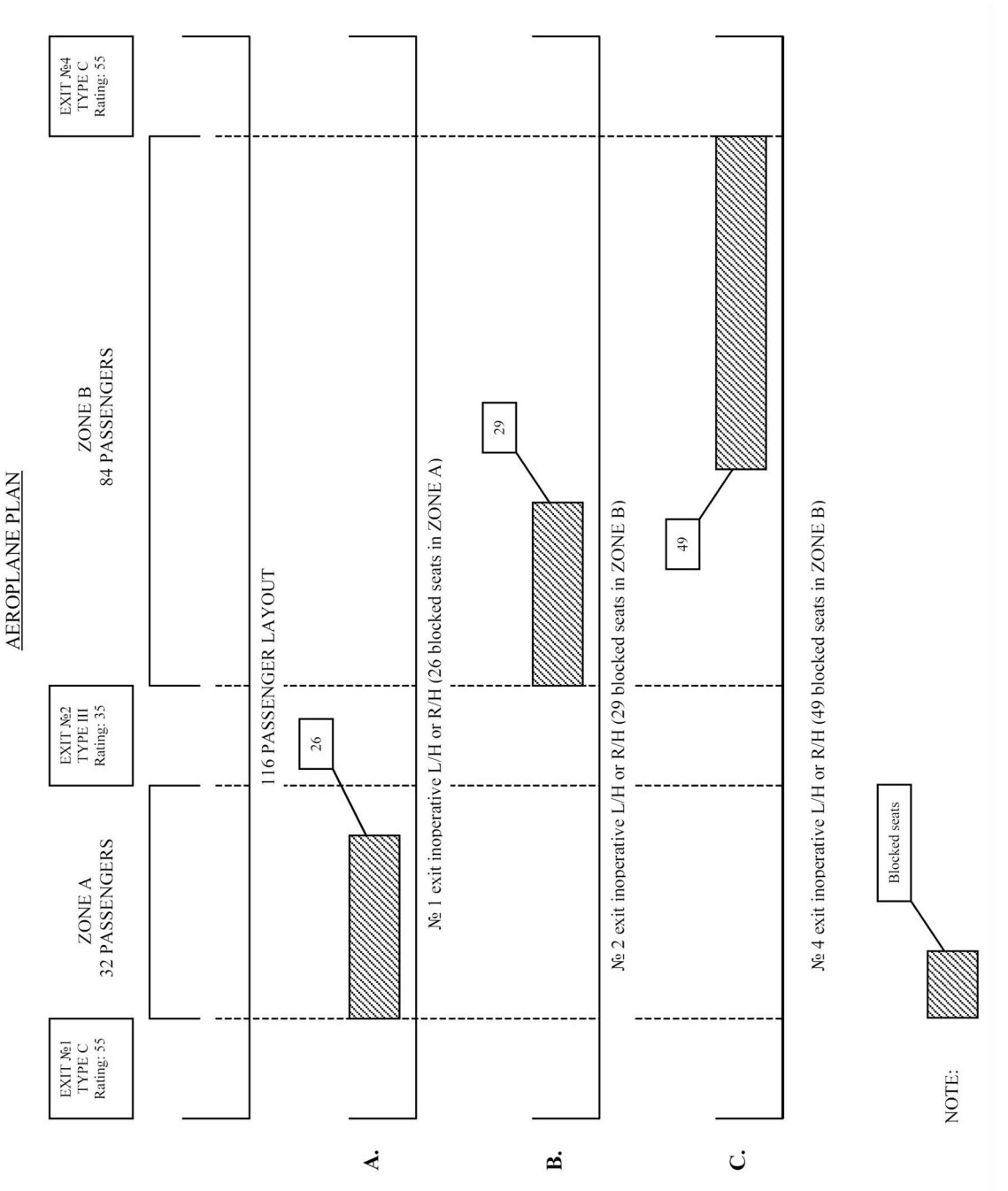
52-10-01 Cabin Passenger Door



2. In no case limitations set out by the permitted aeroplane capacity table should be exceeded.

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52-10-01 Cabin Passenger Door

Note: The calculation of reduced passenger capacity assumes that the other exit of the exit pair is also inoperative.

PERMITTED AEROPLANE CAPACITY TABLE

	Number 1 Exit Inop. L/H or R/H Passenger Exit Rating: 55	**Number 2** Exit Inop. L/H or R/H Passenger Exit Rating: 35	**Number 4** Exit Inop. L/H or R/H Passenger Exit Rating: 55
Passenger capacity of ZONE A	6 6 Pax leave by exit № 2	32 32 Pax leave by exit № 1	32 32 Pax leave by exit № 1
Passenger capacity of ZONE B	84 29 Pax leave by exit № 2 55 Pax leave by exit № 4	55 55 Pax leave by exit № 4	35 35 Pax leave by exit № 2
Total number of seats to be blocked by inoperative exit	26	29	49
Permitted aeroplane capacity	90	87	67

3. The inoperative exit must be secured closed prior to passengers boarding and must not be used for any purpose whilst passengers are on board. In the event of an exit that has been used for boarding becoming unserviceable, then, prior to take-off, all passengers must be fully briefed on the inoperative exit and the revised emergency procedures to be used.

4. When load factor permits, passengers should be seated as far away from the inoperative exit as the aeroplane mass and balance allows, within the constraints of the permitted aeroplane capacity table. Liaison with the flight deck crew on this issue is essential.

5. All the emergency exit and/or exit markings, signs and lights associated with the affected exit must be obscured prior to passenger embarkation. The exit unserviceable placard must be affixed to the inoperative exit prior to passenger embarkation.

6. In the affected zone closest to the inoperative exit seats shall be blocked off with conspicuous tapes or ropes that contrast with the interior, prior to loading passengers. Only the seats in these areas shall be blocked: passenger aisles, cross aisles and exits must not be blocked.

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52-10-01 Cabin Passenger Door

7. The senior cabin crew member should include the following in a special pre-departure briefing of all cabin crew members:
   a) Awareness of all crew members of the condition and location of the inoperative exit,
   b) Revision of passenger pre-flight safety briefing,
   c) Revision of emergency drills for all affected crew member(s). This should take into account assessment of exit, redirection strategy and any other appropriate evacuation techniques for cabin crew member(s) normally responsible for the operation of the inoperative exit.

   Cabin crew should identify the status of other exits in their vicinity and passenger movement to operative exits, away from inoperative exits.

   Note: In the event of an emergency evacuation being required, in extreme circumstances, as a last resort it may be possible for the exit to be used i.e. if no other exits are available. For example an exit without a slide on one side of the aeroplane in an undercarriage collapse situation, may provide a suitable means of egress. Cabin crew must assess the conditions on the day and make appropriate judgements as to possible actions.

52-10-01 Cabin Passenger Door

One Cabin Passengers Door/Emergency Exit may be inoperative providing the following policy is strictly followed:

1. Passenger seating layout is divided into two zones: ZONE A (rows from 1 to 9) and ZONE B (rows from 10 to 25), as shown on the aeroplane plan.

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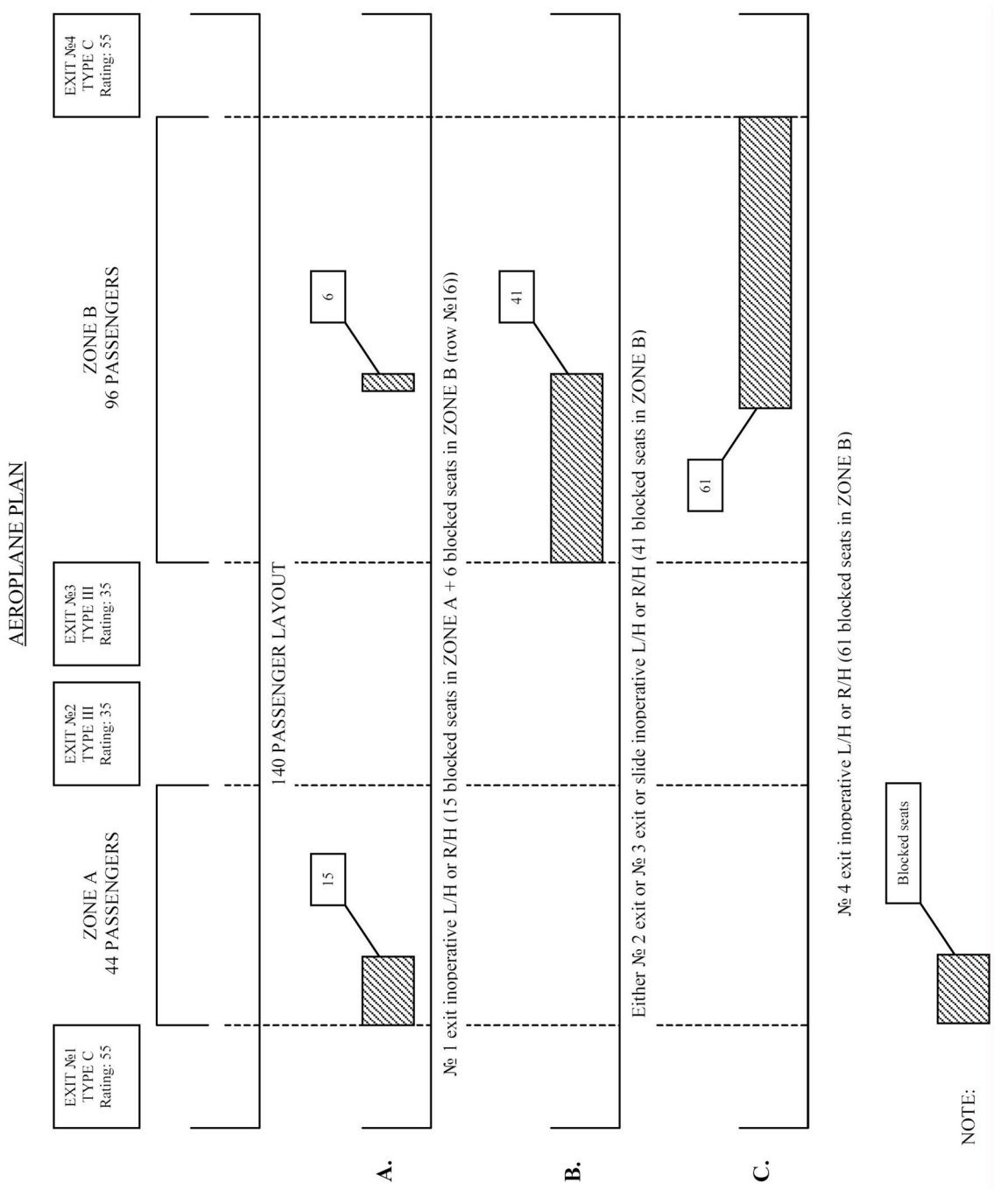
52-10-01 Cabin Passenger Door



2. In no case limitations set out by the permitted aeroplane capacity table should be exceeded.

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52-10-01 Cabin Passenger Door

Note: The calculation of reduced passenger capacity assumes that the other exit of the exit pair is also inoperative.

PERMITTED AEROPLANE CAPACITY TABLE

	Number 1 Exit Inop. L/H or R/H Passenger Exit Rating: 55	**Number 2** or **Number 3** Exit Inop. L/H or R/H or Slide Inop Passenger Exits Rating: 70	**Number 4** Exit Inop. L/H or R/H Passenger Exit Rating: 55
Passenger capacity of ZONE A	29 29 Pax leave by exit № 2	44 44 Pax leave by exit № 1	44 44 Pax leave by exit № 1
Passenger capacity of ZONE B	90 35 Pax leave by exit № 3 55 Pax leave by exit № 4	55 55 Pax leave by exit № 4	35 35 Pax leave by exit № 3
Total number of seats to be blocked by inoperative exit	21	41	61
Permitted aeroplane capacity	119	99	79

Note: This table is calculated in assumption that when any of overwing exit or associated slide or associated exit sign is unserviceable at that time all of them are considered out of service. Twin over-wing emergency exits are considered as a single exit when an associated slide or common exit sign is unserviceable.

3. The inoperative exit must be secured closed prior to passengers boarding and must not be used for any purpose whilst passengers are on board. In the event of an exit that has been used for boarding becoming unserviceable, then, prior to take-off, all passengers must be fully briefed on the inoperative exit and the revised emergency procedures to be used.

4. When load factor permits, passengers should be seated as far away from the inoperative exit as the aeroplane mass and balance allows, within the constraints of the permitted aeroplane capacity table. Liaison with the flight deck crew on this issue is essential.

5. All the emergency exit and/or exit markings, signs and lights associated with the affected exit must be obscured prior to passenger embarkation. The exit unserviceable placard must be

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52-10-01 Cabin Passenger Door

affixed to the inoperative exit prior to passenger embarkation.

6. In the affected zone closest to the inoperative exit seats shall be blocked off with conspicuous tapes or ropes that contrast with the interior, prior to loading passengers. Only the seats in these areas shall be blocked: passenger aisles, cross aisles and exits must not be blocked.

7. The senior cabin crew member should include the following in a special pre-departure briefing of all cabin crew members:
   a) Awareness of all crew members of the condition and location of the inoperative exit,
   b) Revision of passenger pre-flight safety briefing,
   c) Revision of emergency drills for all affected crew member(s). This should take into account assessment of exit, redirection strategy and any other appropriate evacuation techniques for cabin crew member(s) normally responsible for the operation of the inoperative exit.

   Cabin crew should identify the status of other exits in their vicinity and passenger movement to operative exits, away from inoperative exits.

   Note: In the event of an emergency evacuation being required, in extreme circumstances, as a last resort it may be possible for the exit to be used i.e. if no other exits are available. For example an exit without a slide on one side of the aeroplane in an undercarriage collapse situation, may provide a suitable means of egress. Cabin crew must assess the conditions on the day and make appropriate judgements as to possible actions.

52-10-01 Cabin Passenger Door/Emergency Exit

One Cabin Passengers Door/Emergency Exit may be inoperative providing the following policy is strictly followed:

1. Passenger seating layout is divided into two zones: ZONE A (rows from 1 to 7), ZONE B (rows from 8 to 18) and ZONE C (rows from 19 to 31), as shown on the aeroplane plan.

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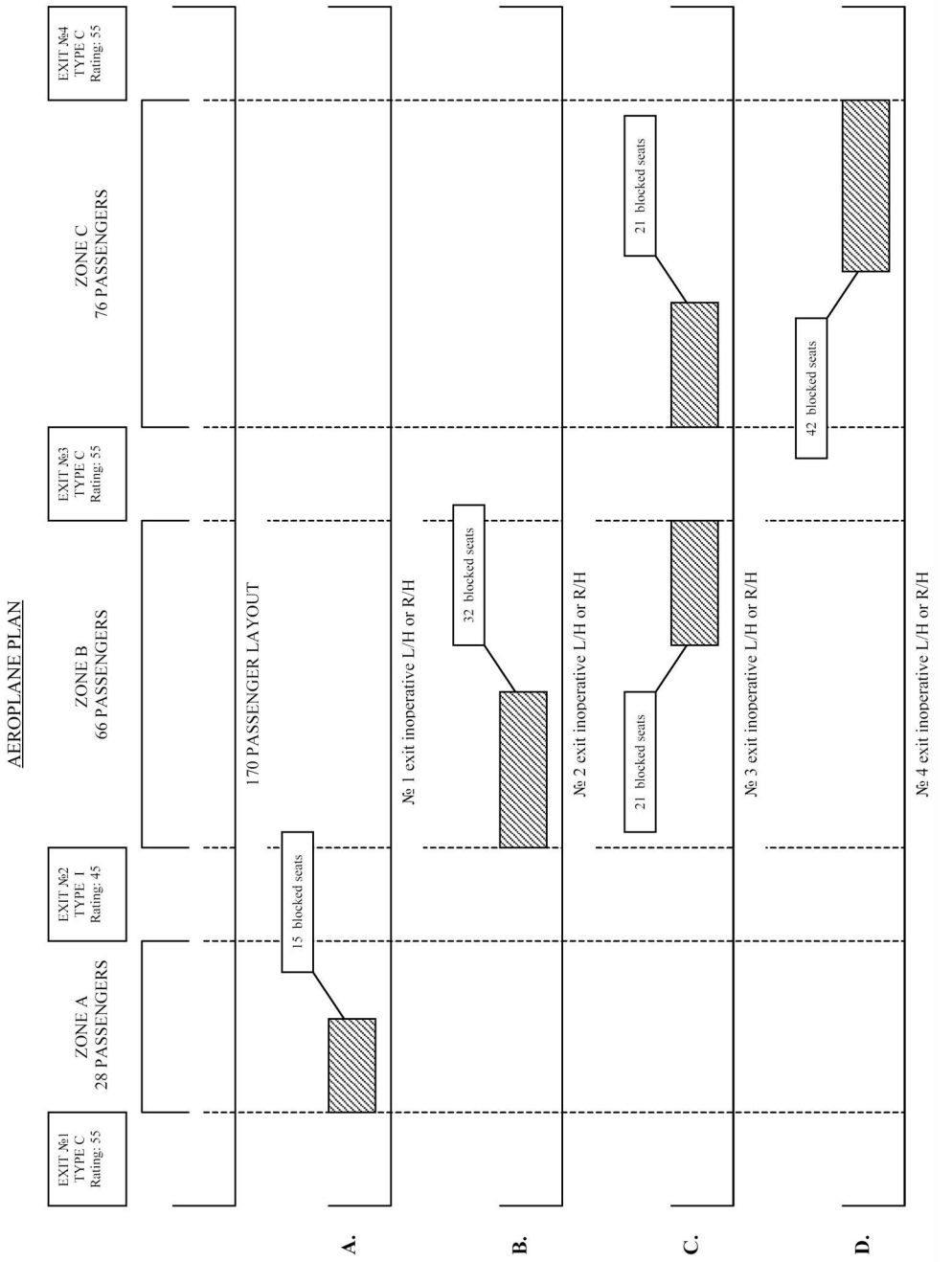
52-10-01 Cabin Passenger Door/Emergency Exit



2. In no case limitations set out by the permitted aeroplane capacity table should be exceeded.

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52-10-01 Cabin Passenger Door/Emergency Exit

Note: The calculation of reduced passenger capacity assumes that the other exit of the exit pair is also inoperative.

PERMITTED AEROPLANE CAPACITY TABLE

	Number 1 Exit Inop. L/H or R/H Passenger Exit Rating: 55	**Number 2** Exit Inop. L/H or R/H Passenger Exit Rating: 45	**Number 3** Exit Inop. L/H or R/H Passenger Exit Rating: 55	**Number 4** Exit Inop. L/H or R/H Passenger Exit Rating: 55
Passenger capacity of ZONE A	13 13 Pax leave by exit № 2	28 28 Pax leave by exit № 1	28 28 Pax leave by exit № 1	28 28 Pax leave by exit № 1
Passenger capacity of ZONE B	66 32 Pax leave by exit № 2 34 Pax leave by exit № 3	34 34 Pax leave by exit № 3	45 45 Pax leave by exit № 2	66 45 Pax leave by exit № 2 21 Pax leave by exit № 3
Passenger capacity of ZONE C	76 21 Pax leave by exit № 3 55 Pax leave by exit № 4	76 21 Pax leave by exit № 3 55 Pax leave by exit № 4	55 55 Pax leave by exit № 4	34 34 Pax leave by exit № 3
Total number of seats to be blocked by inoperative exit	15	32	42	42
Permitted aeroplane capacity	155	138	128	128

3. The inoperative exit must be secured closed prior to passengers boarding and must not be used for any purpose whilst passengers are on board. In the event of an exit that has been used for boarding becoming unserviceable, then, prior to take-off, all passengers must be fully briefed on the inoperative exit and the revised emergency procedures to be used.

4. When load factor permits, passengers should be seated as far away from the inoperative exit as the aeroplane mass and balance allows, within the constraints of the permitted aeroplane capacity table. Liaison with the flight deck crew on this issue is essential.

5. All the emergency exit and/or exit markings, signs and lights associated with the affected exit must be obscured prior to passenger embarkation. The exit unserviceable placard must be affixed to the inoperative exit prior to passenger embarkation.

6. In the affected zone closest to the inoperative exit seats shall be blocked off with conspicuous tapes or ropes that contrast

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with the interior, prior to loading passengers. Only the seats in these areas shall be blocked: passenger aisles, cross aisles and exits must not be blocked.

7. The senior cabin crew member should include the following in a special pre-departure briefing of all cabin crew members:
   a) Awareness of all crew members of the condition and location of the inoperative exit,
   b) Revision of passenger pre-flight safety briefing,
   c) Revision of emergency drills for all affected crew member(s). This should take into account assessment of exit, redirection strategy and any other appropriate evacuation techniques for cabin crew member(s) normally responsible for the operation of the inoperative exit.

   Cabin crew should identify the status of other exits in their vicinity and passenger movement to operative exits, away from inoperative exits.

   Note: In the event of an emergency evacuation being required, in extreme circumstances, as a last resort it may be possible for the exit to be used i.e. if no other exits are available. For example an exit without a slide on one side of the aeroplane in an undercarriage collapse situation, may provide a suitable means of egress. Cabin crew must assess the conditions on the day and make appropriate judgements as to possible actions.

52-10-02 Overwing Emergency Exit

Refer to item 52-10-01 operational procedures.

52-10-02 Overwing Emergency Exit

Refer to item 52-10-01 operational procedures.

52-50-02 Cockpit Door Locking System (CDLS)

Before the flight:
Cockpit crew will brief cabin crew that the keypad is inoperative. Alternate normal procedures will be established before departure in order to remind the cabin crew to use the cabin interphone to communicate with cockpit crew to request access to the cockpit.

52-50-02 Cockpit Door Locking System (CDLS)

Crew procedure (AFL):
a) Normal access:
Cabin crew:
- Call cockpit crew via the cockpit or cabin interphone, to request access permission. When access approved, appear in front of the door window at the distance more then one metre, to be observed visually and wait for the door opening

Cockpit crew:
If access desired
- CPT. Order additional crewmember to open the door.
  ADDITIONAL CREWMEMBER visually observes the person through door window, then open the door manually.

b) Emergency access:
In case of any in-flight emergency, or after aborted take off, or in preparation for emergency landing additional crew member shell open and latch the door in open position by captain’s request to ensure emergency access.

In any phase of flight not less then three person must be present in the cockpit.

52-50-02 A) 1) UNLOCK Function

In case of inoperative toggle switch electrical command (Impossibility to unlock the door), the door can be opened from the cockpit by using the D-shaped handle fitted on the center latch of the door.

Crew procedure (AFL):
a) Normal access:
Cabin crew:
- Call cockpit crew via the cockpit/cabin interphone, to request access permission. When access approved, appear in front of the door window at the distance more then one metre, to be observed visually and wait for the door opening.

Cockpit crew:
If access desired

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52-50-02 Cockpit Door Locking System (CDLS)

- CPT. Order additional crewmember to open the door.
ADDITIONAL CREWMEMBER visually observes the person through door window, then open the door manually.

b) Emergency access:
In case of any in-flight emergency, or after aborted take off, or in preparation for emergency landing additional crew member shell open and latch the door in open position by captain's request to ensure emergency access.

In any phase of flight not less then three person must be present in the cockpit.

52-50-02 A) 2) LOCK Function

Crew procedure (AFL):
a) Normal access:
Cabin crew:
- Call cockpit crew via the cockpit/cabin interphone, to request access permission. When ready to enter, knock the door, than push the door to enter.

Cockpit crew (If access desired):
- CPT. When hear the door knock, select the door switch on the overhead panel to "UNLOCK" position.

b) Emergency access:
In case of any in-flight emergency, or after aborted take off, or in preparation for emergency landing additional crew member shell open and latch the door in open position by captain's request to ensure emergency access.

In any phase of flight not less then three person must be present in the cockpit.

52-50-02 B) OPEN Light

Crew procedure (AFL):
Each time the door closed check that the three STRIKE LED's are not illuminated on the CKPT DOOR CONT panel to ensure the door is closed and locked.

52-50-02 C) FAULT Light

Crew procedure (AFL):
Each time the door closed check that the three STRIKE LED's are not

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52-50-02 Cockpit Door Locking System (CDLS)

illuminated on the CKPT DOOR CONT panel to ensure the door is closed and locked.

52-50-02 D) Buzzer

Crew procedure (AFL):
a) Normal access:
Cabin crew:
- Call cockpit crew via the cockpit/cabin interphone, to request access permission. When ready to enter, knock the door, than push the door to enter.

Cockpit crew (If access desired):
- CPT. When hear the door knock, select the door switch on the overhead panel to "UNLOCK" position.

b) Emergency access:
In case of any in-flight emergency, or after aborted take off, or in preparation for emergency landing additional crew member shell open and latch the door in open position by captain's request to ensure emergency access.

In any phase of flight not less then three person must be present in the cockpit.

52-50-02 E) 1) Keypad

Crew procedure (AFL):
a) Normal access:
Cabin crew:
- Call cockpit crew via the cockpit/cabin interphone, to request access permission. When ready to enter, knock the door, than push the door to enter.

Cockpit crew (If access desired):
- CPT. When hear the door knock, select the door switch on the overhead panel to "UNLOCK" position.

b) Emergency access:
In case of any in-flight emergency, or after aborted take off, or in preparation for emergency landing additional crew member shell open and latch the door in open position by captain's request to ensure emergency access.

In any phase of flight not less then three person must be present in the cockpit.

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52-50-02 Cockpit Door Locking System (CDLS)

52-50-02 E) 2) Green and Red LED's

Crew procedure (AFL):
a) Normal access:
Cabin crew:
- Use normal access procedure. Listen to the lock sound to open the door.

Cockpit crew
- Normal procedure.

b) Emergency access:
- Use standard emergency access procedure. Listen to the buzzer sound to open the door. Remember, that access possible 5 seconds after buzzer stops, than inhibited for 5 minutes.

52-50-02 F) Door Release Strike

Crew procedure (AFL):
Each time the door closed check that the associated two (one) STRIKE LED's are not illuminated on the CKPT DOOR CONT panel to ensure the door is closed and locked.

52-50-02 H) CKPT DOOR CONT Panel LED's

The status of the door solenoids and the pressure sensors are no more available on the CKPT DOOR CONT panel. However the failure is still detected through the illumination of the FAULT light on the COCKPIT DOOR panel. Check that the FAULT light comes on when lamp test is performed by setting the ANN LT switch on the TEST position.

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

In case of false door warning :
After engine start clear the door warning by depressing the EMER CANC pb.

Note: After having performed the TO CONFIG TEST the T.O MEMO display line "TO CONFIG..... TEST" will not be replaced by the line "TO CONFIG NORMAL" and will remain displayed. Consider normal configuration for TO provided no warning presented during TO CONFIG TEST.

CAUTION: The TO CONFIG TEST pb must be maintained pressed while checking no warning presented.

Note:
1) If passenger doors are affected, indications on Programming and Test Panel and on Forward Attendant Panel, if installed, may be also affected.
2) If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.
3) If cargo indication is inoperative due to a proximity switch failure, the relevant cargo heating (if installed) is inhibited. For livestock transportation refer to Livestock Transportation Manual.

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

In case of false door warning :
After engine start clear the door warning by depressing the EMER CANC pb.

Note: After having performed the TO CONFIG TEST the T.O MEMO display line "TO CONFIG..... TEST" will not be replaced by the line "TO CONFIG NORMAL" and will remain displayed. Consider normal configuration for TO provided no warning presented during TO CONFIG TEST.

CAUTION: The TO CONFIG TEST pb must be maintained pressed while checking no warning presented.

Note:
1) If passenger doors are affected, indications on Programming and Test Panel and on Forward Attendant Panel, if installed, may be also affected.
2) If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.
3) If cargo indication is inoperative due to a proximity switch failure, the relevant cargo heating (if installed) is inhibited. For livestock transportation refer to Livestock Transportation Manual.

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

In case of false door warning :
After engine start clear the door warning by depressing the EMER CANC pb.

Note: After having performed the TO CONFIG TEST the T.O MEMO display line "TO CONFIG..... TEST" will not be replaced by the line "TO CONFIG NORMAL" and will remain displayed. Consider normal configuration for TO provided no warning presented during TO CONFIG TEST.

CAUTION: The TO CONFIG TEST pb must be maintained pressed while checking no warning presented.

Note:
1) If passenger doors or emergency exits are affected, indications on Programming and Test Panel and on Forward Attendant Panel, if installed, may be also affected.
2) If passenger doors are affected, the time recorded in the ACARS movement report may be wrong.
3) If cargo indication is inoperative due to a proximity switch failure, the relevant cargo heating (if installed) is inhibited. For livestock transportation refer to livestock transportation manual.

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73-20-03 Minimum Idle On Ground

- Takeoff performance :
  Decrease maximum takeoff weight by 300 kg (700 lb).
- Landing performance :
  Effect on performance is negligible.

73-20-03 Minimum Idle On Ground

Effect on performance is negligible.

74-31-01 Ignition System

A) System A

Before affected engine start
C/B ENGINE/1 and 2/IGN/SYS A (49 VU A03)..... OPEN
After affected engine start
C/B ENGINE/1 and 2/IGN/SYS A (49 VU A03)..... CLOSE

B) System B

Before affected engine(s) start
C/B ENGINE/IGN/(affected) ENG 1 (or 2)/SYS B
(121 VU P41/P42)..... OPEN

74-31-02 Indication on ECAM ENGINE page

After engines start :

- If engine 1 affected :
C/B ENGINE/1 AND 2/IGN/SYS A (49VU A03).....OPEN
C/B ENGINE/IGN/ENG 1 (121VU P39).....OPEN
C/B ENGINE/IGN/ENG 1 (121VU P41).....OPEN

- If engine 2 affected :
C/B ENGINE/1 AND 2/IGN/SYS A (49VU A03).....OPEN
C/B ENGINE/IGN/ENG 2 (121VU P40).....OPEN
C/B ENGINE/IGN/ENG 2 (121VU P42).....OPEN

Check on ECAM upper display that IGN FAULT warning is triggered.
Above C/B.....CLOSE

BLANK

78-30-01 Thrust Reverser

At landing :

Note: It is recommended not to select reverse thrust on the affected engine.

If ECAM warning "ENG (affected) REVERSE UNLOCKED" has been triggered during the flight, do not select reverse thrust on the affected engine.

BLANK

79-33-02 ENG 1(2) OIL LO PRESS Warning on ECAM E/WD

If both engines affected :

After engines start :
RCDR GND CTL.....CHECK ON

BLANK

80-11-01 Start valve

A) Valve

Engine start with start valve manual operation:

Advise ground crew to prepare for manual start valve operation
AUDIO CONTROL PANEL.....CAB

- When ground crew member is ready, order "START 1 or 2"
ENG MOD SEL.....IGN/START
MASTER sw.....ON
START VALVE.....ORDER "OPEN AND KEEP OPEN"

- When N2 at 50%:
START AIR VALVE.....ORDER CLOSURE
Continue with normal procedure.

Note: Starter assisted engine relight is not possible.

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Chapter 04

MAINTENANCE PROCEDURES

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24	ELECTRICAL	04-24-01
25	EQUIPMENT FURNISHING	04-25-01
26	FIRE PROTECTION	04-26-01
27	FLIGHT CONTROLS	04-27-01
28	FUEL	04-28-01
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32	LANDING GEAR	04-32-01
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21-26-01 Blower Fan

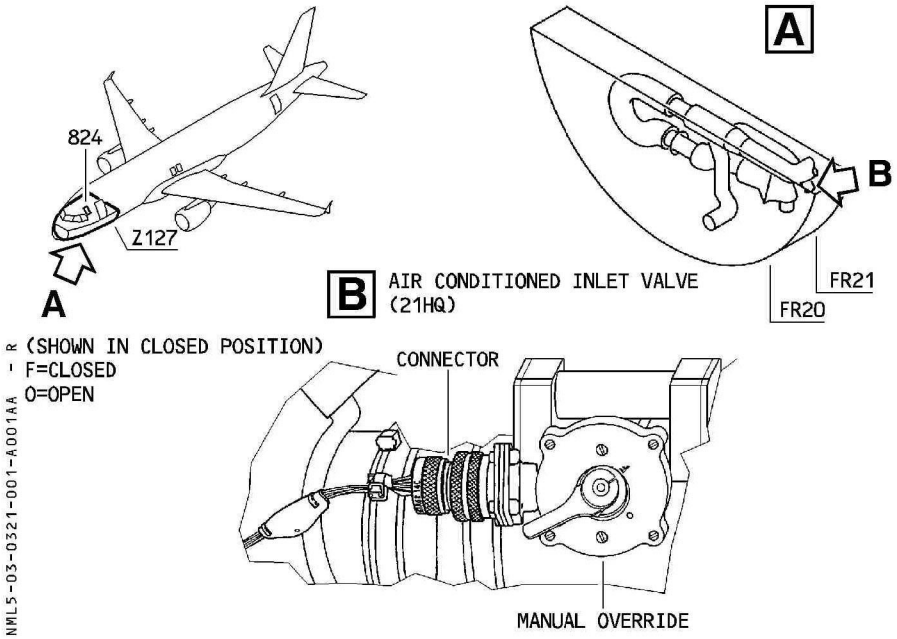
MAINTENANCE

21-26-01-b)	BLOWER FAN – AIR COND VALVE CHECK	
ACCESS ZONE : 824 / cockpit		**ACCESS ITEM** : direct
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**

PROCEDURE

1 – On VENTILATION panel 22 VU
Release BLOWER pushbutton switch. (OVRD legend come on)

2 – On avionics compartment
Check that air conditioned inlet valve 21 HQ is open, (the position indicator of the valve is at 0).



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21-26-01 Blower Fan

MAINTENANCE

21-26-01-c)	BLOWER FAN – AIR COND VALVE DEACTIVATION	
ACCESS ZONE : 824 / cockpit	ACCESS ITEM : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A. BLOWER

1 – On ventilation panel 22VU, release BLOWER pushbutton switch (OVRD legend comes on).

B. AIR CONDITIONED INLET VALVE OPENING (21HQ)

1 – Perform the deactivation in open position of the air conditioned inlet valve (21HQ) :
- REFER TO MMEL ITEM : 21-26-08 in section 03.

C. TEST

1 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test :
- Check that no other fault messages than related to the failure of the blower fan and the deactivation of the air conditioned inlet valve (21HQ), otherwise refer to associated MMEL valve item.

21-26-02 Extract Fan

MAINTENANCE

21-26-02-b)	EXTRACT FAN – AIR COND VALVE CHECK	
ACCESS ZONE : 824 / cockpit		ACCESS ITEM : direct
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – On ventilation panel 22VU
Release EXTRACT pushbutton switch (OVRD legend comes on)
If BLOWER FAULT warning appears, it means that extract fan may be seized.
Switch on the cabin fans or air conditioning and make sure that BLOWER FAULT warning disappears.
Note : The VENT AVNCS SYS FAULT ECAM caution is triggered.
Disregard and clear this caution.

2 – On avionics compartment
Check that air conditioned inlet valve 21 HQ is open (the position indicator of the valve is at 0).

3 – Time limitation on ground with electrical network supplied :

OAT (°C)	⩽ 38	45	55
Max time	No limit	3 h	35 mn

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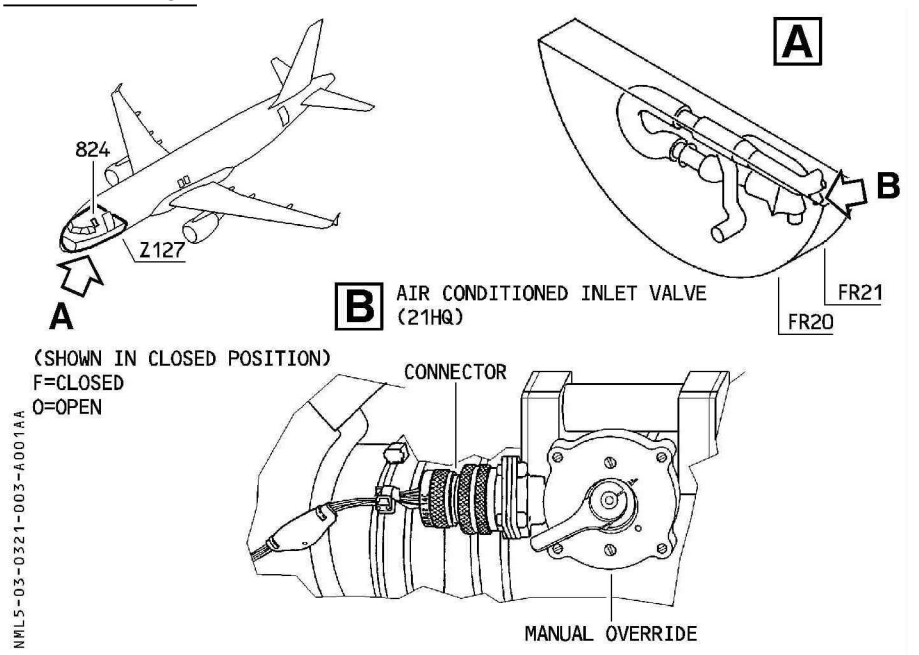
21-26-02 Extract Fan

MAINTENANCE



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21-26-02 Extract Fan

MAINTENANCE

21-26-02-c)	EXTRACT FAN – AIR COND VALVE DEACTIVATION	
ACCESS ZONE : 824 / cockpit	ACCESS ITEM : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A. EXTRACT

1 – On ventilation panel 22VU, release EXTRACT pushbutton switch (OVRD legend comes on).
2 – If BLOWER FAULT warning appears, it means that extract fan may be seized.
3 – Switch on the cabin fans or air conditioning and make sure that BLOWER FAULT warning disappears.

B. AIR CONDITIONED INLET VALVE OPENING (21HQ)

1 – Perform the deactivation in open position of the air conditioned inlet valve (21HQ) :
– REFER TO MMEL ITEM : 21-26-08 in section 03.

C. TEST

1 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test :
– Check that no other fault messages than related to the failure of the extract fan and the deactivation of the air conditioned inlet valve (21HQ), otherwise refer to associated MMEL valve item.

21-26-02 Extract Fan

MAINTENANCE

21-26-02-b)	EXTRACT FAN – AIR COND VALVE CHECK	
ACCESS ZONE : 824 / cockpit	**ACCESS ITEM** : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**

PROCEDURE

1 – On ventilation panel 22VU
Release EXTRACT pushbutton switch (OVRD legend comes on)
If BLOWER FAULT warning appears, it means that extract fan may be seized.
Switch on the cabin fans or air conditioning and make sure that BLOWER FAULT warning disappears.
Note : The VENT AVNCS SYS FAULT ECAM caution is triggered.
Disregard and clear this caution.

2 – On avionics compartment
Check that air conditioned inlet valve 21 HQ is open (the position indicator of the valve is at 0).

3 – Time limitation on ground with electrical network supplied :

OAT (°C)	⩽ 38	45	55
Max time	No limit	3 h	35 mn

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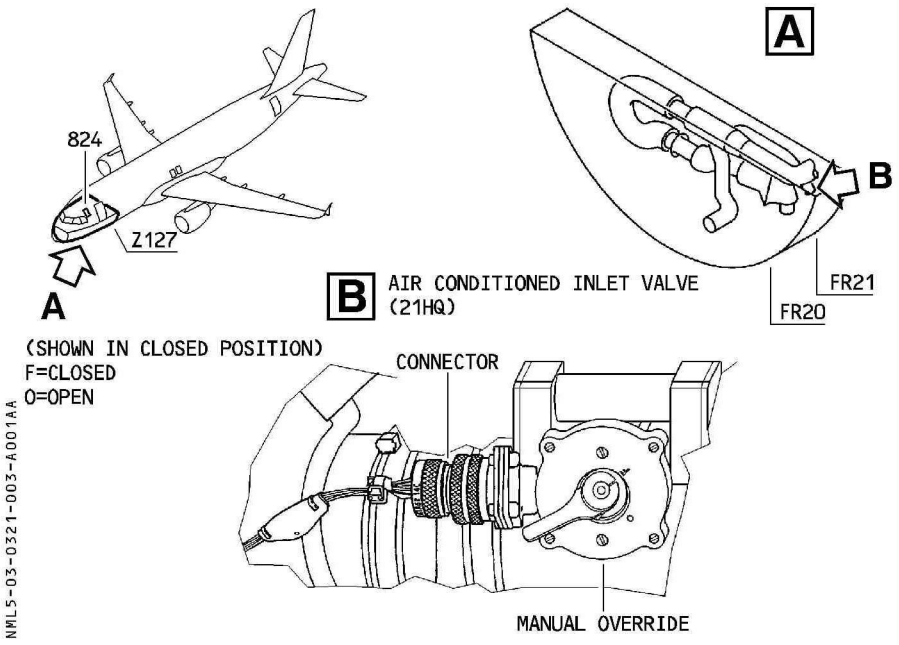
21-26-02 Extract Fan

MAINTENANCE



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21-26-02 Extract Fan

MAINTENANCE

21-26-02-c)	EXTRACT FAN – AIR COND VALVE DEACTIVATION	
ACCESS ZONE : 824 / cockpit	ACCESS ITEM : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A. EXTRACT

1 – On ventilation panel 22VU, release EXTRACT pushbutton switch (OVRD legend comes on).
2 – If BLOWER FAULT warning appears, it means that extract fan may be seized.
3 – Switch on the cabin fans or air conditioning and make sure that BLOWER FAULT warning disappears.

B. AIR CONDITIONED INLET VALVE OPENING (21HQ)

1 – Perform the deactivation in open position of the air conditioned inlet valve (21HQ) :
– REFER TO MMEL ITEM : 21-26-08 in section 03.

C. TEST

1 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test :
– Check that no other fault messages than related to the failure of the extract fan and the deactivation of the air conditioned inlet valve (21HQ), otherwise refer to associated MMEL valve item.

21-26-03 Skin Exchanger Inlet Bypass Valve

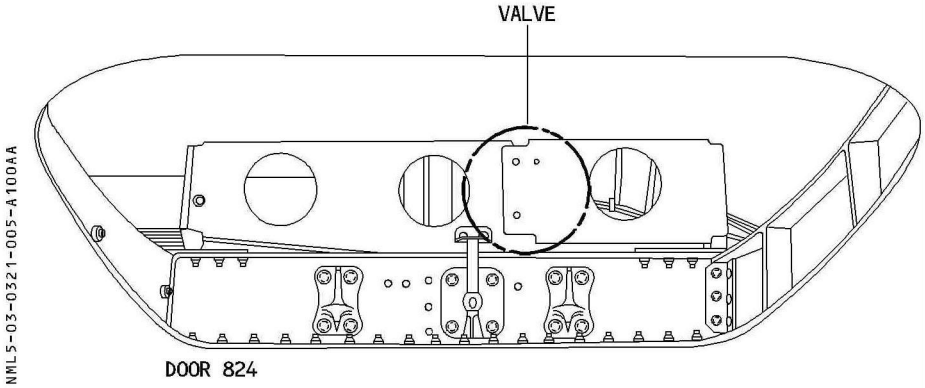
MAINTENANCE

21-26-03	SKIN EXCHANGER INLET BYPASS VALVE-CLOSURE PROCEDURE	
ACCESS ZONE : 824	**ACCESS ITEM** : 128 EG	
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
6 HQ	AIR COND / AVNCS VENT / CTL	49 VU D 06

PROCEDURE

Note : Ensure that operational test of the Avionics Equipment Ventilation Computer is applied before each flight.

A. SKIN EXCHANGER INLET BYPASS VALVE CLOSING (16 HQ)
1 – Open, safety and tag C/B 6 HQ
2 – Remove panels 128 EG
3 – Disconnect and cap connector 16 HQ–A
4 – Stow electrical cable and connector and secure with tape
5 – Remove the safety clip and the tag and close C/B 6 HQ.
6 – Move skin exchanger inlet valve butterfly to fully closed (F) position by means of manual override
Note : The VENT AVNCS SYS FAULT ECAM caution is triggered. Disregard and clear this caution.
7 – Install panel 128 EG
B. TEST
– Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test.
– Check that no other fault messages than related to the failure of the skin exchanger inlet bypass valve, otherwise refer to associated MMEL valve item.



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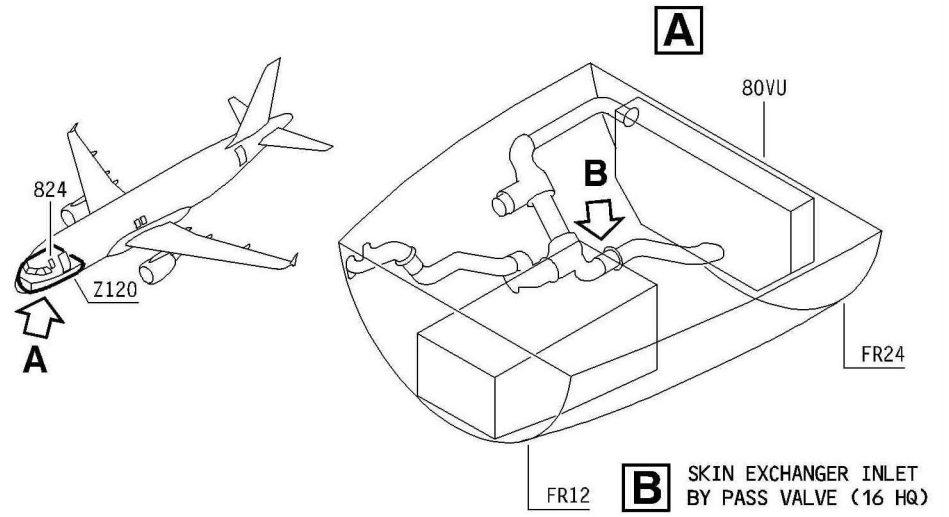
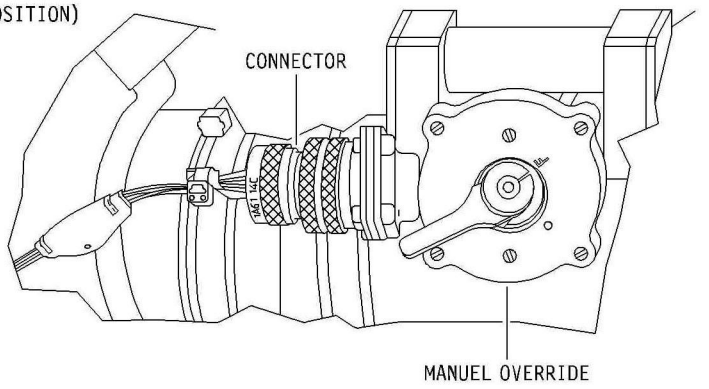
21-26-03 Skin Exchanger Inlet Bypass Valve

MAINTENANCE



(SHOWN IN CLOSED POSITION)
F = CLOSED
O = OPEN



21-26-04 Skin Air Outlet Valve

MAINTENANCE

21-26-04	SKIN AIR OUTLET VALVE – PARTIAL OPENING PROCEDURE	
ACCESS ZONE : 822	ACCESS ITEM :	
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
6 HQ	AIR COND / AVNCS VENT / CTL	49 VU D 06

PROCEDURE

Note : Ensure that operational test of the Avionics Equipment Ventilation Computer is applied before each flight.

A. OPENING OF THE INTERNAL FLAP OF SKIN AIR OUTLET VALVE (FIGURE A)

Note : If aircraft has to be de-iced, avoid to spray de-icing fluid on the skin air outlet valve area otherwise maintain internal flap of skin air outlet valve closed during aircraft de-icing to avoid any risk of avionics equipment contamination due to de-icing fluid entering the ducts. Open the flap after de-icing.

(a) Push the PUSH latch to release the handle.
(b) Pull the handle to engage the mechanism.
(c) Set the deactivation switch to OFF.
– If the valve is completely CLOSED (Main flap + Auxiliary flap), go to step d) :
– If the valve is completely OPEN (Main flap + Auxiliary flap), go to step e) :
(d) To open the Auxiliary flap :
Turn the handle CLOCKWISE.

Note : When the auxiliary flap is open, the main flap will open if you continue to turn the handle clockwise.

(e) To close the main flap with the auxiliary flap open :
Turn the handle ANTI-CLOCKWISE until the main flap closes.

Note : When the main flap is closed, the auxiliary flap will close if you continue to turn the handle anti-clockwise.

(f) Stow and latch the handle.

B. OPENING OF SKIN EXCHANGER ISOLATION VALVE (FIGURE B)
1 – Open, safety and tag C/B 6 HQ.
2 – Disconnect and cap connector 24 HQ - A
3 – Stow electrical cable and connector and secure with tape.
4 – Open manually the valve 24 HQ (manual control handle in position 0)
5 – Remove the safety clip and the tag and close C/B 6 HQ.
6 – Ensure that the BLOWER and EXTRACT P/B switches are in AUTO configuration.

(continued)

(continued)

21-26-04 Skin Air Outlet Valve

MAINTENANCE

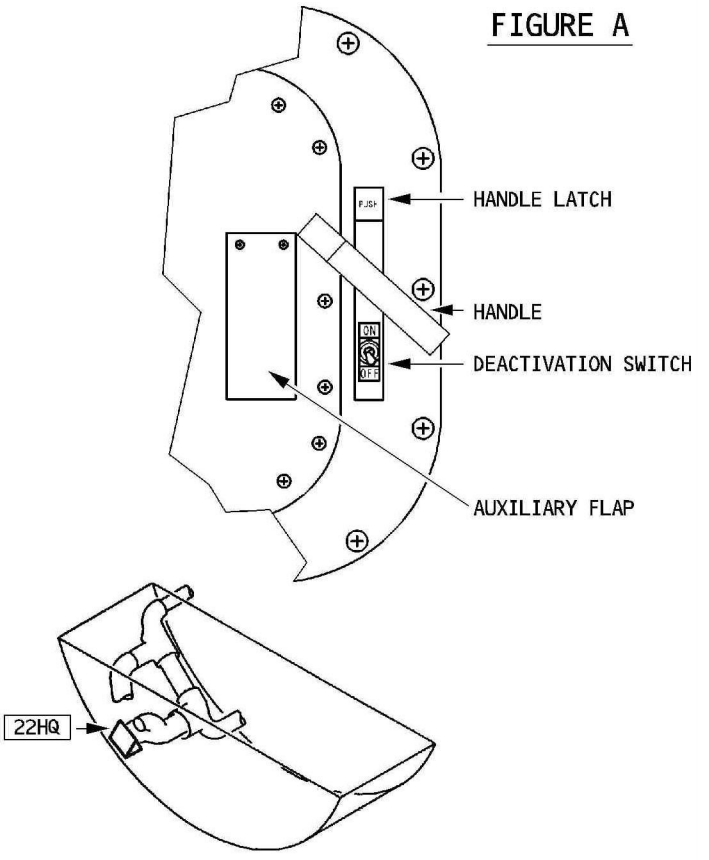
C. TEST

– Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test
– Check that no other fault messages than related to the failure of the skin air outlet valve, otherwise refer to associated MMEL valve item.

Note : If extract fan is indicated faulty (EXTRACT FAULT light illuminates amber and EXTRACT indication is displayed in amber on ECAM CAB PRESS page), select EXTRACT pb sw OVRD then AUTO and check extract fan indication is normal.

Note : The VENT AVNCS SYS FAULT ECAM caution is triggered. Disregarded and clear this caution.

FIGURE A



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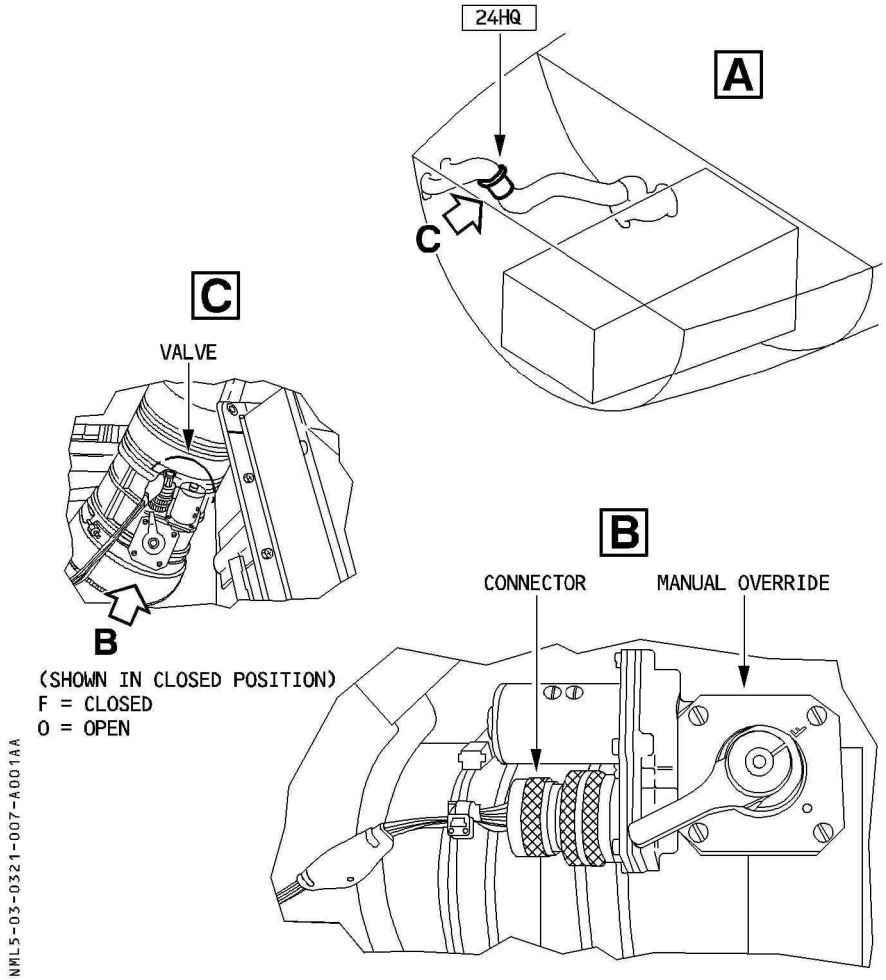
21-26-04 Skin Air Outlet Valve

MAINTENANCE

FIGURE B



21-26-05 Skin Air Inlet Valve

MAINTENANCE

21-26-05-a)	SKIN AIR INLET VALVE – CLOSING PROCEDURE	
ACCESS ZONE : 824	**ACCESS ITEM** : direct	
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
	nil	

PROCEDURE

Note : Ensure that operational test of the Avionics Equipment Ventilation Computer is applied before each flight.
Ensure that part B is applied before each flight.

A. SKIN AIR INLET VALVE CLOSING (15 HQ) :

1 – Push the PUSH latch to release the handle.
2 – Pull the handle to engage the mechanism.
3 – Set the deactivation switch to OFF.
4 – Turn the handle counterclockwise to fully close the flap.
5 – Stow and latch the handle.

Note : The handle should not be further turned when the end position is reached.

6 – Ensure that the BLOWER and EXTRACT P/B switches are in AUTO configuration.
7 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test.
– Check that no other fault messages than related to the failure of the skin air inlet valve, otherwise refer to associated MMEL valve item.
8 – On panel 22VU, set EXTRACT pb to the OVRD position.

Note : The VENT AVNCS SYS FAULT ECAM caution is triggered.
Disregard and clear this caution.

B. AIR COND INLET VALVE (21 HQ)

1 – In avionics compartment, check that visual position indication of the air conditioned inlet valve is in open position. (See valve drawing in Item 21-26-08 in section 03).

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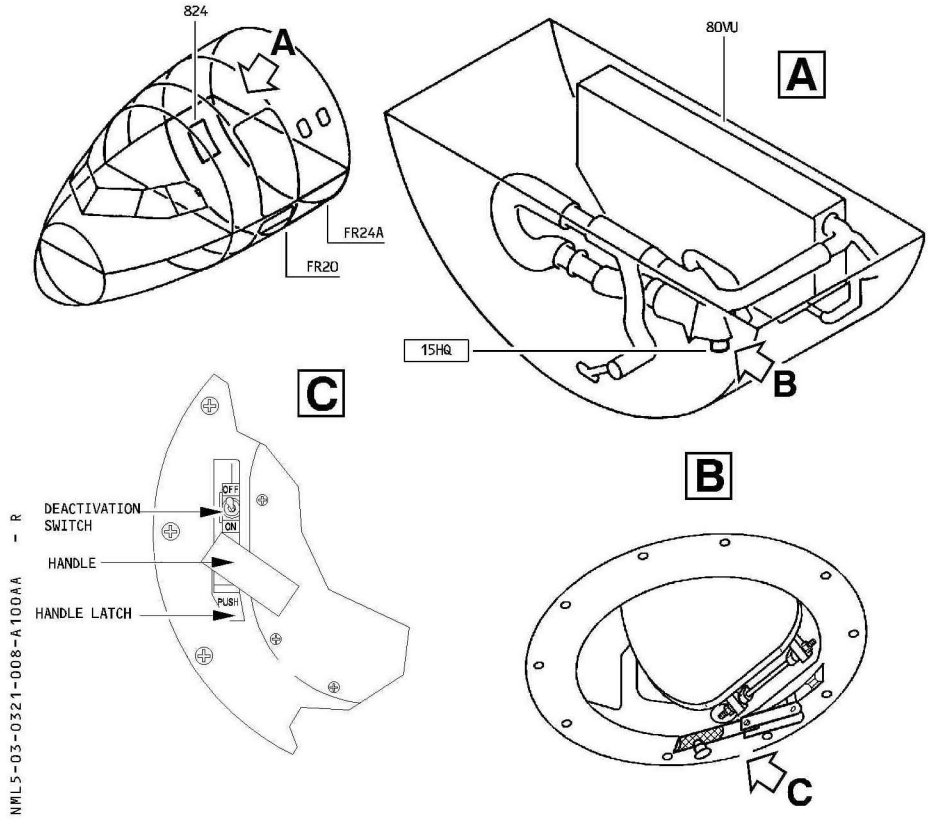
21-26-05 Skin Air Inlet Valve

MAINTENANCE



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21-26-05 Skin Air Inlet Valve

MAINTENANCE

21-26-05-b)	SKIN AIR INLET VALVE – CLOSING PROCEDURE AND AIR COND VALVE DEACTIVATION	
ACCESS ZONE : 824	ACCESS ITEM : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
	nil	

PROCEDURE

A. SKIN AIR INLET VALVE CLOSING (15HQ)

1 – Push the PUSH latch to release the handle
2 – Pull the handle to engage the mechanism
3 – Set the deactivation switch to OFF
4 – Turn the handle counterclockwise to fully close the flap
5 – Stow and latch the handle

Note : The handle should not be further turned when the end position is reached.

6 – Ensure that the BLOWER and EXTRACT P/B switches are in AUTO configuration
7 – On panel 22VU, set EXTRACT pb to the OVRD position

Note : The VENT AVNCS SYS FAULT ECAM caution is triggered.
Disregard and clear this caution.

B. AIR CONDITIONED INLET VALVE OPENING (21HQ)

1 – Perform the deactivation in open position of the air conditioned inlet valve (21HQ) :
– REFER TO MMEL ITEM : 21-26-08 in section 03.

C. TEST

1 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test :
– Check that no other fault messages than related to the failure of the skin air inlet valve and the deactivation of the air conditioned inlet valve (21HQ), otherwise refer to associated MMEL valve item.

21-26-06 Skin Exchanger Isolation Valve

MAINTENANCE

21-26-06-a)	OPENING OF SKIN EXCHANGER ISOL VALVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A. TEST

1 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test :

– Check that no other fault messages than related to the failure of the skin exchanger isolation valve, otherwise refer to associated MMEL valve item.

(continued)

(continued)

21-26-06 Skin Exchanger Isolation Valve

MAINTENANCE

21-26-06-b)	OPENING OF SKIN EXCHANGER ISOL VALVE	
ACCESS ZONE :	822	ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
6 HQ	AIR COND / AVNCS VENT / CTL	49 VU D06

PROCEDURE

Note : Ensure that operational test of the Avionics Equipment Ventilation Computer is applied before each flight.

A. SKIN EXCHANGER ISOL VALVE OPENING (24 HQ)

1 – Open, safety and tag the C/B 6 HQ.

2 – Disconnect and cap Connector 24 HQ-A.

3 – Stow electrical cable and connector and secure with tape.

4 – Open manually the valve (manual control handle in position 0).

5 – Remove the safety clip and the tag and close C/B 6HQ.

B. TEST

– Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test.
– Check that no other fault messages than related to the failure of the skin exchanger isolation valve, otherwise refer to associated MMEL valve item.

Note : After the valve has been secured open, "AVNCS SYS FAULT" ECAM warning is triggered. Use the ECAM CLR p.b.

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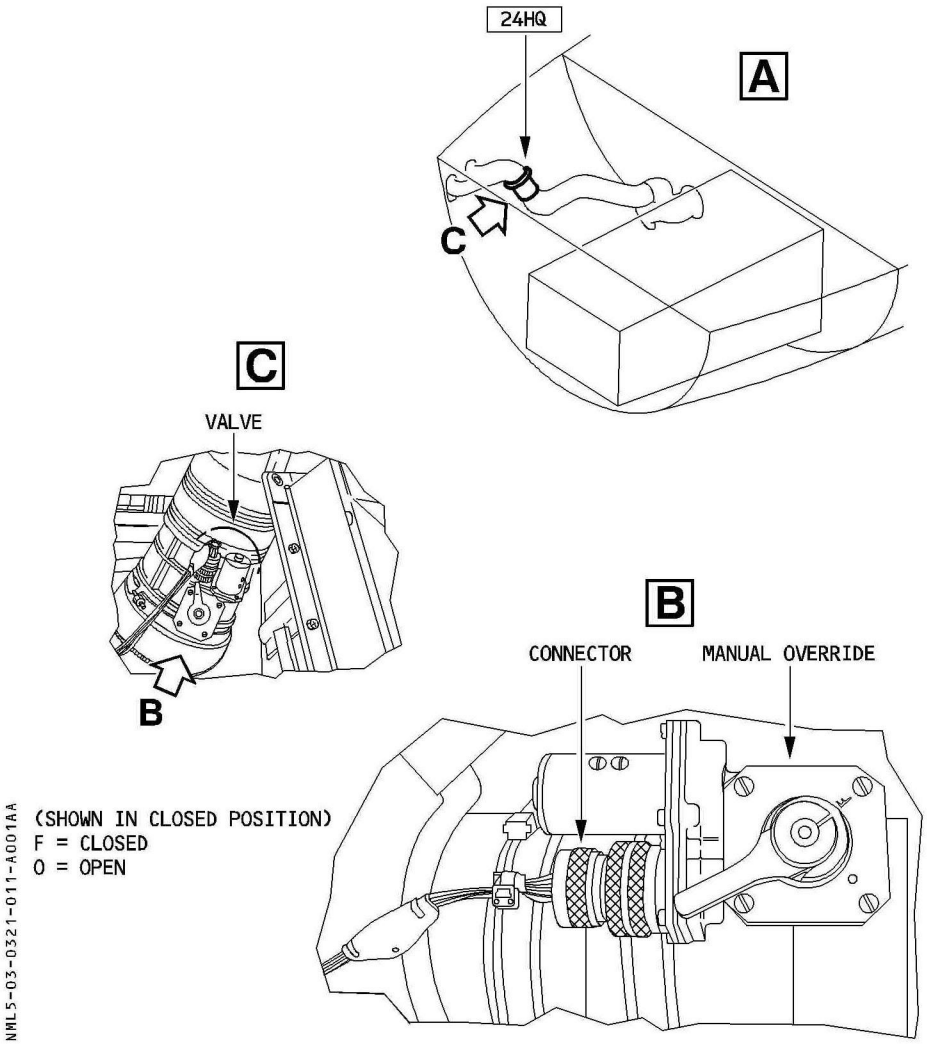
21-26-06 Skin Exchanger Isolation Valve

MAINTENANCE



21-26-08 Air Conditioning Inlet Valve

MAINTENANCE

21-26-08	AIR CONDITIONED INLET VALVE - OPENING PROCEDURE	
ACCESS ZONE :	824	**ACCESS ITEM** : direct
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
5 HQ	AIR COND / AVNCS VENT / CTL	49VU D07 or D05

PROCEDURE

Note : Ensure that operational test of the Avionics Equipment Ventilation Computer is applied before each flight.

A. AIR CONDITIONED INLET VALVE OPENING

1 – Open, safety and tag C/B 5HQ.
2 – Disconnect and cap connector 21 HQ-A
3 – Stow electrical cable and connector and secure with tape
4 – Move air conditioned inlet valve butterfly to fully open (o) position by means of manual override
5 – Remove the safety clip and the tag and close C/B 5HQ.

B. TEST

– Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test.
– Check that no other fault messages than related to the failure of the air conditioned inlet valve (21HQ), otherwise refer to associated MMEL valve item.

Note : The VENT AVNCS SYS FAULT ECAM caution is triggered. Disregard and clear this caution.

(continued)

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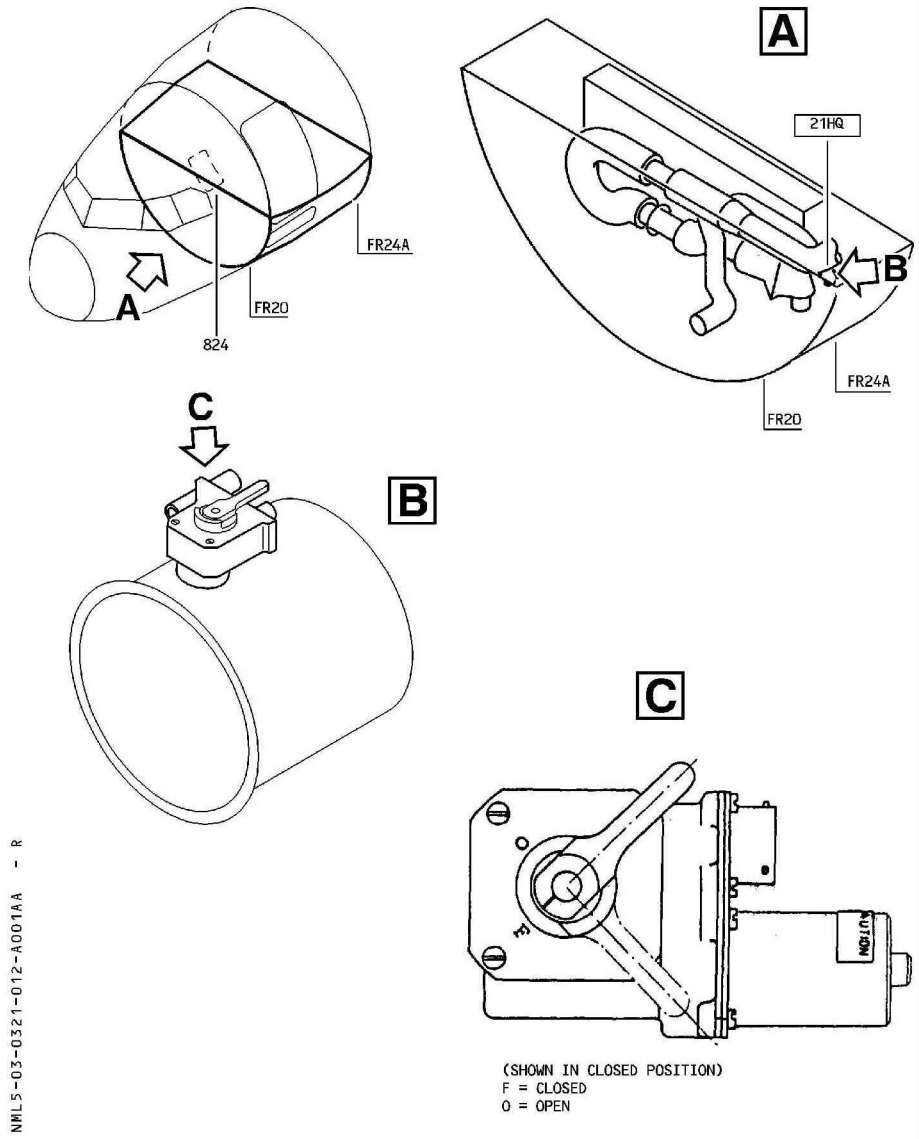
21-26-08 Air Conditioning Inlet Valve

MAINTENANCE



21-26-09 Ventilation Filter

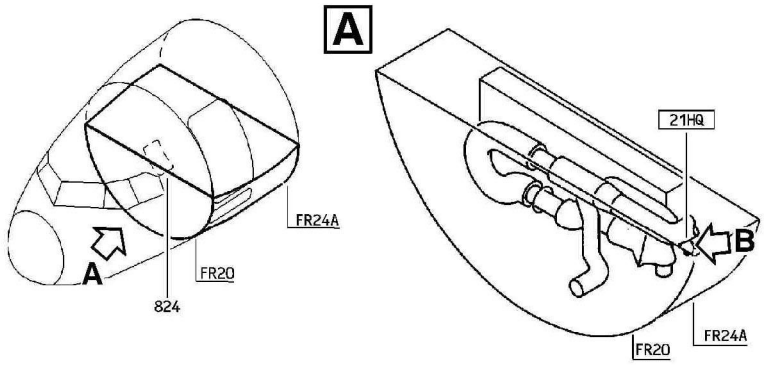
MAINTENANCE

21-26-09-b)	VENTILATION FILTER – AIR COND VALVE CHECK	
ACCESS ZONE : 824 / cockpit	**ACCESS ITEM** : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**

PROCEDURE

1 – On ventilation panel 22 VU
Release EXTRACT pushbutton switch (OVRD legend comes on)

2 – On avionics compartment
Check that air conditioned inlet valve 21HQ is open (the position indicator of the valve is at 0).
Note : Manual control handle position 0 is valve open and F position is valve closed.



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21-26-09 Ventilation Filter

MAINTENANCE

21-26-09-c)	VENTILATION FILTER – AIR COND VALVE DEACTIVATION	
ACCESS ZONE : 824 / cockpit	ACCESS ITEM : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A. EXTRACT

1 – On ventilation panel 22VU, release EXTRACT pushbutton switch (OVRD legend comes on).

B. AIR CONDITIONED INLET VALVE OPENING (21HQ)

1 – Perform the deactivation in open position of the air conditioned inlet valve (21HQ) :
- REFER TO MMEL ITEM : 21-26-08 in section 03.

C. TEST

1 – Perform an operational test of the Avionics Equipment Ventilation using CFDS AIR COND system test :
- Check that no other fault messages than related to the failure of the ventilation filter and the deactivation of the air conditioned inlet valve (21HQ), otherwise refer to associated MMEL valve item.

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

MAINTENANCE

21-26-10	AEVC – CHECK OF VENT SYS, SKIN AIR INLET VALVE CLOSURE		
ACCESS ZONE :	824 / COCKPIT	**ACCESS ITEM** :	Direct
GSE :	nil		
ASSOCIATED CIRCUIT BREAKERS			
FIN	**DESIGNATION**		**LOCATION**
	nil		

PROCEDURE

CHECK OF VENTILATION SYSTEM CONFIGURATION

1 – On VENTILATION panel 22 VU
  – release BLOWER and EXTRACT pushbutton switches (OVRD legends come on)

2 – On CAB PRESS page
  – Skin Air Outlet Valve (22 HQ) is partially open.

3 – On avionics compartment (Localisation of the Air Conditioned Inlet Valve, see 21-26-08 in section 03)
  – check that air conditioned inlet valve 21 HQ is open.

4 – Check that extract fan is running.

CLOSURE OF SKIN AIR INLET VALVE (15 HQ) (Figure A)

1 – Push the PUSH latch to release the handle.
2 – Pull the handle to engage the mechanism.
3 – Set the deactivation switch to OFF.
4 – Turn the handle counterclockwise to fully close the flap.
5 – Stow and latch the handle.

Note : The handle should not be further turned when the end position is reached

6 – Check on ECAM CAB PRESS page that the skin air inlet valve is indicated closed. (In case of amber crosses, the valve is not fully closed).

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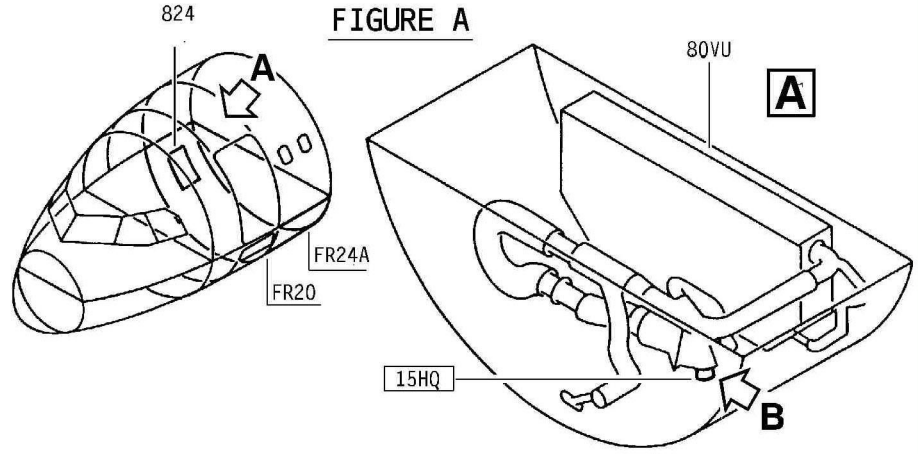
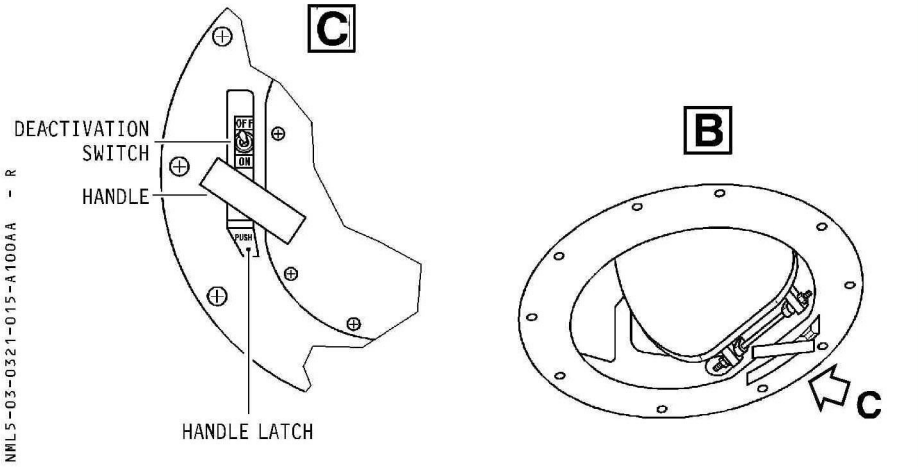
21-26-10 Avionic Equipment Ventilation Computer (AEVC)

MAINTENANCE

FIGURE A





21-26-11 VENT BLOWER FAULT Caution on ECAM E/WD

MAINTENANCE

21-26-11	BLOWER FAULT WARNING – BLOWER FAN AND AVNCS SYS FAULT WARN CHECK	
ACCESS ZONE :	824	ACCESS ITEM : Direct
GSE :	nil	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
3HQ	AIR COND / AVNCS / VENT / MONG	122 VU Y17 or 49 VU D 05

PROCEDURE

1 – In the avionics compartment, make certain that blower fan 20 HQ is operative

2 – Open C / B 3HQ and check that AVNCS SYS FAULT warning appears on ECAM upper display unit after approximately 10 seconds.

3 – Close C / B 3HQ and check that AVNCS SYS FAULT message disappears.

Note : After C / B 3HQ closing, auto test is initiated and runs for approximately 60 seconds.

21-26-12 VENT EXTRACT FAULT Caution on ECAM E/WD

MAINTENANCE

21-26-12	EXTRACT FAULT WARNING – EXTRACT FAN AND VENT AVNCS SYS FAULT WARN. CHECKS	
ACCESS ZONE :	824	**ACCESS ITEM :** Direct
GSE :	nil	

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
3HQ	AIR COND / AVNCS / VENT / MONG	122VU Y17 or 49 VU D 05

PROCEDURE

1 – In the avionics compartment, make certain that extract fan 18 HQ is operative

2 – Open C / B 3HQ and check that AVNCS SYS FAULT message appears upper ECAM display unit after approximately 10 seconds.

3 – Close C / B 3HQ and check that AVNCS SYS FAULT message disappears.

Note : After C / B 3HQ closing, autotest is initiated and runs for approximately 60 seconds.

21-28-05 AFT CARGO Isolation Valve

MAINTENANCE

21-28-05	AFT CARGO ISOLATION VALVE – CLOSURE PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE : Access platform 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
31HN	AIR COND / AFT CARGO VENT / CTL AND / MONG or AIR COND / AFT CARGO / VENT / CTL & MONG	122 VU S20 49 VU C07
30HN	AIR COND / AFT CARGO VENT / FAN	122 VU S22

PROCEDURE

Note : This procedure is to be applied only if AFT ISOL VALVE FAULT light is illuminated with AFT ISOL VALVE p.b. set at OFF.

1 – Energize the aircraft electrical circuits.

2 – Open, safety and tag C / B 31HN, 30HN.

3 – Put the access platform at the aft cargo door 826.

4 – Open the aft cargo door 826.

5 – Remove the access panel 151 VW, 162 DW.

6 – Close the isolation valves 33 HN and 34 HN with the manual override lever.

7 – Disconnect and cap the electrical connectors (33HN-A and 34HN-A), and attach them to the aircraft structure.

8 – Deenergize the aircraft electrical circuits.

9 – Make sure that the work area is clean and clear of tools and other items.

10 – Put the aircraft back to the serviceable condition.

11 – Remove the access platform(s).

21-28-05 AFT CARGO Isolation Valve

MAINTENANCE

21-28-05	AFT CARGO ISOLATION VALVE – CLOSURE PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE : Access platform 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
31HN	AIR COND / AFT CARGO VENT / CTL AND / MONG or AIR COND / AFT CARGO / VENT / CTL & MONG	122 VU S20 49 VU C07
30HN	AIR COND / AFT CARGO VENT / FAN	122 VU S22

PROCEDURE

Note : This procedure is to be applied only if AFT ISOL VALVE FAULT light is illuminated with AFT ISOL VALVE p.b. set at OFF.

1 – Energize the aircraft electrical circuits.

2 – Open, safety and tag C / B 31HN, 30HN.

3 – Put the access platform at the aft cargo door 826.

4 – Open the aft cargo door 826.

5 – Remove the access panel 151 EW, 162 DW.

6 – Close the isolation valves 33 HN and 34 HN with the manual override lever.

7 – Disconnect and cap the electrical connectors (33HN-A and 34HN-A), and attach them to the aircraft structure.

8 – Deenergize the aircraft electrical circuits.

9 – Make sure that the work area is clean and clear of tools and other items.

10 – Put the aircraft back to the serviceable condition.

11 – Remove the access platform(s).

21-31-02 Cabin Pressure Manual Control System (Outflow Valve MAN Channel)

MAINTENANCE

21-31-02	CABIN PRESSURE MANUAL SYSTEM - OPERATIONAL TEST OF THE TWO AUTO SYSTEMS	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1 HL	AIR COND / CAB / PRESS / CTL 1	D09 49 VU
2 HL	AIR COND / CAB / PRESS / CTL 2	Y22 122 VU
3 HL	AIR COND / CAB / PRESS / CTL / MAN	Y23 122 VU

PROCEDURE

1 – Make sure that C/B 1HL, 2HL and 3HL are closed.
2 – Energize the aircraft electrical circuits.
3 – Do the EIS start procedure.
4 – On the ECAM control panel push the PRESS pushbutton switch, the CAB PRESS page comes into view on the lower ECAM display unit.
5 – On one MCDU get the SYSTEM REPORT/TEST AIR COND menu page.
6 – On the AIR COND panel 30 VU, make sure that :
  – the PACK 1 and the PACK 2 pushbutton switches are in the OFF position (the OFF legends are on).
  – the RAM AIR pushbutton switch is in the OFF position (the ON legend is off).
7 – On the CABIN PRESS panel 25 VU, make sure that :
  – the MODE SEL pushbutton switch is in the AUTO configuration (with the FAULT and MAN legends off).
  – the LDG ELEV selector is in the AUTO position.
  – the DITCHING pushbutton switch is in the AUTO configuration (with the ON legend off).
8 – Do the ADIRS start procedure.
9 – On the ADIRS CDU panel 20 VU :
  – make sure that the 3 OFF/NAV/ATT switches are in the NAV position and that the
    ADR 1, ADR 2 and ADR 3 pushbutton switches are in the on position (with the FAULT and OFF legends off).

Note : Make sure there are no persons near the outflow valve before you start this test.

(continued)

(continued)

21-31-02 Cabin Pressure Manual Control System (Outflow Valve MAN Channel)

MAINTENANCE

10 – Do the following test :

ACTION	RESULT
On the MCDU SYSTEM REPORT/TEST AIR COND menu page : – push the line key adjacent to the CPC 1 indication.	On the MCDU : – the CAB PRESS CONT 1 page comes on.
On the MCDU CAB PRESS CONT 1 menu page : – push the line key adjacent to the TEST/CALIBRATION indication.	On the MCDU : – the CAB PRESS CONT 1 TEST/CALIBRATION page comes on, . the message ECS PACKS . . . . . OFF GROUND AIR SUPPLY . . . . . OFF LFES . . . . . SET TO 14000 FT ADIRS 1, 2, 3 . . . . . ON MODE SEL . . . . . AUTO comes on.
On the CABIN PRESS PANEL 25 VU : – set the LDG ELEV selector to 14000 FT.	On the ECAM upper display unit : – the green MAN LDG ELEV memo message comes on. On the ECAM lower display unit : – the green AUTO xxx FT indication changes to the green MAN 14000 FT indication.
On the MCDU CAB PRESS CONT 1 TEST/CALIBRATION menu page : – push the line key adjacent to CONTINUE.	On the MCDU the message IN PROGRESS (20 ... 90S) comes on, then the message TEST OK RESET LFES - > AUTO comes on. *Note : Do the test again for CPC 2.*

11 – On the CABIN PRESS panel 25 VU, set the LDG ELEV selector to AUTO.
12 – Do the ADIRS stop procedure.
13 – On the ADIRS CDU panel 20 VU, make sure that the 3 OFF/NAV/ATT switches are in the OFF position and that the ADR 1, ADR 2 and ADR 3 pushbutton switches are pushed (OFF lights on).
14 – Do the EIS stop procedure.
15 – On the MCDU, push the line key adjacent to the RETURN indication until the CFDS menu page comes into view.
16 – De-energize the aircraft electrical circuits.

21-31-04 Safety Valve

MAINTENANCE

21-31-04	SAFETY VALVE – OUTFLOW VALVE CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1 HL	AIR COND / CAB / PRESS / CTL 1	49 VU D09
2 HL	AIR COND / CAB PRESS / CTL / 2	122 VU Y22
3 HL	AIR COND / CAB PRESS / CTL / MAN	122 VU Y23

PROCEDURE

Note : Make sure there are no persons near the outflow valve before you start this test.

1 - Energize the aircraft electrical circuits.
2 - Make sure that C / B 1 HL, 2 HL, 3 HL are closed.
3 - Remove the food trolleys and get access to the safety valves through the rear galley wall.
4 - Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only).
5 - On the ECAM control panel push the PRESS pushbutton switch, the CAB PRESS page comes into view on the lower ECAM display unit.
6 - On one MCDU get the SYSTEM REPORT/TEST AIR COND menu page.
7 - On the AIR COND panel 30VU, make sure that :
- the PACK 1 and the PACK 2 pushbutton switches are in the OFF position (the OFF legends are on).
- the RAM AIR pushbutton switch is in the OFF position (the ON legend is off).
8 - On the CABIN PRESS panel 25VU, make sure that :
- the MODE SEL pushbutton switch is in the AUTO configuration (with the FAULT and MAN legends off).
- The LDG ELEV selector is in the AUTO position.
- The DITCHING pushbutton switch is in the AUTO configuration (with the ON legend off).
9 - Do the ADIRS start procedure.
10 - On the ADIRS CDU panel 20VU :
- Make sure that the 3 OFF/NAV/ATT switches are in the NAV position and that the ADR 1, ADR 2 and ADR 3 pushbutton switches are in the on position (with the FAULT and OFF legends off).
11 - Operation Test of the Safety Valve Position Indicator

ACTION	RESULT
On one of the safety valves : - push the valve diaphragm until the spring is compressed.	On the ECAM lower display unit : - the green SAFETY indication changes to amber and the valve symbol opens and changes to amber.

(continued)

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21-31-04 Safety Valve

MAINTENANCE

ACTION	RESULT
	On the panels 130VU and 132VU : - the amber light in the two MASTER CAUTION pushbutton switches come on. - the single audio warning is heard. On the ECAM upper display unit : - the warning message CAB PR SAFETY VALVE OPEN comes on.
- release the diaphragm.	On the ECAM lower display unit : - the open valve symbol closes and changes to green and the amber SAFETY indication changes to green. On the panels 130VU and 132VU : - the amber light in the two MASTER CAUTION pusbutton switches go off. On the ECAM upper display unit : - the warning message CAB PR SAFETY VALVE OPEN goes off.

Note : Do this test again for the other safety valve.

Note : Make sure that the inoperative safety valve is in the closed position (The ring gate must seat properly on the rubber seal).

12 - Do the BITE test of the pressure control system to make sure that SYS 1 and SYS 2 are operative.
- On the MCDU select CFDS
- Select SYSTEM REPORT/TEST
- Select AIR COND
- Select CPC 1(2)
- Select TEST CALIBRATION
- Do the test

13 - Do this test.

ACTION	RESULT
A. On the CABIN PRESS panel 25VU: - move the LDG ELEV selector clockwise away from the AUTO position.	On the ECAM upper display unit : - the green MAN LDG ELEV memo message comes on. On the ECAM lower display unit : - the green AUTO xxx FT indication changes to the green MAN xxx FT indication.
Note : The actual manual altitude indication depends on the LDG ELEV selector position	
B. On the ECAM control panel 11VU : – push the PRESS pushbutton switch.	On the ECAM lower display unit : – the PRESS page comes on.
C. On the panel 25VU : – push and release the MODE SEL pushbutton switch.	On the panel 25VU : – the white MAN light comes on. On the ECAM lower display unit : – the green SYS 1 (or SYS 2) goes off and the green MAN comes on.
– push and hold the MAN V/S CTL toggle switch to DN.	– the outflow valve closes.
– push and hold the MAN V/S CTL toggle switch to UP.	– the outflow valve opens.
– release the MAN V/S toggle switch.	– the outflow valve stays open.

(continued)

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21-31-04 Safety Valve

MAINTENANCE

ACTION	RESULT
– push the MODE SEL pushbutton switch.	– the green MAN goes off and the green SYS 1 (or SYS 2) comes on. On the panel 25VU : – the white MAN light goes off.
D. On the CABIN PRESS panel 25VU: - move the LDG ELEV selector counterclockwise to the AUTO position.	On the ECAM upper display unit : - the green MAN LDG ELEV memo message goes off. On the ECAM lower display unit : - the green MAN xxx FT indication changes to the green AUTO xxx FT indication.

14 - On the CABIN PRESS panel 25VU, set the LDG ELEV selector to AUTO
15 - Do the ADIRS stop procedure
16 - On the ADIRS CDU panel 20VU, make sure that the 3 OFF/NAV/ATT switches are in the OFF position and that the ADR1, ADR2 and ADR3 pushbutton switches are pushed (OFF lights on).
17 - On the MCDU, push the line key adjacent to the RETURN indication until the CFDS menu page comes into view.
18 - Close the access in the rear wall of the aft galley and replace the removed food trolleys.

21-31-07 Safety Valves Position Indication on ECAM CAB PRESS Page

MAINTENANCE

21-31-07	SAFETY VALVES INDICATION – CHECK SAFETY VALVES	
ACCESS ZONE : AFT cabin	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Remove the food trolley from the AFT galley

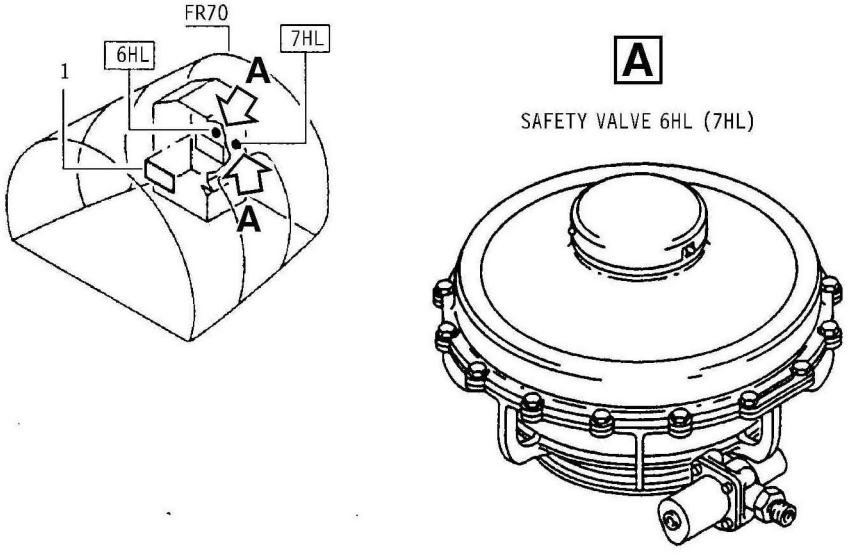
2 – Remove the access panel (1)

3 – Visually check that both safety valves (6HL and 7HL) are closed :

. Visually check that the ring gate (diaphragm) of the safety valves is properly seated in the closed position on the rubber seal.

4 – Re-install the access panel

5 – Re-install the food trolley



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21-31-08 CAB PR SAFETY VALVE OPEN Caution on ECAM

MAINTENANCE

21-31-08	SAFETY VALVES CAUTION – CHECK SAFETY VALVES	
ACCESS ZONE : AFT cabin	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Remove the food trolley from the AFT galley

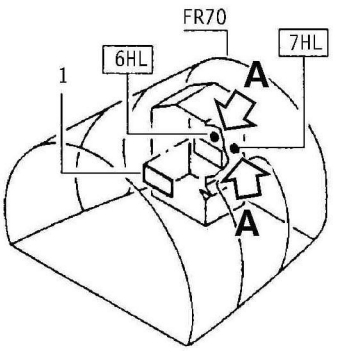
2 – Remove the access panel (1)

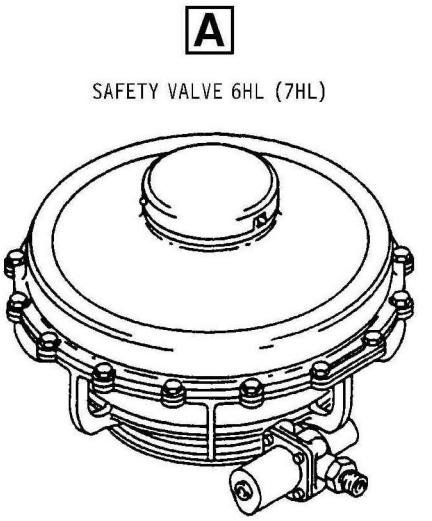
3 – Visually check that both safety valves (6HL and 7HL) are closed :

. Visually check that the ring gate (diaphragm) of the safety valves is properly seated in the closed position on the rubber seal.

4 – Re-install the access panel

5 – Re-install the food trolley





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21-43-02 AFT CARGO compartment heating

MAINTENANCE

21-43-02	AFT CARGO COMPARTMENT HEATING – TRIM AIR VALVE or PRESSURE REGULATING VALVE CLOSURE	
ACCESS ZONE : 197 BB	ACCESS ITEM :	
GSE : Step ladder 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
31 HN	AFT CARGO VENT AND HTG / CTL AND / MONG	122 VU S20 or 49 VU C07

PROCEDURE

1 – Energize the aircraft electrical circuits.
2 – Put the step ladder at the access panel 197BB.
3 – Remove the access panel 197BB.
4 – Open, safety and tag C / B 31HN.
5 – Close either :
  – the trim air valve with the manual override knob and safety in the closed position with the locking pin. The locking pin is stored in a hole in the trim air valve body.
  Disconnect the electrical connector and attach it to the aircraft structure.
  Put blanking caps on the disconnected electrical connectors.
  or
  – the pressure regulating valve with the manual handwheel and safety in the closed position with the mechanical locking segment (indication « C »).
  Disconnect the electrical connector and attach it to the aircraft structure.
  Put blanking caps on the disconnected electrical connectors.
6 – Close C/B 31HN.
7 – De-energize the aircraft electrical circuits.
8 – Make sure that the work area is clean and clear of tools and other items.
9 – Install access panel 197BB.
10 – Remove the step ladder.

21-51-01 Pack flow control valve

MAINTENANCE

21-51-01	PACK FLOW CONTROL VALVE – CLOSURE PROCEDURE	
ACCESS ZONE : 191 KB, 192 KB		**ACCESS ITEM** :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**

PROCEDURE

1 – Energize the aircraft electrical circuits.
2 – Remove the access panel 191KB (192KB).
3 – Release the PACK 1LH (or 2RH) pushbutton switch to the OFF position.
4 – Remove and discard the lockwire from the special screw (1).
5 – Remove the special screw (1) from the position (A).
6 – Disconnect the quick release connector (3)
7 – Make sure that the valve indicator (2) is in the closed position.
8 – Install the special screw (1) in the position (B) and safety with corrosion-resistant steel lockwire 0.8 mm (0.0314 in.) dia.
9 – Connect the quick release connector (3)
10 – Make sure that the work area is clean and clear of tools and other items.
11 – Install the access panel 191 KB (192 KB).
12 – De-energize the aircraft electrical circuits.

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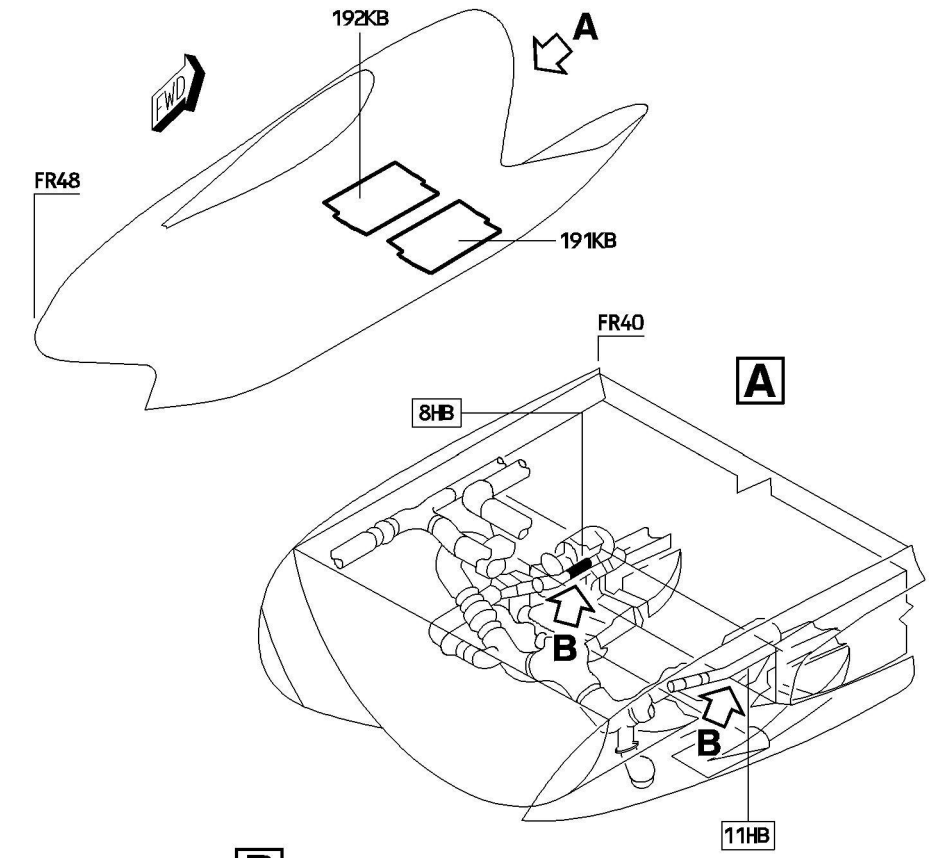
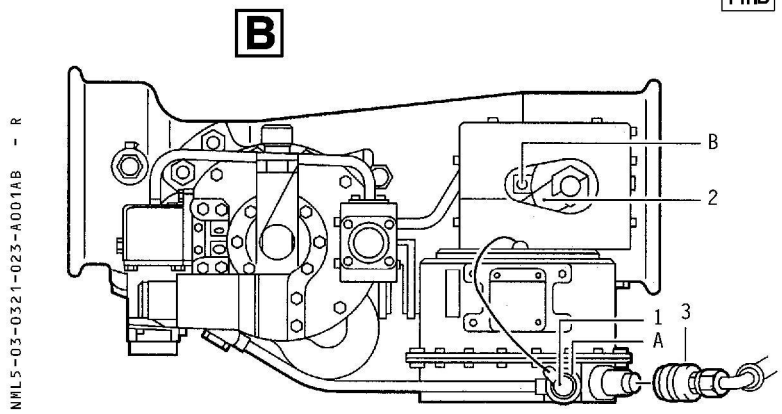
21-51-01 Pack flow control valve

MAINTENANCE



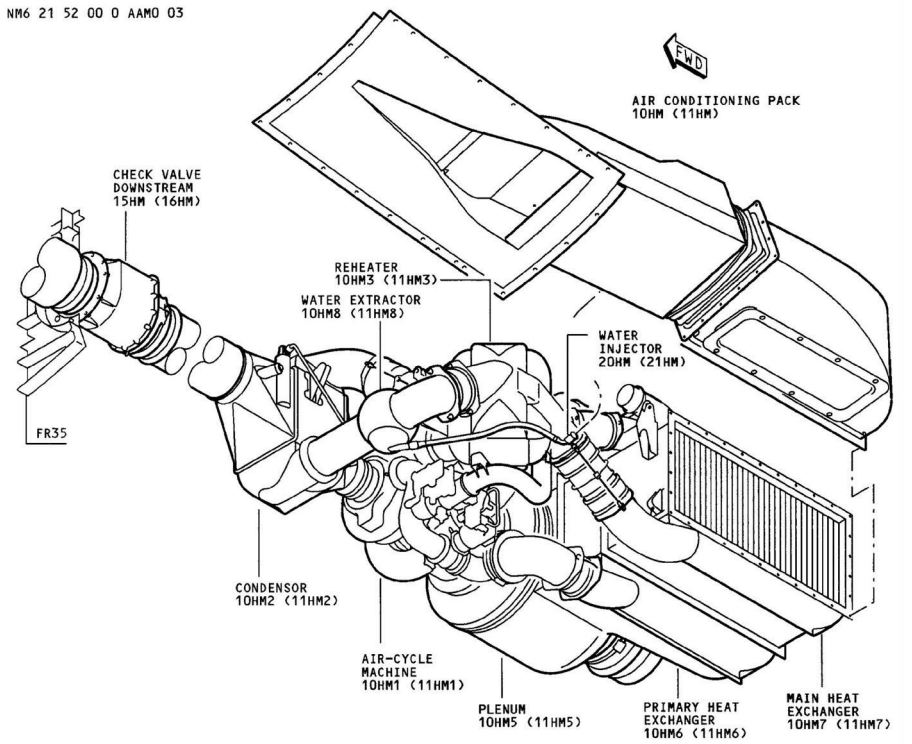


21-52-01 Air Conditioning Pack

MAINTENANCE

1. Remove the access panel 191KB (Pack 1) or 192KB (Pack 2).

2. Do the visual check of appropriate pack components which are located in the air conditioning bay :
   - AIR - CYCLE MACHINE
   - CONDENSER
   - REHEATER
   - FAN PLENUM
   - PRIMARY HEAT EXCHANGER
   - MAIN HEAT EXCHANGER
   - WATER EXTRACTOR
   - INLET PLENUM
   - WATER INJECTOR
   - ALL OTHER INSTALLATIONS (wiring, ducting, piping)



Air Cooling System - Component Location

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21-52-01 Air Conditioning Pack

MAINTENANCE

3. Make sure that there are no cracks or damages on these components and they are attached correctly. **Pay special attention to CONDENSER when performing a check.**

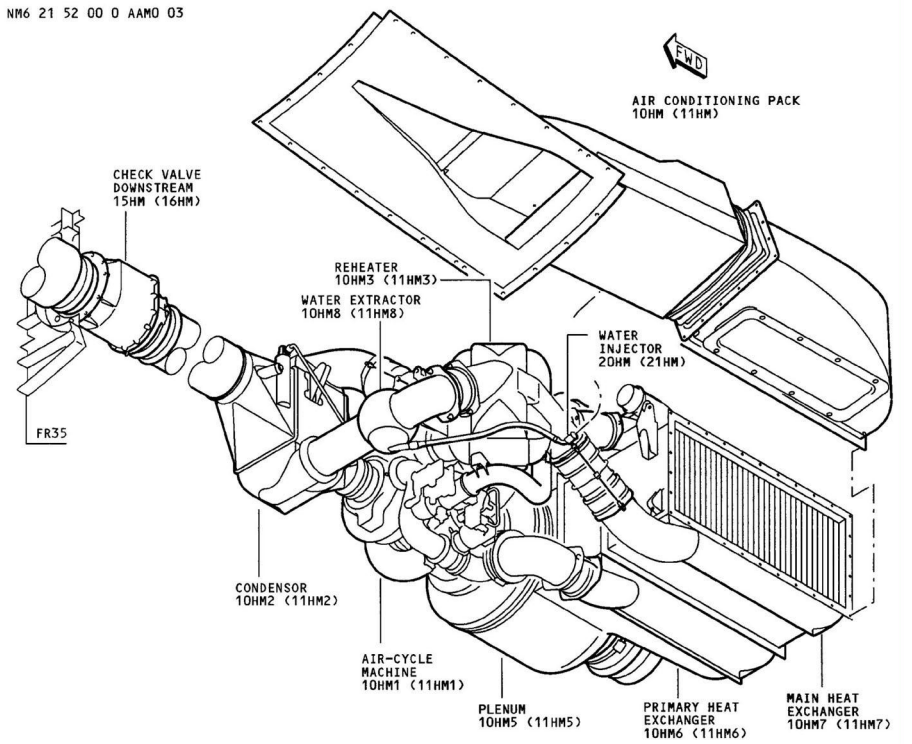
4. Install the access panel 191KB (Pack 1) or 192KB (Pack 2).

21-52-01 Air Conditioning Pack

MAINTENANCE

1. Remove the access panel 191KB (Pack 1) or 192KB (Pack 2).

2. Do the visual check of appropriate pack components which are located in the air conditioning bay :
   - AIR - CYCLE MACHINE
   - CONDENSER
   - REHEATER
   - FAN PLENUM
   - PRIMARY HEAT EXCHANGER
   - MAIN HEAT EXCHANGER
   - WATER EXTRACTOR
   - INLET PLENUM
   - WATER INJECTOR
   - ALL OTHER INSTALLATIONS (wiring, ducting, piping)



Air Cooling System - Component Location

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21-52-01 Air Conditioning Pack

MAINTENANCE

3. Make sure that there are no cracks or damages on these components and they are attached correctly. **Pay special attention to CONDENSER when performing a check.**

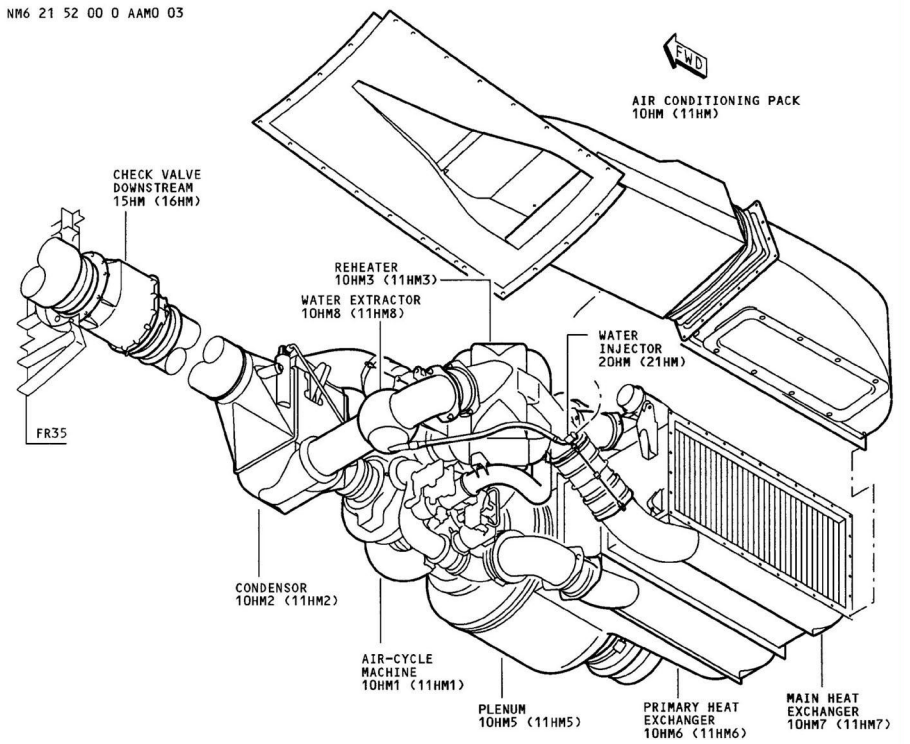
4. Install the access panel 191KB (Pack 1) or 192KB (Pack 2).

21-52-01 Air Conditioning Pack

MAINTENANCE

1. Remove the access panel 191KB (Pack 1) or 192KB (Pack 2).

2. Do the visual check of appropriate pack components which are located in the air conditioning bay :
   - AIR - CYCLE MACHINE
   - CONDENSER
   - REHEATER
   - FAN PLENUM
   - PRIMARY HEAT EXCHANGER
   - MAIN HEAT EXCHANGER
   - WATER EXTRACTOR
   - INLET PLENUM
   - WATER INJECTOR
   - ALL OTHER INSTALLATIONS (wiring, ducting, piping)



Air Cooling System - Component Location

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21-52-01 Air Conditioning Pack

MAINTENANCE

3. Make sure that there are no cracks or damages on these components and they are attached correctly. **Pay special attention to CONDENSER when performing a check.**

4. Install the access panel 191KB (Pack 1) or 192KB (Pack 2).

21-52-02 Air Cond Pack Ram Air Inlet Flap

MAINTENANCE

21-52-02	RAM AIR INLET – DEACTIVATION IN THE OPEN POSITION	
ACCESS ZONE : Belly fairing	ACCESS ITEM :	191KB (192KB)
GSE :		

ASSOCIATED CIRCUIT BREAKERS

FIN	DESIGNATION	LOCATION
FOR 8HH		
1HH	AIR COND/PACK TEMP/CTL SYS1/1/115VAC	122VU X22
3HH	AIR COND/PACK TEMP/CTL SYS1/1/28VDC	122VU X21
4HH	AIR COND/PACK TEMP CTL SYS 2/1/28VDC	122VU Y19
2HH	AIR COND/PACK TEMP CTL SYS 2/1/115VAC	122VU Y18
FOR 28HH		
21HH	AIR COND/PACK TEMP/CTL SYS1/2/115VAC	122VU W22
23HH	AIR COND/PACK TEMP/CTL SYS1/2/28VDC	122VU W21
24HH	AIR COND/PACK TEMP CTL SYS2/2/28VDC	122VU Y21
22HH	AIR COND/PACK TEMP CTL SYS2/2/115VAC	122VU Y20

PROCEDURE

Note : The procedure is the same for the Left and the Right air inlet flap.

1 – Energize the aircraft electrical circuits.
2 – Open, safety and tag CB(s) :
FOR 8HH: 1HH, 3HH, 4HH, 2HH.
FOR 28HH: 21HH, 23HH, 24HH, 22HH.
3 – Measure the air inlet gap.

Note : Do not apply pressure to the air inlet flap when you do the measurement.
If the air inlet gap is 40 mm (1.5748 in.) or over then the air inlet is considered open.

4 – Remove the access panel :
FOR 8HH : 191KB
FOR 28HH : 192KB
5 – Disconnect the electrical connector from the air inlet flap actuator 8HH (28HH).
6 – Put blanking caps on the disconnect electrical connectors.
7 – Temporarily attach the loose electrical connector to the aircraft structure.
8 – Put a warning notice in position in the cockpit to tell the flight crew that one air inlet flap is inoperative.
9 – Remove the safety clip(s) and the tag(s) and close CB(s) :
FOR 8HH: 1HH, 2HH, 3HH, 4HH.
FOR 28HH: 21HH, 22HH, 23HH, 24HH.
10 – On the upper ECAM DU the message AIR PACK 1 (PACK 2) REGUL FAULT will be displayed.
11 – Put the aircraft back to the serviceable condition.

(continued)

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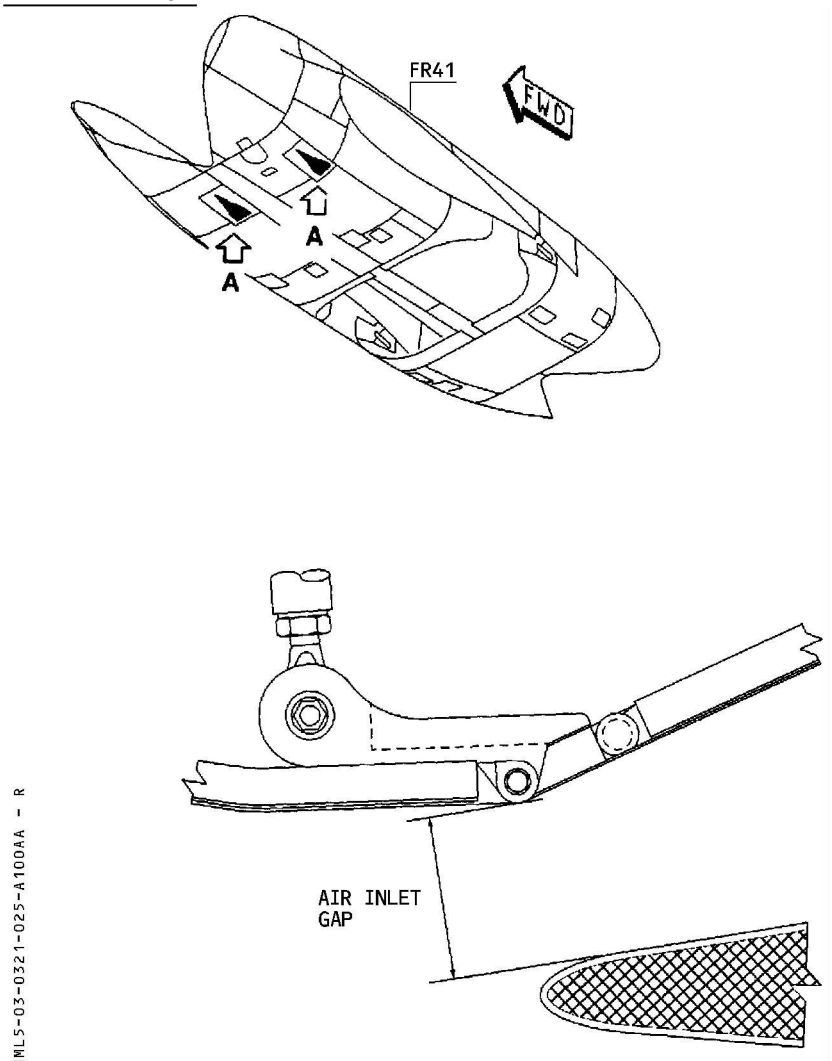
21-52-02 Air Cond Pack Ram Air Inlet Flap

MAINTENANCE



21-63-01 Zone Controller

MAINTENANCE

21-63-01	ZONE CONTROLLER – HOT AIR PRESS REG VALVE CHECK	
ACCESS ZONE : 825		ACCESS ITEM :
GSE : Access platform 2 m (6 ft 7 in)		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
4HK	AIR COND / ZONE TEMP CTL / 28VDC / SYS2	122VU V20
3HK	AIR COND / ZONE TEMP CTL / 28VDC / SYS1	122VU V19
2HK	AIR COND / ZONE TEMP CTL / 115VAC / SYS2	122VU V18
1HK	AIR COND / ZONE TEMP CTL / 115VAC / SYS1	122VU V17

PROCEDURE

WARNING : MAKE SURE THAT NO AIR IS SUPPLIED TO THE AIR CONDITIONING SYSTEM FROM THE MAIN ENGINE, THE APU OR GROUND SOURCE.

1 – Energize the aircraft electrical circuits
2 – Put the access platform at the FWD cargo door 825.
3 – Open the FWD cargo door 825.
4 – Remove the access panels 131 NW, 131PW.
5 – Open, safety and tag C / B 1HK, 2HK, 3HK, 4HK.
6 – Check that the hot air pressure regulating valve is closed.
7 – Disconnect the electrical connector 14HK-C from the hot air pressure regulating valve.
8 – Put blanking cap on the disconnected electrical connector.
9 – Secure the electrical connector to the aircraft structure.
10 – Remove the safety clips and the tags and close C / B 1HK, 2HK, 3HK, 4HK.
11 – Restore aircraft to required configuration.
12 – Make sure that the work area is clean and clear of tools and other items.
13 – Install the access panels 131NW, 131PW.
14 – Close the FWD cargo door 825.
15 – Remove the access paltform(s).

21-63-02 Trim Air Valve

MAINTENANCE

21-63-02	TRIM AIR VALVE – CLOSURE PROCEDURE	
ACCESS ZONE : 825	ACCESS ITEM :	
GSE : Access platform 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1HK	AIR COND / ZONE TEMP CTL / 115VAC / SYS 1	122 VU V17
2HK	AIR COND / ZONE TEMP CTL / 115VAC / SYS 2	122 VU V18
3HK	AIR COND / ZONE TEMP CTL / 28VDC / SYS 1	122 VU V19
4HK	AIR COND / ZONE TEMP CTL / 28VDC / SYS 2	122 VU V20

PROCEDURE

1 – Energize the aircraft electrical circuits
2 – Put the access platform at the forward cargo door 825
3 – Open the forward cargo door 825
4 – Remove the access panels 132 PW, 131 NW.
5 – Open, safety and tag C / B 1HK, 2HK, 3HK, 4HK
6 – Close the trim air valve with the manual override lever and then safety in the closed position with lockwire-corrosion resistant steel 0.8 mm dia.
7 – Disconnect the electrical connector
8 – Put blanking caps on the disconnected electrical connectors
9 – Secure the electrical connector to the aircraft structure.
10 – Remove the safety clip(s) and the tag(s) and close C/B 1 HK, 2 HK, 3 HK, 4 HK.
11 – De-energize the aircraft electrical circuits
12 – Make sure that the work area is clean and clear of tools and other items.
13 – Install the access panels 132PW, 131 NW.
14 – Close the FWD cargo door 825
15 – Remove the access platform.

21-63-03 Hot Air Pressure Regulating Valve

MAINTENANCE

21-63-03	HOT AIR PRESSURE REGULATING VALVE – CLOSURE PROCEDURE	
ACCESS ZONE : 825		ACCESS ITEM :
GSE : Access platform 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1HK	AIR COND / ZONE TEMP CTL / 115 VAC / SYS 1	122 VU V17
2HK	AIR COND / ZONE TEMP CTL / 115 VAC / SYS 2	122 VU V18
3HK	AIR COND / ZONE TEMP CTL / 28VDC / SYS 1	122 VU V19
4HK	AIR COND / ZONE TEMP CTL / 28VDC / SYS 2	122 VU V20

1 – Energize the aircraft electrical circuits
2 – Put the access platform at the forward cargo door 825
3 – Open the forward cargo door 825
4 – Remove the access panels 131 PW.
5 – Open, safety and tag C / B 1 HK, 2 HK, 3 HK, 4 HK
6 – Close the pressure regulating valve with the manual override lever and safety in the closed position with lockwire – corrosion resistant steel 0.8 mm dia.
7 – Disconnect the electrical connector 14HK-C
8 – Put blanking caps on the disconnected electrical connector
9 – Secure the disconnected electrical connector 14HK-C to the aircraft structure
10 – Remove the safety clip(s) and the tag(s) and close C/B 1HK, 2HK, 3HK, 4HK.
11 – De-energize the aircraft electrical circuits.
12 – Make sure that the work area is clean and clear of tools and other items.
13 – Install the access panels 131 PW.
14 – Close the FWD cargo door 825.
15 – Remove the access platform.

22-63-01 Yaw Damper System

MAINTENANCE

22-63-01	YAW DAMPER SYSTEM – DEACTIVATION PROCEDURE	
ACCESS ZONE :		**ACCESS ITEM :**
GSE	: Access platform 6 m	
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
14CC1	AUTO FLT/FAC 1/26 VAC	49VU B03
5CC1	AUTO FLT/FAC 1/28VDC	49VU B04
14CC2	AUTO FLT/FAC 2/26 VAC	121VU M18
5CC2	AUTO FLT/FAC 2/28 VDC	121VU M19

PROCEDURE

Note : Application of this maintenance procedure for deactivation of the affected yaw damper system may be delayed as :
- *The aircraft remains electrically powered and,*
- *The 28 VDC circuit breakers of the assocaited FAC are not opened with both engines stopped (C/B 5CC1 or 5CC2).*

1 – Energize the ground service network
2 – Make sure that the hydraulic systems are depressurized
3 – Put the warning notice in the cockpit to tell persons not to operate the flight controls
4 – Open, safety and tag C/B 14CC1 and 5CC1 (if yaw damper system 1 affected) or 14CC2 and 5CC2 (if yaw damper system 2 affected)
5 – Put the access platform in position at the access door 325 BL (325 BR)
6 – Open the access door 325 BL (325 BR)
7 – Make sure that there is no hydraulic leakage from the yaw damper servo-actuator.
. If there are leaks :
- *Depressurize the green and yellow hydraulic reservoirs*
- *Put a container below the hydraulic connections of the yaw damper servo-actuator*
- *Disconnect the hydraulic hoses from the yaw damper servo-actuator.*
- *Drain the remaining hydraulic fluid into the container*
- *Remove the container*
- *Put blanking plugs on the disconnected line ends and attach them with a tie wrap.*

8 – Disconnect both electrical connectors from the affected yaw damper servo-actuator
9 – Put blanking caps on the disconnected electrical connectors and attach them with a tie wrap.
10 – Remove the safety clips and the tags and close C/B 14CC1 and 5CC1 or 14CC2 and 5CC2

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22-63-01 Yaw Damper System

MAINTENANCE

11 – Do the operational test of yaw damper actuation
- Start the ECAM system and select F/CTL page
- Pressurize the aircraft hydraulic systems
- On the overhead panel ADIRS CDU select IR3 to NAV (IR1 and IR2 are in the OFF position)
  - On the overhead panel FLT CTL panel make sure that FAC 1(2) (the non affected system) is selected on.
  - Do the following test :

ACTION	RESULT
1 – On the center pedestal, on the MCDU :	
– Get the SYSTEM REPORT/TEST page	– The SYSTEM REPORT/TEST page comes into view.
– Push the line key adjacent to the NAV indication.	– The SYSTEM REPORT/TEST NAV page comes into view.
– Push the line key adjacent to the IR 3 indication.	– The ADIRS IRU3 page comes into view.
– Push the line key adjacent to the INTERFACE TEST indication.	– The ADIRS IRU3 INTERFACE TEST page comes into view.
Note : For the test below, ignore the warnings and the attitude changes.	
2 – On the ADIRS IRU3 INTERFACE TEST page :	On the F/CTL page on the lower ECAM display unit :
– Push the line key adjacent to the TEST START indication.	– The rudder moves to the left, then slowly moves back to zero.
– Push the line key adjacent to the RETURN/TEST STOP indication.	– The rudder moves to the right, then slowly moves back to zero.
– Push the MCDU MENU mode key	On the MCDU, the MCDU MENU page comes into view.

12 – Make sure that the work area is clean and clear of tools and other items
13 – Close the access door and remove the access platform
14 – Restore aircraft to required configuration

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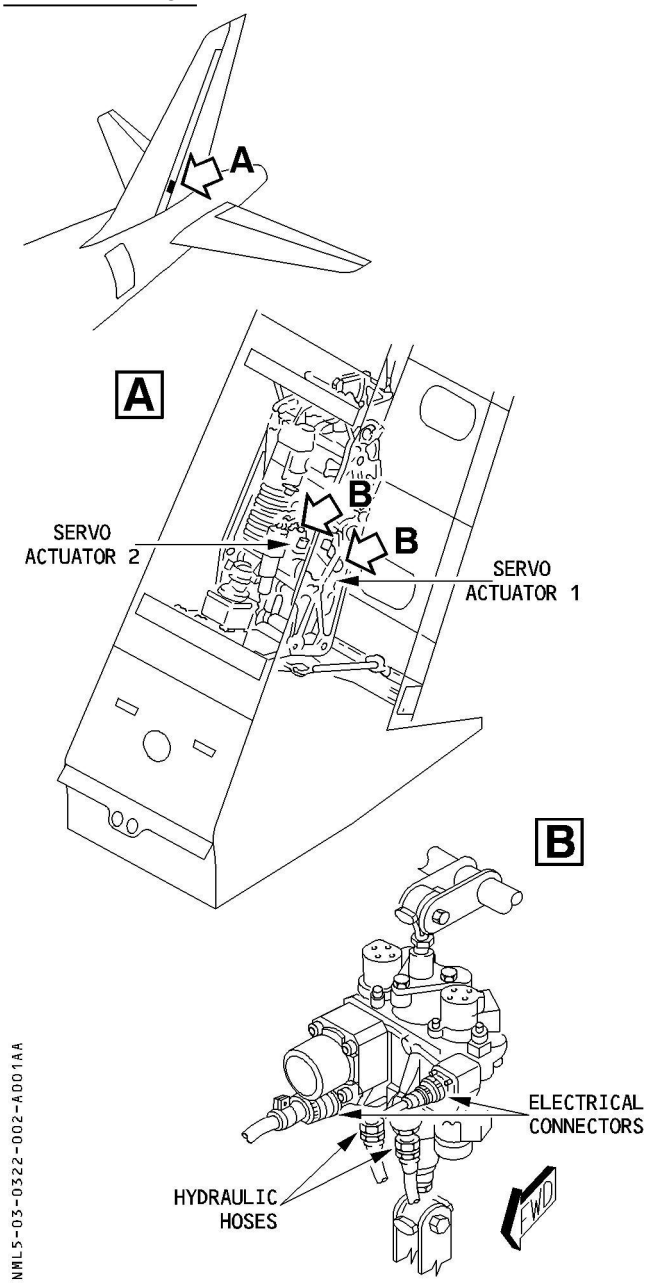
22-63-01 Yaw Damper System

MAINTENANCE



22-66-01 Flight Augmentation Computer (FAC)

MAINTENANCE

22-66-01A	FAC1 – DEACTIVATION PROCEDURE OF THE FAULTY SERVO ACTUATOR

THIS PROCEDURE HAS TO BE APPLIED AFTER TROUBLESHOOTING HAS BEEN PERFORMED TO DETERMINE THE FAULTY EQUIPMENT LEADING TO THE TRIGGERING OF ECAM CAUTION "FAC 1 FAULT" ASSOCIATED WITH THE TRIPPING OF THE CORRESPONDING C/B AUTO FLT/FAC1/28VDC.

I. IF RUDDER TRIM SYSTEM SERVO ACTUATOR 1 IS FAULTY :

Apply following procedure for deactivation :

GSE :	Access platform 1.5 m (4 ft 11 in)	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
5CC1	AUTO FLT/FAC 1/28 VDC	49VU B04

1 – Energize the ground service network
2 – Open, safety and tag C/B 5CC1
3 – Get access to the avionics compartment (access door 824).
4 – On panel 187 VU, remove the relay 7 CC1.
5 – Close C/B 5CC1
6 – Do the operational test of the rudder trim actuation.
7 – Close avionics access door 824 and de-energize the ground service network.

II. IF RUDDER TRAVEL LIMITER SYSTEM SERVO ACTUATOR 1 IS FAULTY :

Apply following procedure for deactivation :

GSE :	Access platform 1.5 m (4 ft 11 in)	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
5CC1	AUTO FLT/FAC 1/28 VDC	49VU B04

1 – Energize the ground service network
2 – Open, safety and tag C/B 5CC1
3 – Get access to the avionics compartment (access door 824).
4 – On panel 187 VU, remove the relay 13 CC1.
5 – Close C/B 5CC1
7 – Do the operational test of the rudder travel limiting.
8 – Close avionics access door 824 and de-energize the ground service network.

23-51-08 Side stick radio selector

MAINTENANCE

23-51-08	SIDE STICK RADIO SELECTOR – DEACTIVATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
4RN 5RN	COM/AUDIO/ACP/CAPT COM/AUDIO/ACP/F/O	49 VU G06 49 VU G07

PROCEDURE

1) Open, safety and tag C/B 4RN for 11RN (if CAPT affected) or 5RN for 12RN (if F/O affected)
2) Disengagement of the Radio PTT Switch (11RN, 12RN) (Ref. Fig. 1)
   a – Remove the screws (1).
   b – Remove the cover plate (2).
   c – Remove the blanking plug (11), the nut (10), the washer (9) and the trigger (8).
   d – Remove the nut (7), the washer (6), the switch (4) with the washer (3).
3) Deactivation of the Radio PTT Switch (11RN, 12RN) :
   a – Cut the power supply wires (5) with a pair of wire snips.
   b – Install end caps at the end of each wire (Ref. ESPM 20).
4) Engagement of the Radio PTT Switch (11RN, 12RN) :
   a – Install the lock plate (3) in the switch (4).
   b – Install the switch (4) in the handle.
   c – Make sure that the stop of the lock plate (3) is in its housing.
   d – Install the washer (6), the nut (7) and tighten it.
   e – Install the trigger (8), the washer (9) and the nut (10).
   f – TORQUE the nut (10) to 0.035 m.daN (3.09 lbf.in).
   g – Install the blanking plug (11).
   h – Install the cover plate (2).
   i – Install the screws (1) and tighten.
5) Remove the safety clip(s) and the tag(s) and close CBs : 4RN (5RN).
6) Energize the aircraft electrical circuits.
7) Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only).
8) Do the IR alignment procedure.
9) On the overhead panel 23VU :
   – make sure that the FLT CTL/ELAC 1 and FLT CTL/SEC 1 pushbutton switches are pushed (On these pushbutton switches, the OFF and FAULT legends are off).

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23-51-08 Side stick radio selector

MAINTENANCE

10) On the overhead panel 24VU :
   – make sure that the FLT CTL/ELAC 2, FLT CTL/SEC 2 and FLT CTL/SEC 3 pushbutton switches are pushed (On these pushbutton switches, the OFF and FAULT legends are off).
11) On the upper ECAM display unit, make sure that the warnings that follow do not show :
   – HF1 (2) EMITTING
   – VHF1 (2) (3) EMITTING
   – ELAC 1 FAULT
   – ELAC 2 FAULT
12) Pressurize the aircraft hydraulic systems.
13) On the center pedestal, on the ECAM control panel, push the F/CTL key (On the lower ECAM display unit, the F/CTL page comes into view).
14) Do the Operational test of the Side Stick Priority (Ref. TASK 27-96-00-710-003).
15) Put the aircraft back to its initial configuration.
16) Put a warning notice on the cover panel of the side stick assembly to tell the crew that the radio PTT switch is deactivated.

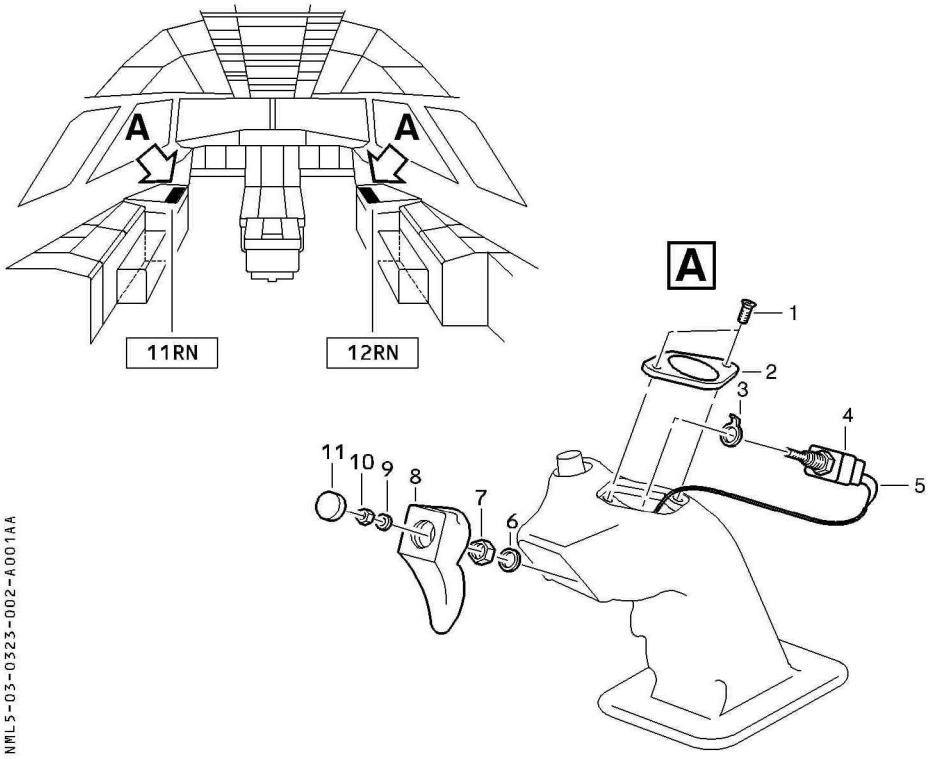


Fig. 1

23-73-01 Cabin Inter - communication Data System (CIDS)

MAINTENANCE

23-73-01	CIDS DIRECTOR – REMOVAL OF AFFECTED DIRECTOR	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
150 RH 151 RH	COM/CIDS/DIR 1 AND 2/ESS COM NAV/CIDS/DIR 1 AND 2/NORM	49 VU G02 121 VU M05

PROCEDURE

Note : This procedure applies only in the event the defective CIDS director disturbs the normal CIDS operation.

1) Open, safety and tag C/B 150 RH and 151 RH.
2) Get access to the avionics compartment.
3) Remove affected DIR 1 or 2 (ident 101 RH or 102 RH) from rack 88 VU.
4) Close C/B 150 RH and 151 RH.

23-73-01 Cabin Inter - communication Data System (CIDS)

MAINTENANCE

23-73-01	CIDS DIRECTOR – DEACTIVATION OF AFFECTED DIRECTOR	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
150 RH	COM DIR/ESS 1	49 VU G01
151 RH	COM NAV/CIDS/DIR/NORM 1	121 VU M05
156 RH	COM NAV/CIDS/DIR/NORM 2	121 VU M06
157 RH	COM DIR/ESS 2	49 VU G02

PROCEDURE

Note : This procedure applies only in the event the defective CIDS director disturbs the normal CIDS operation.

– If CIDS director 1 101 RH affected :

. Open, safety and tag C/B 150 RH and 151 RH.

– If CIDS director 2 102 RH affected :

. Open, safety and tag C/B 156 RH and 157 RH.

24-20-06 RAT extension control

MAINTENANCE

24-20-06	RAT EXTENSION CONTROL CHECK OF RAT MANUAL EXTENSION	
ACCESS ZONE :	COCKPIT	**ACCESS ITEM :**
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
6 X E	CSM / G / EV / MAN / SPLY	106 VU / 01 AS

PROCEDURE

CAUTION : MAKE SURE THAT THE RAT TRAVEL RANGE IS CLEAR BEFORE RAT EXTENSION.

1 – Energize the aircraft electrical circuit.

2 – Pressurize the blue hydraulic system.

3 – On the overhead panel 21 VU, ELEC EMER PWR section : open the cover and push the MAN ON / AUTO switch.

4 – In zone 195, the RAT extends.

5 – Retract the RAT as follows :

A – Set manually the blade of the RAT in line with the leg assembly (index position).
Note : Retraction is not possible if the index position is not adjacent to the arrow.

B – Open the access door 197 EB (GROUND HYDRAULIC CONNECTION BLUE).

C – Open the door of the control panel box 2815 GE (access to the RAT control panel).

D – On the RAT control panel, open the red cover and set the ARM switch to the ON position.

E – Set the STOW switch to the STOW position

F – Make sure that the warning light on the RAT control panel gets off after RAT retraction.
Note : If the RAT does not retract, repeat the procedure from the step A.

G – Set the ARM switch to OFF position and close the red cover.

H – Close and lock the door of the control panel box 2815 GE.

I – Close the access door 197 EB.

6 – Depressurize the blue hydraulic system.

7 – Restore aircraft to required configuration.

24-30-01 Transformer/ Rectifier Unit (TR)

MAINTENANCE

24-30-01	TRANSFORMER RECTIFIER UNIT (TR)	
ACCESS ZONE :	COCKPIT	ACCESS ITEM :
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 31-63-02-b) in Section 03

24-30-03 Battery Charge Limiter

MAINTENANCE

24-30-03	BATTERY CHARGE LIMITER	
ACCESS ZONE :	COCKPIT	ACCESS ITEM :
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Replace the battery related to the failed BCL with a fully charged serviceable battery and switch off the battery pb, or apply one of the two following procedures as applicable.

1 – BCL FAILURE OCCURED DURING THE PREVIOUS FLIGHT AND THE TIME ON GROUND DOES NOT EXCEED 3 HOURS, OR THE LAST FLIGHT WAS PERFORMED WITH THE BCL INOPERATIVE, AND TIME ON GROUND DOES NOT EXCEED 3 HOURS.
Note : This procedure leads to change location of the failed BCL before each flight.

– Perform a charging cycle on the battery associated with the operative BCL :
- Check on ECAM page that the ground power unit voltage remains above 114 VAC during the charge.
- Switch OFF then ON the related push button to initiate the charging cycle.
- Wait for the battery contactor opening (time duration : about 20 mn) then, check on system ECAM page that the battery voltage is above 25V and the battery discharge current is equal to or lower than 1A (Hot Bus power consumption is normally lower than 100 mA)

– Swap the BCL's and initiate a charging cycle on the battery which was associated with the failed BCL during the previous flight :
- Switch ON the related push button to initiate the charging cycle

– Switch OFF the battery push button associated with the failed BCL.

2 – BCL FAILURE OCCURED ON GROUND AT POWER UP OR THE TIME ON GROUND EXCEEDED 3 HOURS.

– Remove the battery related to the failed BCL and charge the battery in workshop.

WARNING : GROUND CHARGING OF 2758 BATTERIES MUST BE CARRIED OUT WITH THE COVER REMOVED TO AVOID THE ACCUMULATION OF GAS IN THE BATTERY BOX.

– Constant current charge
- Battery completely discharged.

(continued)

(continued)

24-30-03 Battery Charge Limiter

MAINTENANCE

24-30-03	BATTERY CHARGE LIMITER	
ACCESS ZONE :	COCKPIT	ACCESS ITEM :
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

To charge a completely discharged battery, use one of the following procedures :

* Charge at 0.1 C1A(2.3A) until the battery voltage reaches an average of 1.5 volt per cell (30 volts for 20 cell battery). Then continue charging at this same current rate for 4 additional hours. When following this method, the total charge time must be at least 14 hours, but not more than 16 hours.

or

* Charge at 0.5 C1A (11.5A) for at least 2 hours. If, after this time, the battery voltage has not yet reached an average of 1.55 volt per cell (31 volts for a 20 cell battery), continue to charge at this current rate until the voltage reaches the required level. However, do not charge at this rate for more than 2 hours and 30 minutes (see NOTE). Once the 1.55 volt average has been attained, charge at 0.1 C1A (2.3A) for 4 additional hours.

or

* Charge at C1A (23A) for at least 1 hour. If, after this time, the battery voltage has not yet reached an average of 1.57 volt per cell (31.4 volts for a 20 cell battery, continue to charge at this current rate until the voltage reaches the required level. However, do not charge at this rate for more than 1 hour and 15 minutes (see NOTE). Once the 1.57 volt average has been attained, charge at 0.1 C1A (2.3A) for 4 additional hours.

or

* Charge at constant voltage. The battery may be recharged using a constant potential source such as an aircraft generator equipped with a voltage regulator. At the normal temperature, (+20°C) (+68°F), the regulator must be set to 28.5 volts (accuracy 0.5%) and the battery recharged for from 4 to 5 hours.

(continued)

(continued)

24-30-03 Battery Charge Limiter

MAINTENANCE

24-30-03	BATTERY CHARGE LIMITER	
ACCESS ZONE :	COCKPIT	ACCESS ITEM :
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Note : If the battery voltage has not risen sufficiently during this maximum charging time the battery shall be considered as failed (see CMM 24-38-51 "TESTING AND FAULT ISOLATION").

- Battery partially discharged and state of discharge unknown.

– discharge the residual capacity at 1C1A (23A) down to 20 volts and then recharge as above.

– the battery may also be charged at one of constant current values given above until the voltage at the battery terminals reaches the corresponding recommended voltage (30, 31 or 31.4V).

– Re-install the charged battery on the failed BCL.

– Switch off the battery pb associated with the failed BCL.

24-30-03 Battery Charge Limiter

MAINTENANCE

24-30-03	BATTERY CHARGE LIMITER	
ACCESS ZONE :	COCKPIT	ACCESS ITEM :
GSE :	nil	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Replace the battery related to the failed BCL with a fully charged serviceable battery and switch off the battery pb, or apply the following procedure.

1 – Just before departure, perform a charging cycle on the battery associated with the operative BCL :
- Check on ECAM page that the ground power unit voltage remains above 114 VAC during the charge.
- Switch OFF then ON the related push button to initiate the charging cycle.
- Wait for the battery contactor opening then, check on system ECAM page that the battery voltage is above 25V and the battery discharge current is equal to or lower than 1A (Hot Bus power consumption is normally lower than 100 mA)

– Swap the BCL's and initiate a charging cycle on the battery which was associated with the failed BCL during the previous flight :
- Switch ON the related push button to initiate the charging cycle

– Switch OFF the battery push button associated with the inoperative BCL.

24-56-01 GALY and CAB Supply System

MAINTENANCE

24-56-01-b)	GALY & CAB SUPPLY SYSTEM – LOADS DISCONNECTION	
ACCESS ZONE :		ACCESS ITEM :
GSE :		

ASSOCIATED CIRCUIT BREAKERS

FIN	DESIGNATION	LOCATION
7MC	ELEC / GALLEY / CNTOR	122 VU S28 (or W31)
3MC	MAIN AFT GALLEY / FEEDER A	123 VU AF04
2MC	FWD GALLEY / FEEDER D	123 VU AD04 (or AE02)
1MC	GALLEY PWR - C - or MAIN FWD GALLEY / FEEDER C	123 VU AE03 (or AE10)
12MC	AFT GALLEY / FEEDER B	123 VU AD09
14MC	MAIN AFT GALLEY / FEEDER E	123 VU AF09
16MC	MAIN FWD GALLEY / FEEDER F	123 VU AC10

PROCEDURE

1 – Energize the aircraft electrical circuits
2 – Make sure that the C / B 1XA on the 122VU is closed.
3 – Make sure that the pb sw COMMERCIAL (22XN) on the overhead ELEC panel 35 VU is in the ON position
4 – Open, safety and tag C / B, 7MC, 3MC, 2MC, 1MC, 12MC, 14MC and 16 MC (if installed)
5 – On the overhead panel 35VU make sure that the p.b. sw GALY & CAB (2XA) is in the OFF position (white indication light shows OFF)
6 – Restore aircraft to required configuration.

(continued)

(continued)

24-56-01 GALY and CAB Supply System

MAINTENANCE

24-56-01-c)	GALY & CAB SUPPLY SYSTEM – TEST OF COMMERCIAL	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

1 – Energize the aircraft electrical circuits
2 – In the forward and aft galleys, make sure that all the circuits breakers are closed.
3 – On the ELEC panel 35VU, make sure that the GALY & CAB pb sw is pushed (the OFF legend is off).
4 – On this panel, make sure that the COMMERCIAL pb sw is released (the OFF legend is on).
5 – On the FWD ATTENDANT panel 120RH, make sure that the MAIN ON, CABIN WDO and CABIN CLG pb sw are pushed.
6 – Test of the Commercial Electrical Load Shedding

ACTION	RESULT
A. On the ECAM control panel : – get the ELEC system page.	On the lower display unit of the ECAM system : – the ELEC page comes into view with the white GALLEY SHED indication.
B. On the ELEC panel 35VU : – Push the COMMERCIAL pb sw.	On the panel 35VU : – the OFF legend of the COMMERCIAL pushbutton switch goes off.
	On the lower display unit of the ECAM system : – the GALLEY SHED indication goes out of view.
	In the forward and aft galleys : – make sure that the galleys operate.
	In the passenger cabin : – the CEILING and WINDOW lights come on.
C. On the ELEC panel 35VU : – release the COMMERCIAL pb sw	On the panel 35VU : – the OFF legend of the COMMERCIAL pb sw comes on.
	On the lower display unit of the ECAM system : – the white GALLEY SHED indication comes into view.
	In the forward and aft galleys : – make sure that no equipment operate.
	In the passenger cabin : – the CEILING and WINDOW lights go off.

7 – Restore aircraft to required configuration

25-13-01 Pilot Sliding Table

MAINTENANCE

25-13-01-b)	SLIDING TABLE – REMOVAL	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

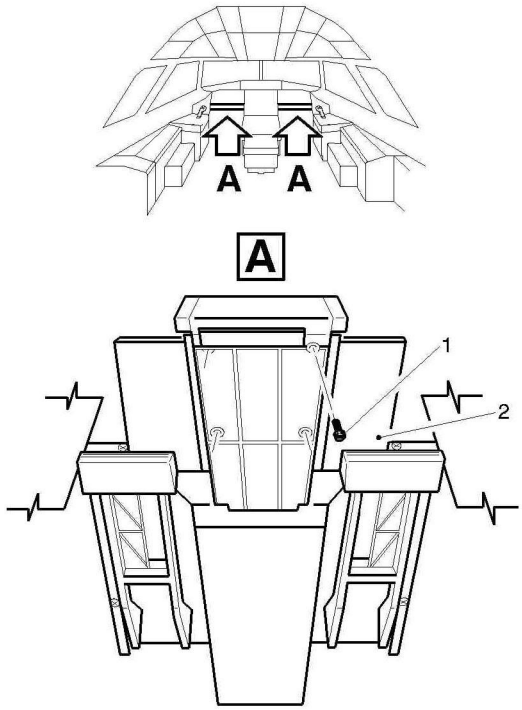
PROCEDURE

1 – Remove the defective Captain and/or First Officer sliding tables.

– Pull the table. Do not remove it fully from its housing.

– Remove the screw (1).

– Remove the sliding table (2).



NML5-03-0325-001-A100AA

25-13-02 Pilot Retractable Footrest

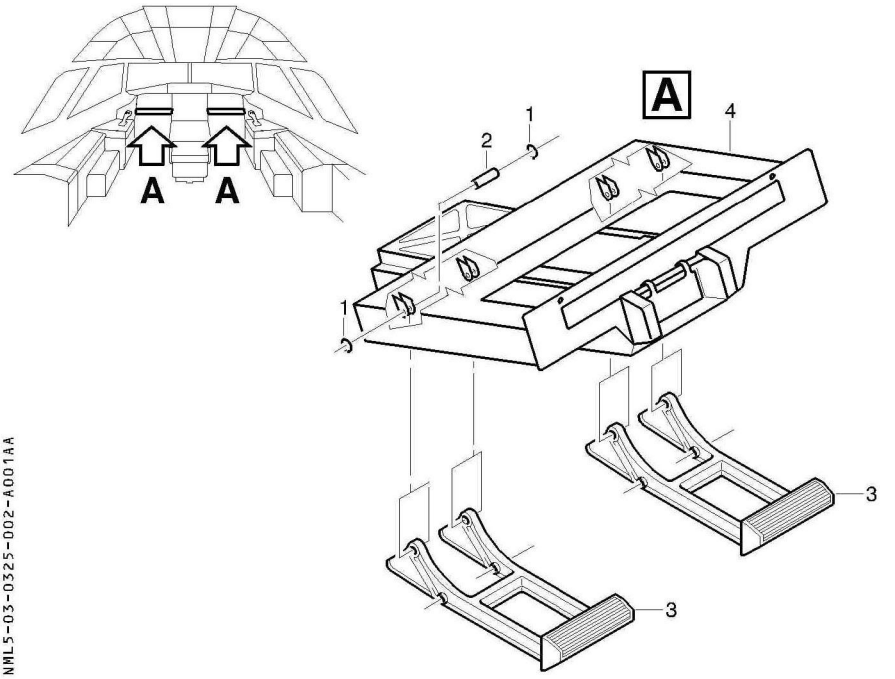
MAINTENANCE

25-13-02-b)	RETRACTABLE FOOTRESTS – REMOVAL	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Remove the actuator on the footrest assembly

2 – Remove the defective Captain and/or First Officer retractable footrests
- remove and discard the retaining rings (1).
- hold the retractable footrest (3).
- remove the hinge pins (2).
- remove the retractable footrest (3) from the footrest and sliding table assembly (4).



NML5-03-0325-002-A001AA

25-22-01 Cabin Attendant Seat

MAINTENANCE

25-22-01	CABIN ATTENDANT SEAT – DEACTIVATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Safety the affected seat in its stowed position.

Note : Put a WARNING NOTICE in position to tell persons not to use the seat.

2 – If you cannot safety the seat, remove the affected seat.

25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-A)	CABIN PASSENGER DOORS – CONTROL HANDLE LOAD ADJUSTMENT	
ACCESS ZONE : 831-841-832-842	ACCESS ITEM :	
GSE : Dynamometer 20 daN – access platform 3.50 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
13WN	EIS/SLIDES/ARM AND WARN/GND	121VU P10
15WN	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
48WV	EIS/SDAC1 AND 2/DOOR/DET/PAX	121VU P05

PROCEDURE

Note : The procedure published in 03.25 page 6 may be used as an alternative to the following procedure.

LOAD ADJUSTEMENT OF THE CONTROL HANDLE OF THE PASSENGER DOORS (TO BE APPLIED ONLY IF EMERGENCY ESCAPE SLIDE IS REMOVED).

1 – Put the access platform in position at the zone 831 (841) for forward door, 832 (842) for aft door.

2 – Open the passenger / crew door 831 (841) or 832 (842).

3 – Make sure that the emergency control handle is in the DISARMED position.

4 – Open, safety and tag CBs : 13WN, 15WN, 48WV.

5 – Remove the lockwire from the screw (2).

6 – Measure the loads on the inner control handle with a dynamometer, 20 daN when the door is in the up and down positions.

7 – Make sure that the load necessary to open and close the door with the inner control handle is less than or equal to 16 daN (35.9694 lbf).

8 – Adjust the load. To do this, turn the screw (2) to apply a load on the torsion bar (1).

9 – Safety the screw (2) with lockwire 0.8 mm.

10 – Close CBs : 13WN, 15WN, 48WV.

11 – Close the passenger / crew door 831 (841) or 832 (842).

12 – Remove the access platform.

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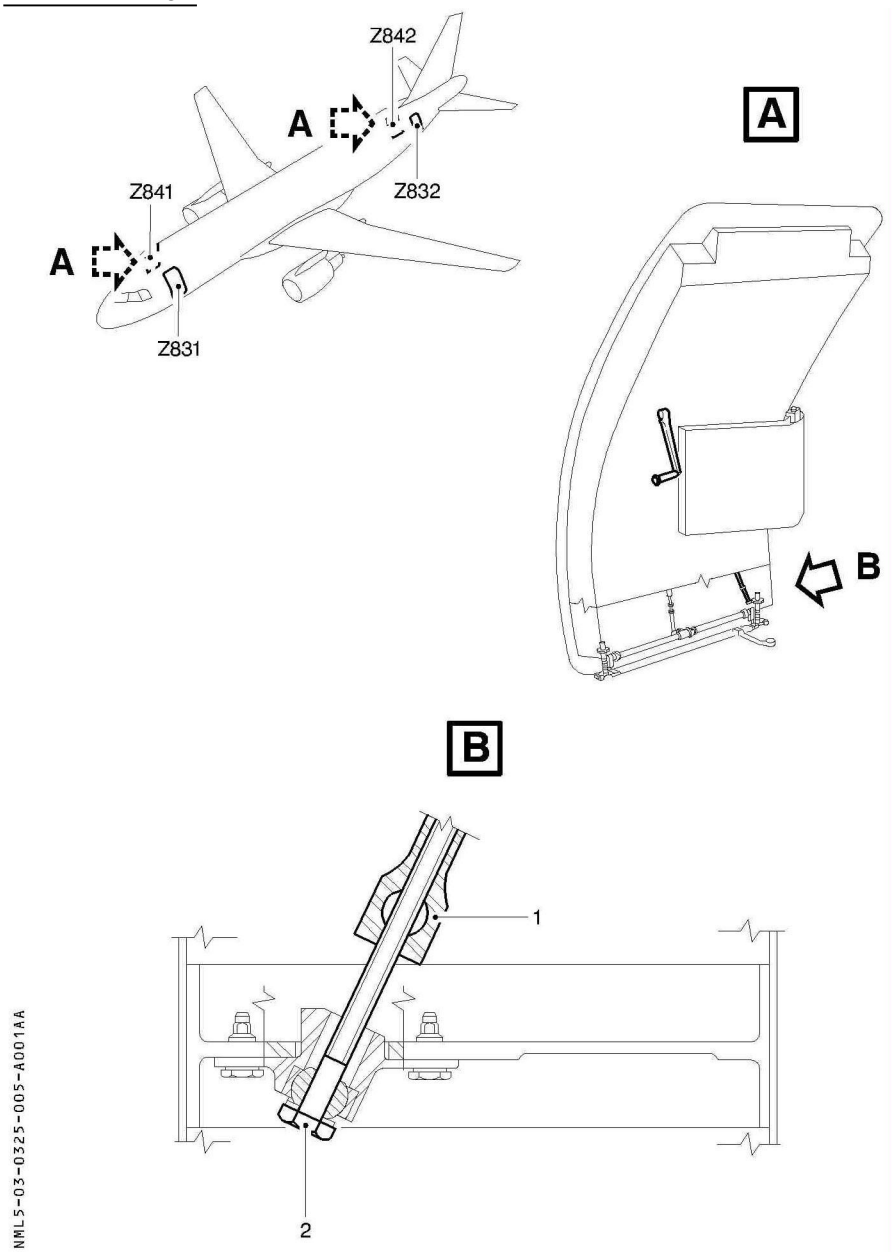
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



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25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-A)	CABIN PASSENGER DOORS – CONTROL HANDLE LOAD ADJUSTMENT	
ACCESS ZONE : 831-841-832-842		ACCESS ITEM :
GSE : access platform 3.50 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
13WV	EIS/SLIDES/ARM AND WARN/GND	121VU P10
15WV	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
48WV	EIS/SDAC1 AND 2/DOOR/DET/PAX	121VU P05

PROCEDURE

Note : This procedure may be used as an alternative to the procedure published in 03-25 p 5 for cabin passengers doors.

LOAD ADJUSTEMENT OF THE CONTROL HANDLE OF THE PASSENGER DOORS (TO BE APPLIED ONLY IF EMERGENCY ESCAPE SLIDE IS REMOVED).

1 – Put the access platform in position at the zone 831 (841) for forward door, 832 (842) for aft door.

2 – Open the passenger / crew door 831 (841) or 832 (842).

3 – Make sure that the emergency control handle is in the DISARMED position.

4 – Open, safety and tag CBs : 13WN, 15WN, 48WV.

5 – Remove the lockwire 0.8 mm from the screw (2).

6 – Adjust the load (less than or equal to 16 Dan) on the inner control handle. To do this loosen the screw (2) by 9 turns (if slide was fitted on the door) or 20 turns (if slide/raft was fitted on the door) to apply the load on the torsion bar (1).

7 – Safety the screw (2) with lockwire 0.8 mm.

8 – Pull the inner control handle by 50 mm (1.9685 in.) to 70 mm (2.7559 in.) from the door

9 – Release the inner control handle

10 – Make sure that the inner control handle moves back to the door fully closed and locked position. If the handle does not come back to its initial position, turn the screw (2) by a few more turns until you get this position.

11 – Close CBs : 13WN, 15WN, 48WV.

12 – Close the passenger / crew door 831 (841) or 832 (842).

13 – Remove the access platform.

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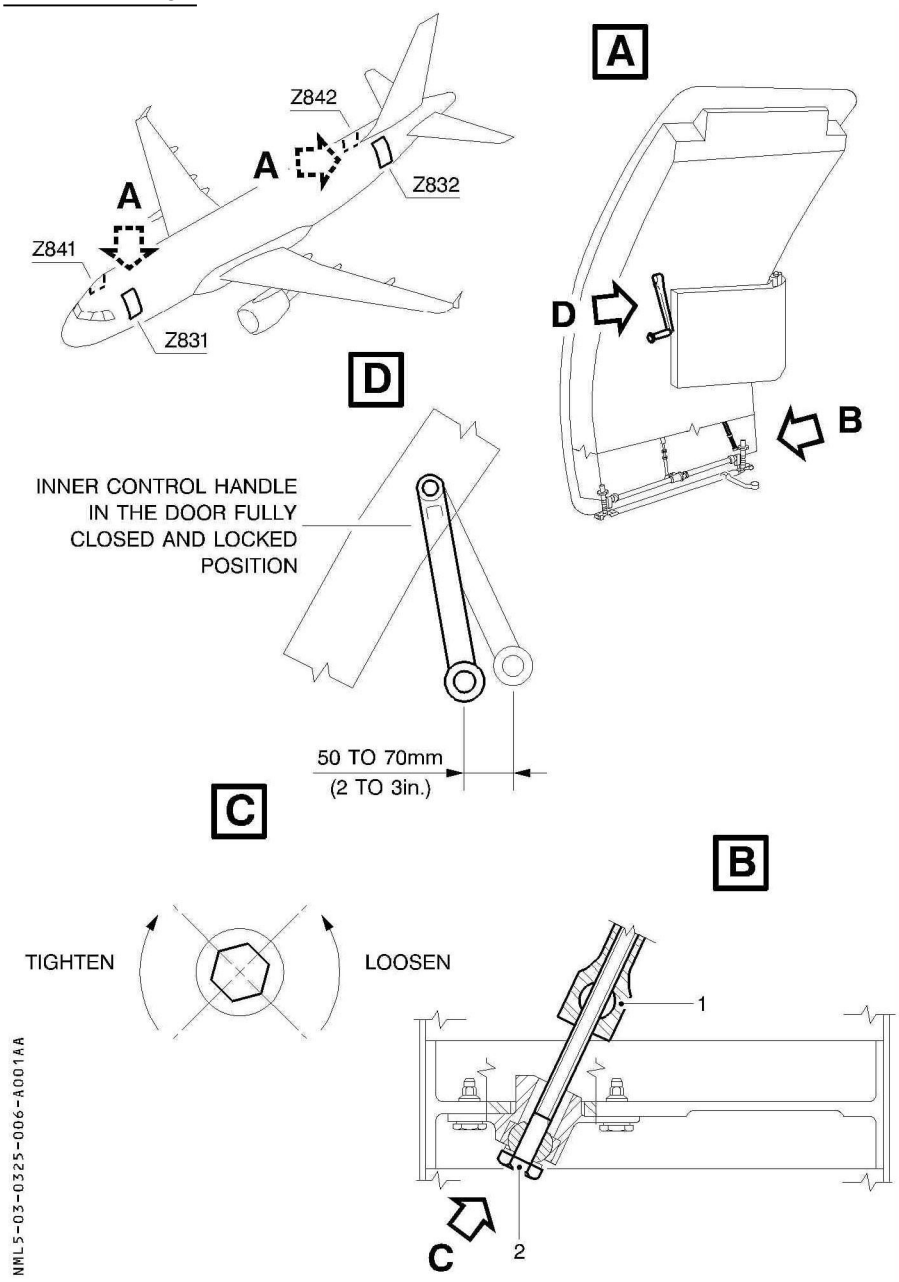
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



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25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-B)	ESCAPE SLIDE CLOSURE DOOR INSTALLATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :	access platform 3 m – LOCKING TOOL – FLAP/SLAT CONTROL LEVER (98D27803000000)	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Installation for flight of the enclosure door on to the empty enclosure when the Escape Slide/Slide Raft is removed.

Note : The lock pin (3) and the pressure blanking plug (7) are kept in a pocket, which is attached to the inflation reservoir (1).

1 – If the inflation reservoir (1) is charged, install the lock pin (3) in the regulator valve assembly (2).
2 – Make sure that the LOCKING TOOL - FLAP/SLAT CONTROL LEVER (98D27803000000) on the slat/flap control lever is installed.
  – Put a warning notice on the slat/flap control lever to tell persons not to operate the flaps during the procedure.
3 – Put an Access platform 3M (10 FT) - ADJUSTABLE in position adjacent to the related enclosure (4).
4 – Install the blanking plug (7) on the enclosure connection (8).
5 – Put the lower edge of the enclosure door (5) in the groove in the bottom of the enclosure (4).
6 – Close the enclosure door (5) on the three ball-lock assemblies (6).
7 – Push the head of the lock pin (10) with a SCREWDRIVER – PHILLIPS HEAD, then :
  – Apply force to the enclosure door (5) adjacent to the lock pin (9).
  – Remove the screwdriver.
  – Continue to push the enclosure door (5) until the lock pin (9) moves quickly back to a flush position with the surface of the enclosure door (5).
8 – Do this procedure with each lock pin (9).
9 – System Consequences
  On the programming and test panel (PTP), the message 'SLIDE PRESSURE LOW' will be showed.
10 – Make an entry in the logbook.
11 – Make sure that the work area is clean and clear of tool(s) and other items.
12 – Remove the LOCKING TOOL - FLAP/SLAT CONTROL LEVER (98D27803000000) from the slat/flap control lever.
13 – Remove the warning notice(s).
14 – Remove the access platform(s).

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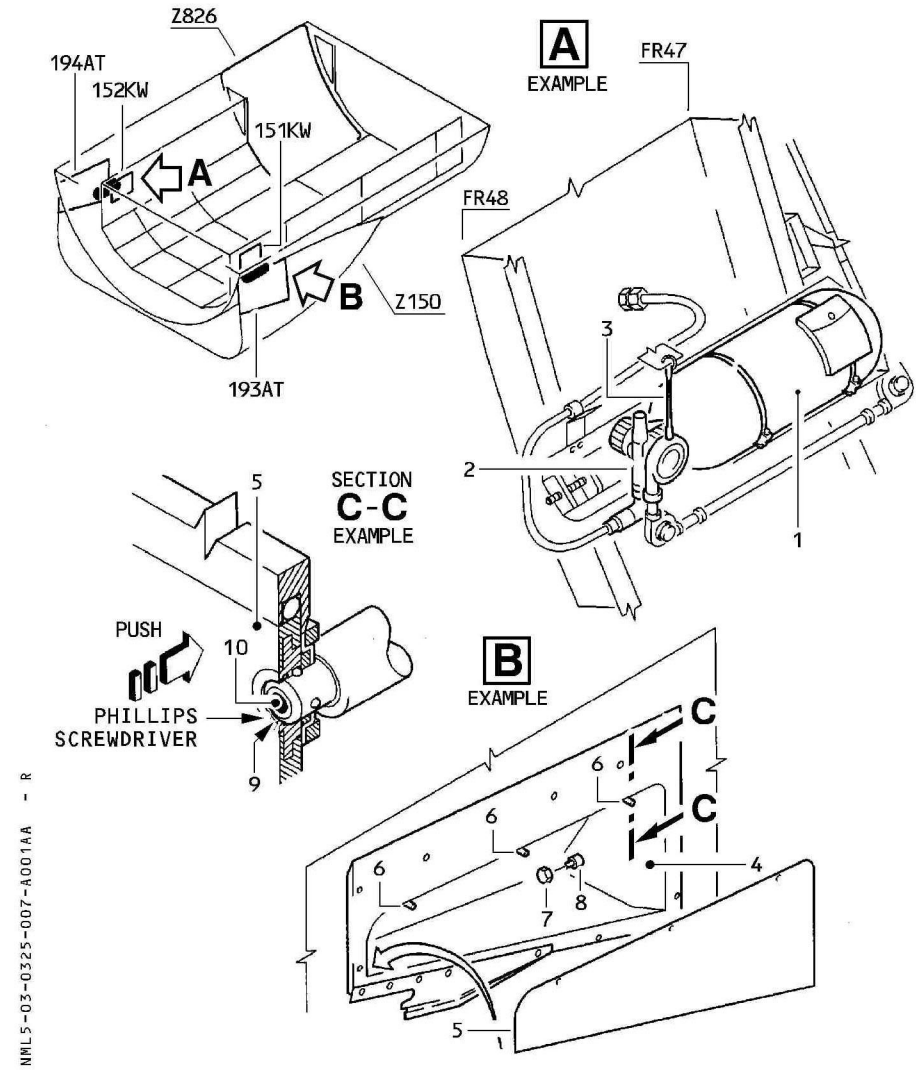
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-A)	CABIN PASSENGER DOORS – CONTROL HANDLE LOAD ADJUSTMENT	
ACCESS ZONE : 831-841-832-842		ACCESS ITEM :
GSE : Dynamometer 20 daN – access platform 3.50 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
13WN	EIS/SLIDES/ARM AND WARN/GND	121VU P10
15WN	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
48WV	EIS/SDAC1 AND 2/DOOR/DET/PAX	121VU P05

PROCEDURE

Note : The procedure published in 03.25 page 6 may be used as an alternative to the following procedure.

LOAD ADJUSTEMENT OF THE CONTROL HANDLE OF THE PASSENGER DOORS (TO BE APPLIED ONLY IF EMERGENCY ESCAPE SLIDE IS REMOVED).

1 – Put the access platform in position at the zone 831 (841) for forward door, 832 (842) for aft door.

2 – Open the passenger / crew door 831 (841) or 832 (842).

3 – Make sure that the emergency control handle is in the DISARMED position.

4 – Open, safety and tag CBs : 13WN, 15WN, 48WV.

5 – Remove the lockwire from the screw (2).

6 – Measure the loads on the inner control handle with a dynamometer, 20 daN when the door is in the up and down positions.

7 – Make sure that the load necessary to open and close the door with the inner control handle is less than or equal to 16 daN (35.9694 lbf).

8 – Adjust the load. To do this, turn the screw (2) to apply a load on the torsion bar (1).

9 – Safety the screw (2) with lockwire 0.8 mm.

10 – Close CBs : 13WN, 15WN, 48WV.

11 – Close the passenger / crew door 831 (841) or 832 (842).

12 – Remove the access platform.

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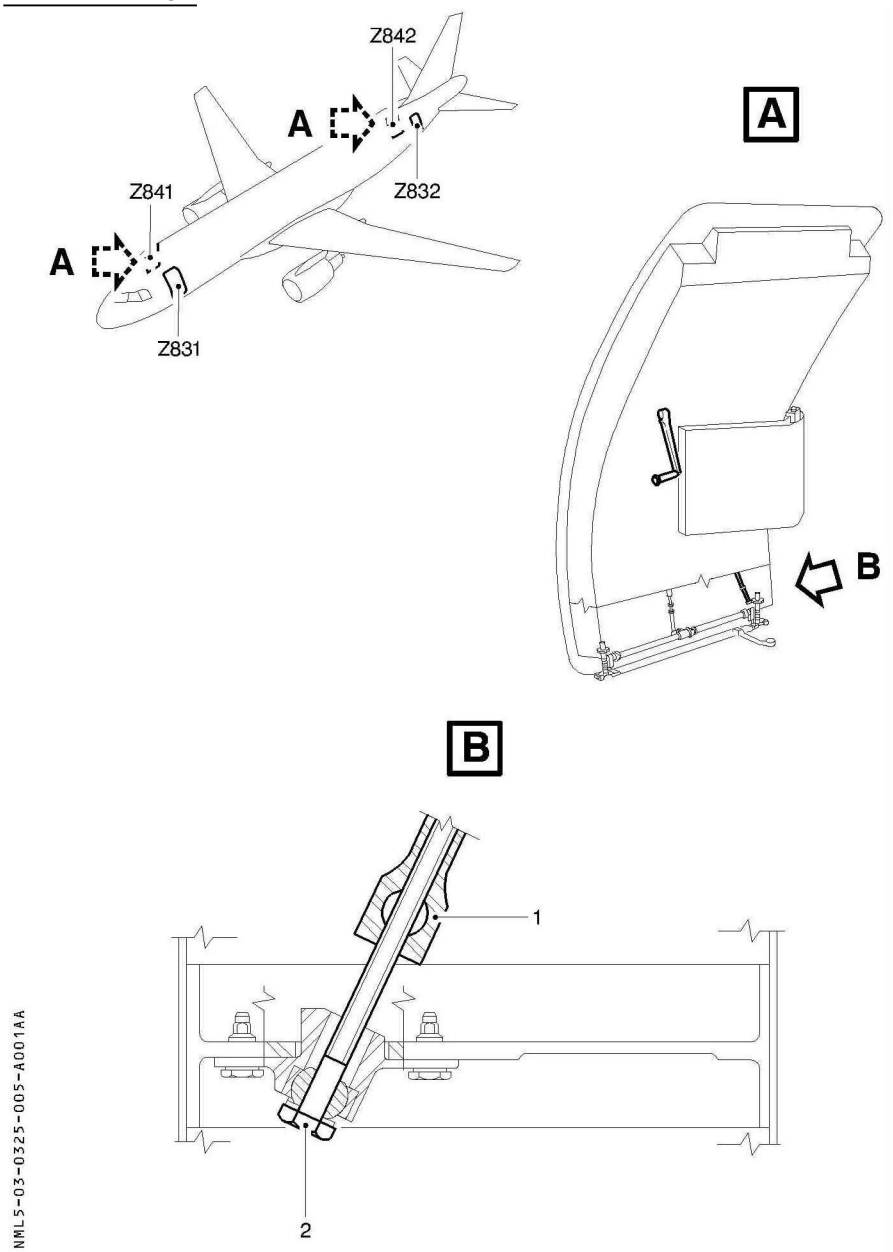
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



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25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-A)	CABIN PASSENGER DOORS – CONTROL HANDLE LOAD ADJUSTMENT	
ACCESS ZONE : 831-841-832-842		ACCESS ITEM :
GSE : access platform 3.50 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
13WV	EIS/SLIDES/ARM AND WARN/GND	121VU P10
15WV	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
48WV	EIS/SDAC1 AND 2/DOOR/DET/PAX	121VU P05

PROCEDURE

Note : This procedure may be used as an alternative to the procedure published in 03-25 p 5 for cabin passengers doors.

LOAD ADJUSTEMENT OF THE CONTROL HANDLE OF THE PASSENGER DOORS (TO BE APPLIED ONLY IF EMERGENCY ESCAPE SLIDE IS REMOVED).

1 – Put the access platform in position at the zone 831 (841) for forward door, 832 (842) for aft door.

2 – Open the passenger / crew door 831 (841) or 832 (842).

3 – Make sure that the emergency control handle is in the DISARMED position.

4 – Open, safety and tag CBs : 13WN, 15WN, 48WV.

5 – Remove the lockwire 0.8 mm from the screw (2).

6 – Adjust the load (less than or equal to 16 Dan) on the inner control handle. To do this loosen the screw (2) by 9 turns (if slide was fitted on the door) or 20 turns (if slide/raft was fitted on the door) to apply the load on the torsion bar (1).

7 – Safety the screw (2) with lockwire 0.8 mm.

8 – Pull the inner control handle by 50 mm (1.9685 in.) to 70 mm (2.7559 in.) from the door

9 – Release the inner control handle

10 – Make sure that the inner control handle moves back to the door fully closed and locked position. If the handle does not come back to its initial position, turn the screw (2) by a few more turns until you get this position.

11 – Close CBs : 13WN, 15WN, 48WV.

12 – Close the passenger / crew door 831 (841) or 832 (842).

13 – Remove the access platform.

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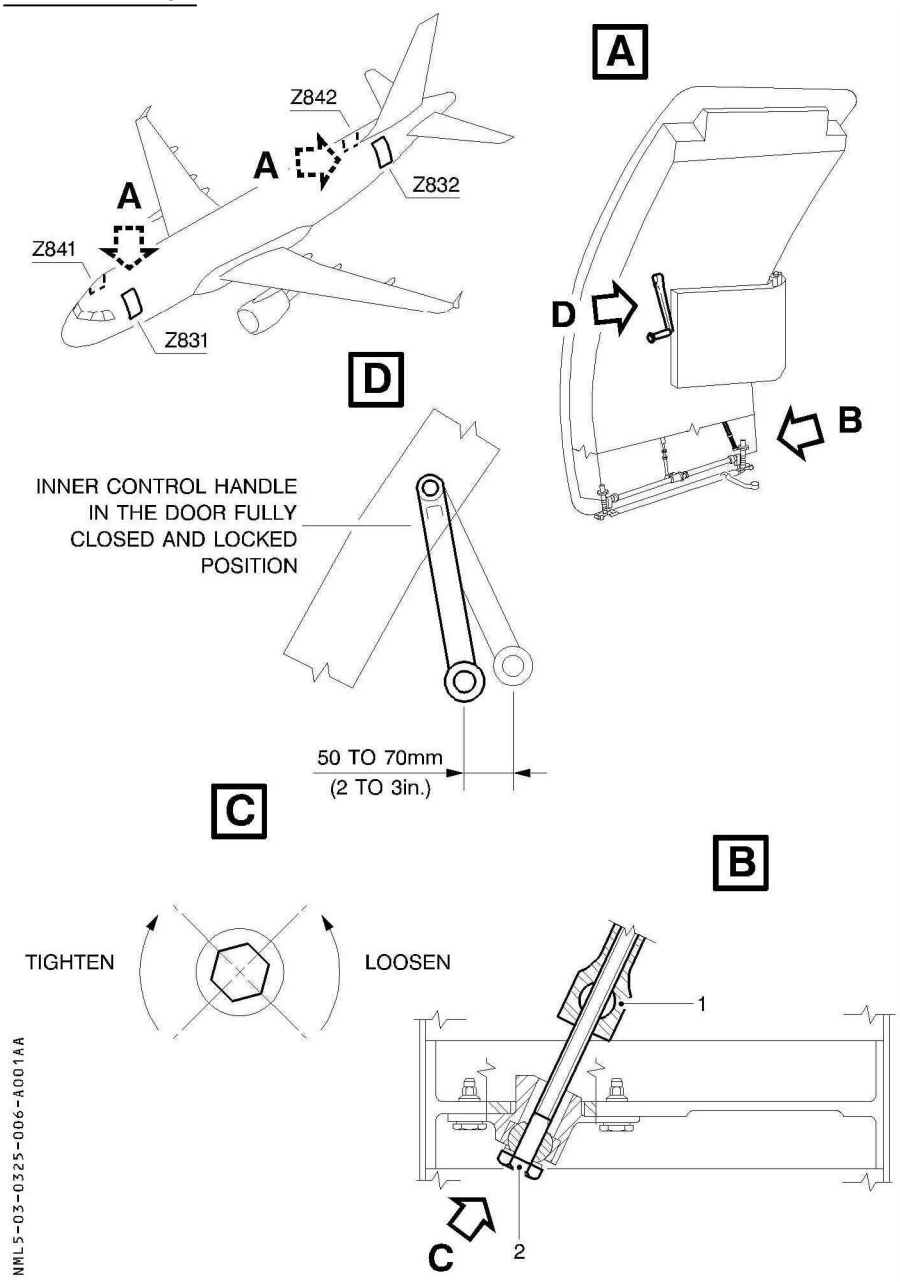
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



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25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-B)	ESCAPE SLIDE CLOSURE DOOR INSTALLATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :	access platform 3 m – LOCKING TOOL – FLAP/SLAT CONTROL LEVER (98D27803000000)	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Installation for flight of the enclosure door on to the empty enclosure when the Escape Slide/Slide Raft is removed.

Note : The lock pin (3) and the pressure blanking plug (7) are kept in a pocket, which is attached to the inflation reservoir (1).

1 – If the inflation reservoir (1) is charged, install the lock pin (3) in the regulator valve assembly (2).
2 – Make sure that the LOCKING TOOL - FLAP/SLAT CONTROL LEVER (98D27803000000) on the slat/flap control lever is installed.
  – Put a warning notice on the slat/flap control lever to tell persons not to operate the flaps during the procedure.
3 – Put an Access platform 3M (10 FT) - ADJUSTABLE in position adjacent to the related enclosure (4).
4 – Install the blanking plug (7) on the enclosure connection (8).
5 – Put the lower edge of the enclosure door (5) in the groove in the bottom of the enclosure (4).
6 – Close the enclosure door (5) on the three ball-lock assemblies (6).
7 – Push the head of the lock pin (10) with a SCREWDRIVER – PHILLIPS HEAD, then :
  – Apply force to the enclosure door (5) adjacent to the lock pin (9).
  – Remove the screwdriver.
  – Continue to push the enclosure door (5) until the lock pin (9) moves quickly back to a flush position with the surface of the enclosure door (5).
8 – Do this procedure with each lock pin (9).
9 – System Consequences
  On the programming and test panel (PTP), the message 'SLIDE PRESSURE LOW' will be showed.
10 – Make an entry in the logbook.
11 – Make sure that the work area is clean and clear of tool(s) and other items.
12 – Remove the LOCKING TOOL - FLAP/SLAT CONTROL LEVER (98D27803000000) from the slat/flap control lever.
13 – Remove the warning notice(s).
14 – Remove the access platform(s).

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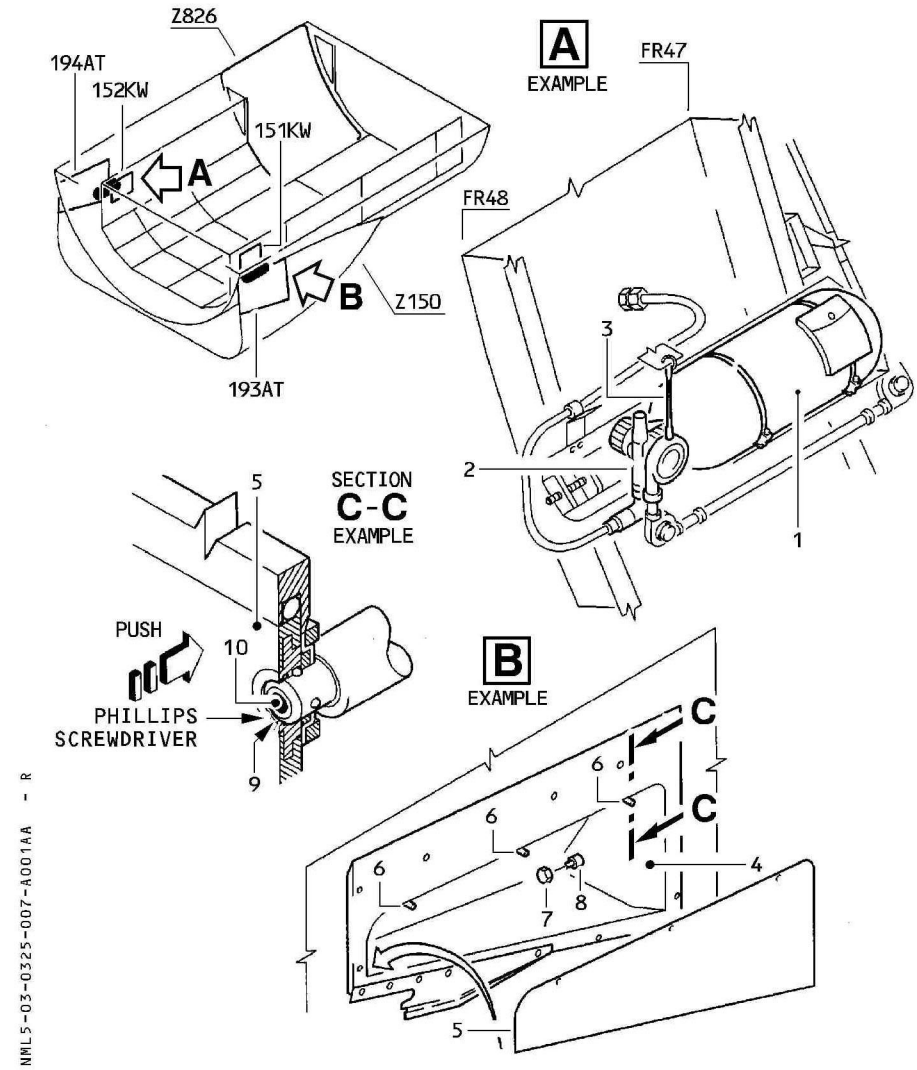
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-A)	CABIN PASSENGER DOORS – CONTROL HANDLE LOAD ADJUSTMENT	
ACCESS ZONE : 831-841-832-842		ACCESS ITEM :
GSE : Dynamometer 20 daN – access platform 3.50 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
13WN	EIS/SLIDES/ARM AND WARN/GND	121VU P10
15WN	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
48WV	EIS/SDAC1 AND 2/DOOR/DET/PAX	121VU P05

PROCEDURE

Note : The procedure published in 03.25 page 6 may be used as an alternative to the following procedure.

LOAD ADJUSTEMENT OF THE CONTROL HANDLE OF THE PASSENGER DOORS (TO BE APPLIED ONLY IF EMERGENCY ESCAPE SLIDE IS REMOVED).

1 – Put the access platform in position at the zone 831 (841) for forward door, 832 (842) for aft door.

2 – Open the passenger / crew door 831 (841) or 832 (842).

3 – Make sure that the emergency control handle is in the DISARMED position.

4 – Open, safety and tag CBs : 13WN, 15WN, 48WV.

5 – Remove the lockwire from the screw (2).

6 – Measure the loads on the inner control handle with a dynamometer, 20 daN when the door is in the up and down positions.

7 – Make sure that the load necessary to open and close the door with the inner control handle is less than or equal to 16 daN (35.9694 lbf).

8 – Adjust the load. To do this, turn the screw (2) to apply a load on the torsion bar (1).

9 – Safety the screw (2) with lockwire 0.8 mm.

10 – Close CBs : 13WN, 15WN, 48WV.

11 – Close the passenger / crew door 831 (841) or 832 (842).

12 – Remove the access platform.

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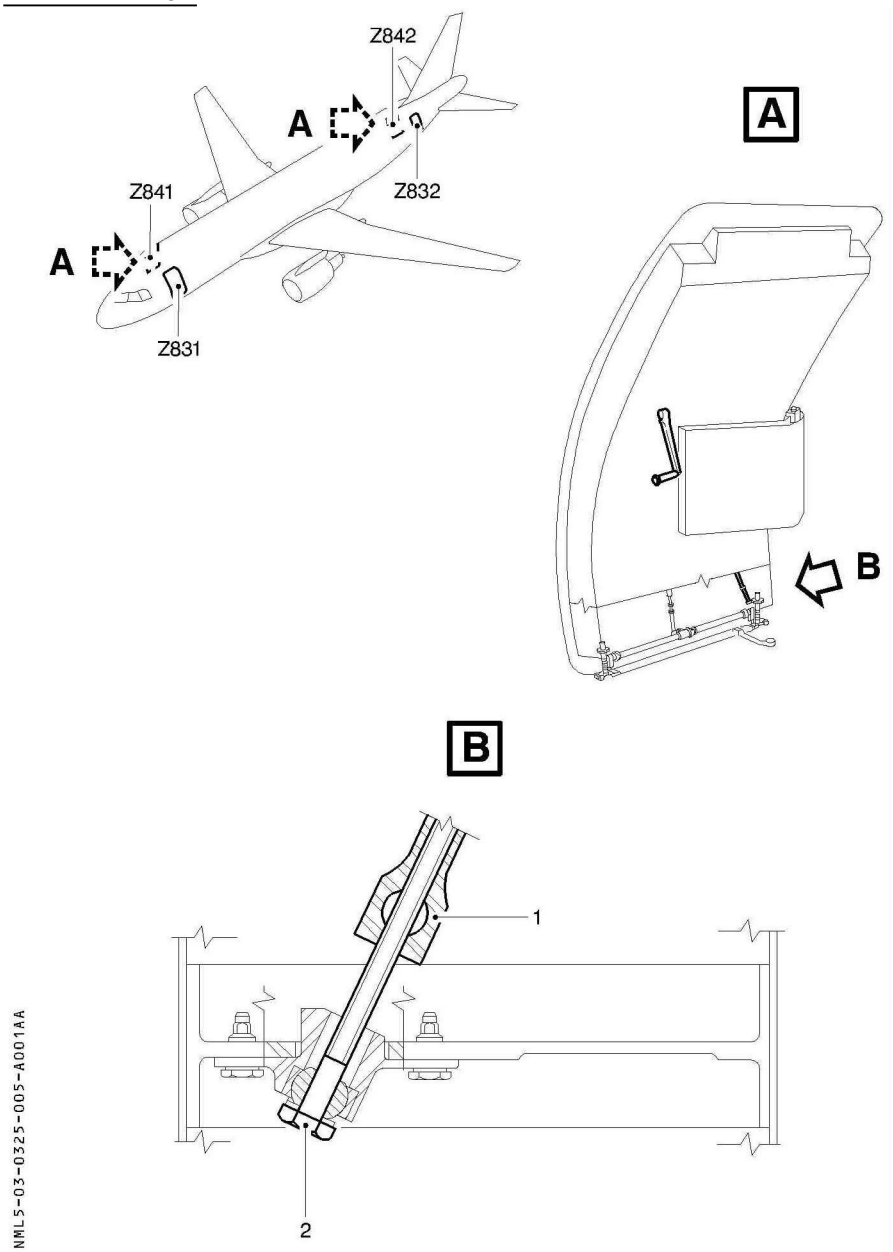
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



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25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-A)	CABIN PASSENGER DOORS – CONTROL HANDLE LOAD ADJUSTMENT	
ACCESS ZONE : 831-841-832-842		ACCESS ITEM :
GSE : access platform 3.50 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
13WV	EIS/SLIDES/ARM AND WARN/GND	121VU P10
15WV	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
48WV	EIS/SDAC1 AND 2/DOOR/DET/PAX	121VU P05

PROCEDURE

Note : This procedure may be used as an alternative to the procedure published in 03-25 p 5 for cabin passengers doors.

LOAD ADJUSTEMENT OF THE CONTROL HANDLE OF THE PASSENGER DOORS (TO BE APPLIED ONLY IF EMERGENCY ESCAPE SLIDE IS REMOVED).

1 – Put the access platform in position at the zone 831 (841) for forward door, 832 (842) for aft door.

2 – Open the passenger / crew door 831 (841) or 832 (842).

3 – Make sure that the emergency control handle is in the DISARMED position.

4 – Open, safety and tag CBs : 13WN, 15WN, 48WV.

5 – Remove the lockwire 0.8 mm from the screw (2).

6 – Adjust the load (less than or equal to 16 Dan) on the inner control handle. To do this loosen the screw (2) by 9 turns (if slide was fitted on the door) or 20 turns (if slide/raft was fitted on the door) to apply the load on the torsion bar (1).

7 – Safety the screw (2) with lockwire 0.8 mm.

8 – Pull the inner control handle by 50 mm (1.9685 in.) to 70 mm (2.7559 in.) from the door

9 – Release the inner control handle

10 – Make sure that the inner control handle moves back to the door fully closed and locked position. If the handle does not come back to its initial position, turn the screw (2) by a few more turns until you get this position.

11 – Close CBs : 13WN, 15WN, 48WV.

12 – Close the passenger / crew door 831 (841) or 832 (842).

13 – Remove the access platform.

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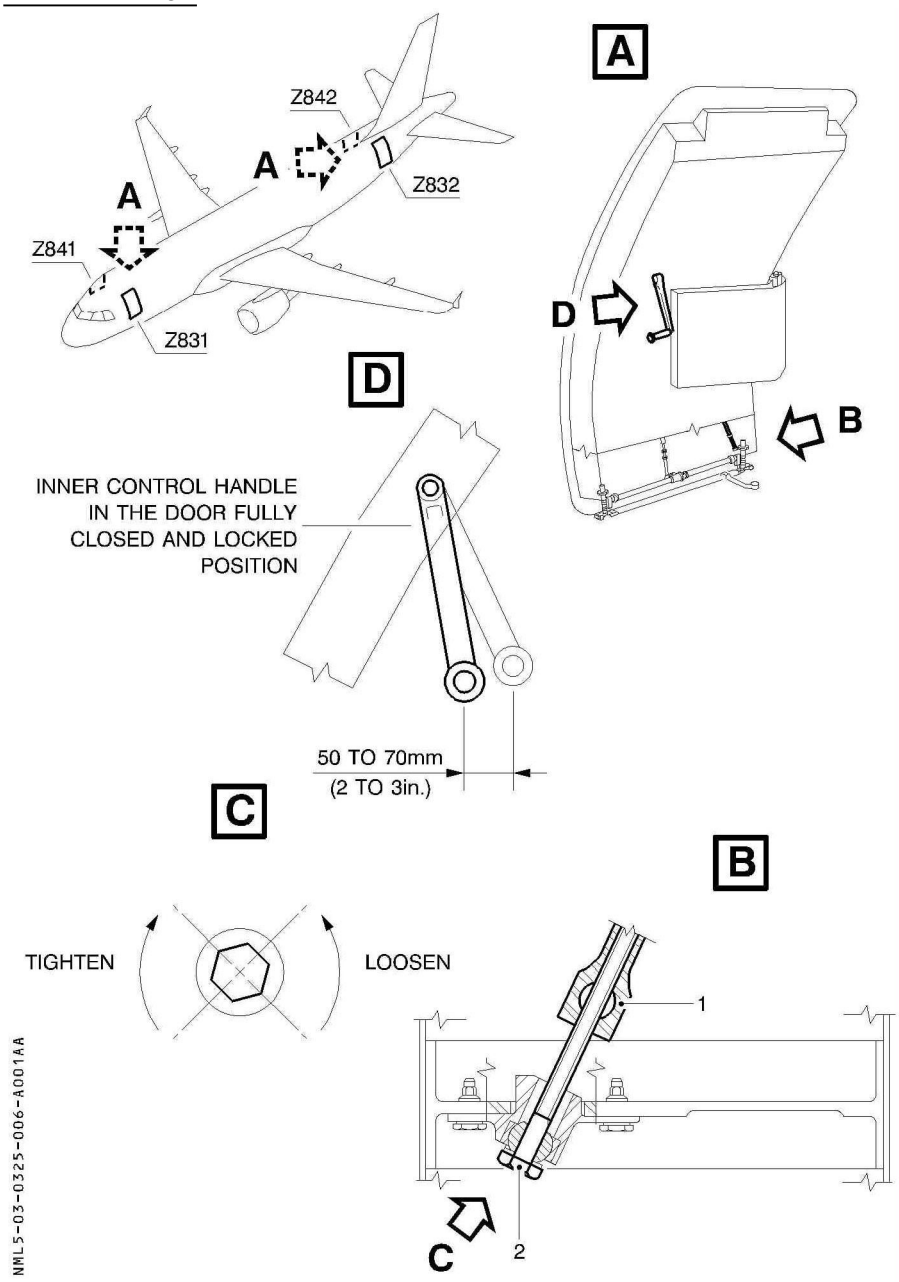
25-60-02 Escape Slide/ Slide Raft

MAINTENANCE



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25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

25-60-02-C)	ESCAPE SLIDE CLOSURE DOOR INSTALLATION	
ACCESS ZONE :		ACCESS ITEM :
GSE :	access platform 2 m – LOCKING TOOL – FLAP/SLAT CONTROL LEVER (98D27803000000)	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Installation for flight of the enclosure door on to the empty enclosure when the Escape Slide/Slide Raft is removed.

Note : The lock pin (1) and the pressure blanking plug (5) are kept in a pocket, which is attached to the inflation reservoir (1).

1 – If the inflation reservoir (1) is charged, install the lock pin (3) in the regulator valve assembly (2).
2 – If an AFT emergency-exit slide is removed, make sure that :
  – The LOCKING TOOL - FLAP/SLAT CONTROL LEVER (98D27803000000) on the slat/flap control lever is installed.
  – Put a warning notice on the slat/flap control lever to tell persons not to operate the flaps during the procedure.
3 – Put an Access platform 2M (6 FT) in position adjacent to the related emergency-exit door.
4 – Install the blanking plug (5) on the enclosure connection (4).
5 – Put the lower edge of the enclosure door (8) in the groove in the bottom of the enclosure (6).
6 – Close the enclosure door (8) on the three ball-lock assemblies (7).
7 – Push the head of the lock pin (12) with a SCREWDRIVER – PHILLIPS HEAD, then :
  – Apply force to the enclosure door (8) adjacent to the lock pin (13).
  – Remove the screwdriver.
  – Continue to push the enclosure door (8) until the lock pin (13) moves quickly back to a flush position with the surface of the blow-out door (8).
8 – Do this procedure with each lock pin (13).
9 – If an AFT emergency-exit slide is removed, install the fairing (10) :
  a – Engage the tongue-tabs (9) behind the belly fairing, and close the fairing (10).
  b – Push the latch (11) into the fairing (10) until it engages behind the belly fairing.
  c – Make sure that the latch (11) is flush with the outside surface of the fairing (10).
10 – System Consequences
  On the programming and test panel (PTP), if the Cabin Assignment Module (CAM) is programmed to monitor the inflation reservoirs : the message 'SLIDE PRESSURE LOW' will be showed.

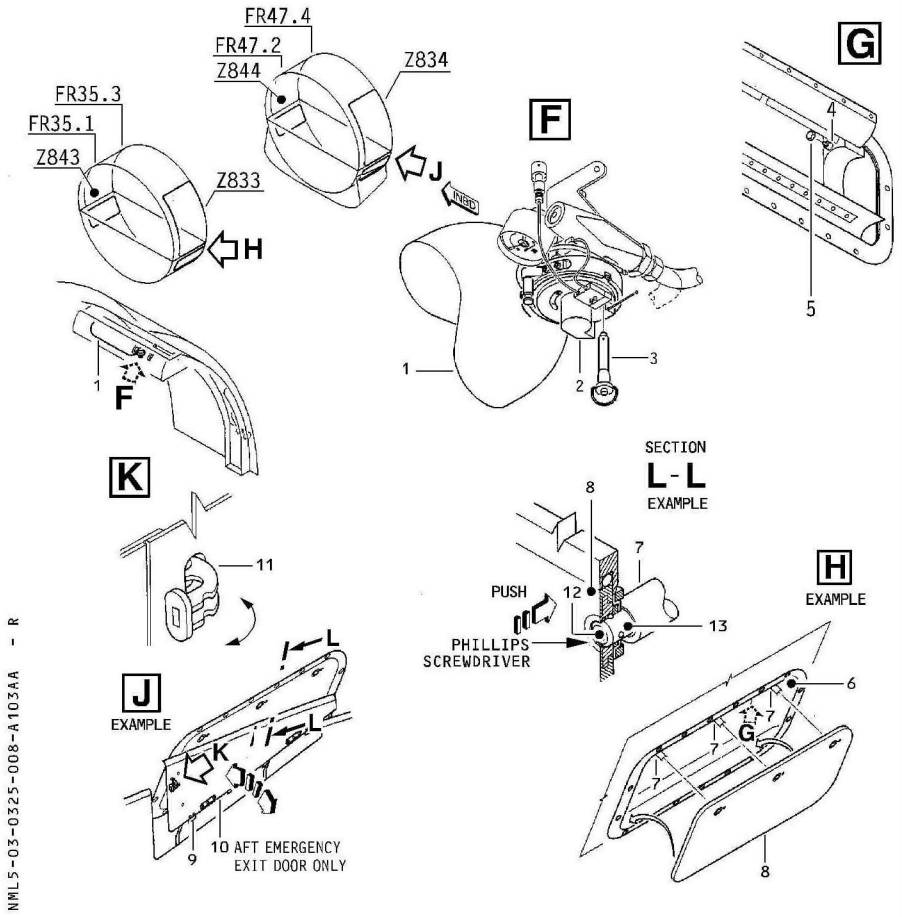
(continued)

(continued)

25-60-02 Escape Slide/ Slide Raft

MAINTENANCE

11 – Make an entry in the logbook.
12 – Make sure that the work area is clean and clear of tool(s) and other items.
13 – Remove the LOCKING TOOL - FLAP/SLAT CONTROL LEVER (98D27803000000) from the slat/flap control lever.
14 – Remove the warning notice(s).
15 – Remove the access platform(s).



25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04A	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
15WN	EIS/SLIDE/ARM AND WARN/FLT	121VU P11
13WN	EIS/SLIDE/ARM AND WARN/GND	121VU P10
48WV	EIS/SDAC1 AND 2/DOOR/DET PAX	121VU P05

This procedure applies to comply with the note under proviso b) of 25-60-04-A, when the slide is erroneously indicated "NOT ARMED".
The intent of this procedure is to recover the correct slide "ARMED" indication on the ECAM DOOR/OXY page by cleaning or changing the affected switch.
A failure of this switch erroneously indicating "NOT ARMED" may lead to the no illumination of the Slide integrated lighting system when the door is open with the Slide armed.

PROCEDURE

1 – Open the affected door.
2 – On the affected door get access to the proximity switch :
4WN1(2) for L(R) FWD door.
7WN1(2) for L(R) AFT door.
3 – Open, safety and tag C/B : 15WN, 13WN, 48WV.
4 – Remove the door lining panels :
831(841) CZ for 4 WN1(2).
832(842) CZ for 7 WN1(2).
. Remove the insulation blankets.
5 – Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth
6 – Check if cleaning the proximity switch has cleared the warning

. If Slide indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 11.
. If slide indication is still erroneous, continue with step 7.

7 – Replace the applicable proximity switch
a – If a new one is available, install the new proximity switch
b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
– Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

– Remove the proximity switch of the avionics compartment door
– Install the proximity switch of the avionics compartment door on the affected passenger door.

8 – Adjust the proximity switch (see Fig.)
DO NOT OPEN THE DOOR DURING THE ADJUSTMENT
a – Close the door and arm the slide.
b – Remove the nut (3) and the washer (4)
c – Turn the target (2) until the symbol of the slide is white on ECAM DOOR page
Note : the target (2) and the proximity switch (1) must not touch
d – Turn the target (2) in the opposite direction until the symbol of the slide disappears on ECAM DU.
e – From this position, screw the target (2) by two turns to two turns and a half.
f – Install the washer (4) and the nut (3)
g – Torque the nut and safety the nut with the washer (4).

9 – Close C/Bs 15WN, 13WN, 48WV.

10 – Check if changing the proximity switch has cleared the false indication :
– If slide indication is normal aircraft can be operated. No MMEL entry is necesssary.

Note : If a switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01-D) will applied if indication is erroneous.

– If exit indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

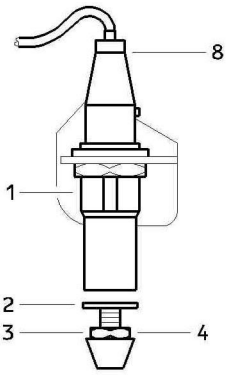
11 – Put the aircraft back to serviceable conditions.

(continued)

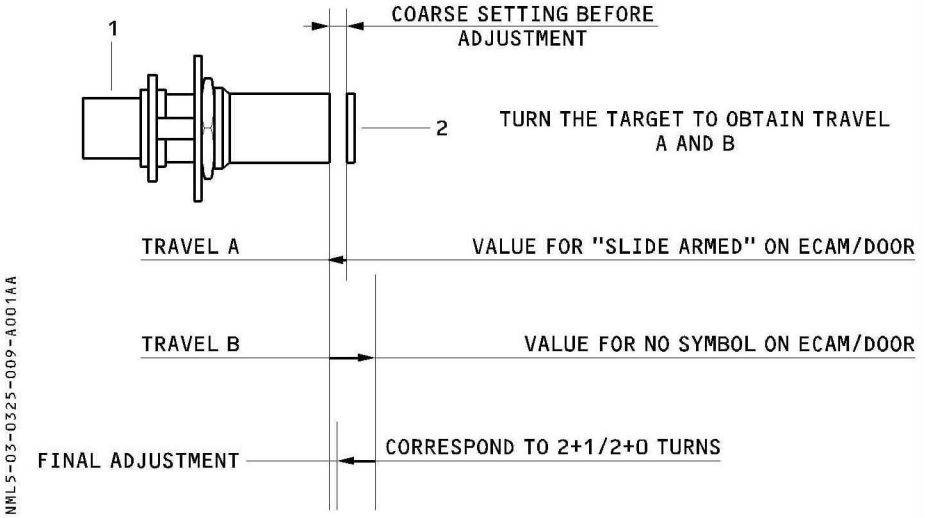
(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



SWITCHING DIAGRAM



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(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04B	EMER EXIT SLIDE INDICATION – CHECK THAT SLIDE IS ARMED	
ACCESS ZONE :	Z833-Z834-Z843 Z844	ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

This procedure applies to comply with proviso a) of 25-60-04B when the slide is erroneously indicated "ARMED" and b) of 25-60-04-B when the slide is erroneously indicated "Not Armed".

EMERGENCY EXIT-SLIDE INDICATION :

1 – Pull down the cover flap from the emergency exit hatch and remove it.

2 – Check that white indication "SLIDE ARMED" is on.

3 – If not, push the latch pin against the spring and turn its head with a hexagonal socket wrench a quarter turn clockwise (latch pin is extended).
Note : 1. A minimal force may be required if a hexagonal socket wrench is used.
2. The white indicator light "SLIDE ARMED" comes on.

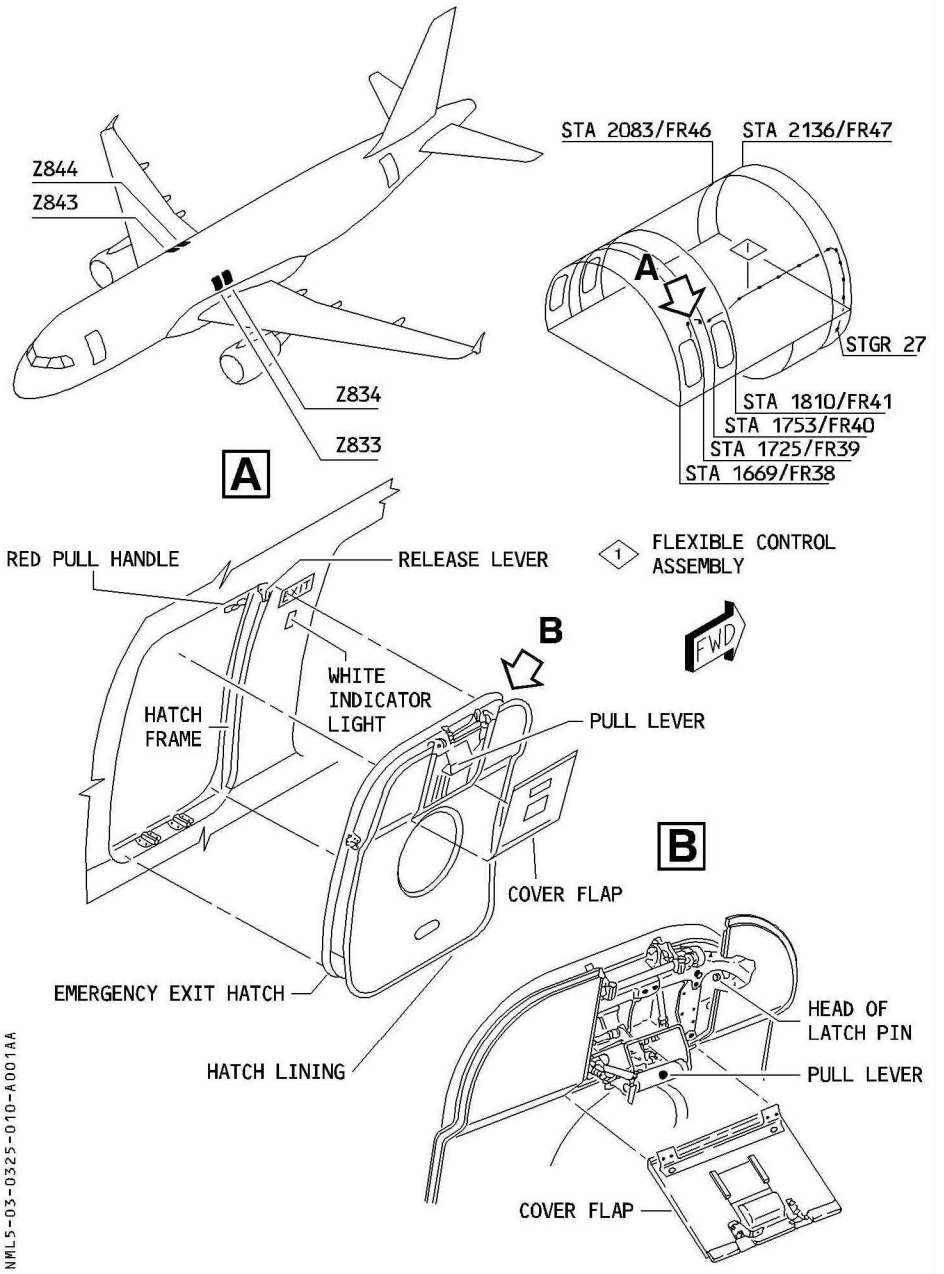
4 – Install the cover flap on the hatch and push it against the hatch.
Note : The white indicator light "SLIDE ARMED" goes off.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04B	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
15WN	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
13WN	EIS/SLIDES/ARM AND WARN/GND	121VU P10
48WV	EIS/SDAC1 AND 2/DOOR/DET PAX	121VU P05

This procedure applies to comply with the note under proviso b) of 25-60-04-B, when the slide is erroneously indicated "NOT ARMED".
The intent of this procedure is to recover the correct slide "ARMED" indication on the ECAM DOOR/OXY page by cleaning or changing the affected switch.
A failure of this switch erroneously indicating "NOT ARMED" may lead to the no illumination of the Slide integrated lighting system when the emergency exit is open with the Slide armed.

PROCEDURE

1 – On the affected Emergency exit get access to the proximity switch :
5WN1(2) for L(R) FWD emergency exit.
6WN1(2) for L(R) AFT emergency exit.

2 – Open, safety and tag C/B : 15WN, 13WN, 48WV.

3 – a - Remove the emergency exit lining panels :
241(242) CW for 5 WN1(2).
241(242) LW for 6 WN1(2).

b – Remove the insulation blankets.

4 – Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth

5 – Check if cleaning the proximity switch has cleared the warning

. If Slide indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 11.
. If Slide indication is still erroneous, continue with step 6.

6 – Disarm the escape slide of the emergency exit :
. Open and remove the flap (5).
. Turn the head of the latch pin (7) with a wrench a quarter turn counterclockwise to retract the latch pin (7).

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

7 – Replace the applicable proximity switch
  a – If a new one is available, install the new proximity switch
  b – If no new proximity switch is available, replace the proximity switch of the affected emergency exit by a proximity switch of the avionics compartment doors.
    – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
    – Remove the proximity switch of the avionics compartment door
    – Install the proximity switch of the avionics compartment door on the affected emergency exit.

8 – Adjust the proximity switch (see Fig.)
DO NOT OPEN THE EMERGENCY EXIT DURING THE ADJUSTMENT
  a – Make sure that the clearance J1 between the target (2) and the bracket (1) of the proximity switch (9) is 41.2 +1.0 –1.0 mm (1.6220 +0.0393 –0.0393 in.)
  b – If necessary, adjust the target position as follows :
    (a) Loosen the locknut (4) to release the serrated washer (3) and adjust the target (2) to get the correct clearance J1.
    (b) Tighten the locknut (4).

9 – Close C/Bs : 15WN, 13WN, 48WV.

10 – Arm the escape slide of the emergency exit :
  . With a hexagonal socket wrench, turn the head of the latch pin (7) a quarter turn clockwise to extend the latch pin (7). The SLIDE ARMED indicator light comes on.
  . Install and close the cover flap (5) on the emergency exit : The SLIDE ARMED indicator light goes OFF.

11 – Check if changing the proximity switch has cleared the false indication :
  . If slide indication is normal aircraft can be operated. No MMEL entry is necessary.

    Note : If a switch from the avionics compartment door has been used MMEL for avionics compartment door indication (52-70-01-D) will applied if indications is erroneous.

  . If slide indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

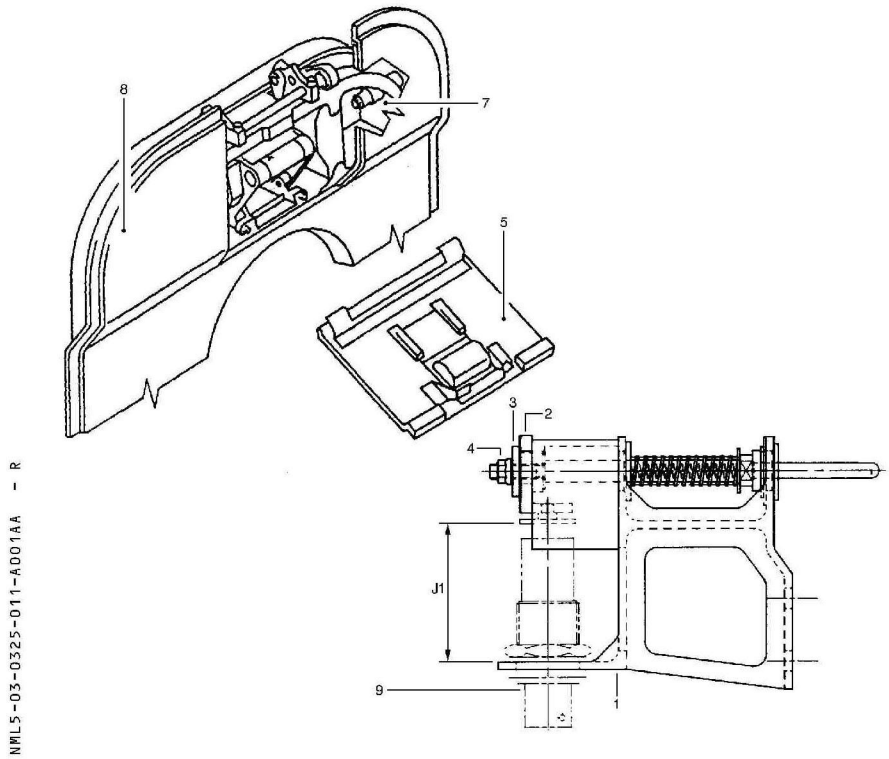
12 – Put the aircraft back to serviceable conditions.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04A	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
15WN	EIS/SLIDE/ARM AND WARN/FLT	121VU P11
13WN	EIS/SLIDE/ARM AND WARN/GND	121VU P10
48WV	EIS/SDAC1 AND 2/DOOR/DET PAX	121VU P05

This procedure applies to comply with the note under proviso b) of 25-60-04-A, when the slide is erroneously indicated "NOT ARMED".
The intent of this procedure is to recover the correct slide "ARMED" indication on the ECAM DOOR/OXY page by cleaning or changing the affected switch.
A failure of this switch erroneously indicating "NOT ARMED" may lead to the no illumination of the Slide integrated lighting system when the door is open with the Slide armed.

PROCEDURE

1 – Open the affected door.
2 – On the affected door get access to the proximity switch :
4WN1(2) for L(R) FWD door.
7WN1(2) for L(R) AFT door.
3 – Open, safety and tag C/B : 15WN, 13WN, 48WV.
4 – Remove the door lining panels :
831(841) CZ for 4 WN1(2).
832(842) CZ for 7 WN1(2).
. Remove the insulation blankets.
5 – Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth
6 – Check if cleaning the proximity switch has cleared the warning

. If Slide indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 11.
. If slide indication is still erroneous, continue with step 7.

7 – Replace the applicable proximity switch
a – If a new one is available, install the new proximity switch
b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
– Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

– Remove the proximity switch of the avionics compartment door
– Install the proximity switch of the avionics compartment door on the affected passenger door.

8 – Adjust the proximity switch (see Fig.)
DO NOT OPEN THE DOOR DURING THE ADJUSTMENT
a – Close the door and arm the slide.
b – Remove the nut (3) and the washer (4)
c – Turn the target (2) until the symbol of the slide is white on ECAM DOOR page
Note : the target (2) and the proximity switch (1) must not touch
d – Turn the target (2) in the opposite direction until the symbol of the slide disappears on ECAM DU.
e – From this position, screw the target (2) by two turns to two turns and a half.
f – Install the washer (4) and the nut (3)
g – Torque the nut and safety the nut with the washer (4).

9 – Close C/Bs 15WN, 13WN, 48WV.

10 – Check if changing the proximity switch has cleared the false indication :
– If slide indication is normal aircraft can be operated. No MMEL entry is necesssary.

Note : If a switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01-D) will applied if indication is erroneous.

– If exit indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

11 – Put the aircraft back to serviceable conditions.

(continued)

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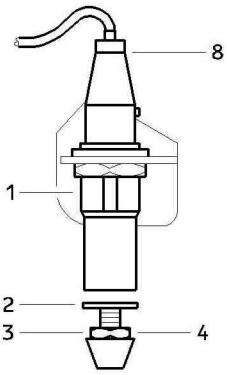
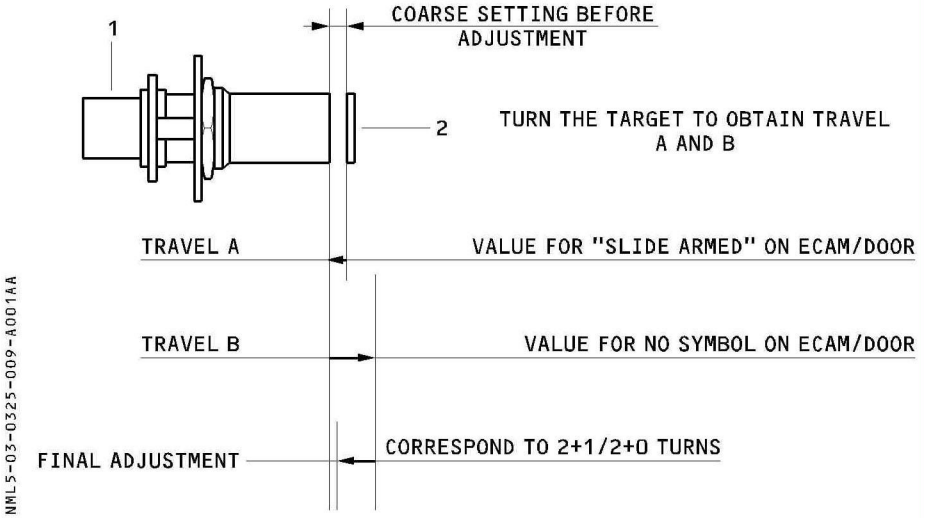
25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



SWITCHING DIAGRAM



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25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04B	EMER EXIT SLIDE INDICATION – CHECK THAT SLIDE IS ARMED	
ACCESS ZONE :	Z833-Z834-Z843 Z844	ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

This procedure applies to comply with proviso a) of 25-60-04B when the slide is erroneously indicated "ARMED" and b) of 25-60-04-B when the slide is erroneously indicated "Not Armed".

EMERGENCY EXIT-SLIDE INDICATION :

1 – Pull down the cover flap from the emergency exit hatch and remove it.

2 – Check that white indication "SLIDE ARMED" is on.

3 – If not, push the latch pin against the spring and turn its head with a hexagonal socket wrench a quarter turn clockwise (latch pin is extended).
Note : 1. A minimal force may be required if a hexagonal socket wrench is used.
2. The white indicator light "SLIDE ARMED" comes on.

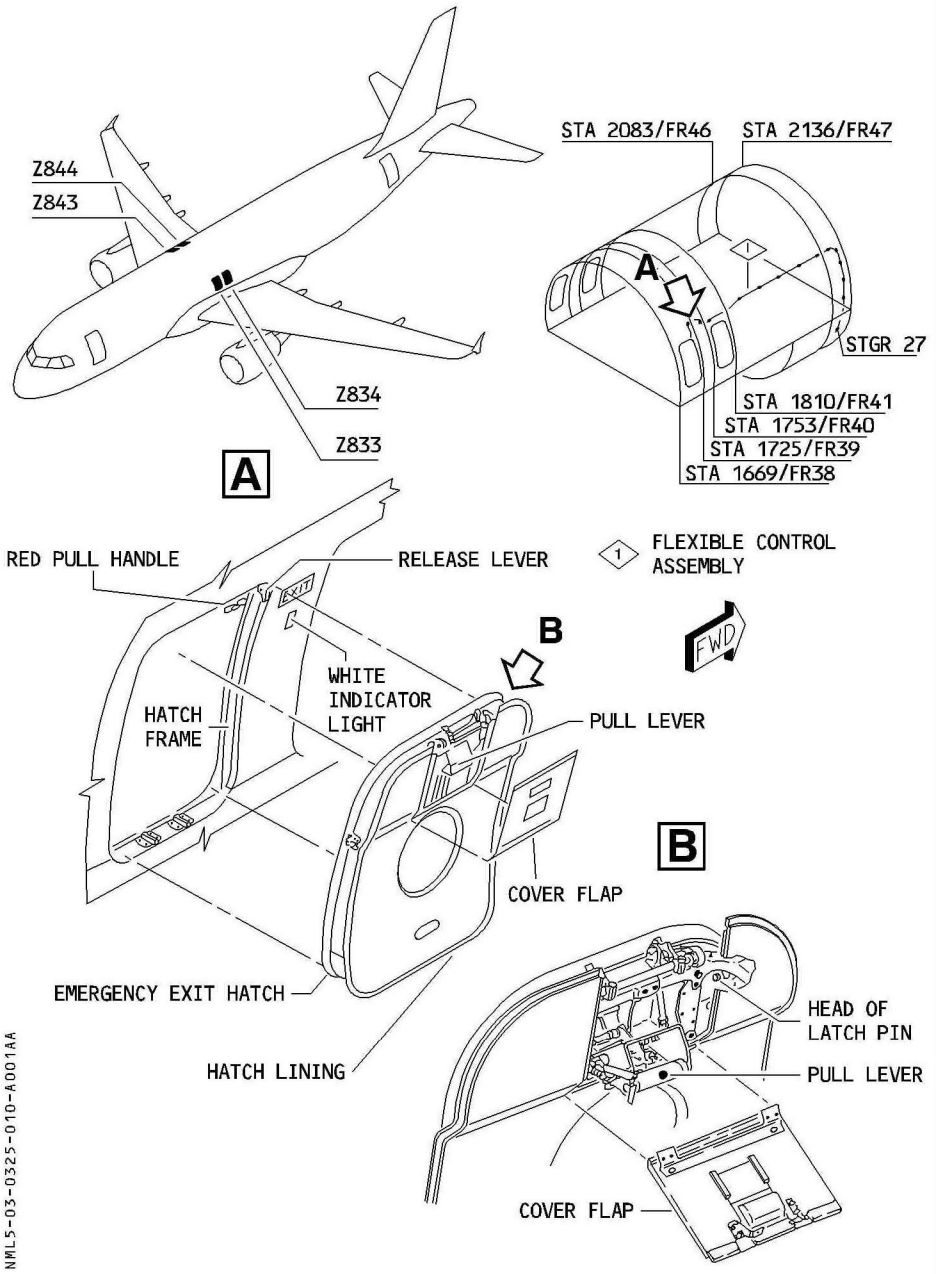
4 – Install the cover flap on the hatch and push it against the hatch.
Note : The white indicator light "SLIDE ARMED" goes off.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



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25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04B	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
15WN	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
13WN	EIS/SLIDES/ARM AND WARN/GND	121VU P10
48WV	EIS/SDAC1 AND 2/DOOR/DET PAX	121VU P05

This procedure applies to comply with the note under proviso b) of 25-60-04-B, when the slide is erroneously indicated "NOT ARMED".
The intent of this procedure is to recover the correct slide "ARMED" indication on the ECAM DOOR/OXY page by cleaning or changing the affected switch.
A failure of this switch erroneously indicating "NOT ARMED" may lead to the no illumination of the Slide integrated lighting system when the emergency exit is open with the Slide armed.

PROCEDURE

1 – On the affected Emergency exit get access to the proximity switch :
6WN1(2) for L(R) AFT emergency exit.

2 – Open, safety and tag C/B : 15WN, 13WN, 48WV.

3 – a) Remove the Emergency exit lining panels :
241(242) LW for 6WN1(2).

b) Remove the insulation blankets.

4 – Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth

5 – Check if cleaning the proximity switch has cleared the warning

. If Slide indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 11.
. If Slide indication is still erroneous, continue with step 6.

6 – Disarm the escape slide of the emergency exit :
. Open and remove the flap (5).
. Turn the head of the latch pin (7) with a wrench a quarter turn counterclockwise to retract the latch pin (7).

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

7 – Replace the applicable proximity switch
  a – If a new one is available, install the new proximity switch
  b – If no new proximity switch is available, replace the proximity switch of the affected emergency exit by a proximity switch of the avionics compartment doors.
    – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
    – Remove the proximity switch of the avionics compartment door
    – Install the proximity switch of the avionics compartment door on the affected emergency exit.

8 – Adjust the proximity switch (see Fig.)
DO NOT OPEN THE EMERGENCY EXIT DURING THE ADJUSTMENT
  a – Make sure that the clearance J1 between the target (2) and the bracket (1) of the proximity switch (9) is 41.2 +1.0 –1.0 mm (1.6220 +0.0393 –0.0393 in.)
  b – If necessary, adjust the target position as follows :
    (a) Loosen the locknut (4) to release the serrated washer (3) and adjust the target (2) to get the correct clearance J1.
    (b) Tighten the locknut (4).

9 – Close C/Bs : 15WN, 13WN, 48WV.

10 – Arm the escape slide of the emergency exit.
  . With a hexagonal socket wrench, turn the head of the latch pin (7) a quarter turn clockwise to extend the latch pin (7) : The SLIDE ARMED indicator light comes on.
  . Install and close the cover flap (5) on the emergency exit : The SLIDE ARMED indicator light goes OFF.

11 – Check if changing the proximity switch has cleared the false indication :
  . If exit indication is normal aircraft can be operated. No MMEL entry is necessary.

    Note : If a switch from the avionics compartment door has been used MMEL for avionics compartment door indication (52-70-01-D) will applied if indications is erroneous.

  . If exit indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

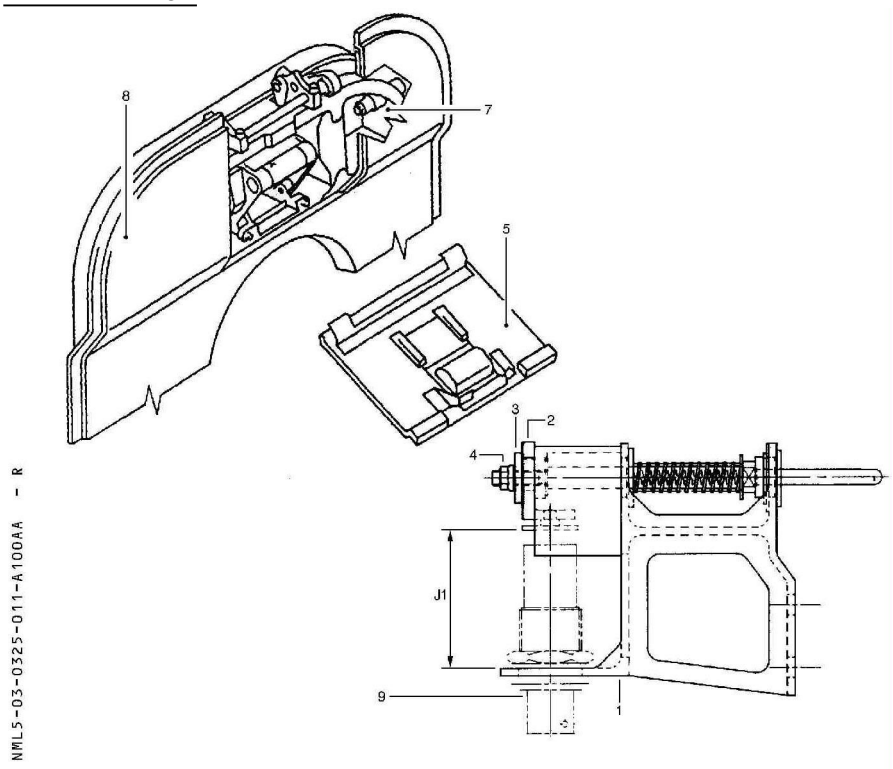
12 – Put the aircraft back to serviceable conditions.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

25-60-04A	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
15WN	EIS/SLIDES/ARM AND WARN/FLT	121VU P11
13WN	EIS/SLIDES/ARM AND WARN/GND	121VU P10
48WV	EIS/SDAC1 AND 2/DOOR/DET PAX	121VU P05

This procedure applies to comply with the note under proviso b) of 25-60-04-A, when the slide is erroneously indicated "NOT ARMED".
The intent of this procedure is to recover the correct slide "ARMED" indication on the ECAM DOOR/OXY page by cleaning or changing the affected switch.
A failure of this switch erroneously indicating "NOT ARMED" may lead to the no illumination of the Slide integrated lighting system when the door is open with the Slide armed.

PROCEDURE

1 – Open the affected door.

2 – On the affected door get access to the proximity switch :
4WN1(2) for L(R) FWD passenger/crew door.
7WN1(2) for L(R) AFT passenger/crew door.
5WN1(2) for L(R) FWD emergency exit.
6WN1(2) for L(R) AFT emergency exists

3 – Open, safety and tag C/B : 15WN, 13WN, 48WV.

4 – Remove the door lining panels :
831(841) CZ for 4 WN1(2).
832(842) CZ for 7 WN1(2).
833(843) CZ for 5 WN1(2).
834(844) CZ for 6 WN1(2).
. Remove the insulation blankets.

5 – Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth

6 – Check if cleaning the proximity switch has cleared the warning

. If slide indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 11.
. If Slide indication is still erroneous, continue with step 7.

(continued)

(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE

7 – Replace the applicable proximity switch
  a – If a new one is available, install the new proximity switch
  b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
    – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
    – Remove the proximity switch of the avionics compartment door
    – Install the proximity switch of the avionics compartment door on the affected door.

8 – Adjust the proximity switch (see Fig.)
DO NOT OPEN THE DOOR DURING THE ADJUSTMENT
  a – Close the door and arm the Slide.
  b – Remove the nut (3) and the washer (4)
  c – Turn the target (2) until the symbol of the slide is white on ECAM DOOR page
    Note : the target (2) and the proximity switch (1) must not touch
  d – Turn the target (2) in the opposite direction until the symbol of the slide disappears on ECAM DU.
  e – From this position, screw the target (2) by two turns to two turns and a half.
  f – Install the washer (4) and the nut (3)
  g – Torque the nut and safety the nut with the washer (4).

9 – Close C/Bs 15WN, 13WN, 48WV.

10 – Check if changing the proximity switch has cleared the false indication :
  – If slide indication is normal aircraft can be operated. No MMEL entry is necesssary.

    Note : If a switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01-D) will applied if indication is erroneous.
  – If exit indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

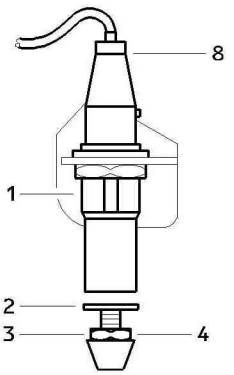
11 – Put the aircraft back to serviceable conditions.

(continued)

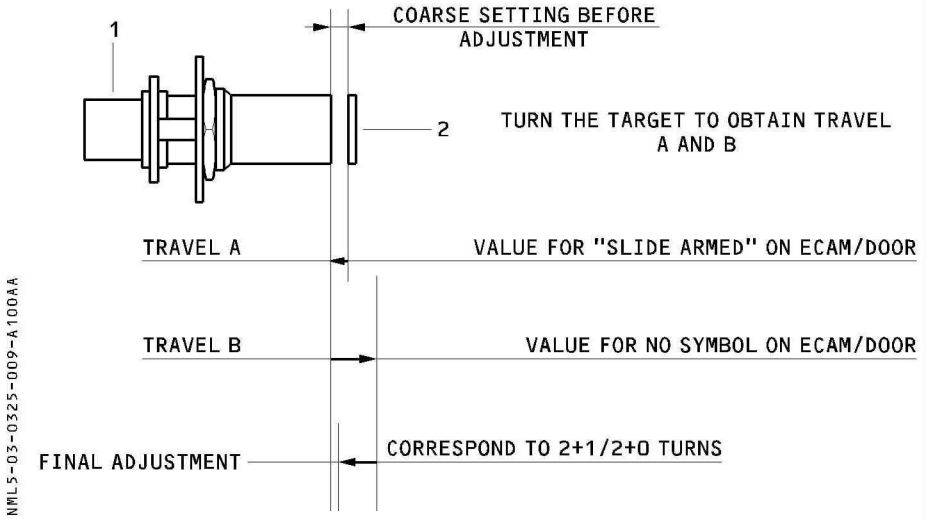
(continued)

25-60-04 SLIDE Indication on ECAM DOOR/OXY Page

MAINTENANCE



SWITCHING DIAGRAM



25-60-05 Slides Bottle Pressure Indication

MAINTENANCE

25-60-05	EMER EXIT SLIDE BOTTLE PRESS IND – PRESSURE CHECK	
ACCESS ZONE : Z151-Z152	ACCESS ITEM :	
GSE : Access platform 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Open the AFT cargo-compartment door.

2 – Put an access platform in position adjacent to the AFT cargo compartment exit.

3 – Set the AFT CARGO COMPT light switch 8LU to the ON position.

4 – FOR 7506MM, remove the access panel 151KW.
- Use an inspection mirror to see the pressure gage (2) on the left inflation reservoir (1).
- FOR 7507MM, remove the access panel 152KW.

5 – Examine the pressure gage (2) installed on the inflation reservoir.

Note : The gage has a GREEN cursor which is temperature sensitive. It can give temporary incorrect indications when it is exposed to sudden temperature changes (from a cold to a warm environment). The GREEN cursor moves to change in temperature faster than the gas expansion in the inflation reservoir (1).

- Make sure that the needle is in the GREEN cursor ("GO" band).

6 – FOR 7506MM, install the access panel 151KW.
- FOR 7507MM, install the access panel 152KW.

7 – Set the AFT CARGO COMPT light switch 8LU to the OFF position.

8 – Remove the access platform(s).

9 – Close the AFT cargo-compartment door.

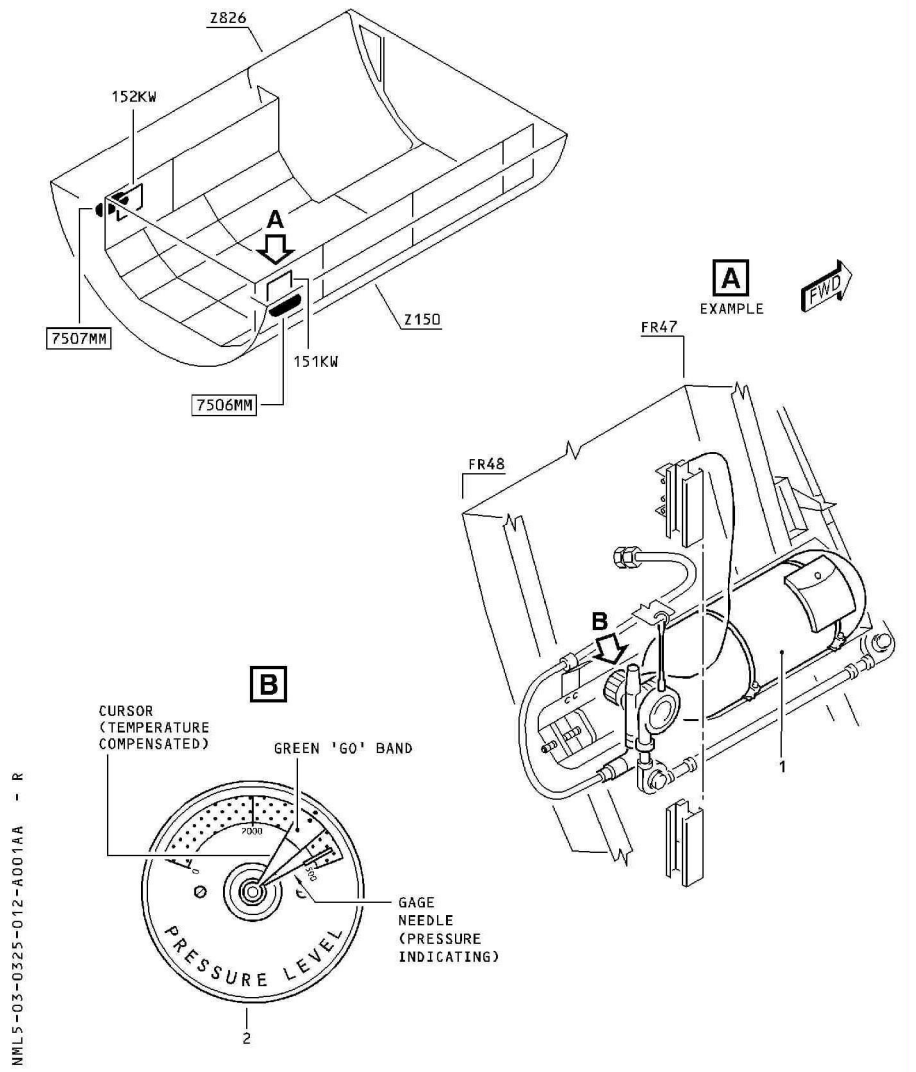
10 – Restore aircraft to the serviceable condition.

(continued)

(continued)

25-60-05 Slides Bottle Pressure Indication

MAINTENANCE



25-60-05 Slides Bottle Pressure Indication

MAINTENANCE

25-60-05	EMER EXIT SLIDE BOTTLE PRESS IND – PRESSURE CHECK	
ACCESS ZONE : Z151-Z152	ACCESS ITEM :	
GSE : Access platform 2 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Open the AFT cargo-compartment door.

2 – Put an access platform in position adjacent to the AFT cargo compartment exit.

3 – Set the AFT CARGO COMPT light switch 8LU to the ON position.

4 – FOR 7506MM, remove the access panel 151KW.
- Use an inspection mirror to see the pressure gage (2) on the left inflation reservoir (1).
- FOR 7507MM, remove the access panel 152KW.

5 – Examine the pressure gage (2) installed on the inflation reservoir.

Note : The gage has a GREEN cursor which is temperature sensitive. It can give temporary incorrect indications when it is exposed to sudden temperature changes (from a cold to a warm environment). The GREEN cursor moves to change in temperature faster than the gas expansion in the inflation reservoir (1).

- Make sure that the needle is in the GREEN cursor ("GO" band).

6 – FOR 7506MM, install the access panel 151KW.
- FOR 7507MM, install the access panel 152KW.

7 – Set the AFT CARGO COMPT light switch 8LU to the OFF position.

8 – Remove the access platform(s).

9 – Close the AFT cargo-compartment door.

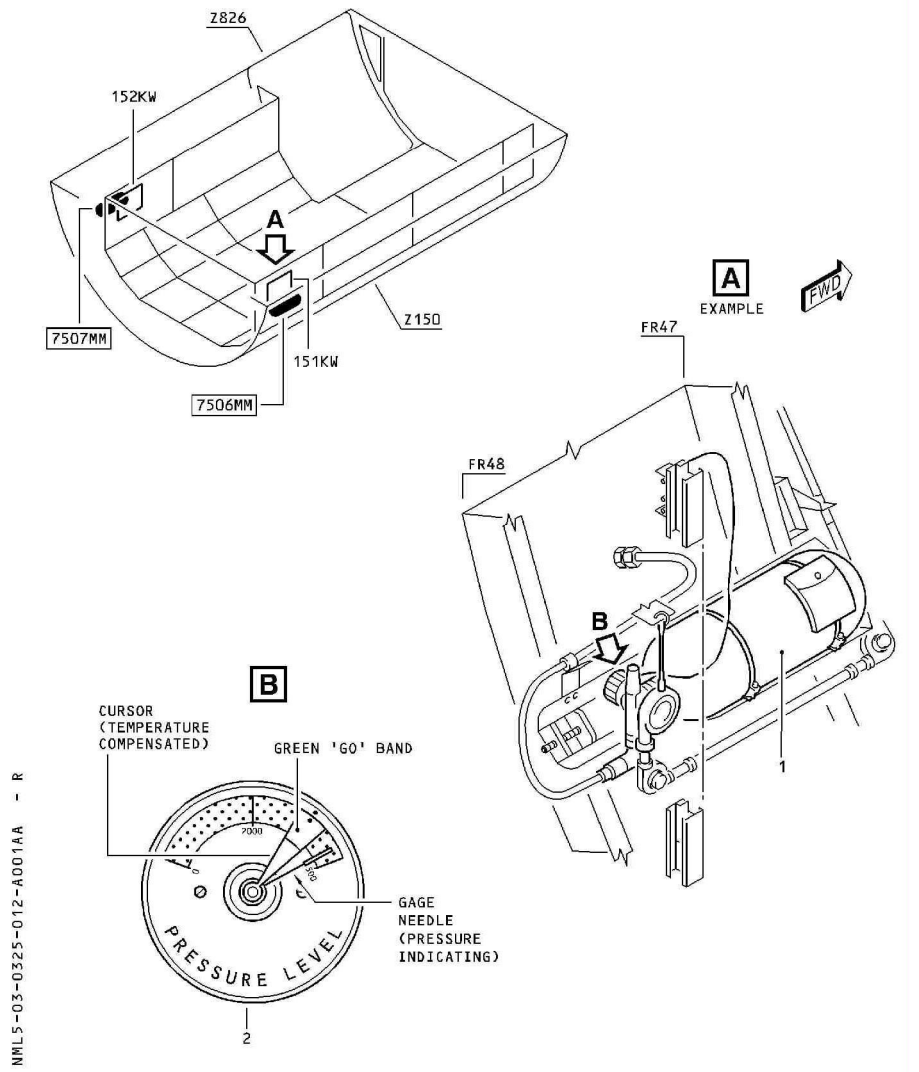
10 – Restore aircraft to the serviceable condition.

(continued)

(continued)

25-60-05 Slides Bottle Pressure Indication

MAINTENANCE



26-21-01 AGENT 1 and 2 DISCH Light

MAINTENANCE

26-21-01	ENG AGENT DISCH LT – BOTTLE PRESSURE CHECK	
ACCESS ZONE :	415 BL OR 415 BR 425 BL OR 425 BR	ACCESS ITEM : direct
GSE :	Allen wrench (3/32 in hey key) - stairs	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1 WE 1	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL1 / SQUIB / A	121 VU Q 43
1 WE 2	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL2 / SQUIB / A	121 VU Q 41
2 WE 1	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL1 / SQUIB / B	121 VU Q 44
2 WE 2	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL2 / SQUIB / B	121 VU Q 42

PROCEDURE

1 – Open C/B 1WE1 - 1WE2 - 2WE1 - 2WE2
2 – Get access and open the extinguisher bottle access panel 415 BL (eng 1) or 425 BR (eng 2)
3 – Remove the access panel 471 CL (eng 1) or 482 CR (eng 2)
4 – Disconnect the affected electrical connector at RIB 7A
  . for ENG 1 bottle 1 : connector 473 VC
  . for ENG 1 bottle 2 : connector 475 VC
  . for ENG 2 bottle 1 : connector 474 VC
  . for ENG 2 bottle 2 : connector 472 VC
5 – Put blanking caps on the disconnected electrical connector
6 – Do the following check :
  – If ENG 1 bottle 1 affected :
    . On the 473 VC check the continuity between pin 4 and a/c ground
    . On the fire extinguisher bottle, engage the Allen wrench (3/32 in hey key) into the test point (Allen key)
    . Turn the Allen wrench clockwise or counter clockwise (by 10 deg approx) until you can feel a force
    . Check the no continuity between pin 4 and a/c ground
    . Release the Allen wrench to let the test point go back by itself to its initial position
    . On the 473 VC, check the continuity between pin 4 and a/c ground

(continued)

(continued)

26-21-01 AGENT 1 and 2 DISCH Light

MAINTENANCE

– If ENG 1 bottle 2 affected :
  . On the 475 VC check the continuity between pin 2 and a/c ground
  . On the fire extinguisher bottle, engage the Allen wrench (3/32 in hey key) into the test point (Allen key)
  . Turn the Allen wrench clockwise or counter clockwise (by 10 deg approx) until you can feel a force
  . Check the no continuity between pin 2 and a/c ground
  . Release the Allen wrench to let the test point go back by itself to its ininitial position
  . On the 475 VC, check the continuity between pin 2 and a/c ground

– If ENG 2 bottle 1 affected :
  . On the 474 VC check the continuity between pin 2 and a/c ground
  . On the fire extinguisher bottle, engage the Allen wrench (3/32 in hey key) into the test point (Allen key)
  . Turn the Allen wrench clockwise or counter clockwise (by 10 deg approx) until you can feel a force
  . Check the no continuity between pin 2 and a/c ground
  . Release the Allen wrench to let the test point go back by itself to its initial position
  . On the 474 VC, check the continuity between pin 2 and a/c ground

– If ENG 2 bottle 2 affected :
  . On the 472 VC check the continuity between pin 3 and a/c ground
  . On the fire extinguisher bottle, engage the Allen wrench (3/32 in hey key) into the test point (Allen key)
  . Turn the Allen wrench clockwise or counter clockwise (by 10 deg approx) until you can feel a force
  . Check the no continuity between pin 3 and a/c ground
  . Release the Allen wrench to let the test point go back by itslef to its initial position.
  . On the 472 VC, check the continuity between pin 3 and a/c ground

7 – Connect the affected electrical connector 473 VC or 475 VC or 474 VC or 472 VC
8 – Close C/B 1 WE1 – 1 WE2 – 2 WE1 – 2 WE2
9 – Perform engine fire test (test pb on ENG/APU FIRE panel) and check if successful
10 – Make sure that the work is clean and clear of tools or other items
11 – Install the access panel 471 CL (482 CR) and close access door 415 BL (425 BR).

(continued)

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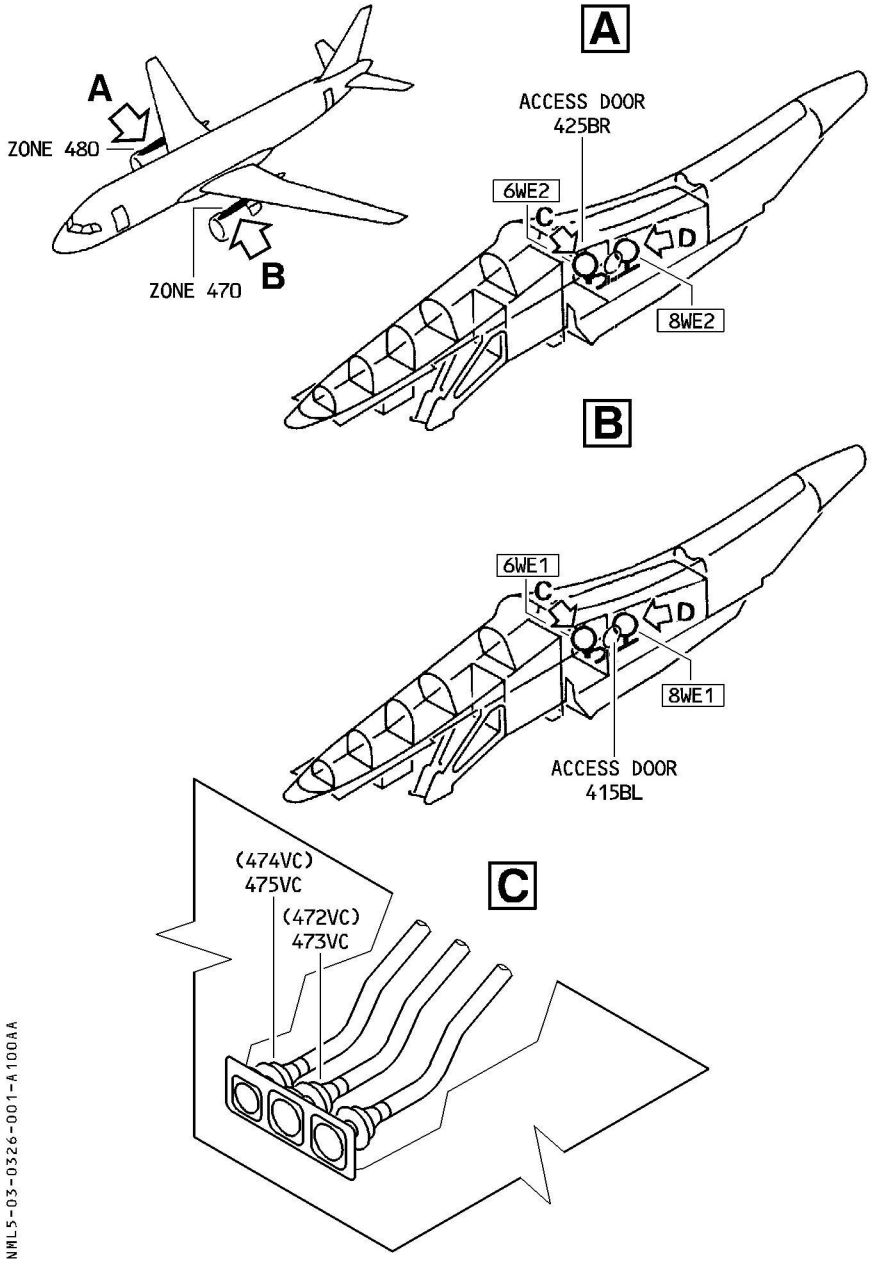
26-21-01 AGENT 1 and 2 DISCH Light

MAINTENANCE



26-21-02 AGENT 1 and 2 SQUIB Light

MAINTENANCE

26-21-02	ENG AGENT SQUIB LTS – CIRCUIT VERIFICATION	
ACCESS ZONE :	415 BL OR 415 BR 425 BL OR 425 BR	ACCESS ITEM : direct
GSE :	VOLTMETER, SHUNT PLUG – FIRE EXTINGUISHER CARTRIDGE	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1WE1	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL1 / SQUIB / A	121 VU Q 43
1WE2	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL2 / SQUIB / A	121 VU Q 41
2WE1	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL1 / SQUIB / B	121 VU Q 44
2WE2	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL2 / SQUIB / B	121 VU Q 42

PROCEDURE

1 – Open C / B 1WE1 - 1WE2 - 2WE1 - 2WE2

2 – In the pylon.
Disconnect plug of SQUIB to be verified

ENG 1		ENG 2	
BTL1	BTL2	BTL1	BTL2
5WE1 - A	7WE1 - A	5WE2 - A	7WE2 - A

3 – Put a shunt plug on the cartridges.

4 – On disconnected plug, ground pins 1 and 2

5 – In the cockpit
Close C / B 1WE1 - 1WE2 - 2WE1 - 2WE2

6 – Perform the following test

Note : Ignore other indications than the following ones :

ACTION	RESULT
On ENG FIRE PNL (1WD)	On ENG FIRE PNL (1WD)
– press ENG 1(2) TEST pushbutton switch	– Check affected SQUIB light(s) does (do) not illuminate. The non affected light illuminates.
– Release depressed TEST pushbutton switch	– SQUIB lights are extinguished

IF TEST NOT OK (affected SQUIB light(s) illuminate)

– Replace relevant cartridge.
– Disconnect pins 1 and 2 from ground.
– Connect plug of SQUIB.
– Perform Fire Test.

(continued)

(continued)

26-21-02 AGENT 1 and 2 SQUIB Light

MAINTENANCE

IF TEST OK (Affected SQUIB light(s) remain OFF)

– Fire test system is faulty

– Perform following test to ensure integrity of firing system.

ACTION	RESULT
In the engine pylon :	In the engine pylon
– Connect a voltmeter between pin 1 and the ground. then Pin 2 and the ground	– The voltmeter must show 0V.
On ENG FIRE PNL (1WD)	
– Press ENG 1 (2) FIRE p.b. switch	– Disregard SQUIB legends and all other subsequent consequences
– Press associated AGENT pushbutton switch (and keep it pressed)	– In pylon area check 28VDC between 1 and ground plus 2 and ground of associated connector plug
– Release AGENT pushbutton switch	– In pylon area check 0VDC between 1 and ground plus 2 and ground of associated connector.

IF TEST OK :

Firing system is OK, FIRE test system is faulty, aircraft can be released.
– Connect plug of SQUIB

CAUTION : MAKE CERTAIN THAT THE CONNECTOR IS CORRECTLY INSERTED AND SAFETIED.

– Restore system and aircraft to normal operating condition.

IF TEST NOT OK :

– Trouble shoot and restore system before dispatch.

26-21-03 ENG FIRE TEST

MAINTENANCE

26-21-03	ENG FIRE TEST – CIRCUIT VERIFICATION	
ACCESS ZONE :	415 BL OR 415 BR 425 BL OR 425 BR	ACCESS ITEM : direct
GSE :	VOLTMETER	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1WE1	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL1 / SQUIB / A	121 VU Q 43
1WE2	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL2 / SQUIB / A	121 VU Q 41
2WE1	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL1 / SQUIB / B	121 VU Q 44
2WE2	ENGINE / ENG 1 AND 2 FIRE EXTIG / BTL2 / SQUIB / B	121 VU Q 42

PROCEDURE

1) ENGINE FIRE EXTINGUISHING SYSTEM
   – REFER TO MMEL ITEM 26-21-02 in section 03.

2) ENGINE FIRE AND OVERHEAT DETECTION SYSTEM
   – PERFORM THE FOLLOWING TEST :

A. On the MCDU 1(2) :
   . Select CFDS
   . Select SYSTEM REPORT/TEST
   . Select FIRE PROT

ACTION	RESULT
On the left or right MCDU :	On the left or right MCDU :
– Push the line key adjacent to the ENG FDU 1(2) indication	– the ENG FDU 1 (2) page comes into view.
– Push the line key adjacent to the TEST indication.	– on the ENG FDU 1(2) page, the TEST WAIT message comes on for a few seconds then goes off and the message TEST OK, END OF TEST appears.
– Push the line key adjacent to the RETURN indication until you get the MCDU MENU.	
– Stop the MCDU	

26-22-01 AGENT "DISCH" Light

MAINTENANCE

26-22-01	APU AGENT « DISCH » LIGHT – BOTTLE PRESSURE CHECK	
ACCESS ZONE : Z 315 Z 316		ACCESS ITEM :
GSE : Access platform 2.5 m, 3/32 in Allen Key, multimeter		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1 WF 2 WF	APU / FIRE / EXTIG / SQUIB / A APU / FIRE / EXTIG / SQUIB / B	121 VU L 38 121 VU L 39

PROCEDURE

1 – Energize the ground service network
2 – Open C/B 1 WF and 2 WF
3 – Get access and open access door 314 AR
4 – Set the SERVICE LT switch 3LJ to on
5 – Disconnect the connector 11 WF-A from the pressure switch 11 WF of the APU Fire extinguishing bottle
6 – Do the following test :

ACTION	RESULT
1 – On the pressure-switch connector (11WF) :	On the multimeter :
– connect the leads of the multimeter between pin B and pin C.	– a closed circuit is shown, indicating a pressurized bottle.
– put the 3/32 in. Allen Key into the pressure-switch test socket.	
– slowly turn the Allen Key clockwise or counterclockwise approx. 10 degrees.	– an open circuit is shown.
– release the Allen Key.	
– remove the Allen Key from the test socket and disconnect the multimeter.	– a closed circuit is shown.

7 – Make sure that the electrical connectors are clean and in the correct condition.
8 – Connect the connector 11WF-A to the pressure switch 11WF.
9 – Make sure that the work area is clean and clear of tool (s) and other items.
10 – Set the SERVICE LT switch 3LJ to off.
11 – Close the access door 314AR and remove the access platform.
12 – Close C/B 1WF and 2WF.
13 – De-energize the ground service network.

(continued)

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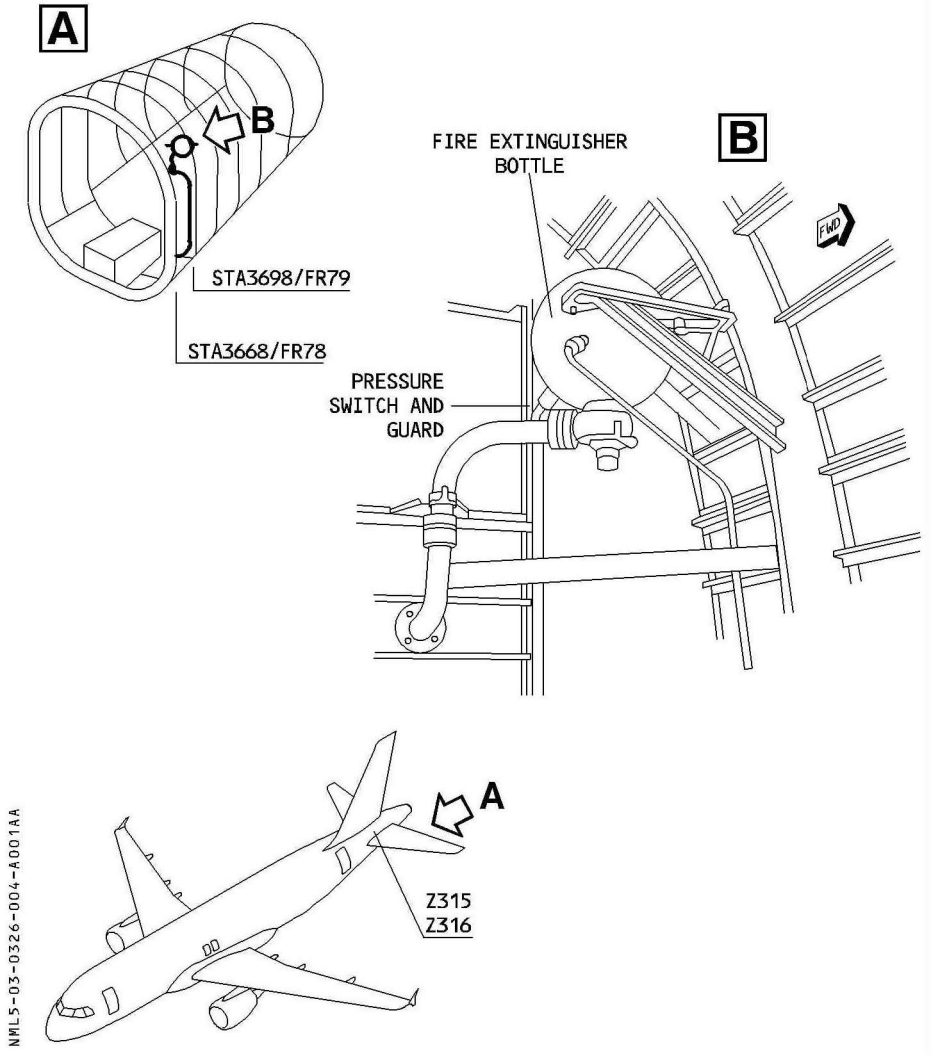
26-22-01 AGENT "DISCH" Light

MAINTENANCE



26-22-02 AGENT "SQUIB" Light

MAINTENANCE

26-22-02	APU AGENT SQUIB LIGHT CIRCUIT VERIFICATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :	Access platform 2.5 m VOLTMETER	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1WF	APU / FIRE / EXTIG / SQUIB / A	121 VU L38
2WF	APU / FIRE / EXTIG / SQUIB / B	121 VU L39

WARNING : BEFORE POWER IS SUPPLIED TO THE AIRCRAFT, MAKE CERTAIN THAT ELECTRICAL CIRCUITS UPON WHICH WORK IS IN PROGRESS ARE ISOLATED.

1 – Energize the aircraft from the external power
2 – Open, safety and tag C/B 1 WF and 2 WF
3 – Put the access platform in position
4 – Open access door 314 AR
5 – Remove and discard the safety wire from the electrical connector of the cartridge 12 WF
6 – Disconnect the electrical connector from the cartridge 12 WF.
It is recommended to install a shunt device to the cartridge 12 WF.
7 – Connect to ground connectors A/A and A/B of the electrical connector
8 – Close C/B 1WF and 2WF

– Perform the following test

ACTION	RESULT
On APU FIRE PNL (1WD)	On APU FIRE PNL (1WD)
– Press APU Loop / Squib TEST pushbutton switch	– SQUIB legend for APU comes on.
– Release depressed Loop/Squib TEST pushbutton switch.	– SQUIB legend goes off

. If test is OK, squib is faulty and must be cleared.

. If test is not OK (One SQUIB legend remains off), Loop/Squib test system is faulty. It is recommended to perform following test to ensure integrity of firing sytem.

– Connect a 28VDC voltmeter between connector A/A and ground and then between connector A/B and ground.

(continued)

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26-22-02 AGENT "SQUIB" Light

MAINTENANCE

ACTION	RESULT
On APU FIRE PNL (1WD)	
– Press APU FIRE p.b. switch	– Disregard SQUIB legends and all other subsequent consequences
– Press associated AGENT pushbutton switch (and keep it pressed)	– At the electrical connector 12 WF check 28VDC between the connector A/A and the ground and between connector A/B and the ground.
– Release AGENT pushbutton switch	– Check 0 VDC between the connector A/A and the ground and between connector A/B and the ground

. If test is OK, firing system is OK, Loop / Squib test system is faulty, aircraft can be released.

. If not OK (no voltage), firing system must be cleared.
– Remove the shunt device
– Connect the electrical connector to cartridge 12 WF

CAUTION : MAKE CERTAIN THAT THE CONNECTOR IS CORRECTLY INSERTED AND SAFETIED.

– Restore system and aircraft to normal operating conditions.

26-22-04 APU FIRE TEST

MAINTENANCE

26-22-04	APU FIRE TEST – CIRCUIT VERIFICATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE : Access platform – Voltmeter – Headset – Shunt device		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1WF	APU / FIRE / EXTIG / SQUIB / A	121 VU 38L
2WF	APU / FIRE / EXTIG / SQUIB / B	121 VU 39L
3WF	APU / FUEL / LP VALVE / STBY	121 VU 41M
1KD	APU / ECB / SPLY	121 VU 41L
4WF	APU / FIRE / LP VALVE / NORM	121 VU 42M
2KD	APU / APU / CTL	121 VU 42L
1WG	APU / FIRE AND OVHT / DET / LOOP A	121 VU 43L
2WG	APU / FIRE AND OVHT / DET / LOOP B	121 VU 44L

CAUTION : 1. MAKE SURE THAT ALL THE CIRCUITS IN MAINTENANCE ARE ISOLATED BEFORE YOU SUPPLY ELECTRICAL POWER TO THE AIRCRAFT.

2. DO NOT REMOVE / INSTALL OR TOUCH THE DISCHARGE CARTRIDGES UNLESS YOU ARE APPROVED TO WORK WITH CLASS « C » EXPLOSIVES. YOU MUST WORK TO APPROVED PROCEDURES. THESE MUST INCLUDE THE INSTALLATION OF ELECTROSTATIC PROTECTIVE CAP WHEN YOU DO THE TASK. THIS PREVENTS EXPLOSION OF CARTRIDGE.

1 – Open, safety and tag C / B 1 WF, 2 WF, 3 WF, 1 KD, 4 WF, 2 KD, 1 WG, 2 WG
2 – Put the access platform in position below the APU compartment.
3 – Open the maintenance door 314AR.
4 – Remove and discard the safety wire from the electrical connector (12WF-A)
5 – Disconnect the electrical connector (12WF-A) from the cartridge.
6 – Install the shunt plug SHUNT DEVICE-FIRE EXTINGUISHER CARTRIDGE, HTL (30840007) to the cartridge electrical connector (12WF-A)
7 – Remove the snapwire from the APU FIRE pushbutton switch on panel 20 VU.
8 – Energize the electrical circuits.
9 – Remove the safety clip(s) and the tag(s) and close C / B 1 WF, 2 WF, 3 WF, 4 WF.
10 – On the CAPT jack panel connect the 600 ohms headset to the electrical connector.
11 – Energize the audio integrating system
12 – Energize the Annunciator Light Test and Dimming system

(continued)

(continued)

26-22-04 APU FIRE TEST

MAINTENANCE

Note : For this procedure we recommend that a minimum of two persons are in constant touch with each other with the help of the audio integrating system. One person at the cockpit APU FIRE panel 20VU and the other person at zone 313.

13 – Do this test :

ACTION	RESULT
On the connector 12WF-A : – connect a 28 V DC voltmeter between terminal A and ground, and then between terminal B and ground.	On the connector 12WF-A : – make sure that there is no voltage shown between terminals A and B and ground.
On the APU Fire panel 20 VU : – push the APU FIRE pushbutton switch.	On the connector 12WF-A : – make sure, that there is no voltage shown between terminal A and B and ground. On the APU FIRE panel 20 VU : – on the AGENT pusbutton switch, the SQUIB light comes on.
On the APU Fire panel 20 VU : – press and hold the SQUIB switch pushbutton	On connector 12WF-A : – make sure that there is 28 V DC shown between terminal A and B and ground.
On the APU Fire panel 20VU : – release the SQUIB pushbutton switch.	On the connector 12WF-A : – make sure that there is no voltage shown.
On the APU Fire panel 20 VU : – push to release the APU FIRE pushbutton switch	On the APU Fire panel 20 VU : – on the AGENT pushbutton switch, the SQUIB light goes off.

If this test is correct the APU fire extinghishing system is correct, the test circuit is faulty.

14 – De-energize the audio integrating system
15 – De-energize the Annunciator Light Test and Dimming system
16 – Open, safety and tag C / B 1WF, 2 WF, 3 WF, 4 WF.
17 – On the APU FIRE panel 20 VU install snapwire to the APU FIRE pushbutton switch.
18 – Remove the shunt plug SHUNT DEVICE-FIRE EXTINGUISHER CARTRIDGE, HTL (30840007) from the cartridge electrical connector (12WF-A).
19 – Connect the electrical connector (12WF-A) to the cartridge.
20 – Safety the electrical connector with safety wire MS 20995-C25
21 – De-energize the aircraft electrical circuits
22 – Put the system back to the serviceable condition.
23 – Put the aircraft back to the serviceable condition.
24 – Make sure that the work area is clean and clear of tools and other items.
25 – Close the maintenance door 314AR.
26 – Remove the access platform(s).

26-22-05 Fire Extinguisher Overpressure Indication (Red Disc)

MAINTENANCE

26-22-05	FIRE EXTINGUISHER OVERPRESSURE INDICATION – BOTTLE PRESSURE SWITCH CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE : Access platform 2.5 m ; 3/32 in. allen key ; 600 ohms headset		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2KD 1KD	APU/APU/CTL APU/ECB/SPLY	121 VU L42 121 VU L41

PROCEDURE

1 – Open, safety and tag C/B 2KD and 1KD
2 – Put the access platform below the access door 314 AR
3 – Open the access door 314 AR
4 – Energize the aircraft electrical circuits
5 – Energize the audio integrating system.

Note : For this procedure we recommend that a minimum of two persons are in contact with each other with the audio integrating system. One person must monitor the cockpit APU panel 20VU and the other person does the test in the zone 313.

6 – On the CAPT jack panel, connect the 600 ohms headset to the related connector.
7 – Do the following test.

ACTION	RESULT
A. On the APU fire extinguisher bottle : – put the 3/32 in. allen key into the pressure switch hexagon test-socket. Slowly turn the allen key clockwise or counterclockwise approx. 10 degrees.	On the APU FIRE panel 20VU : – the DISCH legend in the AGENT pushbutton switch comes on.
B. On the APU fire extinguisher bottle : – release the allen key.	On the APU FIRE panel 20VU : – the DISCH legend in the AGENT pushbutton switch goes off. *Note : The pressure effect must send the allen key back to the initial position.*
C – On the APU fire extinguisher bottle : – remove the allen key from the test socket.	

8 – Close the access door 314 AR
9 – De-energize the audio integrating system and the aircraft electrical circuits.
10 – Close C/B 2KD and 1KD.

26-22-09 Squib

MAINTENANCE

26-22-09	SQUIB – Check of the remaining squib	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO AMM

26-22-10 APU AUTO EXTING TEST

MAINTENANCE

26-22-10	APU AUTO EXTING TEST – Check of the APU automatic fire extinguishing system	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO AMM

26-22-11 APU FIRE Light on External Power Panel

MAINTENANCE

26-22-11	APU FIRE Light – Check of the APU automatic fire extinguishing system	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 26-22-10 in Section 03

26-22-12 APU SHUT OFF pb on External Power Panel

MAINTENANCE

26-22-12	APU SHUT OFF pb – Check of the APU automatic fire extinguishing system	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 26-22-10 in Section 03

26-23-02 "DISCH" Light

MAINTENANCE

26-23-02	CARGO COMPARTMENT DISCH LIGHT – BOTTLE WEIGHT CHECK	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Remove fire extinguisher bottle

2 – Do a weight check of the fire extinguisher bottle (ref. Component maintenance manual 262006)

3 – Install fire extinguisher bottle

26-23-02 "DISCH" Light

MAINTENANCE

26-23-02	CARGO COMPARTMENT DISCH LIGHT – BOTTLE WEIGHT CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Remove fire extinguisher bottle

2 – Do a weight check of the fire extinguisher bottle (ref. Component maintenance manual 262006)

3 – Install fire extinguisher bottle

BLANK

27-14-01 Aileron servo- control

MAINTENANCE

27-14-01	AILERON SERVO-CONTROL DEACTIVATION		
ACCESS ZONE :	575 KB / 675 KB	ACCESS ITEM :	33CE1, 33CE2, 33CE3 33CE4
GSE :			

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
15CE 1	FIGHT CONTROLS/ELAC 1/NORM/SPLY	49VU B11
16CE 2	FLIGHT CONTROLS/ELAC 2/STBY SPLY	105VU A02
16CE 1	FLT CTL/ELAC 1/STBY SPLY	105VU A01
15CE 2	FLIGHT CONTROLS/ELAC 2/NORM/SPLY	121VU R20

PROCEDURE

I – Failure Confirmation Procedure :

1 – Energize the aircraft electrical circuits
2 – On the center pedestal on LH or RH MCDU
  – Push MCDU MENU key
  – CFDS MENU page appears
3 – Push CFDS key. CFDS page appears.
4 – Push SYSTEM REPORT/TEST KEY. SYSTEM REPORT/TEST page appears.
5 – Push F/CTL key. Push F/CTL page appears.
6 – Push EFCS1 key. EFCS1 page appears.
7 – Push GROUND SCAN key. GROUND SCAN page appears.
8 – Push START GROUND SCAN key.
9 – Push GROUND SCAN STOP key.
10 – Push GROUND REPORT key.
  . If there is a message concerning RUDDER PEDAL XDCR unit, it is not necessary to deactivate the aileron servo control. The aircraft can be dispatched as is.
  . If there is no message concerning RUDDER PEDAL XDCR unit, the aileron servo control must be deactivated.
  Apply following procedure.

II – Deactivation :

1) – In the cockpit :

A – On overhead panels 23 VU and 24 VU, release ELAC 1 and ELAC 2 pushbutton switches ; corresponding OFF legends come on.
B – Make certain that green, blue and yellow hydraulic systems are not pressurized.
C – Display warning notices to avoid hydraulic systems pressurization.
D – Open, safety and tag C/BS : 15CE 1, 15CE 2, 16CE 1, 16CE 2.

(continued)

(continued)

27-14-01 Aileron servo- control

MAINTENANCE

2) – On the wing

A – Install access platform.
B – Open access doors 575 KB or 675 KB to gain access to LH or RH aileron servocontrol. Make sure that faulty servocontrol is not leaky.
C – Disconnect the electrical connector of the servocontrol to be deactivated and install protective cap on the plug.
D – Stow electrical connector and secure with tie-wraps.

3) – In the cockpit :

A – Close C/Bs : 15CE 1, 15CE 2, 16CE 1, 16CE 2.
B – On overhead panels 23 VU and 24 VU, push ELAC 1 and ELAC 2 pushbutton switches ; corresponding OFF legends go OFF, corresponding FAULT legends come ON then go OFF after approximatively 8 seconds.

III – Test :

A - Pressurize green and blue hydraulic systems.
B - On ECAM control panel select F / CTL page.
C - Move one sidestick controller to the left then to the right and check that aileron symbols move on ECAM ; check that corresponding servocontrol symbol is amber.

IV – Close-up :

A - Depressurize green and blue hydraulic systems.
B - Install a warning notice in flight compartment to warn the crew that aileron servocontrol is deactivated.
C - Put the aircraft back to serviceable conditions.

27-34-02 Elevator servocontrol position transducer

MAINTENANCE

27-34-02	ELEVATOR SERVO CONTROL POSITION TRANSDUCER – CONNECTION OF SPARE TRANSDUCER	
ACCESS ZONE :	334-344	**ACCESS ITEM** : position transducer
GSE :	Access platform	

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
	nil	

PROCEDURE

1 – Energize aircraft electrical circuit.
2 – On overhead panel, release ELAC 1, SEC 1, ELAC 2, SEC 2, SEC 3 pb sw.
3 – Depressurize the aircraft hydraulic systems :
  – green and blue for left elevator
  – yellow and blue for right elevator.
4 – Put the access platform in position :
  – in the zone 334 for the left elevator
  – in the zone 344 for the right elevator.
5 – Open the access door :
  – 334 DB for the left elevator
  – 344 DB for the right elevator
6 – Swap the connection of the plugs on the position transmitters.
7 – On overhead panel, push ELAC 1, SEC 1, ELAC 2, SEC 2, SEC 3 pb.
8 – Do the operational test of the elevator.
9 – Make sure that the work area is clean and clear of tools and other items.
10 – Close the access door 334 DB or 344 DB.
11 – Remove the access platform.
12 – Restore aircraft to required configuration.

(continued)

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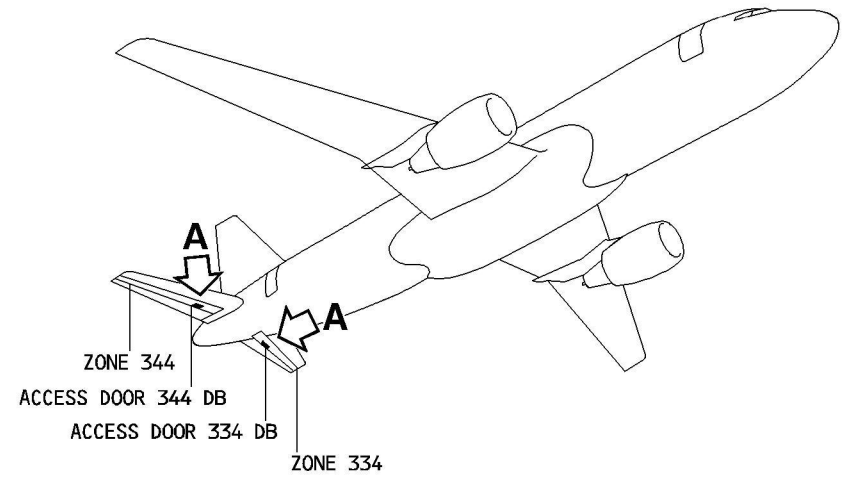
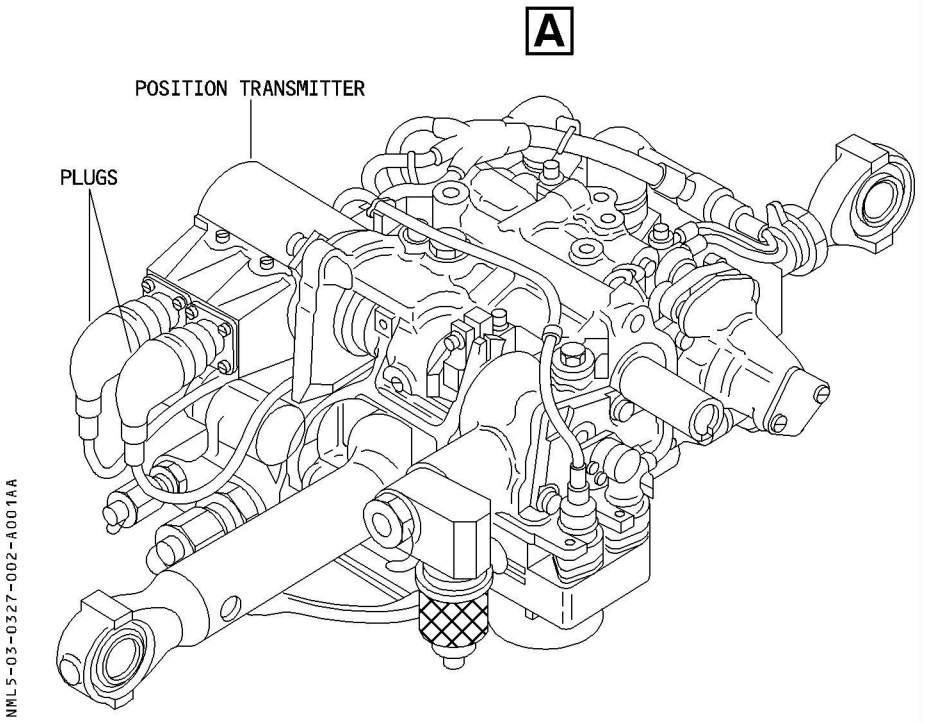
27-34-02 Elevator servocontrol position transducer

MAINTENANCE





27-51-01 Slat and Flap Control Computer (SFCC)

MAINTENANCE

27-51-01A	SFCC 2 FLAP CHANNEL – SFCC TEST PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
8CV	FLIGHT CONTROLS / FLP / CTL AND/ MONG / SYS 2	121VU Q21 or Q15
12CV	FLIGHT CONTROLS/WTB/FLP/SYS 2	121VU P20
14CC1	AUTO FLT/FAC1/26VAC	49VU B03 or B02
14CC2	AUTO FLT/FAC2/26VAC	121VU M18

PROCEDURE

1 – Energize the aircraft.

2 – On MCDU : Enter CFDS MENU MODE for SFCC 1 :
- . Get access to the F/CTL SYSTEM REPORT/TEST page.
- . Select SFCC 1.
- . Select SYSTEM STATUS FLP.
- . Check that <NO FAULT> is shown except "FLP 1 NO SFCC 2 DATA".
- . Select RETURN until SYSTEM REPORT/TEST F/CTL page is shown.
- . Select SFCC 2.
- . Select SYSTEM STATUS FLP :
  - – If FLP SYS LOCKED is shown, because of an electrical failure, reset the WTBs of the flap system with the SFCC 2.
  - – If reset is unsuccessful, open C/B 12CV.
- . Select RETURN until SYSTEM REPORT/TEST F/CTL page is shown.

3 – Open, safety and tag these circuit breakers : 8CV, 14CC1 and 14CC2.

4 – Make sure that the Green, Yellow and Blue hydraulic systems are pressurized.

5 – Do a check of the SFCC 1 flap WTB :
- . Set Slat and Flap control lever to position 3.

On MCDU :
- . Select SFCC 1.
- . Select NEXT PAGE.
- . Select TEST/RESET FLP.
- . Request a WTB/POB TEST. Follow instructions as presented by CFDS.
- . The MCDU shows that the FLAP WTB/POB TEST is IN PROGRESS
- . After less than 2 minutes, "NO FAULT" will be displayed, otherwise if the test is failed "PERFORMED UNSUCCESSFULLY-TEST INVALID" will be presented.

(continued)

(continued)

27-51-01 Slat and Flap Control Computer (SFCC)

MAINTENANCE

Note : If the test is unsuccessful after 3 attempts (CFDS TEST INVALID result), do the full test procedure with a Ground Power Cart (AMM : 27-51-00-710-003) or the Engine Driven Pumps (AMM : 27-51-00-710-004).
If the test still failed, the aircraft cannot be dispatched until the problem has been corrected.

6 – Make sure that the WTBs are not set.

7 – On MCDU :
. Select RETURN until the CFDS MENU page is shown.
. Push the MCDU MENU key, the MCDU MAIN MENU is shown.

8 – Keep C/B 8 CV opened for dispatch.

9 – If necessary (see step 2), keep C/B 12CV opened for dispatch.

10 – Remove the safety clips and the tags and close these circuit breakers : 14CC1 and 14CC2.

11 – Put the aircraft back to serviceable conditions.

(continued)

(continued)

27-51-01 Slat and Flap Control Computer (SFCC)

MAINTENANCE

27-51-01B	SFCC 2 SLAT CHANNEL – SFCC TEST PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
7CV	FLIGHT CONTROLS / SLT / CTL / SYS 2	121VU R21 or R15
11CV	FLIGHT CONTROLS/WTB/SLT/SYS 2	121VU P19
14CC1	AUTO FLT/FAC1/26VAC	49VU B03 or B02
14CC2	AUTO FLT/FAC2/26VAC	121VU M18

PROCEDURE

1 – Energize the aircraft.

2 – On MCDU : Enter CFDS MENU MODE for SFCC 1 :
- . Get access to the F/CTL SYSTEM REPORT/TEST page.
- . Select SFCC 1.
- . Select SLT SYSTEM STATUS.
- . Check that <NO FAULT> is shown except "SLT 1 NO SFCC 2 DATA".
- . Select RETURN until SYSTEM REPORT/TEST F/CTL page is shown.
- . Select SFCC 2.
- . Select SLT SYSTEM STATUS :
  - – If SLT SYS LOCKED is shown, because of an electrical failure, reset the WTBs of the Slat system with the SFCC 2.
  - – If reset is unsuccessful, open C/B 11CV.
- . Select RETURN until F/CTL SYSTEM REPORT/TEST page is shown.

3 – Open, safety and tag these circuit breakers : 7CV, 14CC1 and 14CC2.

4 – Make sure that the Green, Yellow and Blue hydraulic systems are pressurized.

5 – Do a check of the SFCC 1 Slat WTB :
- . Set Slat and Flap control lever to position 3.

On MCDU :
- . Select SFCC 1.
- . Select NEXT PAGE.
- . Select TEST/RESET SLT.
- . Request a WTB/POB TEST. Follow instructions as presented by CFDS.
- . The MCDU shows that the SLAT WTB/POB TEST is IN PROGRESS.
- . After less than 2 minutes, "NO FAULT" will be displayed, otherwise if the test is failed "PERFORMED UNSUCCESSFULLY-TEST INVALID" will be presented.

(continued)

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27-51-01 Slat and Flap Control Computer (SFCC)

MAINTENANCE

Note : If the test is unsuccessful after 3 attempts (CFDS TEST INVALID result), do the full test procedure with a Ground Power Cart (AMM : 27-51-00-710-003) or the Engine Driven Pumps (AMM : 27-51-00-710-004).
If the test still failed, the aircraft cannot be dispatched until the problem has been corrected.

6 – Make sure that the WTBs are not set.

7 – On MCDU :
. Select RETURN until the CFDS MENU page is shown.
. Push the MCDU MENU key, the MCDU MAIN MENU is shown.

8 – Keep C/B 7 CV opened for dispatch.

9 – If necessary (see step 2), keep C/B 11CV opened for dispatch.

10 – Remove the safety clips and the tags and close these circuit breakers : 14CC1 and 14CC2.

11 – Put the aircraft back to serviceable conditions.

27-51-02 Flap Wing Tip Brakes Solenoid

MAINTENANCE

27-51-02	FLAP WTB SOLENOID – WTB TEST PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
7CV	FLIGHT CONTROLS / SLT / CTL / SYS 2	121VU R21 or R15
8CV	FLIGHT CONTROLS / FLP / CTL AND / MONG / SYS 2	121VU Q21 or Q15
14CC1	AUTO FLT / FAC1 / 26VAC	49VU B03 or B02
14CC2	AUTO FLT / FAC2 / 26VAC	121VU M18

PROCEDURE

1 – Energize the aircraft.

2 – Pressurize the yellow, blue and green hydraulic systems.

Note : Wait until the hydraulic pressure of the three systems has stabilized before entering CFDS.

3 – Open, safety and tag these circuit breakers : 7CV, 8CV, 14CC1 and 14CC2.

4 – Select FLAPS 3

5 – Enter CFDS menu mode for SFCC1.

. Select SYSTEM REPORT/TEST
. Select F/CTL
. Select SFCC 1
. Select NEXT PAGE
. Select FLP TEST/RESET

6 – Request a WTB/POB TEST. Follow instructions as presented by CFDS. If the test is failed results will be presented, otherwise "NO FAULTS" will be presented.

Note : If the test is unsuccessful after 3 attempts (CFDS TEST INVALID result), do a new attemt with a ground power cart connected or with engine driven pumps on. Engine crank may be made to drive related pumps. If the test is performed with engines running and if a FLT NBR or a F-PLAN has been entered through MCDU before engine start, CFDS is inhibited 3 min after first engine start. If so, apply the following procedure to keep CFDS available :

. C/B FWS/FWC 1/SPLY (3WW on 49VU F01 or E02) . . . . . open
. C/B CFDS/CFDIU/SPLY (2TW on 121VU J18) . . . . . open
. C/B CFDS/CFDIU/BACK UP (8TW on 121VU J17) . . . . . open
. C/B EIS/FWC 2/SPLY (2WW on 121VU Q07) . . . . . open
. Start chrono. After 40 seconds, close C/B 2TW and 8TW
. Wait for CFDS initialization.
. Close C/B 3WW.
. Perform the test.
. Close C/B 2WW after the test has been performed.

7 – Remove the safety clips and the tags and close these circuit breakers : 7CV, 8CV, 14CC1 and 14CC2.

8 – Restore aircraft to required configuration.

27-64-01 Spoiler

MAINTENANCE

27-64-01	SPOILER SERVO-CONTROL DEACTIVATION		
ACCESS ZONE : 673, 573, 575, 675		**ACCESS ITEM** :	31CE1, 31CE2, 31CE3, 31CE4, 31CE5, 31CE6, 31CE7, 31CE8, 31CE9, 31CE10
GSE : Access platform + SPOILER MAINTENANCE KEY (98D27603002001)			
ASSOCIATED CIRCUIT BREAKERS			
FIN	**DESIGNATION**		**LOCATION**

PROCEDURE

1 – Extend the flaps.
2 – On overhead panel 23 VU and 24 VU release the 3 SEC p.b. sw (SEC1, SEC2 and SEC3).
Corresponding OFF legends come on.
3 – Depressurize hydraulic systems and display warning notices to avoid pressurization.
4 – Position access platform.

Note : Make sure that there is no significant hydraulic leak on the faulty servo-control(s).

Note : When you deactivate a spoiler servocontrol, you must also deactivate the symetrical servocontrol.

5 – Install the SPOILER MAINTENANCE KEY (98D27603002001) on the servocontrol and turn it a quarter turn counterclockwise.

Note : If necessary, use a metal rod (tommy bar) dia. 4mm (0.1574 in.) to turn the spoiler maintenance key.

6 – Disconnect electrical plugs and install protective caps.
7 – Stow electrical plugs, and secure using tie-wraps.
8 – Make sure that the spoiler is in the fully retracted position.
9 – Turn the SPOILER MAINTENANCE KEY a quarter turn clockwise and remove it.

CAUTION : Make sure that no spoiler maintenance key stays engaged in the maintenance device housing. Aerodynamic forces will cause-unwanted movement of the spoiler if the maintenance key stays in its housing.

Note : Affected servo-controls must remain hydraulically supplied.

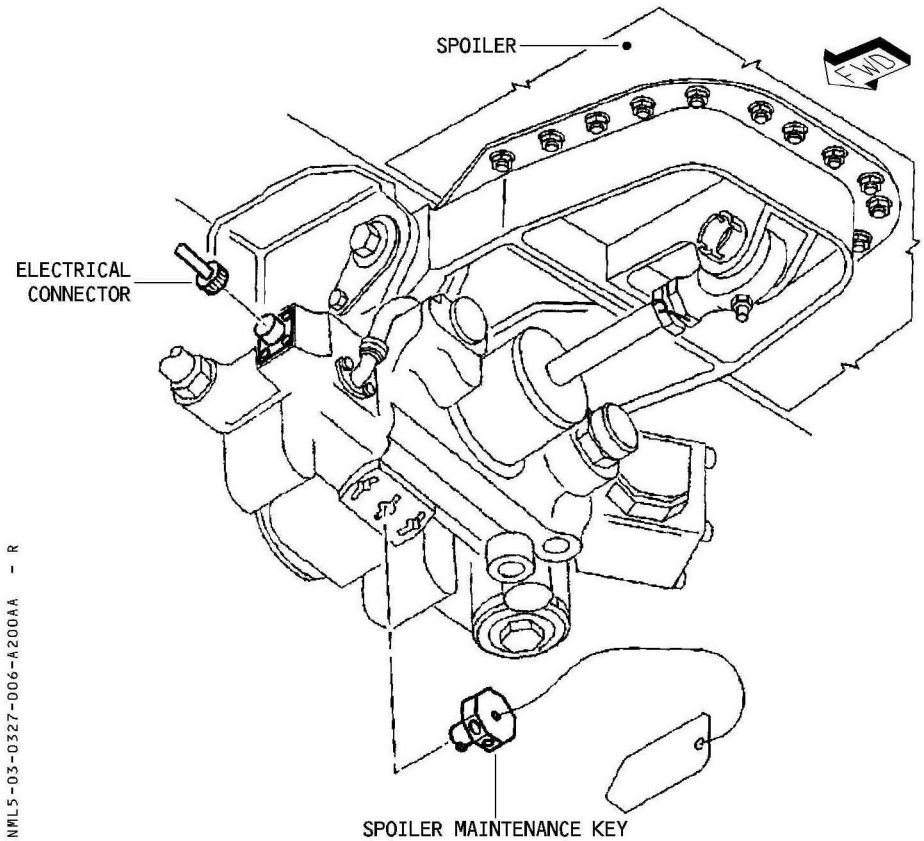
(continued)

(continued)

27-64-01 Spoiler

MAINTENANCE

11 – Push SEC p.b. sw. previously released, corresponding OFF legends go OFF, FAULT legends come ON then go OFF.
12 – Pressurize blue, yellow, green hydraulic systems Ref AMM 29-23-00-863-001, 29-24-00-863-001, 29-10-00-863-003).
13 – Select F / CTL page on lower ECAM
14 – Make sure that symbols corresponding to deactivated spoilers are amber
15 – Retract the flaps.
16 – Do the operational test of the spoilers.
Note : Make sure that the two symetrical spoilers you deactivated do not operate.
17 – Make certain that working area is clean and clear of tools and miscellaneous items or equipment.
18 – Depressurize hydraulic systems
19 – Remove access platform
20 – Install a warning notice in flight compartment to warn the crew that spoilers X are deactivated.



27-64-01 Spoiler

MAINTENANCE

27-64-01	SPOILER SERVO-CONTROL DEACTIVATION	
ACCESS ZONE : 673, 573, 575, 675	ACCESS ITEM :	31CE1, 31CE2, 31CE3, 31CE4, 31CE5, 31CE6, 31CE7, 31CE8, 31CE9, 31CE10
GSE : Access platform + SPOILER MAINTENANCE KEY (98D27603002001)		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Extend the flaps.
2 – On overhead panel 23 VU and 24 VU release the 3 SEC p.b. sw (SEC1, SEC2 and SEC3).
Corresponding OFF legends come on.
3 – Depressurize hydraulic systems and display warning notices to avoid pressurization.
4 – Position access platform.

Note : Make sure that there is no significant hydraulic leak on the faulty servo-control(s).

Note : When you deactivate a spoiler servocontrol, you must also deactivate the symetrical servocontrol.

5 – Install the SPOILER MAINTENANCE KEY (98D27603002001) on the servocontrol and turn it a quarter turn counterclockwise.

Note : If necessary, use a metal rod (tommy bar) dia. 4mm (0.1574 in.) to turn the spoiler maintenance key.

6 – Disconnect electrical plugs and install protective caps.
7 – Stow electrical plugs, and secure using tie-wraps.
8 – Make sure that the spoiler is in the fully retracted position.
9 – Turn the SPOILER MAINTENANCE KEY a quarter turn clockwise and remove it.

CAUTION : Make sure that no spoiler maintenance key stays engaged in the maintenance device housing. Aerodynamic forces will cause-unwanted movement of the spoiler if the maintenance key stays in its housing.

Note : Affected servo-controls must remain hydraulically supplied.

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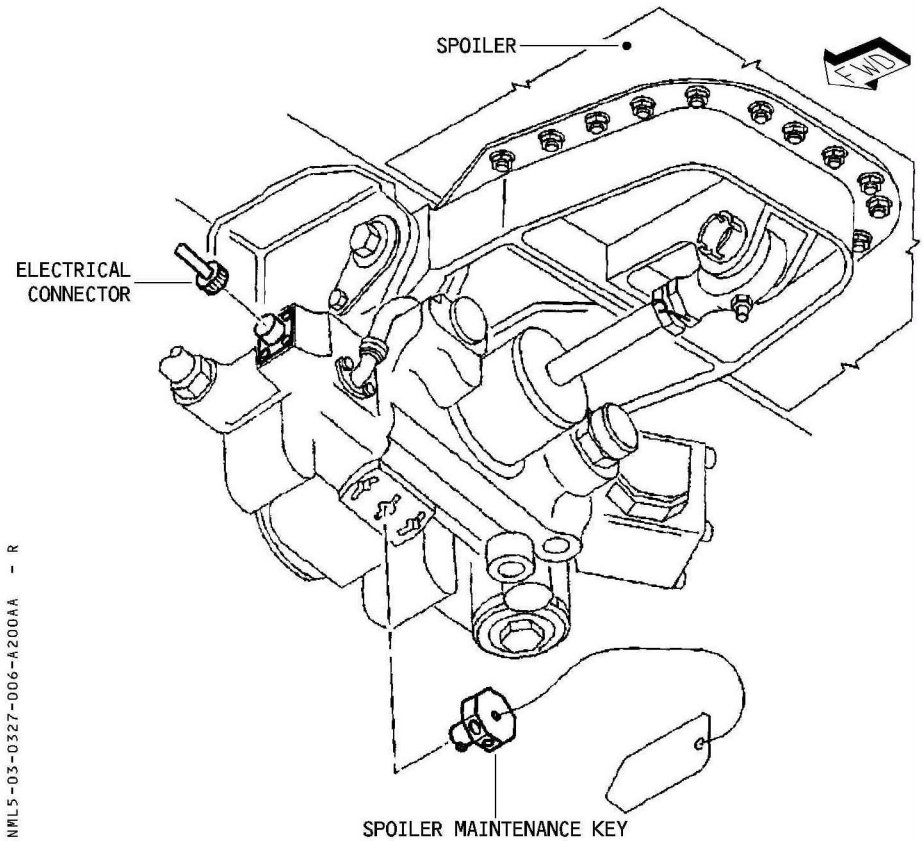
27-64-01 Spoiler

MAINTENANCE

11 – Push SEC p.b. sw. previously released, corresponding OFF legends go OFF, FAULT legends come ON then go OFF.
12 – Pressurize blue, yellow, green hydraulic systems Ref AMM 29-23-00-863-001, 29-24-00-863-001, 29-10-00-863-003).
13 – Select F / CTL page on lower ECAM
14 – Make sure that symbols corresponding to deactivated spoilers are amber
15 – Retract the flaps.
16 – Do the operational test of the spoilers.
Note : Make sure that the two symetrical spoilers you deactivated do not operate.
17 – Make certain that working area is clean and clear of tools and miscellaneous items or equipment.
18 – Depressurize hydraulic systems
19 – Remove access platform
20 – Install a warning notice in flight compartment to warn the crew that spoilers X are deactivated.



27-64-01 Spoiler

MAINTENANCE

27-64-01	SPOILER SERVO-CONTROL DEACTIVATION		
ACCESS ZONE : 673, 573, 575, 675		**ACCESS ITEM** :	31CE1, 31CE2, 31CE3, 31CE4, 31CE5, 31CE6, 31CE7, 31CE8, 31CE9, 31CE10
GSE : Access platform + SPOILER MAINTENANCE KEY (98D27603002001)			
ASSOCIATED CIRCUIT BREAKERS			
FIN	**DESIGNATION**		**LOCATION**

PROCEDURE

1 – Extend the flaps.
2 – On overhead panel 23 VU and 24 VU release the 3 SEC p.b. sw (SEC1, SEC2 and SEC3).
Corresponding OFF legends come on.
3 – Depressurize hydraulic systems and display warning notices to avoid pressurization.
4 – Position access platform.

Note : Make sure that there is no significant hydraulic leak on the faulty servo-control(s).

Note : When you deactivate a spoiler servocontrol, you must also deactivate the symetrical servocontrol.

5 – Install the SPOILER MAINTENANCE KEY (98D27603002001) on the servocontrol and turn it a quarter turn counterclockwise.

Note : If necessary, use a metal rod (tommy bar) dia. 4mm (0.1574 in.) to turn the spoiler maintenance key.

6 – Disconnect electrical plugs and install protective caps.
7 – Stow electrical plugs, and secure using tie-wraps.
8 – Make sure that the spoiler is in the fully retracted position.
9 – Turn the SPOILER MAINTENANCE KEY a quarter turn clockwise and remove it.

CAUTION : Make sure that no spoiler maintenance key stays engaged in the maintenance device housing. Aerodynamic forces will cause-unwanted movement of the spoiler if the maintenance key stays in its housing.

Note : Affected servo-controls must remain hydraulically supplied.

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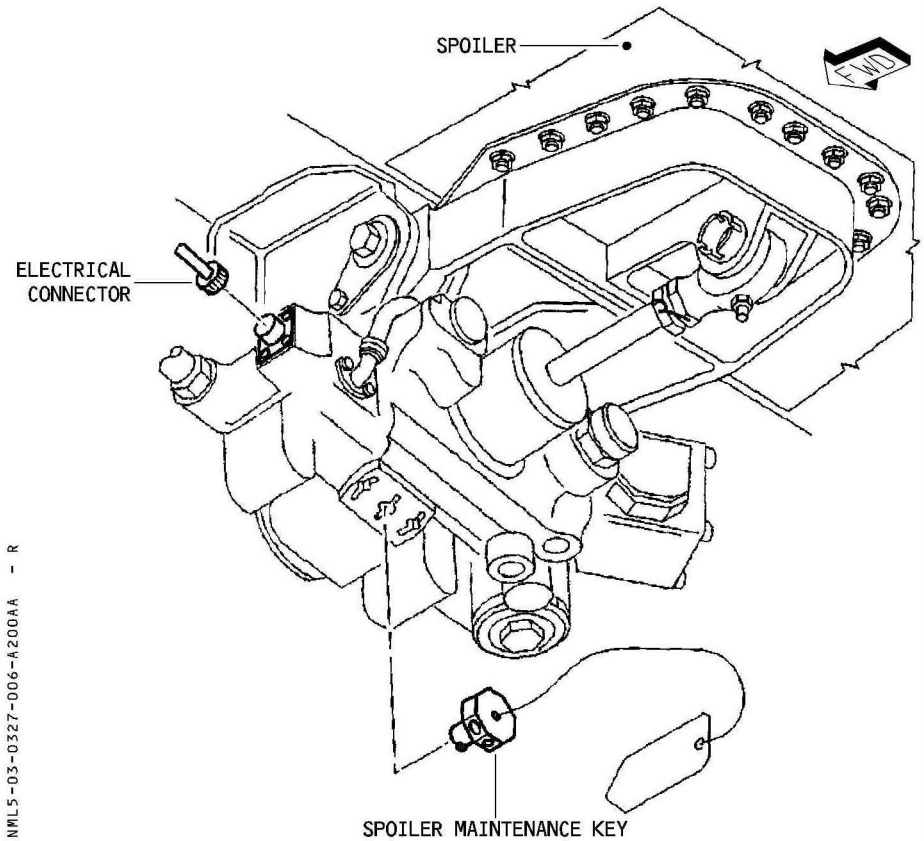
27-64-01 Spoiler

MAINTENANCE

11 – Push SEC p.b. sw. previously released, corresponding OFF legends go OFF, FAULT legends come ON then go OFF.
12 – Pressurize blue, yellow, green hydraulic systems Ref AMM 29-23-00-863-001, 29-24-00-863-001, 29-10-00-863-003).
13 – Select F / CTL page on lower ECAM
14 – Make sure that symbols corresponding to deactivated spoilers are amber
15 – Retract the flaps.
16 – Do the operational test of the spoilers.
Note : Make sure that the two symetrical spoilers you deactivated do not operate.
17 – Make certain that working area is clean and clear of tools and miscellaneous items or equipment.
18 – Depressurize hydraulic systems
19 – Remove access platform
20 – Install a warning notice in flight compartment to warn the crew that spoilers X are deactivated.



27-81-01 Slat wing tip brakes solenoids

MAINTENANCE

27-81-01	SLAT WTB SOLENOID – WTB CHECK PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
7CV	FLIGHT CONTROLS / SLT / CTL / SYS 2	121VU R21
8CV	FLIGHT CONTROLS / FLP / CTL AND/ MONG / SYS 2	121VU Q21

PROCEDURE

1 – Energize the aircraft.

2 – Pressurize the yellow, blue and green hydraulic systems.

Note : Wait until the hydraulic pressure of the three systems has stabilized before entering CFDS.

3 – Open C/B 7CV and 8CV.

4 – Select FLAPS 3

5 – Enter CFDS menu mode for SFCC1.

. Select SYSTEM REPORT/TEST
. Select F/CTL
. Select SFCC 1
. Select NEXT PAGE
. Select SLT TEST/RESET

6 – Request a WTB/POB TEST. Follow instructions as presented by CFDS. If the test is failed results will be presented, otherwise "NO FAULTS" will be presented.

Note : If the test is unsuccessful after 3 attempts (CFDS TEST INVALID result), do a new attemt with a ground power cart connected or with engine driven pumps on.

Engine crank may be made to drive related pumps.
If the test is performed with engines running and if a FLT NBR or a F-PLAN has been entered through MCDU before engine start, CFDS is inhibited 3 min after first engine start. If so, apply the following procedure to keep CFDS available :

. C/B FWS/FWC 1/SPLY (3WW on 49VU F01 or E02) . . . . . open
. C/B CFDS/CFDIU/SPLY (2TW on 121VU J18) . . . . . open
. C/B CFDS/CFDIU/BACK UP (8TW on 121VU J17) . . . . . open
. C/B EIS/FWC 2/SPLY (2WW on 121VU Q07) . . . . . open
. Start chrono. After 40 seconds, close C/B 2TW and 8TW
. Wait for CFDS initialization.
. Close C/B 3WW.
. Perform the test.
. Close C/B 2WW after the test has been performed.

7 – Close C/B 7CV and 8CV.

8 – Restore aircraft to required configuration.

27-93-01 ELAC

MAINTENANCE

27-93-01	ELEVATOR AILERON COMPUTER – CHECK PROCEDURE		
ACCESS ZONE :	120	**ACCESS ITEM :**	23 VU 24 VU
GSE :			
ASSOCIATED CIRCUIT BREAKERS			
FIN	**DESIGNATION**		**LOCATION**
15CE1	FLIGHT CONTROLS / ELAC 1 / NORM / SPLY		49 VU B 10 (or B11)
16CE1	FLIGHT CONTROLS / ELAC 1 / STBY / SPLY		105 VU AS 01 or S 04

PROCEDURE

Note : – *If ELAC 1 FAULT warning is in view : Perform step 1 thru 11-a) and 11-b) and step 12.*
– *If ELAC 1 PITCH FAULT warning is in view : Perform step 1 thru 11-a) and 11-b) and step 13.*

1 – Energize aircraft electrical network
2 – On overhead panel 23 VU release ELAC 1 p.b. sw. and make sure that on panel 24VU FAULT and OFF legends of ELAC 2 p.b. sw. are extinguished.
3 – On the center pedestal on LH or RH MCDU
– Push MCDU MENU key
– CFDS MENU page appears
4 – Push CFDS key. CFDS page appears
5 – Push SYSTEM REPORT / TEST KEY. SYSTEM REPORT / TEST page appears.
6 – Push F / CTL key. F / CTL page appears.
7 – Push EFCS1 key. EFCS1 page appears.
8 – Push GROUND SCAN key. GROUND SCAN page appears.
9 – Push START GROUND SCAN key.
10 – Push GROUND SCAN STOP key.
11 – Push GROUND REPORT key.
a) Make certain that none of the following FAULT messages associated with accelerometers 3 (12CE3) and 4 (12CE4) and with side stick is displayed :
ELAC2 MON OR WIRING FROM ACCLRM3 12CE3
ELAC2 COM OR WIRING FROM ACCLRM3 12CE3
ACCLRM3 12CE3
SEC2 OR WIRING FROM ACCLRM3 12CE3
ELAC2 MON OR WIRING FROM ACCLRM4 12CE4
ELAC2 COM OR WIRING FROM ACCLRM4 12CE4
ACCLRM4 12CE4
SEC2 OR WIRING FROM ACCLRM4 12CE4
ELAC2 OR INPUT OF CAPT ROLL CTL SSTU 4CE1

(continued)

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27-93-01 ELAC

MAINTENANCE

ELAC2 OR INPUT F/O ROLL CTL SSTU 4CE2
ELAC2 OR INPUT OF CAPT PITCH CTL SSTU 4CE3
ELAC2 OR INPUT OF F/O PITCH CTL SSTU 4CE4
SEC1(2)(3) OR INPUT OF CAPT ROLL CTL SSTU 4CE1
SEC1(2)(3) OR INPUT OF F/O ROLL CTL SSTU 4CE2
SEC1(2) OR INPUT OF CAPT PITCH CTL SSTU 4CE3
SEC1(2) OR INPUT OF F/O PITCH CTL SSTU 4CE4
CAPT ROLL CTL SSTU 4CE1
F/O ROLL CTL SSTU 4CE2
CAPT PITCH CTL SSTU 4CE3
F/O PITCH CTL SSTU 4CE4

b) Check that none of the following FAULT messages related to SEC1 or SEC2 pitch changeover logic or to SEC2 pitch control failure is present :
CHECK PITCH CHANGE OVER OF SEC1
CHECK PITCH CHANGE OVER OF SEC2

SEC2 OR WIRING FROM L G ELEV POS XDCR 34CE1
SEC2 OR WIRING FROM R Y ELEV POS XDCR 34CE2

SEC2 OR WIRING FROM L ELEV POS MON XDCR
SEC2 OR WIRING FROM R ELEV POS MON XDCR

SEC2 COM OR WIRING TO L G ELEV SERVO VLV 34CE1
SEC2 COM OR WIRING TO R Y ELEV SERVO VLV 34CE2

SEC2 MON OR WIRING TO L G ELEV SERVO VLV 34CE1
SEC2 MON OR WIRING TO R Y ELEV SERVO VLV 34CE2

SEC2 OR WIRING FROM L B ELEV MODE XDCR 34CE3
SEC2 OR WIRING FROM R B ELEV MODE XDCR 34CE4

SEC2 MON OR WIRING TO L B ELEV SOL VLV 34CE3
SEC2 MON OR WIRING TO R B ELEV SOL VLV 34CE4

12 – If « ELAC 1 FAULT » warning is in view :
- Open, safety and tag C/B 15CE1 and 16CE1
- Put the aircraft back to its initial configuration.

13 – If « ELAC 1 PITCH FAULT » warning is in view :
- On overhead panels 23 VU and 24 VU, release ELAC 2, SEC 1 and SEC 2 p.b. sw.
- Pressurize green and yellow hydraulic Systems : (AMM Tasks : 29-23-00-863-001 and 29-24-00-863-001).
- Put the SLAT / FLAP lever in position 0
- Move the THS, with the handwheel, out of neutral
- On overhead panel 24 VU, engage the SEC 2. The THS must return to neutral position.
- Depressurize the green and yellow hydraulic Systems (AMM Tasks : 29-23-00-864-001 and 29-24-00-864-001).
- On overhead panels 23 VU and 24 VU, set ELAC 1, ELAC 2 and SEC 1 p.b. sw at ON
- Put the aircraft back to its initial configuration.

27-93-01 ELAC

MAINTENANCE

27-93-01	ELEVATOR AILERON COMPUTER – CHECK PROCEDURE		
ACCESS ZONE :	120	**ACCESS ITEM :**	23 VU 24 VU
GSE :			
ASSOCIATED CIRCUIT BREAKERS			
FIN	**DESIGNATION**		**LOCATION**
15CE1	FLIGHT CONTROLS / ELAC 1 / NORM / SPLY		49 VU B 10 (or B11)
16CE1	FLIGHT CONTROLS / ELAC 1 / STBY / SPLY		105 VU AS 01 or S 04

PROCEDURE

Note : – *If ELAC 1 FAULT warning is in view : Perform step 1 thru 11-a) and 11-b) and step 12.*
– *If ELAC 1 PITCH FAULT warning is in view : Perform step 1 thru 11-a) and 11-b) and step 13.*

1 – Energize aircraft electrical network
2 – On overhead panel 23 VU release ELAC 1 p.b. sw. and make sure that on panel 24VU FAULT and OFF legends of ELAC 2 p.b. sw. are extinguished.
3 – On the center pedestal on LH or RH MCDU
– Push MCDU MENU key
– CFDS MENU page appears
4 – Push CFDS key. CFDS page appears
5 – Push SYSTEM REPORT / TEST KEY. SYSTEM REPORT / TEST page appears.
6 – Push F / CTL key. F / CTL page appears.
7 – Push EFCS1 key. EFCS1 page appears.
8 – Push GROUND SCAN key. GROUND SCAN page appears.
9 – Push START GROUND SCAN key.
10 – Push GROUND SCAN STOP key.
11 – Push GROUND REPORT key.
a) Make certain that none of the following FAULT messages associated with accelerometers 3 (12CE3) and 4 (12CE4) and with side stick is displayed :
ELAC2 MON OR WIRING FROM ACCLRM3 12CE3
ELAC2 COM OR WIRING FROM ACCLRM3 12CE3
ACCLRM3 12CE3
SEC2 OR WIRING FROM ACCLRM3 12CE3
ELAC2 MON OR WIRING FROM ACCLRM4 12CE4
ELAC2 COM OR WIRING FROM ACCLRM4 12CE4
ACCLRM4 12CE4
SEC2 OR WIRING FROM ACCLRM4 12CE4
ELAC2 OR INPUT OF CAPT ROLL CTL SSTU 4CE1

(continued)

27-93-01 ELAC

MAINTENANCE

ELAC2 OR INPUT F/O ROLL CTL SSTU 4CE2
ELAC2 OR INPUT OF CAPT PITCH CTL SSTU 4CE3
ELAC2 OR INPUT OF F/O PITCH CTL SSTU 4CE4
SEC1(2)(3) OR INPUT OF CAPT ROLL CTL SSTU 4CE1
SEC1(2)(3) OR INPUT OF F/O ROLL CTL SSTU 4CE2
SEC1(2) OR INPUT OF CAPT PITCH CTL SSTU 4CE3
SEC1(2) OR INPUT OF F/O PITCH CTL SSTU 4CE4
CAPT ROLL CTL SSTU 4CE1
F/O ROLL CTL SSTU 4CE2
CAPT PITCH CTL SSTU 4CE3
F/O PITCH CTL SSTU 4CE4

b) Check that none of the following FAULT messages related to SEC1 or SEC2 pitch changeover logic or to SEC2 pitch control failure is present :
CHECK PITCH CHANGE OVER OF SEC1
CHECK PITCH CHANGE OVER OF SEC2

SEC2 OR WIRING FROM L G ELEV POS XDCR 34CE1
SEC2 OR WIRING FROM R Y ELEV POS XDCR 34CE2

SEC2 OR WIRING FROM L ELEV POS MON XDCR
SEC2 OR WIRING FROM R ELEV POS MON XDCR

SEC2 COM OR WIRING TO L G ELEV SERVO VLV 34CE1
SEC2 COM OR WIRING TO R Y ELEV SERVO VLV 34CE2

SEC2 MON OR WIRING TO L G ELEV SERVO VLV 34CE1
SEC2 MON OR WIRING TO R Y ELEV SERVO VLV 34CE2

SEC2 OR WIRING FROM L B ELEV MODE XDCR 34CE3
SEC2 OR WIRING FROM R B ELEV MODE XDCR 34CE4

SEC2 MON OR WIRING TO L B ELEV SOL VLV 34CE3
SEC2 MON OR WIRING TO R B ELEV SOL VLV 34CE4

12 – If « ELAC 1 FAULT » warning is in view :
- Open, safety and tag C/B 15CE1 and 16CE1
- Put the aircraft back to its initial configuration.

13 – If « ELAC 1 PITCH FAULT » warning is in view :
- On overhead panels 23 VU and 24 VU, release ELAC 2, SEC 1 and SEC 2 p.b. sw.
- Pressurize green and yellow hydraulic Systems : (AMM Tasks : 29-23-00-863-001 and 29-24-00-863-001).
- Put the SLAT / FLAP lever in position 0
- Move the THS, with the handwheel, out of neutral
- On overhead panel 24 VU, engage the SEC 2. The THS must return to neutral position.
- Depressurize the green and yellow hydraulic Systems (AMM Tasks : 29-23-00-864-001 and 29-24-00-864-001).
- On overhead panels 23 VU and 24 VU, set ELAC 1, ELAC 2 and SEC 1 p.b. sw at ON
- Put the aircraft back to its initial configuration.

27-94-01 SEC

MAINTENANCE

27-94-01	SPOILER ELEVATOR COMPUTER – CHECK PROCEDURE	
ACCESS ZONE :	210	ACCESS ITEM :
GSE : Nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
21CE1	FLIGHT CONTROLS / SEC 1 / NORM / SPLY	49VU B08
22CE	FLT CTL / SEC 1 / STBY SPLY	105VU AS01 or B01
21CE2	FLIGHT CONTROLS / SEC 2 / SPLY	121VU Q18

PROCEDURE

1 – Open C / B 21CE1 and 22CE (if SEC 1 is affected), or 21CE2 (if SEC 2 is affected)

Note : The intent of the following maintenance procedure is to check that :
1) Sidestick transducers associated with ELACs and SECs are operative, and
2) pitch control from the opposite SEC is operative.
The operational procedure which must be performed prior to each departure also permits to detect such failures.
Consequently, accomplishment of following maintenance procedure from the step 2 to the end is left at airlines discretion. If accomplished, it would permit to detect any sidestick transducer failure before the operational check is made, ie, before the aircraft is ready for departure.
3) F/CTL MAINTENANCE message will be displayed on ECAM STATUS page.

2 – Energize the aircraft electrical circuits

3 – On panel 23VU, make sure that FAULT and OFF legends of ELAC 1 p.b. sw. are extinguished.

4 – On panel 24VU, make sure that FAULT and OFF legends of ELAC 2 p.b. sw. are extinguished.

5 – On the center pedestal on LH or RH MCDU
- Push MCDU MENU key
- CFDS MENU page appears

6 – Push CFDS key. CFDS page appears

7 – Push SYSTEM REPORT / TEST KEY. SYSTEM REPORT / TEST page appears.

8 – Push F / CTL key. F / CTL page appears.

9 – Push EFCS1 key. EFCS1 page appears.

10 – Push GROUND SCAN key. GROUND SCAN page appears.

11 – Push START GROUND SCAN key, wait 2 minutes.

12 – Push GROUND SCAN STOP key.

13 – Push GROUND REPORT key.

(continued)

(continued)

27-94-01 SEC

MAINTENANCE

14 – Check that none of the following failure messages concerning sidestick is present :

ELAC1(2) OR INPUT OF CAPT ROLL CTL SSTU 4CE1
ELAC1(2) OR INPUT OF F/O ROLL CTL SSTU 4CE2
ELAC1(2) OR INPUT OF CAPT PITCH CTL SSTU 4CE3
ELAC1(2) OR INPUT OF F/O PITCH CTL SSTU 4CE4
SEC1(2)(3) (the non affected SECs) OR INPUT OF CAPT ROLL CTL SSTU 4CE1
SEC1(2)(3) (the non affected SECs) OR INPUT OF F/O ROLL CTL SSTU 4CE2
SEC1(2) (the non affected SECs) OR INPUT OF CAPT PITCH CTL SSTU 4CE3
SEC1(2) (the non affected SECs) OR INPUT OF F/O PITCH CTL SSTU 4CE4
CAPT ROLL CTL SSTU 4CE1
F/O ROLL CTL SSTU 4CE2
CAPT PITCH CTL SSTU 4CE3
F/O PITCH CTL SSTU 4CE4

15 – Check that none of the following messages affecting pitch control from the opposite SEC is present :

a) if SEC1 inoperative :

CHECK PITCH CHANGE OVER OF SEC2

SEC2 OR WIRING FROM L G ELEV POS XDCR 34CE1
SEC2 OR WIRING FROM R Y ELEV POS XDCR 34CE2

SEC2 OR WIRING FROM L ELEV POS MON XDCR
SEC2 OR WIRING FROM R ELEV POS MON XDCR

SEC2 COM OR WIRING TO L G ELEV SERVO VLV 34CE1
SEC2 COM OR WIRING TO R Y ELEV SERVO VLV 34CE2

SEC2 MON OR WIRING TO L G ELEV SERVO VLV 34CE1
SEC2 MON OR WIRING TO R Y ELEV SERVO VLV 34CE2

SEC2 OR WIRING FROM L B ELEV MODE XDCR 34CE3
SEC2 OR WIRING FROM R B ELEV MODE XDCR 34CE4

SEC2 MON OR WIRING TO L B ELEV SOL VLV 34CE3
SEC2 MON OR WIRING TO R B ELEV SOL VLV 34CE4

b) if SEC2 inoperative :

CHECK PITCH CHANGE OVER OF SEC1

SEC1 OR WIRING FROM L B ELEV POS XDCR 34CE3
SEC1 OR WIRING FROM R B ELEV POS XDCR 34CE4

SEC1 OR WIRING FROM L ELEV POS MON XDCR
SEC1 OR WIRING FROM R ELEV POS MON XDCR

SEC1 COM OR WIRING TO L B ELEV SERVO VLV 34CE3
SEC1 COM OR WIRING TO R B ELEV SERVO VLV 34CE4

(continued)

27-94-01 SEC

MAINTENANCE

SEC1 MON OR WIRING TO L B ELEV SERVO VLV 34CE3
SEC1 MON OR WIRING TO R B ELEV SERVO VLV 34CE4

SEC1 OR WIRING FROM L G ELEV MODE XDCR 34CE1
SEC1 OR WIRING FROM R Y ELEV MODE XDCR 34CE2

SEC1 MON OR WIRING TO L G ELEV SOL VLV 34CE1
SEC1 MON OR WIRING TO R Y ELEV SOL VLV 34CE2

16 – Keep C/B 21CE1 and 22CE (if SEC 1 is affected), or 21CE2 (if SEC 2 is affected) opened for dispatch.

BLANK

28-21-01 Wing Tank Pump

MAINTENANCE

28-21-01	WING TANK PUMP – CHECK OF FUEL RETURN VALVE	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

1 – Energize the A/C electrical circuits
2 – Start the MCDU system
3 – Make sure that the following C/B's are closed :
panel 49 VU : 2KS1 ENGINE/1/FADEC A/AND EIU1 (A04)
(2KS2 ENGINE/2/FADEC A/AND EIU2 (A05))
Panel 121 VU : 4KS1 ENGINE/1/FADEC B/AND EIU1 (R41)
(4KS2 ENGINE/2/FADEC B/(Q40))
4 – On panel 50 VU release ENG/FADEC GND PWR/1 (2) pushbutton SWITCH (ON legend comes ON).
5 – On the left or right MCDU get the "SYSTEM REPORT TEST" menu on "ENG" page.
6 – Select "FADEC 1A (2A)".

Note : The test can be accomplished without air bleed supplying the starter (ie, a non motoring test).
If bleed is available, engine will rotate during the test. Take appropriate precautions.

7 – Select and perform a "FADEC TEST".
8 – Check that the message "FRV, J7 (J8) ECU" is not present.
9 – Select "FADEC 1B (2B)".
10 – Perform a "FADEC TEST" and check that the message "FRV, J7 (J8), ECU" is not present.
11 – Push the line key adjacent to "RETURN" indication until "SYSTEM REPORT TEST" menu comes into view.
12 – Select "FUEL".
13 – Select "FLSS STATUS".
14 – Check that the following messages are not present :
L (R) SURGE SENSOR 28QJ1 (2)
L (R) INN TEMP SENSOR 29QJ1 (2)
L (R) OUT TEMP SENSOR 30QJ1 (2)
L (R) LO LEVEL SENSOR 38QJ1 (2)

(continued)

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28-21-01 Wing Tank Pump

MAINTENANCE

15 – Stop the MCDU.
16 – Push the "ENG/FADEC GND PWR1 (2)" pushbutton switch (ON legend goes off).
17 – Restore the aircraft to the required configuration.

28-25-04 Refuel Valve

MAINTENANCE

28-25-04	REFUEL VALVE – MANUAL REFUEL	
ACCESS ZONE :		ACCESS ITEM :
GSE :	Access platform 2.8 m Access platform 3.6 m	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

WARNING : STOP THE FUEL TANKER 200 ft. (60 m) FROM THE AIRCRAFT NOSE WHILE THE WHEATHER RADAR OPERATES.
DO NOT OPERATE THE FUEL TANKER UNTIL YOU STOP THE OPERATION OF THE WEATHER RADAR.

WARNING : BEFORE YOU REFUEL OR DEFUEL THE AIRCRAFT YOU MUST MAKE THE AREA AROUND IT SAFE. IN THE SAFETY AREA DO NOT :
- **SMOKE**
- **MAKE SPARKS OR FIRE**
- **USE ANY EQUIPMENT WHICH IS NOT APPROVED FOR REFUEL/DEFUEL PROCEDURES.**

AIRCRAFT FUEL IS FLAMMABLE.

WARNING : MAKE SURE THAT THE LANDING GEAR SAFETY-LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

Note : Make sure that the chocks do not touch the tires. The weight of the fuel can lower the aircraft and catch the chocks.

A. Make sure that the person that operates the fuel tanker/pump unit has drained any water from the fuel.

CAUTION : DO NOT USE THE TWO REFUEL/DEFUEL COUPLINGS AT THE SAME TIME.

B. Put the access platform adjacent to the applicable refuel coupling 100QM (40QM).

C. Open the applicable access panel 522JB (622JB).

D. If center tank is refuelled :
- Open the main landing gear door 744
- Put the access platform in position.

(continued)

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28-25-04 Refuel Valve

MAINTENANCE

E. Make sure that the aircraft and the fuel tanker/pump unit are grounded correctly and electrically bonded together correctly.

F. Remove the applicable refuel coupling cap 101QM (41QM).

G. Make sure that the coupling of the fuel supply-hose is clean and then connect it to the aircraft refuel coupling.

H. Energize the aircraft electrical circuits

CAUTION : DO NOT LET THE REFUEL PRESSURE BE MORE THAN THE MAXIMUM SAFE PRESSURE OF 3.45 bar (50 psi).

I. Start the pump on the fuel tanker/pump unit.

J. Push and hold in the manual plunger(s) on the refuel valve(s) of the applicable fuel tank(s).

K. Monitor fuel quantity on ECAM fuel page.

L. When the quantity of fuel in a tank is correct, release the manual plunger on the related refuel valve.

M. When all the fuel quantities are correct, stop the pump on the fuel tanker/pump unit.

N. Disconnect the coupling of the fuel supply-hose from the aircraft refuel coupling.

CAUTION : MAKE SURE THAT THE HANDLE OF THE REFUEL COUPLING CAP POINTS AFT WHEN THE CAP IS CLOSED AND LOCKED.

O. Install the applicable refuel coupling cap 101QM (41QM) and close the applicable access panel 522JB (622JB) and main landing gear door 744 if center tank has been refuelled.

P. Remove all the ground support equipment, the maintenance equipment, the standard and special tools and all other items.

Q. Disconnect these ground-cables :
- between the aircraft and the fuel tanker/pump unit
- between the fuel tanker/pump unit and the ground
- if the aircraft maintenance is completed, between the aircraft and ground.
- deenergize the aircraft electrical circuits

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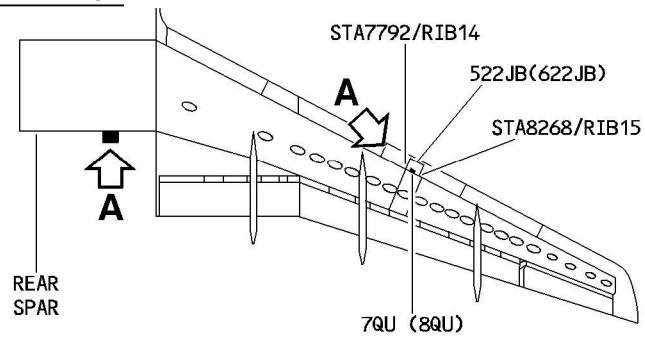
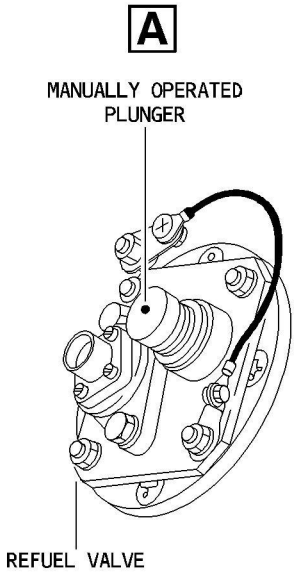
28-25-04 Refuel Valve

MAINTENANCE





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28-25-05 Transfer Defuel Valve

MAINTENANCE

28-25-05	TRANSFER DEFUEL VALVE – CLOSURE PROCEDURE	
ACCESS ZONE : 142 / 212	**ACCESS ITEM** : RH MLG DOOR / 192MB	
GSE : VALVE LOCKING TOOL (T720456)		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1QU	FUEL / RFL / DFL / XFR / DEFUEL / VALVE	Zone 210 121VU L23

PROCEDURE

1 – Open C/B 1QU.
2 – Open the right MLG door.
3 – Put an access platform.
4 – Open the access panel 192MB.
5 – On the panel 800VU, make sure that the MODE SELECT switch is in the OFF and guarded position.
  A – If the actuator (11QU) shows the transfer defuel valve (11QM) in the open position (see/feel indicator in-line) :
    – Remove the actuator from the drive shaft of the transfer defuel valve.
    – Manually turn the drive shaft to the valve-closed position (indicator groove vertical).
    – Make sure that the actuator shaft is in the correct position (see/feel indicator cross-line) to align with the valve drive shaft.
    – If necessary, close the circuit breaker 1QU on the panel 121VU, and operate the actuator to get the correct position. Open the circuit breaker 1 QU.
    – Disconnect the electrical connector (1) from the actuator.
    – Put blanking caps on the disconnected electrical connectors.
    – Seal the disconnected cable in a polythene bag.
    – Install the actuator. Do not connect the electrical connector to the actuator.
  B – If the actuator (11QU) shows the transfer defuel valve (11QM) in the closed position (see/feel indicator cross-line) :
    – Disconnect the electrical connector (1) from the actuator.
    – Put blanking caps on the disconnected electrical connectors.
    – Seal the disconnected cable in a polythene bag.
  C – If the actuator (11QU) is unserviceable :
    – Disconnect the electrical connector (1) from the actuator.
    – Put blanking caps on the disconnected electrical connectors.
    – Seal the disconnected cable in a polythene bag.
    – Remove the actuator.
    – Put the actuator in a polythene bag and keep in a safe location.

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28-25-05 Transfer Defuel Valve

MAINTENANCE

Note : Keep the V-band clamp (82QM) safe. You will need it to clamp the VALVE LOCKING TOOL to the mounting flange of the valve drive shaft.

- Make sure that the transfer defuel valve is in the closed position (indicator groove vertical).
- Install the VALVE LOCKING TOOL (T720456) onto the face plate of the drive shaft to lock the drive shaft so that it will not turn. Make sure that the dowel (3) is correctly installed between the VALVE LOCKING TOOL and the face plate of the drive shaft. Put the V-band clamp (82QM) around the mounting flange of the drive shaft and the VALVE LOCKING TOOL and tighten the screw (2).

Note : The dowel (3) will stop the VALVE LOCKING TOOL from rotating on the face plate of the drive shaft.

- Write an applicable entry in the aircraft technical logbook.
- Attach a warning notice (to tell persons that the transfer defuel valve is deactivated) to :
  . the MODE SELECT switch on the panel 800VU.
  . the circuit breaker 1QU in the cockpit.

6 – Close the access panel 192MB.
7 – Remove the access platform.
8 – Close the right MLG door.

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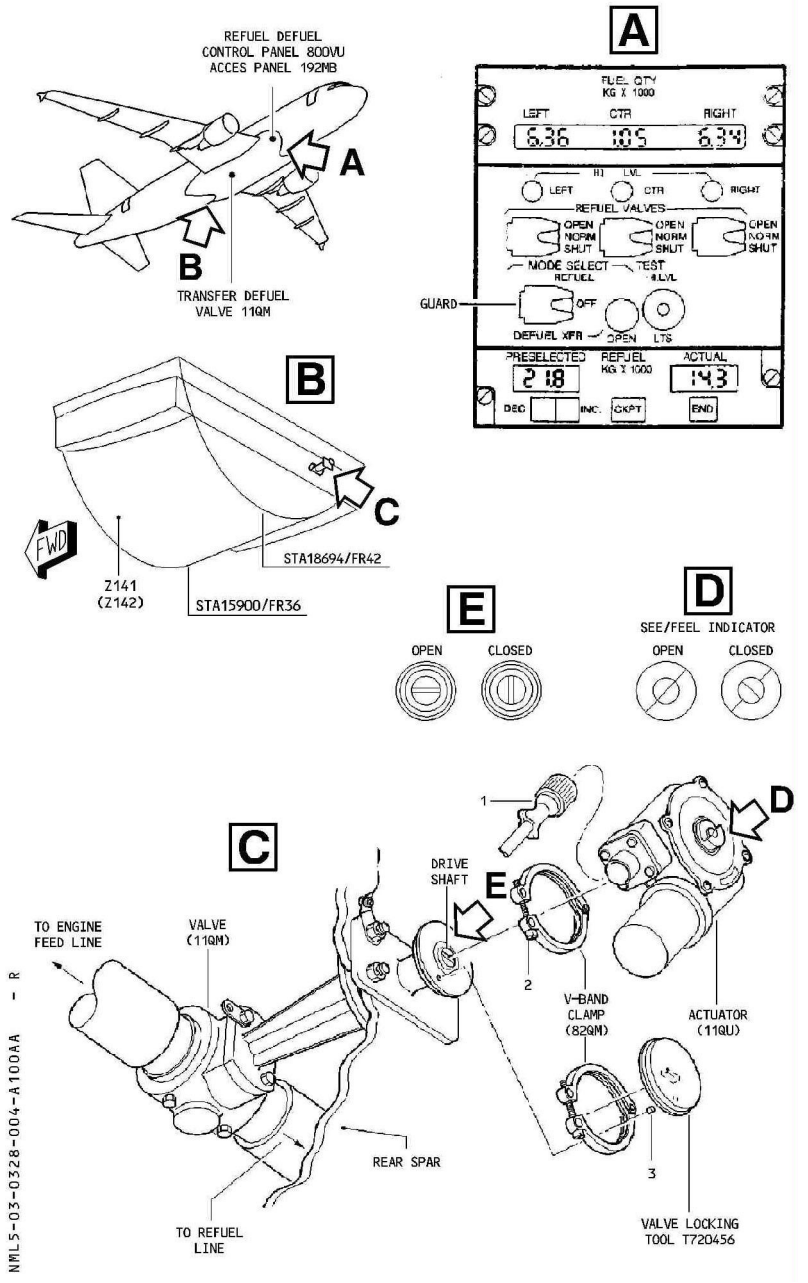
28-25-05 Transfer Defuel Valve

MAINTENANCE



28-25-06 Refuel/ Defuel Control Panel

MAINTENANCE

28-25-06	REFUEL/DEFUEL CONTROL PANEL – MANUAL REFUEL	
ACCESS ZONE :		ACCESS ITEM :
GSE :	Access platform 2.8 m Access platform 3.6 m	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

1. If the aircraft is fitted with a cockpit pre-selector then this should be used.
2. If there is no cockpit pre-selector apply the following procedure for refuelling.

PROCEDURE

WARNING : STOP THE FUEL TANKER 200 ft. (60 m) FROM THE AIRCRAFT NOSE WHILE THE WHEATHER RADAR OPERATES.
DO NOT OPERATE THE FUEL TANKER UNTIL YOU STOP THE OPERATION OF THE WEATHER RADAR.

WARNING : BEFORE YOU REFUEL OR DEFUEL THE AIRCRAFT YOU MUST MAKE THE AREA AROUND IT SAFE. IN THE SAFETY AREA DO NOT :
- **SMOKE**
- **MAKE SPARKS OR FIRE**
- **USE ANY EQUIPMENT WHICH IS NOT APPROVED FOR REFUEL/DEFUEL PROCEDURES.**

AIRCRAFT FUEL IS FLAMMABLE.

WARNING : MAKE SURE THAT THE LANDING GEAR SAFETY-LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

Note : Make sure that the chocks do not touch the tires. The weight of the fuel can lower the aircraft and catch the chocks.

A. Make sure that the person that operates the fuel tanker/pump unit has drained any water from the fuel.

CAUTION : DO NOT USE THE TWO REFUEL/DEFUEL COUPLINGS AT THE SAME TIME.

B. Put the access platform adjacent to the applicable refuel coupling 100QM (40QM).

C. Open the applicable access panel 522JB (622JB).

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28-25-06 Refuel/ Defuel Control Panel

MAINTENANCE

D. If center tank is refuelled :
   – Open the main landing gear door 744
   – Put the access platform in position.

E. Make sure that the aircraft and the fuel tanker/pump unit are grounded correctly and electrically bonded together correctly.

F. Remove the applicable refuel coupling cap 101QM (41QM).

G. Make sure that the coupling of the fuel supply-hose is clean and then connect it to the aircraft refuel coupling.

H. Energize the aircraft electrical circuits

CAUTION : DO NOT LET THE REFUEL PRESSURE BE MORE THAN THE MAXIMUM SAFE PRESSURE OF 3.45 bar (50 psi).

I. Before refuelling look at the ECAM fuel page and check intercell transfer valves position :
   – If both are closed, continue the procedure (go to step J)
   – If valves are opened, the following will have to be done :
      . Refuel the aircraft until there is at least 1000 kg (2204.6220 lb) of fuel in each wing tank inner cell
      . Pull C/B 1QT (CHAN 1 SPLY) and 2QT (CHAN 2 SPLY)
      . Wait 5 seconds for the FQIC to depower
      . Reset C/B 1QT and 2QT
      . Wait 60 seconds for the FQIC BITE to run and cycle the intercell valves
      . Continue the refuelling procedure

J. Start the pump on the fuel tanker/pump unit.

K. Push and hold in the manual plunger(s) on the refuel valve(s) of the applicable fuel tank(s).

L. Monitor fuel quantity on ECAM fuel page.

M. When the quantity of fuel in a tank is correct, release the manual plunger on the related refuel valve.

N. When all the fuel quantities are correct, stop the pump on the fuel tanker/pump unit.

O. Disconnect the coupling of the fuel supply-hose from the aircraft refuel coupling.

CAUTION : MAKE SURE THAT THE HANDLE OF THE REFUEL COUPLING CAP POINTS AFT WHEN THE CAP IS CLOSED AND LOCKED.

P. Install the applicable refuel coupling cap 101QM (41QM) and close the applicable access panel 522JB (622JB) and main landing gear door 744 if center tank has been refuelled.

Q. Remove all the ground support equipment, the maintenance equipment, the standard and special tools and all other items.

R. Disconnect these ground-cables :
   – between the aircraft and the fuel tanker/pump unit
   – between the fuel tanker/pump unit and the ground
   – if the aircraft maintenance is completed, between the aircraft and ground.
   – deenergize the aircraft electrical circuits

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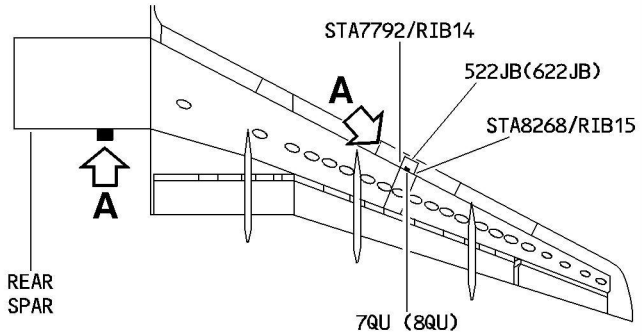
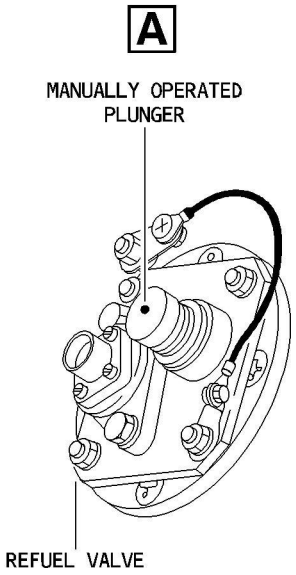
28-25-06 Refuel/ Defuel Control Panel

MAINTENANCE





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28-25-06 Refuel/ Defuel Control Panel

MAINTENANCE

28-25-06	REFUEL/DEFUEL CONTROL PANEL – MANUAL REFUEL	
ACCESS ZONE :		ACCESS ITEM :
GSE :	Access platform 2.8 m Access platform 3.6 m	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

1. If the aircraft is fitted with a cockpit pre-selector then this should be used.
2. If there is no cockpit pre-selector apply the following procedure for refuelling.

PROCEDURE

WARNING : STOP THE FUEL TANKER 200 ft. (60 m) FROM THE AIRCRAFT NOSE WHILE THE WHEATHER RADAR OPERATES.
DO NOT OPERATE THE FUEL TANKER UNTIL YOU STOP THE OPERATION OF THE WEATHER RADAR.

WARNING : BEFORE YOU REFUEL OR DEFUEL THE AIRCRAFT YOU MUST MAKE THE AREA AROUND IT SAFE. IN THE SAFETY AREA DO NOT :
- **SMOKE**
- **MAKE SPARKS OR FIRE**
- **USE ANY EQUIPMENT WHICH IS NOT APPROVED FOR REFUEL/DEFUEL PROCEDURES.**

AIRCRAFT FUEL IS FLAMMABLE.

WARNING : MAKE SURE THAT THE LANDING GEAR SAFETY-LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

Note : Make sure that the chocks do not touch the tires. The weight of the fuel can lower the aircraft and catch the chocks.

A. Make sure that the person that operates the fuel tanker/pump unit has drained any water from the fuel.

CAUTION : DO NOT USE THE TWO REFUEL/DEFUEL COUPLINGS AT THE SAME TIME.

B. Put the access platform adjacent to the applicable refuel coupling 100QM (40QM).

C. Open the applicable access panel 522JB (622JB).

(continued)

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28-25-06 Refuel/ Defuel Control Panel

MAINTENANCE

D. If center tank is refuelled :
   – Open the main landing gear door 744
   – Put the access platform in position.

E. Make sure that the aircraft and the fuel tanker/pump unit are grounded correctly and electrically bonded together correctly.

F. Remove the applicable refuel coupling cap 101QM (41QM).

G. Make sure that the coupling of the fuel supply-hose is clean and then connect it to the aircraft refuel coupling.

H. Energize the aircraft electrical circuits

CAUTION : DO NOT LET THE REFUEL PRESSURE BE MORE THAN THE MAXIMUM SAFE PRESSURE OF 3.45 bar (50 psi).

I. Start the pump on the fuel tanker/pump unit.

J. Push and hold in the manual plunger(s) on the refuel valve(s) of the applicable fuel tank(s).

K. Monitor fuel quantity on ECAM fuel page.

L. When the quantity of fuel in a tank is correct, release the manual plunger on the related refuel valve.

M. When all the fuel quantities are correct, stop the pump on the fuel tanker/pump unit.

N. Disconnect the coupling of the fuel supply-hose from the aircraft refuel coupling.

CAUTION : MAKE SURE THAT THE HANDLE OF THE REFUEL COUPLING CAP POINTS AFT WHEN THE CAP IS CLOSED AND LOCKED.

O. Install the applicable refuel coupling cap 101QM (41QM) and close the applicable access panel 522JB (622JB) and main landing gear door 744 if center tank has been refuelled.

P. Remove all the ground support equipment, the maintenance equipment, the standard and special tools and all other items.

Q. Disconnect these ground-cables :
   – between the aircraft and the fuel tanker/pump unit
   – between the fuel tanker/pump unit and the ground
   – if the aircraft maintenance is completed, between the aircraft and ground.
   – deenergize the aircraft electrical circuits

(continued)

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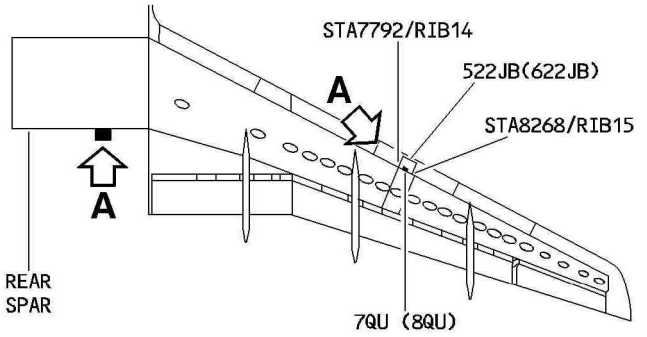
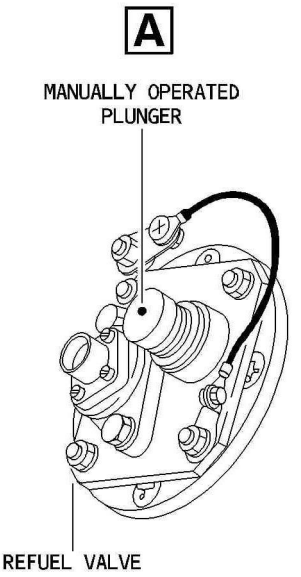
28-25-06 Refuel/ Defuel Control Panel

MAINTENANCE





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28-29-01 APU LP Valve

MAINTENANCE

28-29-01	APU LP VALVE – DEACTIVATION PROCEDURE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :	Stepladder 2 m – Ground lock sleeve	
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2QF 1QF	APU / FUEL / LP VALVE / SPLY APU / FUEL / LP VALVE / CTL	121 VU 39M 121 VU 40M

PROCEDURE

1 – Energize the aircraft electrical circuits
2 – Make sure that the APU MASTER SW 14 KD is in the OFF position.
3 – Open, safety and tag C / B 2 QF and 1 QF
4 – Open the main landing gear doors Z734, Z744.
5 – Install the GROUND LOCK SLEEVE on the main landing-gear door-actuators.
6 – Put the stepladder in position at the main landing-gear bay.
7 – Check the position of the valve at the visual indicator of the APU-fuel-LP-valve actuator (upper LH bulkhead of frame 42) :
- If the LP-fuel shutoff valve actuator, is in the green CLOSED position disconnect the electrical connection from the actuator assembly.
  – Put blanking caps on the disconnected electrical connectors.
  – Fold the electrical connectors/cables back over the cable clamps and secure them with tie-wraps.
- If the fuel shutoff valve actuator is in the red OPEN :
  – Disconnect the electrical connection from the actuator assembly.
  – Put blanking caps on the disconnected electrical connectors.
  – Fold electrical connectors/cables back over the cable clamps and attach them with tie-wraps to a stowage position.
  – Hold the APU fuel LP valve actuator in position and remove the nuts, the washers and the bonding strap.
  – Carefully disconnect the actuator drive shaft from the valve drive shaft and remove the actuator
  – Turn the valve drive shaft to the horizontal (closed) position
  – Lock the APU fuel LP valve in the closed position
  . either with the fuel LP valve actuator
  – turn the actuator drive shaft in counter clockwise direction to the green CLOSED position

  Note : The use of a locking cover is necessary if drive shaft cannot be turned in a limit of 0.12 m.daN or if actuator shaft is free, damaged or if it does not engage correctly in the valve drive shaft.

(continued)

(continued)

28-29-01 APU LP Valve

MAINTENANCE

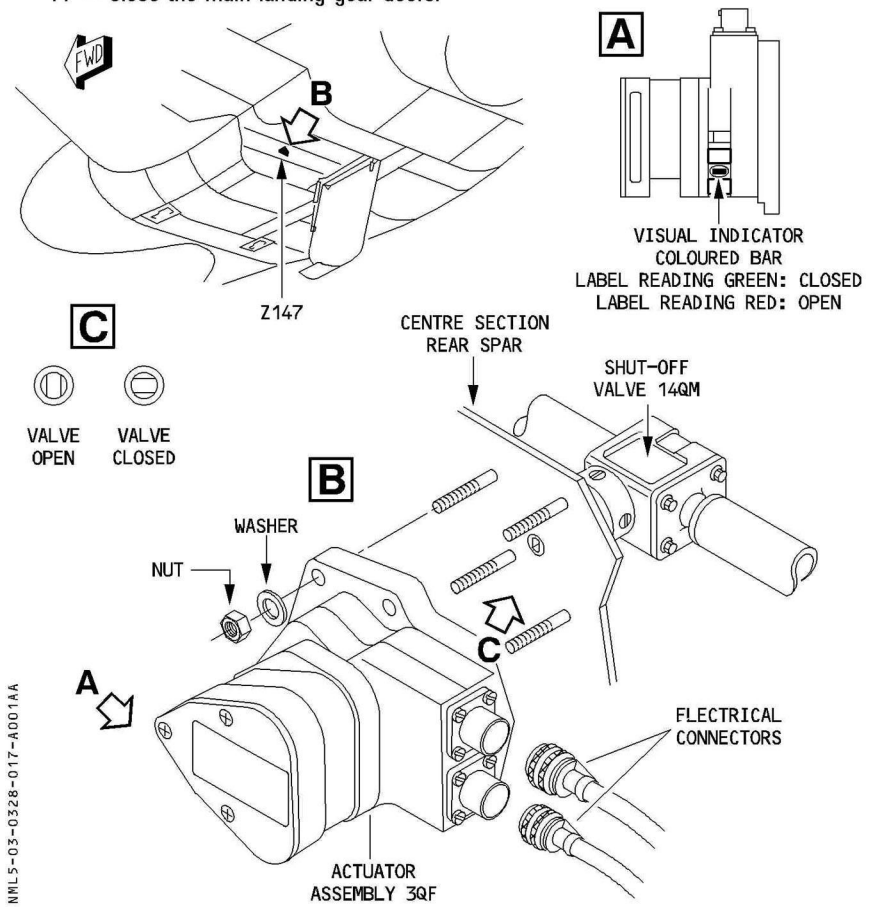
– Put the actuator in position on studs and engage the actuator drive shaft in the valve drive shafts (in the closed position)
– Re-install the bonding strap, the washers and the nuts on the actuator mount studs.

. or with the locking cover (WESTLAND SITEC B 277990)
– Put the locking cover in position on the studs and engage its spigot in the slot of the valve drive shaft in the green CLOSED position.
– Re-install the bonding strap, the washers and the nuts on the actuator mount studs.

8 – Make sure that you put a warning notice in the cockpit to tell persons that the APU LP fuel shutoff valve is closed.

Note : The APU LP valve will be indicated in transit on the ECAM FUEL page.

9 – Restore aircraft to the required configuration.
10 – Remove the ground lock sleeves from the main landing-gear door-actuators.
11 – Close the main landing gear doors.



28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06B	ENGINE LP VALVE INDICATION – VALVE OPERATION CHECK	
ACCESS ZONE : 522 (622)		ACCESS ITEM :
GSE : Access platform 3,2 m.		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2QG	FUEL/LP VALVE/MOT1/ENG2	49 VU A09
1QG	FUEL/LP VALVE/MOT1/ENG1	49 VU A08
4QG	FUEL/LP VALVE/MOT2/ENG2	121 VU M26
3QG	FUEL/LP VALVE/MOT2/ENG1	121 VU M25

PROCEDURE

WARNING : Obey the fuel safety procedures.
- **Put a warning notice in the cockpit to tell persons not to operate the APU or bleed air.**
- **Put a warning notice in position to tell persons not to operate the slats.**

– Remove the applicable access panel(s) :
  . For the LH LP Valve 12QM, remove 522AT.
  . For the RH LP Valve 13QM, remove 622AT.
– Make sure that the APU doesn't operate and there is no bleed air.
– Fully extend the slats.

Test of the valve 12QM(13QM) :

1 – In the test that follows, on each operation of the LP Valve :
  – Make sure that the see/feel indicator operates smoothly, from the valve open (valve closed) position to the valve closed (valve open) position.
  – Make sure that the see/feel indicator marks are accurately aligned in the valve open position.
  – Make sure that the see/feel indicator marks are at 90 degrees to each other in the valve closed position.

2 – For the valve 12QM(**13QM**), do this test :

ACTION	RESULT
1. On the panel 115VU : – Make sure that the ENG/MASTER 1(**2**) switch is in the OFF position.	
2. On the LP valve actuator 9QG(**10QG**) : – Look at the position of the mechanical see/feel indicator.	The indicator shows that the LP valve is closed.

(continued)

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

ACTION	RESULT
3. On the panel 121 VU : – Open, safety and tag the circuit breaker 3QG(**4QG**).	The ENG 1(**2**) LP valve MOTOR 2 SUPPLY and CONTROL are isolated.
4. On the panel 115 VU : – Put the ENG/MASTER 1(**2**) switch to ON position	In zone 522(**622**) the LP valve moves to the open position.
5. On the LP valve actuator 9QG(**10QG**) : – Look at the position of the mechanical see/feel indicator.	The indicator shows that the LP valve is open.
6. On the panel 115 VU : – Put the ENG/MASTER 1(**2**) switch to the OFF position.	In zone 522(**622**) the LP valve moves to the closed position.
7. On the LP valve actuator 9QG(**10QG**) : – Look at the position of the mechanical see/feel indicator.	The indicator shows that the LP valve is closed.
8. On the panel 121 VU : – Remove the safety and the tag and close the circuit breaker 3QG(**4QG**).	The ENG1(**2**) LP valve MOTOR 2 SUPPLY and CONTROL are energized.

– REPEAT STEPS 1 TO 8 WITH C/B 1QG(**2QG**) ASSOCIATED TO LP VALVE MOTOR 1.
– Fully retract the slats.
– Restore aircraft to normal operating conditions.

(continued)

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06C	APU LP VALVE INDICATION – VALVE CLOSURE PROCEDURE	
ACCESS ZONE :	ACCESS ITEM :	
GS :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 28-29-01 in Section 03

(continued)

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06D	X-FEED INDICATION – VERIFICATION OF CROSSFEED VALVE OPERATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE : Access platform 2 m (6 ft, 7 in)		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1QE 2QE	FUEL / X FEED / VALVE / MOT 2 FUEL / X FEED / VALVE / MOT 1	121VU M24 49VU A12

PROCEDURE

WARNING : MAKE SURE THAT ALL THE CIRCUITS IN MAINTENANCE ARE ISOLATED BEFORE YOU SUPPLY ELECTRICAL POWER TO THE AIRCRAFT.

WARNING : OBEY THE FUEL SAFETY PROCEDURES.

WARNING : MAKE SURE THAT YOU HAVE THE CORRECT FIRE FIGHTING EQUIPMENT AVAILABLE.

WARNING : MAKE SURE THAT THE GROUND SAFETY-LOCKS ARE IN POSITION ON THE LANDING GEAR.

1 – Open the right main landing gear door.

2 – Put the access platform below the actuator 5QE of the fuel crossfeed valve 10 QM.

3 – Energize the aircraft electrical circuits.

4 – Open, safety and tag C / B 1QE

5 – In the test that follows, on each operation of the crossfeed valve :
- listen to make sure that the actuator stops each time that the crossfeed valve moves to the end of its travel
- make sure that the see / feel indicator operates smoothly, from the valve open (valve closed) position to the valve closed (valve open) position

(continued)

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

Do the following test :

ACTION	RESULT
On the fuel control panel 40VU : – push (in) the X FEED pushbutton switch (P/BSW).	On the panel 40VU : – the X FEED P/BSW ON light comes on – when the valve is fully open, the X FEED P/BSW OPEN light comes on. On the valve actuator, when the valve is fully open : – the see/feel indicator marks are accurately aligned in the valve open position.
On the fuel control panel 40VU : – release (out) the X FEED P/BSW.	On the panel 40VU : – the X FEED P/BSW ON light goes off. – when the valve is fully closed, the X FEED P/BSW OPEN light goes off. On the valve actuator, when the valve is fully closed : – the see/feel indicator marks are at 90 degrees to one another in the valve closed position.

6 – Remove the safety clip(s) and the tag(s) and close C / B 1QE

7 – Open, safety and tag C / B 2QE

8 – Do the Test Procedure again

9 – Remove the safety clip(s) and the tag(s) and close C / B 2QE.

10 – Make sure that the work area is clean and clear of tools and other items.

11 – Close the right main landing gear door.

12 – Refuel, defuel or transfer fuel as necessary

13 – Remove all the ground support equipment, the maintenance equipment, the standard and special tools and all other items.

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06-E	TRANSFER VALVE INDICATION-TEST OF INTERCELL TRANSFER VALVES	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2QP	FUEL / XFR VALVE 1 / WING / R	49 VU / A11
1QP	FUEL / XFR VALVE 1 / WING / L	49 VU / A10
4QP	FUEL / XFR VALVE 2 / WING / R	121 VU / M23
3QP	FUEL / XFR VALVE 2 / WING / L	121 VU / M22

PROCEDURE

WARNING : Obey fuel safety procedures

1 – Energize aircraft electrical circuits
2 – Keep access panel 192MB open and panel 800 VU energised
3 – Refuel / defuel or transfer fuel to set fuel quantity in wing tanks to get :
  – A minimum of 900 kg (1980 lbs) to a maximum of 4000 kg (8820 lbs) of fuel in the inner cell of each wing tank
  – Maximum fuel in the outer cell of each wing tank.
4 – On panel 800 VU put mode select switch to REFUEL
5 – Select E.C.A.M. ON and on panel 11 VU push fuel button switch IN
  Note : It is necessary in this test to transfer fuel from outer cell of each wing tank to its related inner cell.
6 – Do following test :
  – Open safety clip and tag C / B 3QP – On ECAM DU ensure right wing outer cell fuel contents decreases – Right wing inner cell fuel contents increases.
  – Remove safety clip and tag and close C / B 3QP – On ECAM DU ensure fuel transfer stops.
  – Open, safety clip and tag C / B 4QP – On ECAM DU ensure left wing outer cell fuel contents decreases – Left wing inner cell fuel contents increases.
  – Remove safety clip and tag and close C / B 4QP – On ECAM DU ensure fuel transfer stops.
  – Open, safety clip and tag C / B 2QP – On ECAM DU ensure left wing outer cell fuel contents decreases – Left wing inner cell fuel contents increases.
  – Remove safety clip and tag and close C / B 2QP – On ECAM DU ensure fuel transfer stops.
  – Open, safety clip and tag C / B 1QP – On ECAM DU ensure right wing outer cell fuel contents decreases – Right wing inner cell fuel contents increases.
  – Remove safety clip and tag and close C / B 1QP – On ECAM DU ensure fuel transfer stops.

(continued)

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

7 – On panel 800 VU select mode switch to OFF
8 – Switch ECAM OFF
9 – Close 192 MB panel
10 – Refuel / defuel or transfer fuel as necessary
11 – Switch OFF electrical power

28-40-06I	FUEL QUANTITY INDICATION – FUEL QTY CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Energize the aircraft electrical circuits.

2 – Check the fuel quantity in the associated tank :
a- Read the FUEL QTY display on the Refuel/Defuel control panel.
Or
b- Read the applicable MLIs : (AMM Task 12-11-28-650-007).

3 – Make sure that the remaining FQIS are serviceable :
a- Get access to FUEL page on the MCDU.
b- Select FQIS STATUS Indication.
Make sure that the screen displays only the unserviceable LRU applicable to the unserviceable FQIS.

4 – Check that the associated FUEL USED indication is operative :
a- Get access to the CFDS MENU.
b- Push the LAST LEG REPORT key.
Make sure that there are no fault message on the FUEL USED indication system.

5 – Restore aircraft in normal configuration.

Note : The intent of the following maintenance procedure is to check the fuel quantity through MLI. The operational procedure in FCOM 2.01.30 permits also to check the fuel quantity. Consequently, accomplishment of the operational or the following maintenance procedure is left at airlines discretion.

28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06B	ENGINE LP VALVE INDICATION – VALVE OPERATION CHECK	
ACCESS ZONE : 522 (622)		ACCESS ITEM :
GSE : Access platform 3,2 m.		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2QG	FUEL/LP VALVE/MOT1/ENG2	49 VU A09
1QG	FUEL/LP VALVE/MOT1/ENG1	49 VU A08
4QG	FUEL/LP VALVE/MOT2/ENG2	121 VU M26
3QG	FUEL/LP VALVE/MOT2/ENG1	121 VU M25

PROCEDURE

WARNING : Obey the fuel safety procedures.
- **Put a warning notice in the cockpit to tell persons not to operate the APU or bleed air.**
- **Put a warning notice in position to tell persons not to operate the slats.**

– Remove the applicable access panel(s) :
. For the LH LP Valve 12QM, remove 522AT.
. For the RH LP Valve 13QM, remove 622AT.
– Make sure that the APU doesn't operate and there is no bleed air.
– Fully extend the slats.

Test of the valve 12QM(13QM) :

1 – In the test that follows, on each operation of the LP Valve :
- Make sure that the see/feel indicator operates smoothly, from the valve open (valve closed) position to the valve closed (valve open) position.
- Make sure that the see/feel indicator marks are accurately aligned in the valve open position.
- Make sure that the see/feel indicator marks are at 90 degrees to each other in the valve closed position.

2 – For the valve 12QM(**13QM**), do this test :

ACTION	RESULT
1. On the panel 115VU : – Make sure that the ENG/MASTER 1(**2**) switch is in the OFF position.	
2. On the LP valve actuator 9QG(**10QG**) : – Look at the position of the mechanical see/feel indicator.	The indicator shows that the LP valve is closed.

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

ACTION	RESULT
3. On the panel 121 VU : – Open, safety and tag the circuit breaker 3QG(**4QG**).	The ENG 1(**2**) LP valve MOTOR 2 SUPPLY and CONTROL are isolated.
4. On the panel 115 VU : – Put the ENG/MASTER 1(**2**) switch to ON position	In zone 522(**622**) the LP valve moves to the open position.
5. On the LP valve actuator 9QG(**10QG**) : – Look at the position of the mechanical see/feel indicator.	The indicator shows that the LP valve is open.
6. On the panel 115 VU : – Put the ENG/MASTER 1(**2**) switch to the OFF position.	In zone 522(**622**) the LP valve moves to the closed position.
7. On the LP valve actuator 9QG(**10QG**) : – Look at the position of the mechanical see/feel indicator.	The indicator shows that the LP valve is closed.
8. On the panel 121 VU : – Remove the safety and the tag and close the circuit breaker 3QG(**4QG**).	The ENG1(**2**) LP valve MOTOR 2 SUPPLY and CONTROL are energized.

– REPEAT STEPS 1 TO 8 WITH C/B 1QG(**2QG**) ASSOCIATED TO LP VALVE MOTOR 1.
– Fully retract the slats.
– Restore aircraft to normal operating conditions.

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06C	APU LP VALVE INDICATION – VALVE CLOSURE PROCEDURE	
ACCESS ZONE :	ACCESS ITEM :	
GS :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 28-29-01 in Section 03

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06D	X-FEED INDICATION – VERIFICATION OF CROSSFEED VALVE OPERATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE : Access platform 2 m (6 ft, 7 in)		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1QE 2QE	FUEL / X FEED / VALVE / MOT 2 FUEL / X FEED / VALVE / MOT 1	121VU M24 49VU A12

PROCEDURE

WARNING : MAKE SURE THAT ALL THE CIRCUITS IN MAINTENANCE ARE ISOLATED BEFORE YOU SUPPLY ELECTRICAL POWER TO THE AIRCRAFT.

WARNING : OBEY THE FUEL SAFETY PROCEDURES.

WARNING : MAKE SURE THAT YOU HAVE THE CORRECT FIRE FIGHTING EQUIPMENT AVAILABLE.

WARNING : MAKE SURE THAT THE GROUND SAFETY-LOCKS ARE IN POSITION ON THE LANDING GEAR.

1 – Open the right main landing gear door.

2 – Put the access platform below the actuator 5QE of the fuel crossfeed valve 10 QM.

3 – Energize the aircraft electrical circuits.

4 – Open, safety and tag C / B 1QE

5 – In the test that follows, on each operation of the crossfeed valve :
- listen to make sure that the actuator stops each time that the crossfeed valve moves to the end of its travel
- make sure that the see / feel indicator operates smoothly, from the valve open (valve closed) position to the valve closed (valve open) position

(continued)

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

Do the following test :

ACTION	RESULT
On the fuel control panel 40VU : – push (in) the X FEED pushbutton switch (P/BSW).	On the panel 40VU : – the X FEED P/BSW ON light comes on – when the valve is fully open, the X FEED P/BSW OPEN light comes on. On the valve actuator, when the valve is fully open : – the see/feel indicator marks are accurately aligned in the valve open position.
On the fuel control panel 40VU : – release (out) the X FEED P/BSW.	On the panel 40VU : – the X FEED P/BSW ON light goes off. – when the valve is fully closed, the X FEED P/BSW OPEN light goes off. On the valve actuator, when the valve is fully closed : – the see/feel indicator marks are at 90 degrees to one another in the valve closed position.

6 – Remove the safety clip(s) and the tag(s) and close C / B 1QE

7 – Open, safety and tag C / B 2QE

8 – Do the Test Procedure again

9 – Remove the safety clip(s) and the tag(s) and close C / B 2QE.

10 – Make sure that the work area is clean and clear of tools and other items.

11 – Close the right main landing gear door.

12 – Refuel, defuel or transfer fuel as necessary

13 – Remove all the ground support equipment, the maintenance equipment, the standard and special tools and all other items.

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28-40-06 Indication on ECAM FUEL Page

MAINTENANCE

28-40-06I	FUEL QUANTITY INDICATION – FUEL QTY CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Energize the aircraft electrical circuits.

2 – Check the fuel quantity in the associated tank :
a- Read the FUEL QTY display on the Refuel/Defuel control panel.
Or
b- Read the applicable MLIs : (AMM Task 12-11-28-650-007).

3 – Make sure that the remaining FQIS are serviceable :
a- Get access to FUEL page on the MCDU.
b- Select FQIS STATUS Indication.
Make sure that the screen displays only the unserviceable LRU applicable to the unserviceable FQIS.

4 – Check that the associated FUEL USED indication is operative :
a- Get access to the CFDS MENU.
b- Push the LAST LEG REPORT key.
Make sure that there are no fault message on the FUEL USED indication system.

5 – Restore aircraft in normal configuration.

Note : The intent of the following maintenance procedure is to check the fuel quantity through MLI. The operational procedure in FCOM 2.01.30 permits also to check the fuel quantity. Consequently, accomplishment of the operational or the following maintenance procedure is left at airlines discretion.

BLANK

29-10-07 Filters

MAINTENANCE

29-10-07	GREEN ENGINE PUMP CASE DRAIN FILTER – REMOVAL		
ACCESS ZONE :	437	ACCESS ITEM :	437 AL
GSE :	nil		
ASSOCIATED CIRCUIT BREAKERS			
FIN	DESIGNATION		LOCATION
	nil		

PROCEDURE

1 – Depressurize green hydraulic system
Note : above depressurization procedure calls for Disconnection / Reconnection of PTU isolation coupling. For the present deactivation procedure, the PTU isolation coupling must be left disconnected.
2 – Depressurize green hydraulic reservoir.
3 – Display warning notices prohibiting pressurization of green hydr. reservoir and green hydr. system.
4 – Open left fan cowl door 437AL.
5 – Cut and remove lockwire from filter bowl (3).
6 – Unscrew and remove filter bowl together with filter element (2) from filter head.
7 – Remove filter element together with its o'-ring from filter bowl.
8 – Clean filter bowl.
Note : Before installation coat filter bowl thread with HYDRAULIC FLUID (Material 02.003)
9 – Position filter bowl under filter head and handtighten filter bowl.
10 – Safety filter bowl to filter head with lockwire.
11 – Press clogging indicator button if protruding.
12 – Remove warning notices and make sure that work area is clean and clear of tools and other items.
13 – Pressurize green hydraulic reservoir.
14 – Perform dry-motoring of ENG 1
15 – During dry-motoring check :
– Case drain filter for leakage
– that clogging indicator button is still retracted
16 – Stop dry motoring of ENG 1
17 – Check fluid level in green reservoir. TOP UP if required.
18 – Make sure that work area is clean and clear of tools and other items.
19 – Close left fan cowl door 437AL.
20 – Connect the PTU isolation coupling.
21 – In flight compartment, install a temporary placard to warn the flight crew that case drain filter is deactivated.

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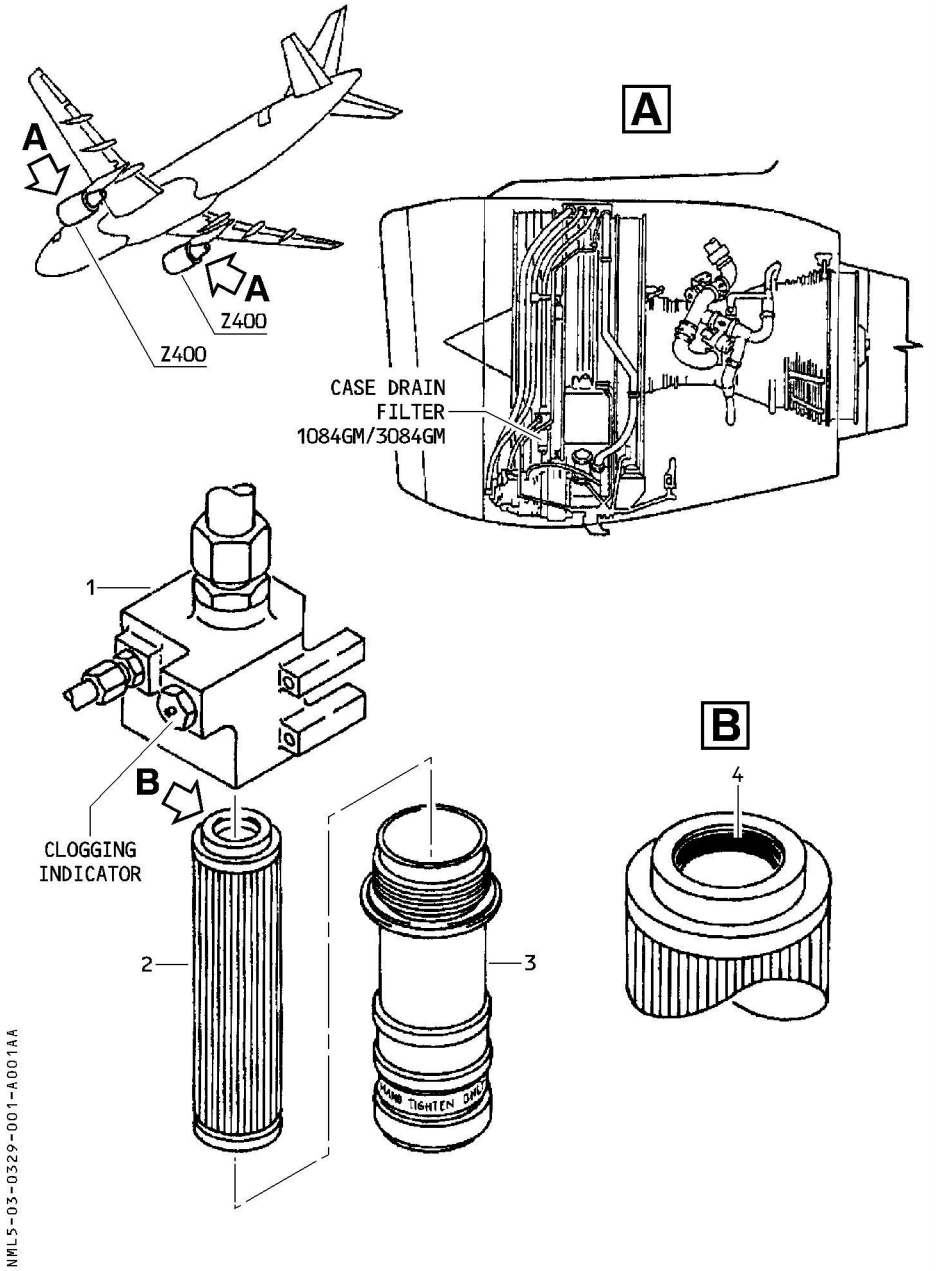
29-10-07 Filters

MAINTENANCE



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29-10-07 Filters

MAINTENANCE

29-10-07	BLUE ELECTRICAL PUMP CASE DRAIN FILTER – REMOVAL	
ACCESS ZONE :	195	ACCESS ITEM : 195 BB
GSE :	nil	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2701GJ 2702GJ	B HYD / ELEC PUMP HYD / HYD POWER / B WARN / AND CTL	123VU 09AB 49VU D14 or C12

PROCEDURE

1 – Depressurize blue hydraulic system
2 – Open safety and tag circuit breakers : 2701GJ-2702GJ
3 – Depressurize blue hydraulic reservoir.
4 – Display warning notices prohibiting pressurization of blue hydraulic reservoir and blue hydraulic system.
5 – Open access panel 195BB
6 – Cut and remove lockwire from filter bowl (3).
7 – Unscrew and remove filter bowl (3) together with filter element (2) from filter head.
8 – Remove filter element together with its o'-ring from filter bowl (3).
9 – Clean filter bowl.
Note : Before installation coat filter bowl thread with HYDRAULIC FLUID (Material 02.003)
10 – Position filter bowl under filter head and handtighten filter bowl.
11 – Safety filter bowl to filter head with lockwire.
12 – Press clogging indicator button if protruding.
13 – Remove warning notices and make sure that work area is clean and clear of tools and other items.
14 – Pressurize blue hydraulic reservoir.
15 – Remove safety clip(s) and tag(s) and close circuit breakers : 2701GJ, 2702GJ.
16 – Pressurize blue hydraulic system by means of blue elec. pump.
17 – During elec pump operation check :
– case drain filter for leakage
– that clogging indicator button is still retracted
18 – Stop blue electric pump operation
19 – Check fluid level in blue reservoir. TOP UP if required.
20 – Make sure that work area is clean and clear of tools and other items.
21 – Close access panel 195 BB.
22 – In flight compartment, install a temporary placard to warn the flight crew that case drain filter is deactivated.

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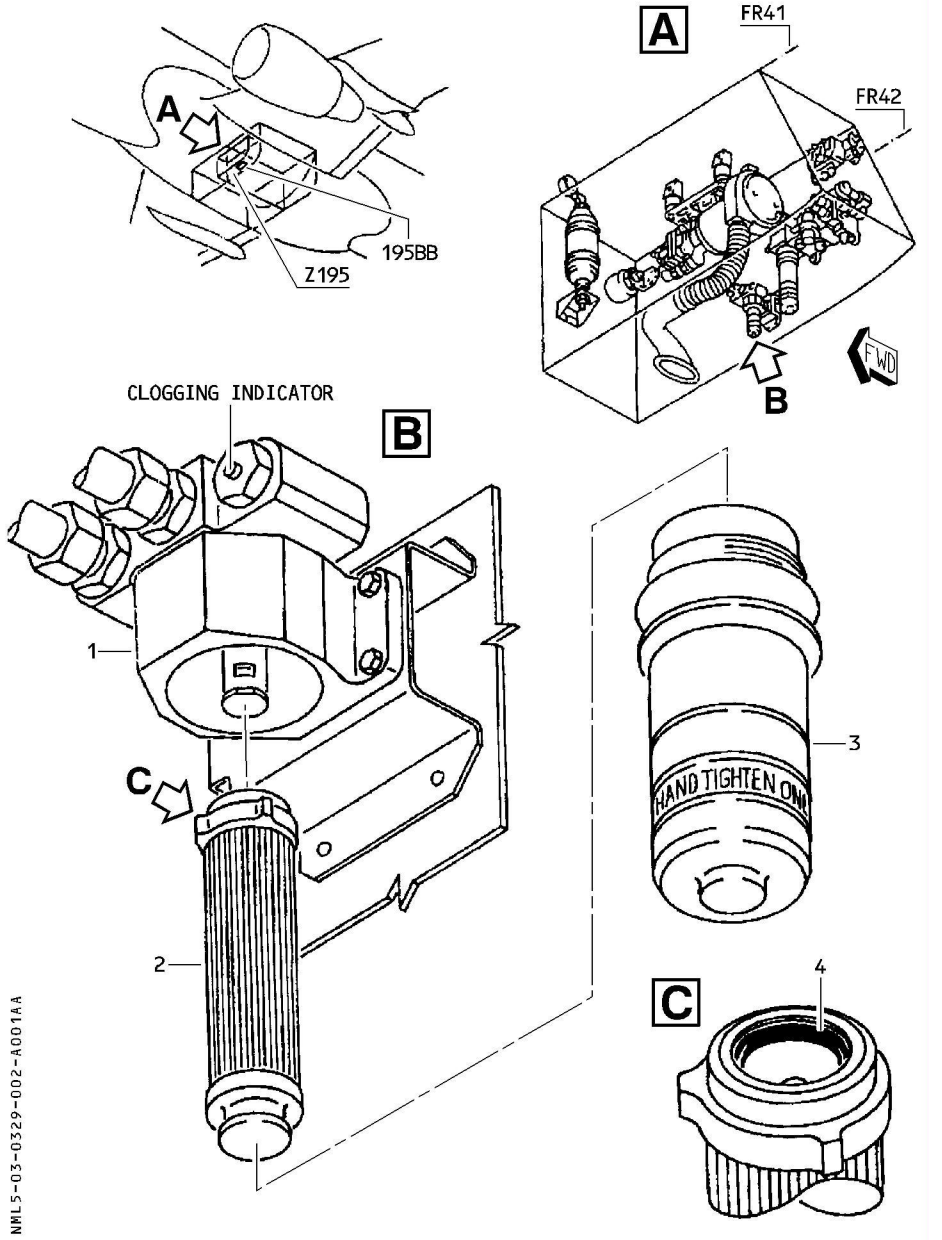
29-10-07 Filters

MAINTENANCE



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29-10-07 Filters

MAINTENANCE

29-10-07	YELLOW ENGINE PUMP CASE DRAIN FILTER – REMOVAL	
ACCESS ZONE :	447	ACCESS ITEM : 447 AL
GSE :	nil	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
3803GX	HYDRAULIC / HYD POWER / Y	30 N / 121 VU
3801GX	Y HYD / ELEC PUMP / NORM	03 AB / 123 VU
3802GX	Y HYD / ELEC PUMP	06 AB / 123 VU

PROCEDURE

- Depressurize yellow hydraulic system

Note : above depressurization procedure calls for Disconnection / Reconnection of PTU isolation coupling and opening of above circuit breakers.
For the present deactivation procedure, the PTU isolation coupling and the circuit breakers must be respectively left disconnected and opened.

1 – Depressurize yellow hydraulic reservoir.
2 – Display warning notices prohibiting pressurization of yellow hydraulic reservoir and yellow hydraulic system.
3 – Open left fan cowl door 447AL.
4 – Cut and remove lockwire from filter bowl (3).
5 – Unscrew and remove filter bowl together with filter element (2) from filter head.
6 – Remove filter element together with its o'-ring from filter bowl.
7 – Clean filter bowl.
Note : Before installation coat filter bowl thread with HYDRAULIC FLUID (Material 02.003)
8 – Position filter bowl under filter head and handtighten filter bowl.
9 – Safety filter bowl to filter head with lockwire.
10 – Press clogging indicator button if protruding.
11 – Remove warning notices and make sure that work area is clean and clear of tools and other items.
12 – Pressurize yellow hydraulic reservoir.
13 – Perform dry-motoring of ENG 2
14 – During dry-motoring check :
– case drain filter for leakage
– that clogging indicator button is still retracted
15 – Stop dry motoring of ENG 2
16 – Check fluid level in yellow reservoir. TOP UP if required.
17 – Make sure that work area is clean and clear of tools and other items.
18 – Close left fan cowl door.
19 – Connect the PTU isolation coupling.

(continued)

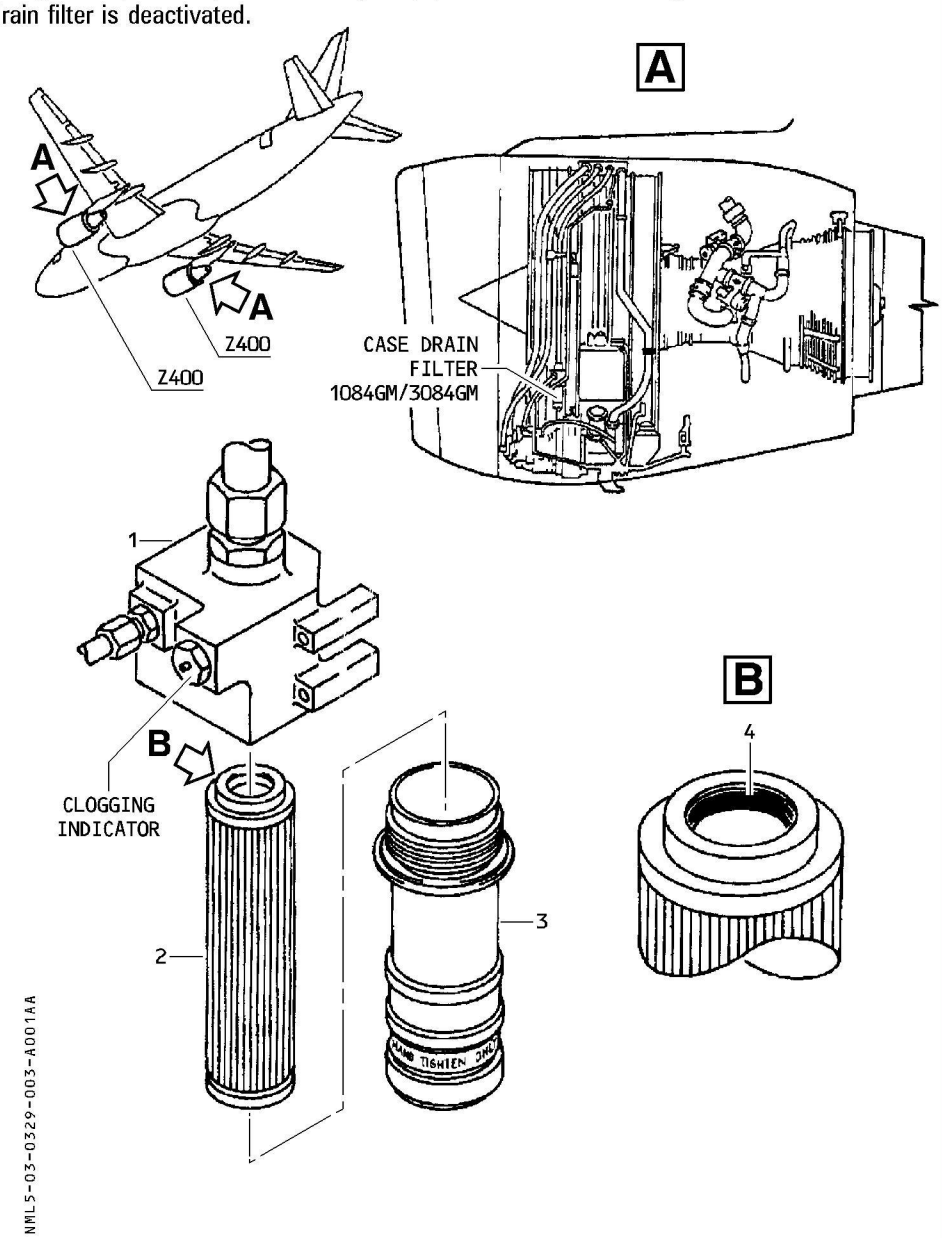
(continued)

29-10-07 Filters

MAINTENANCE

20 – Remove safety clip(s) and tag(s) and close circuit breakers : 3801GX, 3802GX, 3803GX.

21 – In flight compartment, install a temporary placard to warn the flight crew that case drain filter is deactivated.



29-30-03 Indications on the ECAM HYD page

MAINTENANCE

29-30-03A	GREEN / BLUE RESERVOIR QUANTITY INDICATION – LO LVL WARN CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1831GQ	HYDRAULIC / HYD / QTY / IND	121 VU 35P

PROCEDURE

1 – Open the access door for the reservoir which you want to deactivate :
– one main gear main door for the Green reservoir.
Note : You can open any one of the two doors, but access is better from the RH side.
– 197FB for the Blue reservoir.
Note : Before deactivation of the quantity indicator, troubleshoot the system to find if the fault is electrical or because of a mechanical failure of the transmitter

2 – Open, safety and tag C / B 1831 GQ

3 – Disconnect the applicable electrical connector 1000GQ-A or 2000GQ-A from the quantity transmitter of the related reservoir.

4 – Install protective caps in the connector and the receptacle.

5 – Use a tie-wrap and secure the cable to a part of the structure.
Note : Attach the cable to the structure so that the disconnected end of the connector points down. Oil or other liquids can not then enter the connector.

6 – Remove the safety clip and tag and close C/B 1831GQ.

7 – If troubleshoot has shown an electrical failure of the quantity transmitter :
A) Check the contents of the affected reservoir before each flight. Refer to the mechanical indicator on the reservoir to check hydraulic fluid quantity.
B) Check the LO LVL ECAM warning
This check is made only once before aircraft is dispatched under this MMEL item.
(a) Make sure that the aircraft configuration is :

(continued)

(continued)

29-30-03 Indications on the ECAM HYD page

MAINTENANCE

1) For deactivation of the Green reservoir indication
   – the landing gear extended with the landing gear doors closed (one main door of the main gear can be open),
   – the thrust reverser for the left engine OFF (closed),
   – the speedbrakes and the spoilers retracted,
   – Green power accumulator empty of fluid and filled with nitrogen to the correct pressure.
2) For deactivation of the Blue reservoir indication
   – the speedbrakes and the spoilers retracted,
   – Blue power accumulator empty of fluid and filled with nitrogen to the correct pressure
3) All of the other hydraulic services can be in any position.

(b) Set the ECAM system to on

(c) Drain the applicable reservoir until the low level warning comes on.

Note : Keep the air pressure in the reservoir at more than 22 psig (1.5 bar relative) while you drain the reservoir.

(d) Put fluid into the reservoir to fill it to its normal fill level.

8 – If troubleshoot has shown a mechanical failure of the quantity transmitter, do the following check before each flight

(a) Make sure that the aircraft configuration is :

1) For deactivation of the Green reservoir indication
   – the landing gear extended with the landing gear doors closed (one main door of the main gear can be open),
   – the thrust reverser for the left engine OFF (closed),
   – the speedbrakes and the spoilers retracted,
   – Green power accumulator empty of fluid and filled with nitrogen to the correct pressure.
2) For deactivation of the Blue reservoir indication
   – the speedbrakes and the spoilers retracted,
   – Blue power accumulator empty of fluid and filled with nitrogen to the correct pressure
3) All of the other hydraulic services can be in any position.

(b) Energize the aircraft electrical circuits

(c) Set the ECAM system to on.

(d) Drain the applicable reservoir until the low level warning comes on.

Note : Keep the air pressure in the reservoir at more than 22 psig (1.5 bar relative) while you drain the reservoir.

(continued)

(continued)

29-30-03 Indications on the ECAM HYD page

MAINTENANCE

(e) Put fluid into the reservoir to fill it to its normal fill level
(f) The quantity of fluid which it is necessary to add is :
- for the Green reservoir : 11 L (2.9 USgal)
- for the Blue reservoir : 4 L (1.05 USgal)

Note : These quantities are for fluid temperatures between 10 and 20 deg. C (50 and 68 deg. F). If the temperature is out of these limits, the quantity of fluid necessary changes by :

- 0.5 L (0.13 USgal) for each 10 deg. C (18 deg. F) for the Green reservoir,
- 0.25 L (0.065 USgal) for each 10 deg. C (18 deg. F) for the Blue reservoir.

(h) De-energize the aircraft electrical circuits.

9 – Ensure that the manual selector valve 1134GQ is in neutral position
10 – Put a warning notice in the flight compartement to tell the crew :
- that the Green or Blue hydraulic quantity indication does not operate,
- that a check of the fluid contents of the Green or Blue reservoir must be done beforeeach flight,
- that the low level warning system operates.

11 – Make sure that the work area is clean and clear of tools and other items.

12 – Close the access door as applicable :
- 197FB or
- the main door of the main gear.

(continued)

(continued)

29-30-03 Indications on the ECAM HYD page

MAINTENANCE

29-30-03A	YELLOW RESERVOIR QUANTITY INDICATION – LO LVL WARN CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1831GQ	HYDRAULIC / HYD / QTY / IND	121 VU 35P

PROCEDURE

1 – Open the access door 196BB.
2 – Open the RH main door of the main gear.
Note : Before deactivation of the quantity indicator, troubleshoot the system to find if the fault is electrical or because of a mechanical failure of the transmitter.
3 – Open, safety and tag C / B 1831 GQ
4 – Release the transmitter cable from the two P-clips nearest to the reservoir end of the cable.
5 – Put the P-clips back in position on their brackets after you have released the cable.
6 – Disconnect the electrical connector 3000GQ-A from the quantity transmitter of the reservoir.
7 – Install protective caps in the connector and the receptacle.
8 – Put the connector through the hole in the top of the rear wall (FR42) of the Yellow hydraulic compartment.
9 – Use a tie-wrap to attach the connector and the cable to the structure in the main gear compartment.
Note : Attach the cable to the structure so that the disconnected end of the connector points down. Oil or other liquids can not then enter the connector.
10 – Remove the safety clip and tag and close C/B 1831GQ.
11 – If troubleshoot has shown an electrical failure of the quantity transmitter :
A) Check the contents of the affected reservoir before each flight
Refer to mechanical indicator on the reservoir to check hydraulic fluid quantity
B) Check the LO LVL ECAM warning
This check is made only once before aircraft is dispatched under this MMEL item.
a) Make sure that the aircraft configuration is :
– Thrust reverser engine 2 stowed
– Speedbrakes and spoilers retracted
– Yellow power accumulator empty of fluid and filled with nitrogen to the correct pressure
– FWD and AFT cargo doors closed.

(continued)

(continued)

29-30-03 Indications on the ECAM HYD page

MAINTENANCE

b) Set the ECAM system to on
c) Drain the yellow reservoir until the low level warning comes on.

Note : Keep the air pressure in the reservoir at not less than 22 psig (1.5 bar relative) while you drain the reservoir.

d) Put fluid into the reservoir to fill it to its normal fill level.

12 – If troubleshoot has shown a mechanical failure of the quantity transmitter, do the following check before each flight.
a) Make sure that the aircraft configuration is
– Thrust reverser engine 2 stowed
– Speedbrakes and spoilers retracted
– Yellow power accumulator empty of fluid and filled with nitrogen to the correct pressure
– FWD and AFT cargo doors closed
b) Energize the aircraft electrical circuits.
c) Set the ECAM system to on.
d) Drain the Yellow reservoir until the low level warning comes on.

Note : Keep the air pressure in the reservoir at not less than 22 psig (1.5 bar relative) while you drain the fluid.

e) Put the fluid into the Yellow reservoir to fill it to its normal fill level.

f) The quantity of fluid which it is necessary to add is :
– with the brake accumulator empty of fluid but filled with nitrogen to the correct pressure : 12 L (3.2 USgal),
– with the brake accumulator full of fluid at the system pressure of 206 bar (3000 psi) : 9l (2.4 USgal)

Note : These quantities are for fluid temperatures between 10 and 20 deg. C (50 and 68 deg. F). If the temperature is out of these limits, the quantity of fluid necessary changes by 0.5 L (0.13 USgal) for each 10 deg. C (18 deg. F).

g) Restore aircraft to required configuration.

13 – Put a warning notice in the flight compartment to tell the crew
– that the Yellow hydraulic quantity indication does not operate,
– that a check of the contents of the Yellow reservoir must be done before each flight,
– that the low level warning system operates.

14 – Make sure that the work area is clean and clear of tools and other items.
15 – Close the RH main door of the main gear
16 – Close the access door 196BB.

29-30-04 Warning and cauthion on ECAM

MAINTENANCE

29-30-04-B	RESERVOIR LOW AIR PRESSURE WARNING – AIR PRESS CHECK	
ACCESS ZONE :		ACCESS ITEM :
GSE : Access platform 2.3 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1702GK 2702GJ 3700GD	HYDRAULIC / G HYD / PUMP ENG1 / MONG HYD / HYD PWR / B WARN / AND CTL HYDRAULIC / Y HYD / PUMP ENG 2 / MONG	121 VU R34 49 VU D14 or C12 121 VU Q37

PROCEDURE

1 – Open, safety and tag C / B 1702 GK (for 1384 GH), 2702GJ (for 2384 GH), 3700GD (for 3384 GH)

2 – Open the applicable access doors :
- One main door of the main gear for 1384GH.

Note : Access is better from the RH side.

- 197 FB for 2384GH
- 196BB and the right hand (RH) main door of the main gear for 3384GH

3 – Put an access plaform in position to be satisfactory for the Green or Blue reservoir as applicable.

4 – Disconnect the electrical connector 1384GH-A or 2384GH-A or 3384GH-A as applicable from the pressure switch.

5 – Install protective caps in the disconnected connector and in the receptable.

6 – For the two pressure switches 1384GH and 2384GH
- Use a tie-wrap and attach the disconnected cable to a part of the structure.

Note : Attach the cable to the structure so that the disconnected end of the connector points down. Oil or other liquids can not then enter the connector.

7 – For the pressure switch 3384GH
(1) Put the disconnected connector and the end of the cable through the hole in FR42 into the main gear compartment.
(2) Use a ty-wrap and attach the disconnected cable to a part of the structure in the main gear compartment.

Note : Attach the cable to the structure so that the disconnected end of the connector points down. Oil or other liquids can not then enter the connector.

(continued)

(continued)

29-30-04 Warning and cauthion on ECAM

MAINTENANCE

8 – Put a notice in the flight compartment to tell the crew that the LO AIR PRESS warning for the Green, Blue or Yellow hydraulic system does not operate.
9 – Look on the air pressure gages on the applicable reservoir and make sure that the air pressure is not less than 37 PSI.
10 – If necessary, pressurize the reservoir.
11 – Make sure that the work area is clean and clear of tools and other items.
12 – Remove the access platform.
13 – Close the applicable access door(s)
- 197FB, or
- 196BB and the RH main door of the main gear or,
- the main door of the main gear.

14 – Close the applicable circuit breaker(s)
- 1702GK, or 2702GJ, or 3700GD.

(continued)

(continued)

29-30-04 Warning and cauthion on ECAM

MAINTENANCE

29-30-04-H	RAT FAULT WARNING – INTEGRITY CHECK	
ACCESS ZONE :	ACCESS ITEM :	
GSE : RAT protective equipment		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Notes : 1 – If the fault indication is because of a defect in the indication system it is permitted to dispatch the aircraft. It is also permitted to dispatch the aircraft if the defect is in the RAT ground test system (if the system is known to be in the « flight » condition). It is not permitted to dispatch the aircraft if the fault indication is because of a defect which could prevent operation of the RAT.

2 – If any part of the system is deactivated, the aircraft can be dispatched for one flight only. After that flight, the deactivated component must be reactivated and this procedure done again. This is to find any faults which were not shown because of the deactivation.

1 – Energize the aircraft electrical circuits
2 – Set the Electronic Centralized Aircraft Monitor (ECAM) to ON
3 – On the ECAM control panel on the center pedestal, press the HYD pushbutton switch. Make sure that the ECAM lower Display Unit shows the HYD page.
4 – Make sure that the RAT FAULT caution on ECAM upper display is shown.
5 – Do a visual check of the left belly fairing to find if the RAT is extended. If the RAT is extended, there is a fault (unwanted extension of the RAT) which you must repair before you can dispatch the aircraft.

Note : If the RAT is found extended, the rest of this procedure is not necessary.

6 – Open the access panels 195BB and 197EB.
7 – On the RAT STOW panel of the BLUE HYD ground service panel, do the test of the lights :
- Set the 28 VDC sw to ON
- Set and hold the LAMP TEST sw and make sure that the red warning light ACTUATOR PRESSURE and the green indicator light RAT STOWED come on.

Note : If the red or green light does not illuminate, replace the bulb.

- Release the LAMP TEST sw
- Set the 28 VDC sw to off

8 – Pressurize the blue hydraulic system
9 – Check it the red warning light ACTUATOR PRESSURE is on.

(continued)

(continued)

29-30-04 Warning and cauthion on ECAM

MAINTENANCE

. If the red warning light is on :

A – Disconnect the electrical connector 1GE-E from the jack control RAT actuator).
B – Look at the ECAM and see if the RAT FAULT caution on ECAM upper display is present.
C – If the RAT FAULT caution on ECAM upper display is present, there is a defect in the wiring.
  a – Connect the electrical connector 1GE-E.
  b – Continue with the step 10.
D – If the RAT FAULT caution on ECAM upper display is not present.
  a – Depressurize the Blue hydraulic system (Ref. TASK 29-10-00-864-003).
  b – Wait a short time to make sure that the hydraulic pressure is gone.
  c – Connect the electrical connector 1GE-E.
  d – Look at the ECAM upper DU to see if the RAT FAULT caution is present.
  e – If the RAT FAULT caution on ECAM upper display is present, the pressure switch in the RAT actuator is defective. If defective, deactivate the warning from the pressure switch as described below :
    – Disconnect the electrical connector 1GE-E.
    – Put a blanking cap on the disconnected electrical connector.
    – Use a ty-wrap and attach the cable and the electrical connector to an adjacent part of the structure.
    – Continue with step 11.
  f – If the RAT FAULT caution on ECAM upper display is not present, the defect is unwanted hydraulic pressure in the « retract » side of the RAT actuator. The fault must be repaired before dispatch of the aircraft.

. If the red warning light is not on :
Continue the procedure with step 10.

10 – Set the 28 VDC switch on the RAT control panel to ON :
. if the green indicator light RAT STOWED is ON :
  – Extended the RAT
  – Make sure that the green indicator light RAT STOWED is off
  – Retract the RAT
  – Make sure that the green indicator light RAT STOWED is ON
  – If successful, the aircraft can be dispatched
  . If the green indicator light RAT STOWED is off, the fault must be repaired before dispatch.

11 – Depressurize the Blue Hydraulic system

12 – Set the 28 VDC switch on the RAT control panel to OFF

13 – Make sure that the work area is clean and clear of tool(s) and other items

14 – Close the access panels 195 BB and 197 EB

15 – Restore aircraft to required configuration

BLANK

30-11-01 Anti-ice Control Valve

MAINTENANCE

30-11-01-a)	RH WING ANTI ICE CONTROL VALVE – DEACTIVATION IN OPEN POSITION	
ACCESS ZONE : 520 / 620		ACCESS ITEM : 522 AB / 622 AB
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1 DL	ANTI ICE / WING / MONG	122 VU V14 or 49 VU C 01
2 DL	ANTI ICE / WING / CTL	122 VU V15 or 49 VU C 02
5CV	FLIGHT CONTROL/STL/CTL & MONG/SYS 1	49 VU B06
7CV	FLIGHT CONTROLS/SLT/CTL/SYS 2	121 VU R21
2KD	APU/APU/CTL	121 VU L 42

PROCEDURE

1 – Install a TOOL-ZERO LOCKING, FLAP SLAT CTL LEVER (98D27803500001) on the flap/slat control lever.
2 – On panel 191DB, put a warning notice in position to tell persons not to pressurize the bleed air system.
3 – Open, safety and tag CBs 5CV, 2DL, 1DL, 2KD, 7CV.
4 – Put the access platform in position below the access panel 622WB, zone 622.
5 – Remove the applicable access panel :
  – FOR 10DL remove 622WB from panel 622AB.
6 – Deactivation in OPEN position of the RH Wing Anti-Ice Valve (10DL) :
  – Remove and discard the lockwire from the locking plate (6).
  – If necessary, move the rod (5) so that the bolt (4) is adjacent to the OPEN indication.
  – Move the locking plate (6) to hold and lock the rod (5).
  – Safety the locking plate (6) with MISCELLANEOUS (Material No. 19-010).
7 – Make an applicable entry in the Aircraft Technical Log that the RH anti ice valve has been deactivated. The engine bleed must not be operated (except for engine start). If the crossbleed valve is open, the APU bleed must not be operated (except for engine start) as heat damage to the slats can occur.
8 – Close Access
  – Install the access panel 622WB.
9 – Remove the safety clip(s) and the tag(s) and close CBs 1DL, 2DL, 5CV, 7CV, 2KD.
10 – Make sure that the ECAM upper DU, on Panel 4VU, does not show the warning message, WING A.ICE L(R) VALVE CLOSED. On Panel 11VU, press the EMER CANC pushbutton switch on the ECAM Control Panel, if necessary, to cancel the message.

(continued)

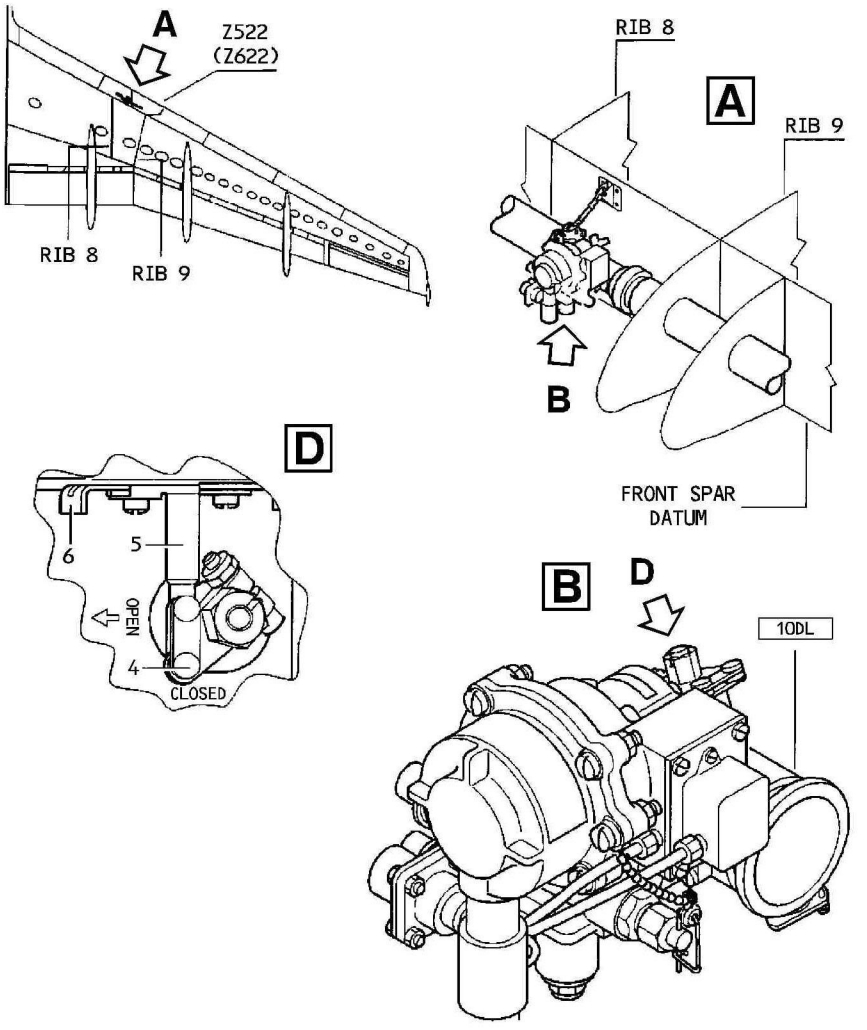
(continued)

30-11-01 Anti-ice Control Valve

MAINTENANCE

11 – Put a placard in position to tell the crew that the right wing anti-ice control valve (10DL) is deactivated in the OPEN position.

12 – Remove the ground support and maintenance equipment, the special and standard tools and all other items.



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30-11-01 Anti-ice Control Valve

MAINTENANCE

30-11-01-b)	WING ANTI ICE CONTROL VALVE – DEACTIVATION IN CLOSED POSITION	
ACCESS ZONE : 520 / 620		ACCESS ITEM : 522 AB / 622 AB
GSE : Access Platform (3 m), 98D27803500001 Tool-Zero Locking Flap Slat CTL lever.		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1 DL	ANTI ICE / WING / MONG	122 VU V14 or 49 VU C 01
2 DL	ANTI ICE / WING / CTL	122 VU V15 or 49 VU C 02
5CV	FLIGHT CONTROL/STL/CTL & MONG/SYS 1	49 VU B06
7CV	FLIGHT CONTROLS/SLT/CTL/SYS 2	121 VU R21
2KD	APU/APU/CTL	121 VU L 42

PROCEDURE

1 – Install a TOOL-ZERO LOCKING, FLAP SLAT CTL LEVER (98D27803500001) on the flap/slat control lever.
2 – On panel 191DB, put a warning notice in position to tell persons not to pressurize the bleed air system.
3 – Open, safety and tag CBs 5CV, 2DL, 1DL, 2KD, 7CV.
4 – Put the access platform in position below the applicable access panel 522WB (622 WB), zone 522 (622).
5 – Remove the applicable access panel :
  – FOR 9DL remove 522WB from panel 522AB
  – FOR 10DL remove 622WB from panel 622AB.

6 – Deactivation of the Wing Anti-Ice Control-Valve to the CLOSED Position
  1 – FOR 9DL
    – Remove and discard the lockwire from the locking screw (1).
    – Make sure that the indicator (2) is in the CLOSED position. If necessary, move the indicator (2) to the CLOSED position by hand.
    – Remove the locking screw (1) from its stowage position.
    – Install the locking screw (1) through the locking hole in the indicator (2) and in the anti-ice control valve
    – Safety the locking screw (1) with MISCELLANEOUS (Material No.19-010).
  2 – FOR 10DL
    – Remove and discard the lockwire from the locking plate (6).
    – Make sure that the bolt (4) is adjacent to the CLOSED indication on the valve body.
      If necessary, move the rod (5) so that the bolt (4) is adjacent to the CLOSED indication.

(continued)

(continued)

30-11-01 Anti-ice Control Valve

MAINTENANCE

- Move the locking plate (6) to engage and lock the rod (5).
- Safety the locking plate (6) with MISCELLANEOUS (Material No.19-010).

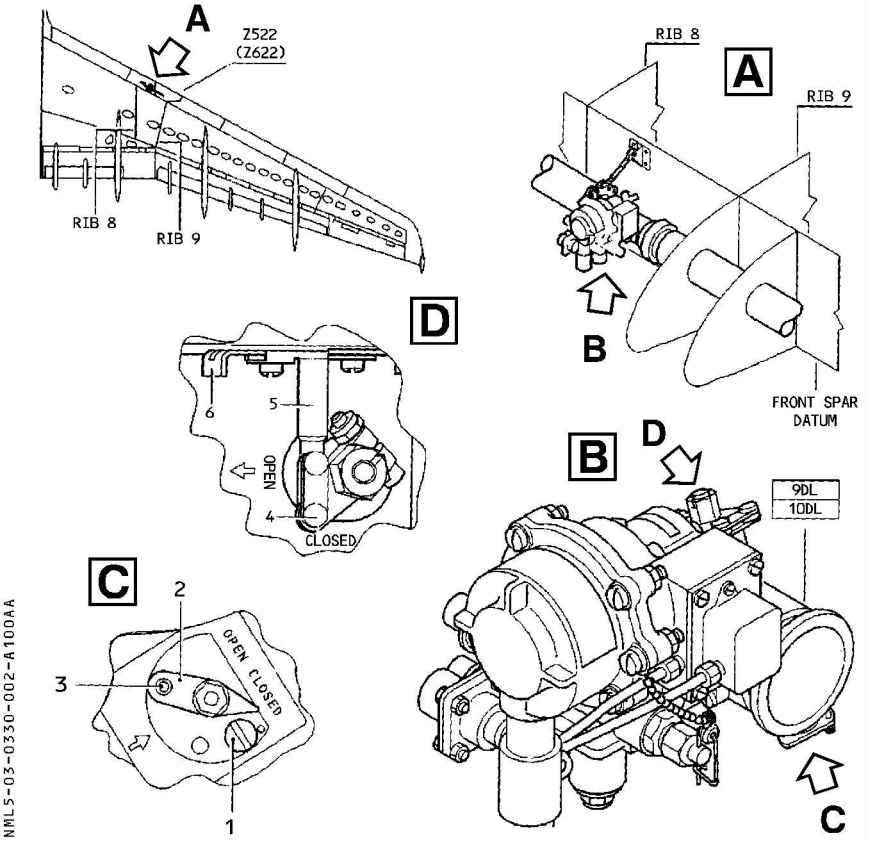
7 – Close Access
- Install the applicable access panel :
  FOR 9DL install 522WB
  FOR 10DL install 622WB

8 – Remove the safety clip(s) and the tag(s) and close CBs 1DL, 2DL, 5CV, 7CV, 2KD.

9 – Make sure that the ECAM upper DU, on Panel 4VU, does not show the warning message, WING A. ICE L(R) VALVE OPEN. On Panel 11VU, press the EMER CANC pushbutton switch on the ECAM Control Panel, if necessary, to cancel the message.

10 – Put a placard in position to tell crew members that one or both wing anti-ice control valves are deactivated.

11 – Remove the ground support and maintenance equipment, the special and standard tools and all other items.



30-11-02 WING ANTI ICE Pb Sw

MAINTENANCE

30-11-02	WING ANTI ICE FAULT LT – VALVE DEACTIVATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 30-11-01-b) in Section 03

30-21-01 Engine Anti-ice Valve

MAINTENANCE

30-21-01	ENGINE ANTI ICE VALVE DEACTIVATION	
ACCESS ZONE : 438 AR or 448 AR	**ACCESS ITEM** : Direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1DN1 1DN2	ANTI ICE / ENG / 1 ANTI ICE / ENG / 2	122 VU X10 122 VU W10

PROCEDURE

Deactivation in closed position

1 – On ANTI ICE panel 25 VU
ENG 1(2) pushbutton switch is released (ON extinguished)

2 – Open safety and tag C / B 1DN1 (1DN2)

3 – Confirm nacelle anti-ice valve in CL position by means of manual override (using an hexagonal wrench) and lock it with its locking pin.

4 – Close C/B 1DN1 (1DN2)

Deactivation in open position

1 – Open safety and tag C / B 1DN1 (1DN2)

2 – Move nacelle anti-ice valve in OP position by means of manual override (using an hexagonal wrench) and lock it with its locking pin

3 – Close C/B 1DN1 (1DN2)

4 – On ANTI ICE panel 25 VU.
Press ENG 1(2) pushbutton switch (ON illuminated).

30-21-01 Engine Anti-ice Valve

MAINTENANCE

30-21-01	ENGINE ANTI ICE VALVE DEACTIVATION	
ACCESS ZONE : 438 AR or 448 AR		ACCESS ITEM : Direct
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1DN1 1DN2	ANTI ICE / ENG / 1 ANTI ICE / ENG / 2	122 VU X10 122 VU W10

PROCEDURE

Deactivation in closed position

1 – On ANTI ICE panel 25 VU
ENG 1(2) pushbutton switch is released (ON extinguished)

2 – Open safety and tag C / B 1DN1 (1DN2)

3 – Confirm nacelle anti-ice valve in CL position by means of manual override (using an hexagonal wrench) and lock it with its locking pin.

4 – Close C/B 1DN1 (1DN2)

Deactivation in open position

1 – Open safety and tag C / B 1DN1 (1DN2)

2 – Move nacelle anti-ice valve in OP position by means of manual override (using an hexagonal wrench) and lock it with its locking pin

3 – Close C/B 1DN1 (1DN2)

4 – On ANTI ICE panel 25 VU.
Press ENG 1(2) pushbutton switch (ON illuminated).

30-21-01 Engine Anti-ice Valve

MAINTENANCE

30-21-01	ENGINE ANTI ICE VALVE DEACTIVATION	
ACCESS ZONE : 438 AR or 448 AR	**ACCESS ITEM** : Direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1DN1 1DN2	ANTI ICE / ENG / 1 ANTI ICE / ENG / 2	122 VU X10 122 VU W10

PROCEDURE

Deactivation in closed position

1 – On ANTI ICE panel 25 VU
ENG 1(2) pushbutton switch is released (ON extinguished)

2 – Open safety and tag C / B 1DN1 (1DN2)

3 – Confirm nacelle anti-ice valve in CL position by means of manual override (using an hexagonal wrench) and lock it with its locking pin.

4 – Close C/B 1DN1 (1DN2)

Deactivation in open position

1 – Open safety and tag C / B 1DN1 (1DN2)

2 – Move nacelle anti-ice valve in OP position by means of manual override (using an hexagonal wrench) and lock it with its locking pin

3 – Close C/B 1DN1 (1DN2)

4 – On ANTI ICE panel 25 VU.
Press ENG 1(2) pushbutton switch (ON illuminated).

30-31-01 Probe Heat Computer

MAINTENANCE

30-31-01-a)	PROBE HEAT COMPUTER – HEATING CHECK	
ACCESS ZONE : COCKPIT		ACCESS ITEM : nil
GSE : nil		

ASSOCIATED CIRCUIT BREAKERS

FIN	DESIGNATION	LOCATION
FOR 6DA1		
1DA1	ANTI ICE/PROBES/1/TAT	122VU Z12
2DA1	ANTI ICE/PROBES/PHC/1	49VU D03
3DA1	ANTI ICE/PROBES/PITOT/1	49VU D02
4DA1	ANTI ICE/PROBES/AOA/1	49VU D04
(or 4DA1	ANTI ICE/PROBES AND SENSORS/1/AOA	122VU Z11)
5DA1	ANTI ICE/PROBES/1/STATIC	122VU Z13
FOR 6DA2		
1DA2	ANTI ICE/PROBES/2/TAT	122VU Y15
2DA2	ANTI ICE/PROBES/2/PHC	122VU Y12
(or 2DA2	ANTI ICE	122VU Y12)
3DA2	ANTI ICE/PROBES/2/PITOT	122VU Y14
4DA2	ANTI ICE/PROBES/2/AOA	122VU Y13
5DA2	ANTI ICE/PROBES/2/STATIC	122VU Y11
FOR 6DA3		
2DA3	ANTI ICE/PROBES/PHC/3	122VU Y16
(or 2DA3	ANTI ICE/PROBES/PHC/3	49VU D04)
3DA3	ANTI ICE/PROBES/3/PITOT	122VU Z16
4DA3	ANTI ICE/PROBES/3/AOA	122VU Z15
5DA3	ANTI ICE/PROBES/3/STATIC	122VU Z14

PROCEDURE

PROBE HEATING CHECK.

Check that TAT, AOA, STATIC and PITOT probes associated with the failed PHC are heated (fail safe position).

CAUTION : Do not continue the test for more one minute to prevent damage to the probes.
Do not touch the probes immediately after the test.

1 – Energize the aircraft electrical circuit.

2 – On panel 25 VU :
Check that the PROBE/WINDOW HEAT P/B switch is released.

3 – Simulate a flight configuration via the CFDS (AMM Task : 32-69-00-860-001)
Get access to the L/G page on MCDU and follows Instructions.

(continued)

(continued)

30-31-01 Probe Heat Computer

MAINTENANCE

4 – Make sure that these circuit breakers associated with the inoperative PHC are closed :
- For 6DA1 : 1DA1, 2DA1, 3DA1, 4DA1, 5DA1.
- For 6DA2 : 1DA2, 2DA2, 3DA2, 4DA2, 5DA2.
- For 6DA3 : 2DA3, 3DA3, 4DA3, 5DA3.

5 – On panel 25 VU :
Push the PROBE/WINDOW HEAT P/B switch (ON legend comes on).

6 – Check that the heating of the probes related to the unserviceable PHC is in operation :
For 6DA1 (PHC-1) : 7DA1, 8DA1, 9DA1, 3FP1, 11FP1.
For 6DA2 (PHC-2) : 7DA2, 8DA2, 9DA2, 3FP2, 11FP2.
For 6DA3 (PHC-3) : 7DA3, 8DA3, 9DA3, 3FP3.
- On the upper ECAM DU :
  Make sure there is no warning related to the probes.
- Check that the related probes are heating :
  You can use a thermometer able to read up to 400 deg.C (752.00 deg.F) to do this check.

  If they are not heated, dispatch under proviso a) can not be performed.

7 – Put the aircraft back to serviceable conditions.

(continued)

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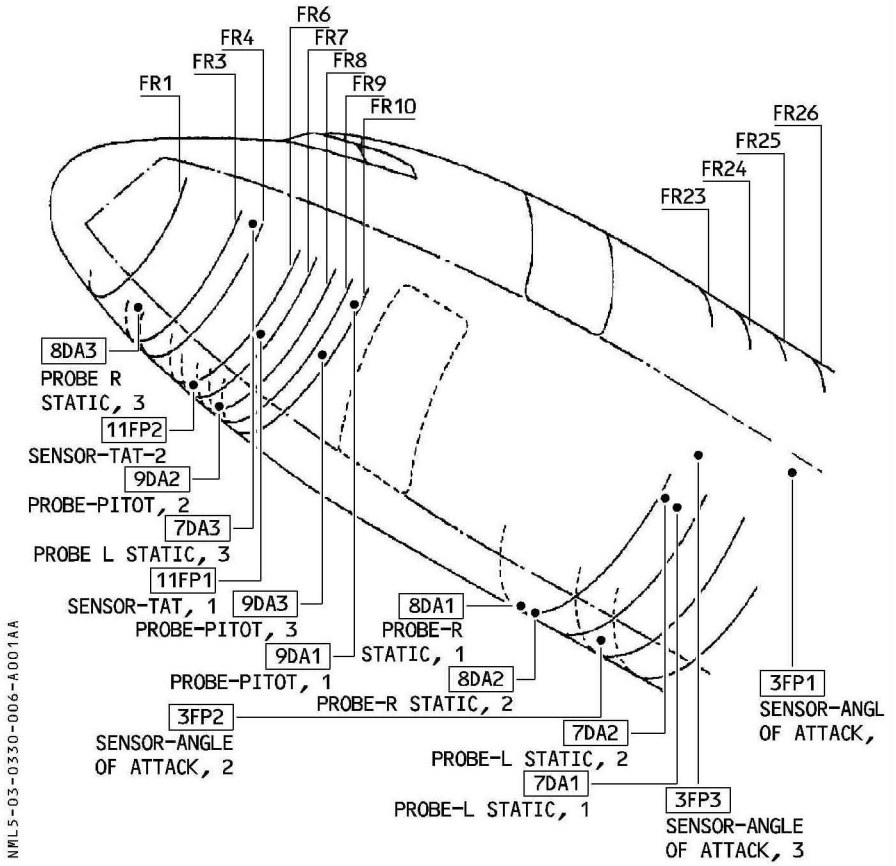
30-31-01 Probe Heat Computer

MAINTENANCE



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30-31-01 Probe Heat Computer

MAINTENANCE

30-31-01-b)-c)	PROBE HEAT COMPUTER – TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS	
ACCESS ZONE :	COCKPIT	ACCESS ITEM : nil
GSE :	nil	

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
2GA	HYDRAULIC/LGCIU/SYS2	121VU Q24 (or Q35)
FOR 6DA1		
1DA1	ANTI ICE/PROBES/1/TAT	122VU Z12
2DA1	ANTI ICE/PROBES/PHC/1	49VU D03
3DA1	ANTI ICE/PROBES/PITOT/1	49VU D02
4DA1	ANTI ICE/PROBES/AOA/1	49VU D04
(or 4DA1	ANTI ICE/PROBES AND SENSORS/1/AOA	122VU Z11)
5DA1	ANTI ICE/PROBES/1/STATIC	122VU Z13
FOR 6DA2		
1DA2	ANTI ICE/PROBES/2/TAT	122VU Y15
2DA2	ANTI ICE/PROBES/2/PHC	122VU Y12
(or 2DA2	ANTI ICE	122VU Y12)
3DA2	ANTI ICE/PROBES/2/PITOT	122VU Y14
4DA2	ANTI ICE/PROBES/2/AOA	122VU Y13
5DA2	ANTI ICE/PROBES/2/STATIC	122VU Y11
FOR 6DA3		
2DA3	ANTI ICE/PROBES/PHC/3	122VU Y16
(or 2DA3	ANTI ICE/PROBES/PHC/3	49VU D04)
3DA3	ANTI ICE/PROBES/3/PITOT	122VU Z16
4DA3	ANTI ICE/PROBES/3/AOA	122VU Z15
5DA3	ANTI ICE/PROBES/3/STATIC	122VU Z14

PROCEDURE

TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS.

1 – Energize the aircraft electrical circuits.

2 – Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only).

CAUTION : REMOVE THE PROTECTIVE COVERS FROM THE PROBES BEFORE YOU DO THE TEST. DO THE TEST AS QUICKLY AS POSSIBLE TO PREVENT DAMAGE TO THE PROBES.

WARNING : DO NOT TOUCH THE PROBES IMMEDIATELY AFTER THE TEST. THEY ARE HOT AND CAN BURN YOU.

3 – On ANTI ICE panel 25VU :

– Make certain that PROBE/WINDOW/HEAT/AUTO/ON pb sw is released (ON legend is off).

(continued)

(continued)

30-31-01 Probe Heat Computer

MAINTENANCE

4 – On MCDU 1 or 2 :
- Select CFDS MENU, SYSTEM REPORT TEST, ICE AND RAIN.
- Select PROBES HEAT CMPTR 1 (2, 3) (the 2 probe heat computers operative), PROB HEAT 1 (2, 3) MENU is displayed.
- Perform test of PHC related to the 2 operative probe heat computers.
- Select CFDS MENU, SYSTEM REPORT TEST, NAV.
- Perform test of ADR related to the 2 operative ADRs.

5 – Do a check of the failure warnings associated with operative units.

A – For 6DA1 (PHC 1 – CAPT) :

(a) Open, safety and tag these circuit breakers : 3DA1, 4DA1.
- On the upper ECAM DU, make sure that the ANTI ICE CAPT PITOT, ANTI ICE CAPT AOA indications come into view.
- Remove the safety clips and the tags and close these circuit breakers : 3DA1, 4DA1.

(b) Open, safety and tag this circuit breaker : 5DA1.
- On the upper ECAM DU, make sure that the ANTI ICE CAPT L(R) STAT indications come into view.
- Remove the safety clip and the tag and close this circuit breaker : 5DA1.

(c) Open, safety and tag these circuit breakers : 3DA1, 4DA1, 5DA1.
- On the upper ECAM DU, make sure that the ANTI ICE CAPT PROBES indications come into view.
- Remove the safety clips and the tags and close these circuit breakers : 3DA1, 4DA1, 5DA1.

B – For 6DA2 (PHC 2 – F/O) :

(a) Open, safety and tag these circuit breakers : 3DA2, 4DA2.
- On the upper ECAM DU, make sure that the ANTI ICE F/O PITOT, ANTI ICE F/O AOA indications come into view.
- Remove the safety clips and the tags and close these circuit breakers : 3DA2, 4DA2.

(b) Open, safety and tag this circuit breaker : 5DA2.
- On the upper ECAM DU, make sure that the ANTI ICE F/O L(R) STAT indications come into view.
- Remove the safety clip and the tag and close this circuit breaker : 5DA2.

(c) Open, safety and tag these circuit breakers : 3DA2, 4DA2, 5DA2.
- On the upper ECAM DU, make sure that the ANTI ICE F/O PROBES indications come into view.
- Remove the safety clips and the tags and close these circuit breakers : 3DA2, 4DA2, 5DA2.

(continued)

(continued)

30-31-01 Probe Heat Computer

MAINTENANCE

C – For 6DA3 (PHC 3 – STBY) :

(a) Open, safety and tag these circuit breakers : 3DA3, 4DA3.
- On the upper ECAM DU, make sure that the ANTI ICE STBY PITOT, ANTI ICE STBY AOA indications come into view.
- Remove the safety clips and the tags and close these circuit breakers : 3DA3, 4DA3.

(b) Open, safety and tag this circuit breaker : 5DA3.
- On the upper ECAM DU, make sure that the ANTI ICE STBY L(R) STAT indications come into view.
- Remove the safety clip and the tag and close this circuit breaker : 5DA3.

(c) Open, safety and tag these circuit breakers : 3DA3, 4DA3, 5DA3.
- On the upper ECAM DU, make sure that the ANTI ICE STBY PROBES indications come into view.
- Remove the safety clips and the tags and close these circuit breakers : 3DA3, 4DA3, 5DA3.

6 – Open, safety and tag this circuit breaker : 2GA.

(a) Do the simulation of flight on the LGCIU 1, with the aircraft on the ground (Ref. AMM TASK 32-69-00-860-001).

(b) Make sure that these circuit breakers are closed :
- For 6DA1 : 1DA1, 2DA1, 3DA1, 4DA1, 5DA1
- For 6DA2 : 1DA2, 2DA2, 3DA2, 4DA2, 5DA2.
- For 6DA3 : 2DA3, 3DA3, 4DA3, 5DA3.

(c) On the ECAM Control Panel (6WT), push the CLR key until the indications come into view as follows :
- On the upper ECAM DU : ANTI ICE CAPT TAT, ANTI ICE F/O TAT.
- On the STATUS page of the lower ECAM DU, on the right part of the display : CAPT TAT, F/O TAT.

(d) Put the aircraft in ground configuration (Ref. AMM TASK 32-69-00-860-001).

(e) Remove the safety clip and the tag and close this circuit breaker :
2GA.

7 – Put the aircraft back to serviceable conditions.

30-31-02 Pitot Heaters

MAINTENANCE

30-31-02	PITOT HEATER – TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

a), b) and c). TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS.

REFER TO MMEL ITEM : 30-31-01-b) c) in Section 03

30-31-03 Static Ports Heaters

MAINTENANCE

30-31-03	STATIC PORT HEATER – TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

b), c) and d) TEST OR THE TWO OPERATIVE PROBE HEAT SYSTEMS.

REFER TO MMEL ITEM : 30-31-01-b) c) in Section 03

30-31-04 Angle of attack probes heating

MAINTENANCE

30-31-04	AOA PROBE HEATING – TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

a), b), c) TEST OF THE TWO OPERATIVE PROBE HEAT SYSTEMS.

REFER TO MMEL ITEM : 30-31-01-b) c) in Section 03

30-42-01 Window heat computer

MAINTENANCE

30-42-01	WINDOW HEAT COMPUTER – TEST OF THE OPERATIVE WINDOW HEAT SYSTEM	
ACCESS ZONE : COCKPIT	ACCESS ITEM : nil	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
	nil	

PROCEDURE

1 – On ANTI ICE panel 25 VU
- make certain that PROBE / WINDOW / HEAT / AUTO / ON pushbutton switch is released (ON legend is off)

2 – On MCDU 1 or 2
- select CFDS MENU, SYSTEM REPORT TEST, ICE and RAIN
- select WHC 1(2). WHC 1(2) MENU is displayed
- perform TEST (test must be OK).

30-71-01 Waste Water Drain Mast Heating System

MAINTENANCE

30-71-01	WASTE WATER DRAIN MAST HEATING SYSTEM – WATER SUPPLY ISOLATION	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1DU	DRAINMAST FWD, or WASTE WIP DRAINMAST FWD	2000 VU D01 or E 01 or B 06
11DU	DRAINMAST AFT, or WASTE WIP DRAINMAST AFT	2001 VU D 04 or D 05 or E 01

PROCEDURE

1 – Make sure that the aircraft electrical circuits are isolated.
2 – Open, safety and tag C / B 1DU or/and 11DU (the affected system(s)).
3 – Close the manual shut-off valve of the related lavatory water supply. The shut-off valve is installed at floor level next to and at the rear of the lavatory and you can clearly see the « OPEN » and « SHUT » positions.
4 – Put a placard on the related lavatory doors to show persons that the lavatory is not in use. Close and lock the lavatory doors.
5 – Close the shut-off valve of the related galley water supply.
6 – Put a placard on the related galley water faucet to show persons that the water faucet does not operate.

30-71-01 Waste Water Drain Mast Heating System

MAINTENANCE

30-71-01	WASTE WATER DRAIN MAST HEATING SYSTEM – WATER SUPPLY ISOLATION	
ACCESS ZONE :		ACCESS ITEM :
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1DU	ICE PROT – DRAINMAST FWD, or WASTE WIP DRAINMAST FWD	2000 VU D02 or B 07 or B 03
11DU	ICE PROT – DRAINMAST AFT, or WASTE WIP DRAINMAST AFT	2001 VU D 06 or E 01 or E 03
21DU	ICE PROT – DRAINMAST MID, or WASTE WIP DRAINMAST MID	2001 VU D 07 or E 02

PROCEDURE

1 – Make sure that the aircraft electrical circuits are isolated
2 – Open, safety and tag C / B 1DU or/and 11DU or/and 21DU (the affected system(s))
3 – Close the manual shut-off valve of the related lavatory water supply. The shut-off valve is installed at floor level next to and at the rear of the lavatory and you can clearly see the « OPEN » and « SHUT » positions.
4 – Put a placard on the related lavatory doors to show persons that the lavatory is not in use. Close and lock the lavatory doors.
5 – Close the shut-off valve of the related galley water supply.
6 – Put a placard on the related galley water faucet to show persons that the water faucet does not operate.

31-63-02 Display Management Computer (DMC)

MAINTENANCE

31-63-02-b)	DMC2 – CHECK THAT AC ESS FEED CONTROL IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1XC	123VU AC ESS/BUS ON/BUS 1	AC 12

1 – Energize the aircraft electrical circuits
2 – Do the EIS start procedure (Upper ECAM DU and lower ECAM DU only).
3 – Operational Test of the AC Essential Generation Switching

ACTION	RESULT
1. On the ECAM control panel : – push the ELEC key.	On the lower ECAM DU, on the ELEC page : – a green bar comes into view between the AC1 and AC ESS busbars. This shows that the AC1 busbar energizes the AC ESS busbar.
2. On the panel 123VU : – open the circuit breaker 1XC.	On the F/O glareshield panel 130VU : – the MASTER CAUT light comes on. You can hear the single chime. The upper ECAM DU becomes black. The indications shown on the upper ECAM DU : ELEC AC ESS BUS FAULT then AC ESS FEED ... ALTN move to the lower ECAM DU. On the ELEC panel 35VU : – the FAULT legend of the AC ESS FEED pushbutton switch comes on.
3. On the ELEC panel 35VU : – release the AC ESS FEED pushbutton switch.	On the ELEC panel 35 VU : – the FAULT legend of the AC ESS FEED pushbutton switch goes off, – the ALTN legend of the AC ESS FEED pushbutton switch comes on.

(continued)

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31-63-02 Display Management Computer (DMC)

MAINTENANCE

ACTION	RESULT
4. On the ECAM control panel : – push the ELEC key.	On the lower ECAM DU, on the ELEC page : – a green bar comes into view between the AC2 and AC ESS busbars. This shows that the AC2 busbar energizes the AC ESS busbar, – the green bar between the AC1 and AC ESS busbars goes out of view.
5. On the panel 123VU : – close the circuit breaker 1XC.	
6. On the ELEC panel 35 VU : – push the AC ESS FEED pushbutton switch.	On the ELEC panel 35 VU : – the ALTN legend of the AC ESS FEED pushbutton switch goes off. On the ELEC page : – the green bar between the AC2 and AC ESS busbars goes out of view, – the green bar between the AC1 and AC ESS busbars comes into view.

4 – Restore aircraft to required configuration.

32-12-01 Ground Opening Cable

MAINTENANCE

32-12-01	MAIN GEAR DOORS-GROUND DOOR OPENING CABLE	
ACCESS ZONE : 730 (740)		**ACCESS ITEM** :
GSE : Access platform 2 m + RIGGING PIN (98 DNSA20208040)		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1GA	L/G/LGCIU/SYS1/NORM	49VU C09
2GA	HYDRAULIC/LGCIU/SYS2	121VU Q35
52GA	HYDRAULIC/LGCIU/SYS1/GRND SPLY	121VU Q34
1701GK	HYDRAULIC/G HYD/PUMP ENG1/CTL	121VU R35
1702GK	HYDRAULIC/G HYD/PUMP ENG1/MONG	121VU R34

PROCEDURE
DEACTIVATION OF THE MLG GROUND DOOR OPENING CABLE

WARNING : OBEY THE HYDRAULIC SAFETY PROCEDURES.
- On the panel 400VU :
  - make sure that the landing gear control lever 6GA is in the DOWN position
  - put a warning notice in position to tell persons not to operate the landing gear.
- Put a warning notice in the cockpit to tell persons not to operate the Green and Yellow Hydraulic systems.
- On the panel 110VU, make sure that the GRAVITY GEAR EXTN handle is folded into the center console.
- Make sure that the ground safety locks are installed on the landing gear.
- MAKE SURE THAT THE TRAVEL RANGES OF THE LANDING GEAR DOORS ARE CLEAR.

Note : The defective opening cable can be removed (AMM Task 32-12-16-000 refers), or left in position with the cable ends disconnected from the control handle and by-pass valve per as following procedure.

1 – Depressurize the Green Hydraulic system.
2 – Open the circuit breakers : 1GA, 2GA, 52GA, 1701GK, 1702GK.
3 – Open the applicable access panel(s) : FOR Control Cable 2804GM open 195BB.
FOR Control Cable 2805GM open 196BB.
4 – If necessary, open the MLG doors by the free fall system.
5 – Install a GROUND LOCK SLEEVE on each MLG door actuating cylinder.
6 – Disconnect the isolation coupling of PTU (AMM 29-23-00-860-001).
7 – Disconnect the cable end from the control handle.
1 Remove and discard the cotter pin (5).
2 Remove the nut (4), the washer (3) and the bolt (1).
3 Remove the cable end (2) from the control handle.

(continued)

(continued)

32-12-01 Ground Opening Cable

MAINTENANCE

8 – Disconnect the end from the by-pass valve.
  1 Remove the cotter pin (8).
  2 Remove the nut (7), the washer (9), the bush (11) and the bolt (12).
  3 Remove the cable end (6) from the by-pass valve operating lever (10).
9 – Stow the cable ends and secure them in position with a cable tie.
10 – Disconnect the applicable MLG door actuating cylinder from the MLG door.
11 – Pressurize the Green Hydraulic system.
12 – Reset the free fall system if the MLG doors opened by the free fail system (step 4).
13 – Make sure that the by-pass valve operating lever is in the NORMAL position as follows :
  (a) Put the RIGGING PIN (98DNSA20208040) through the operating lever and the by-pass valve rigging-pin holes.
  (b) If rigging pin installation is not possible, because the operating lever and the rigging pin holes are not aligned.
    – Remove the safety clips and tags and close C/Bs : 1GA, 52GA.
    – Manually move the operating lever until the rigging pin holes are aligned.
    – Put the RIGGING PIN through the operating lever and the by-pass valve rigging-pin holes.
    – Open, safety and tag C/Bs : 1GA, 52GA.
  (c) Remove the RIGGING PIN and secure the operating lever in the rigged position with Lockwire through the rigging pin holes.
14 – Depressurize the Green Hydraulic system.
15 – Turn the GRAVITY GEAR EXTN handle clockwise two full turns.
16 – Connect the applicable MLG door actuating cylinder.
17 – Remove the GROUND LOCK SLEEVES.
18 – Pressurize the Green Hydraulic system.
19 – Close the MLG doors as follows :
  (a) Remove the safety clips and tags and close C/Bs : 1GA, 52GA.
  (b) On the panel 110VU, turn the GRAVITY GEAR EXTN handle counterclockwise two full turns at a rate of one full turn every 5 seconds.
  (c) Fold the GRAVITY GEAR EXTN handle into the center console.
20 – Put the MLG door ground-control handle in the CLOSED position.
21 – Make sure that the MLG doors are closed and locked correctly.

(continued)

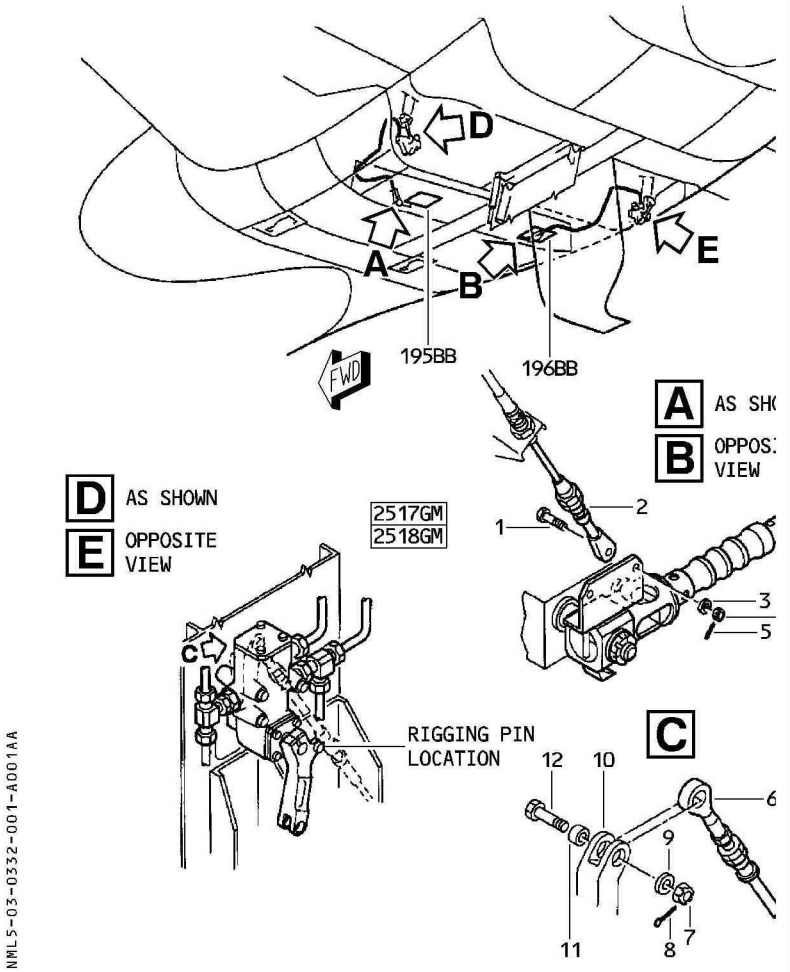
(continued)

32-12-01 Ground Opening Cable

MAINTENANCE

WARNING : If the MLG door controls do not agree with the position of the MLG doors, keep clear of the landing gear bay until :
- you depressurize the green hydraulic system
- you install a ground lock sleeve on the actuating cylinder of the applica door(s). If the door is open and not safetied, there is a risk that it can cause injury.

22 – Depressurize the Green Hydraulic system.
23 – Close the applicable access panel (s).
24 – Remove the safety clips and the tags and close C/Bs : 2GA, 1701GK, 1702GK.
25 – Connect the isolation coupling of the PTU (AMM 29-23-00-860-002).



32-31-02B Proximity Detectors System 2)

MAINTENANCE

32-31-02	PROXIMITY DETECTORS – CHECK OF ORIGIN OF FAILURE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Check that the proximity detector has no damage, and is only electrically failed.

Check on ECAM that the display is identical to the one shown in operational procedure

32-41-01 Nose wheel tie bolts

MAINTENANCE

32-41-01	NOSE WHEEL TIE BOLTS - CHECK BEFORE DISPATCH	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Before dispatch :

As soon as the defective tie bolt is discovered :

– Inspect the complete wheel and verify that no broken piece remains stuck in the wheel.

At the end of MMEL item 32-41-01 allowance :

When this bolt is fitted back, both adjacent bolts (one on each side) shall be replaced and thrown away (they shall not be used as spare) (Refer to 01-32-41-01).

– Remove the affected wheel,
– Inspect the complete wheel,
– Fit back the affected wheel with all the tie bolts.

32-41-02 Main wheel tie bolts

MAINTENANCE

32-41-02	MAIN WHEEL TIE BOLTS - CHECK BEFORE DISPATCH	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

Before dispatch :

As soon as the defective tie bolt is discovered :

- Remove the affected wheel :
- Inspect the complete wheel and associated brakes.
  It must be verified that no broken piece remains stuck between the wheel and the brake.
- Re-install the wheel.

At the End of MMEL Item 32-41-02 allowance :

- Remove adjacent bolts and throw them away (they shall not be used as spare).
  For number of adjacent bolts to be removed, refer to 01-32-41-02.
- Remove the affected wheel,
- Inspect the complete wheel and associated brakes,
- Fit back the affected wheel with all the tie bolts.

32-42-01 Main Wheel Brake

MAINTENANCE

32-42-01	MAIN WHEEL BRAKES – DEACTIVATION	
ACCESS ZONE : 731 / 741	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

I DEACTIVATION WITH BRAKE REMOVAL

CAUTION : MAKE CERTAIN THAT LANDING GEAR SAFETY LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

1 – Remove the main landing gear wheel concerned.
2 – Put the PARKING BRAKE CONTROL switch in OFF (Released) Position.
3 – Remove the brake unit.
4 – Put a blanking cap on the temperature sensor electrical connector.
5 – Remove the Protective cone (J47779) from the wheel axle.
(Protective cone was installed during the brake unit removal procedure).
6 – Clean the axle with clearing agents (Material 11002).
7 – Lightly lubricate the axle and the axle protective sleeve with common grease (material 04-004)
8 – Install the axle protective sleeve and the retaining ring
(these items were removed during brake unit removal)
9 – Install the main landing gear wheel.
10 – Wipe sleeves and brake temperature electrical connector clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around sleeves and connector.
11 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves and connector.
12 – Make sure that hoses and wire are not kinked.
13 – Twist lockwire and run it through the nearest hole of the landing gear axle flange or attach it to the clamp block which secures the hydraulic hoses and conduit.
14 – Tension lockwire and twist.

Note : This attachment point avoids any risk of hose / wire or lockwire chafing during landing gear operation.

(continued)

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32-42-01 Main Wheel Brake

MAINTENANCE

15 – Tests.
- Pressurize for ALTERNATE BRAKING (Yellow hydraulic system) then for NORMAL BRAKING (Green hydraulic system), the hydraulic pressure line associated to removed brake and check for leakage with related pedals fully pushed.
- In flight compartment, install a temporary placard to warn the flight crew that brake unit n° 1 (2, 3, 4) was removed.

II DEACTIVATION WITHOUT BRAKE REMOVAL

CAUTION : MAKE CERTAIN THAT THE LANDING GEAR SAFETY LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.
MAKE CERTAIN THAT PARKING BRAKE CONTROL SWITCH IS IN OFF (RELEASED) POSITION BEFORE DEACTIVATION

1 – Loosen the knurled sleeves of the two hydraulic self-sealing couplings and turn to disconnect.
2 – Wipe the hydraulic half-couplings (hose side), clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around the knurled sleeves.
3 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves.
4 – Twist the lockwire and put it through the nearest locking hole in the hexagonal head of the fixed half couplings. Tighten the lockwire and twist it.
5 – Remove the two bleed screw plugs from the bleed screw.
6 – Connect a vinyl hose to a bleed screw and put the other end in a container.
7 – Slowly loosen the bleed screw to release hydraulic residual pressure from the brake.
8 – Tighten the bleed screw.
9 – Disconnect the vinyl hose.
10 – Install the bleed screw plug on the bleed screw.
11 – Do the same to the other bleed screw.
12 – Tests
- Pressurize for ALTERNATE BRAKING (Yellow hydr. sys) then for NORMAL BRAKING (Green hydr. sys), the hydraulic pressure line associated to deactivated brake and check for leakage with related pedals fully pushed.
- In flight compartment, install a temporary placard to warn the flight crew that brake unit n° 1 (2, 3, 4) was deactivated.

32-42-01 Main Wheel Brake

MAINTENANCE

32-42-01	MAIN WHEEL BRAKES – DEACTIVATION	
ACCESS ZONE : 731 / 741	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

I DEACTIVATION WITH BRAKE REMOVAL

CAUTION : MAKE CERTAIN THAT LANDING GEAR SAFETY LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

1 – Remove the main landing gear wheel concerned.
2 – Put the PARKING BRAKE CONTROL switch in OFF (Released) Position.
3 – Remove the brake unit.
4 – Put a blanking cap on the temperature sensor electrical connector.
5 – Remove the Protective cone (J47779) from the wheel axle.
(Protective cone was installed during the brake unit removal procedure).
6 – Clean the axle with clearing agents (Material 11002).
7 – Lightly lubricate the axle and the axle protective sleeve with common grease (material 04-004)
8 – Install the axle protective sleeve and the retaining ring
(these items were removed during brake unit removal)
9 – Install the main landing gear wheel.
10 – Wipe sleeves and brake temperature electrical connector clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around sleeves and connector.
11 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves and connector.
12 – Make sure that hoses and wire are not kinked.
13 – Twist lockwire and run it through the nearest hole of the landing gear axle flange or attach it to the clamp block which secures the hydraulic hoses and conduit.
14 – Tension lockwire and twist.

Note : This attachment point avoids any risk of hose / wire or lockwire chafing during landing gear operation.

(continued)

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32-42-01 Main Wheel Brake

MAINTENANCE

15 – Tests.
- Pressurize for ALTERNATE BRAKING (Yellow hydraulic system) then for NORMAL BRAKING (Green hydraulic system), the hydraulic pressure line associated to removed brake and check for leakage with related pedals fully pushed.
- In flight compartment, install a temporary placard to warn the flight crew that brake unit n° 1 (2, 3, 4) was removed.

II DEACTIVATION WITHOUT BRAKE REMOVAL

CAUTION : MAKE CERTAIN THAT THE LANDING GEAR SAFETY LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.
MAKE CERTAIN THAT PARKING BRAKE CONTROL SWITCH IS IN OFF (RELEASED) POSITION BEFORE DEACTIVATION

1 – Loosen the knurled sleeves of the two hydraulic self-sealing couplings and turn to disconnect.
2 – Wipe the hydraulic half-couplings (hose side), clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around the knurled sleeves.
3 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves.
4 – Twist the lockwire and put it through the nearest locking hole in the hexagonal head of the fixed half couplings. Tighten the lockwire and twist it.
5 – Remove the two bleed screw plugs from the bleed screw.
6 – Connect a vinyl hose to a bleed screw and put the other end in a container.
7 – Slowly loosen the bleed screw to release hydraulic residual pressure from the brake.
8 – Tighten the bleed screw.
9 – Disconnect the vinyl hose.
10 – Install the bleed screw plug on the bleed screw.
11 – Do the same to the other bleed screw.
12 – Tests
- Pressurize for ALTERNATE BRAKING (Yellow hydr. sys) then for NORMAL BRAKING (Green hydr. sys), the hydraulic pressure line associated to deactivated brake and check for leakage with related pedals fully pushed.
- In flight compartment, install a temporary placard to warn the flight crew that brake unit n° 1 (2, 3, 4) was deactivated.

32-42-01 Main Wheel Brake

MAINTENANCE

32-42-01	MAIN WHEEL BRAKES – DEACTIVATION	
ACCESS ZONE : 731 / 741	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

I DEACTIVATION WITH BRAKE REMOVAL

CAUTION : MAKE CERTAIN THAT LANDING GEAR SAFETY LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

1 – Remove the main landing gear wheel concerned.
2 – Put the PARKING BRAKE CONTROL switch in OFF (Released) Position.
3 – Remove the brake unit.
4 – Put a blanking cap on the temperature sensor electrical connector.
5 – Remove the Protective cone (J47779) from the wheel axle.
(Protective cone was installed during the brake unit removal procedure).
6 – Clean the axle with clearing agents (Material 11002).
7 – Lightly lubricate the axle and the axle protective sleeve with common grease (material 04-004)
8 – Install the axle protective sleeve and the retaining ring
(these items were removed during brake unit removal)
9 – Install the main landing gear wheel.
10 – Wipe sleeves and brake temperature electrical connector clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around sleeves and connector.
11 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves and connector.
12 – Make sure that hoses and wire are not kinked.
13 – Twist lockwire and run it through the nearest hole of the landing gear axle flange or attach it to the clamp block which secures the hydraulic hoses and conduit.
14 – Tension lockwire and twist.

Note : This attachment point avoids any risk of hose / wire or lockwire chafing during landing gear operation.

(continued)

(continued)

32-42-01 Main Wheel Brake

MAINTENANCE

15 – Tests.
- Pressurize for ALTERNATE BRAKING (Yellow hydraulic system) then for NORMAL BRAKING (Green hydraulic system), the hydraulic pressure line associated to removed brake and check for leakage with related pedals fully pushed.
- In flight compartment, install a temporary placard to warn the flight crew that brake unit n° 1 (2, 3, 4) was removed.

II DEACTIVATION WITHOUT BRAKE REMOVAL

CAUTION : MAKE CERTAIN THAT THE LANDING GEAR SAFETY LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.
MAKE CERTAIN THAT PARKING BRAKE CONTROL SWITCH IS IN OFF (RELEASED) POSITION BEFORE DEACTIVATION

1 – Loosen the knurled sleeves of the two hydraulic self-sealing couplings and turn to disconnect.
2 – Wipe the hydraulic half-couplings (hose side), clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around the knurled sleeves.
3 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves.
4 – Twist the lockwire and put it through the nearest locking hole in the hexagonal head of the fixed half couplings. Tighten the lockwire and twist it.
5 – Remove the two bleed screw plugs from the bleed screw.
6 – Connect a vinyl hose to a bleed screw and put the other end in a container.
7 – Slowly loosen the bleed screw to release hydraulic residual pressure from the brake.
8 – Tighten the bleed screw.
9 – Disconnect the vinyl hose.
10 – Install the bleed screw plug on the bleed screw.
11 – Do the same to the other bleed screw.
12 – Tests
- Pressurize for ALTERNATE BRAKING (Yellow hydr. sys) then for NORMAL BRAKING (Green hydr. sys), the hydraulic pressure line associated to deactivated brake and check for leakage with related pedals fully pushed.
- In flight compartment, install a temporary placard to warn the flight crew that brake unit n° 1 (2, 3, 4) was deactivated.

32-42-02 Green Brake System

MAINTENANCE

32-42-02	GREEN BRAKE SYSTEM – GREEN HYD CIRCUIT DISCONNECTION	
ACCESS ZONE : 731 / 741		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

CAUTION : – THE GREEN HYDRAULIC CONNECTION ON THE BRAKE IS ALWAYS IN FRONT OF THE LEG GEAR.

– MAKE SURE THAT THE LANDING GEAR SAFETY-LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

– MAKE SURE THAT PARKING BRAKE CONTROL SWITCH IS IN OFF (RELEASED) POSITION BEFORE DEACTIVATION

1 – Loosen the knurled sleeve of the hydraulic self-sealing coupling (located in front of the leg gear) and turn to disconnect.

2 – Wipe the hydraulic half-coupling (hose side), clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around the knurled sleeve.

3 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeve.

4 – Twist the lockwise and put it throught the nearest locking hole in the hexagonal head of the fixed halfcoupling. Tighten the lockwire and twist it.

5 – Remove the bleed screw plug (2) from the bleed screw (1).

6 – Connect a vinyl hose to the bleed screw and put the other end in a container.

7 – Slowly loosen the bleed screw to release hydraulic residual pressure from the brake.

8 – Tighten the bleed screw, disconnect the vinyl hose and install the bleed screw plug on the bleed screw

(continued)

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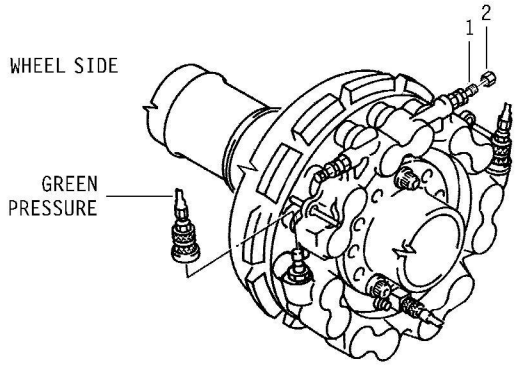
32-42-02 Green Brake System

MAINTENANCE

9 – Tests

– Pressurize the green hydraulic system and then the hydraulic line associated to deactivated normal brake and check for leakage with related pedals fully pushed.

– In flight compartment, install a temporary placard to warn the flight crew that the normal braking on wheel n° 1 (2, 3, 4) is deactivated.



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32-42-05 Tachometer

MAINTENANCE

32-42-05	TACHOMETER – CHECK NON AFFECTED TACHOMETERS	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Enter CFDS

2 – Select SYSTEM REPORT/TEST

3 – Select L/G

4 – Read successively BSCU SYS 1 then BSCU SYS 2 LAST LEG REPORT and verify that non of the following messages is indicated for the non affected wheels :

TACHOMETER 19 (20) (21) (22) GG or BSCU

Note : TACHOMETER 19 stands for wheel n° 1, 20 for wheel n° 3, 21 for wheel n° 2, and 22 for wheel n° 4.

If this message is present for one of the non affected wheels (ie, two tachometers are inoperative), dispatch is not possible.

32-42-05 Tachometer

MAINTENANCE

32-42-05	TACHOMETER – CHECK NON AFFECTED TACHOMETERS	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Enter CFDS

2 – Select SYSTEM REPORT/TEST

3 – Select L/G

4 – Read successively BSCU SYS 1 then BSCU SYS 2 LAST LEG REPORT and verify that non of the following messages is indicated for the non affected wheels :

TACHOMETER 19 (20) (21) (22) GG or BSCU

Note : TACHOMETER 19 stands for wheel n° 1, 20 for wheel n° 3, 21 for wheel n° 2, and 22 for wheel n° 4.

If this message is present for one of the non affected wheels (ie, two tachometers are inoperative), dispatch is not possible.

32-42-05 Tachometer

MAINTENANCE

32-42-05	TACHOMETER – CHECK NON AFFECTED TACHOMETERS	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Enter CFDS

2 – Select SYSTEM REPORT/TEST

3 – Select L/G

4 – Read successively BSCU SYS 1 then BSCU SYS 2 LAST LEG REPORT and verify that non of the following messages is indicated for the non affected wheels :

TACHOMETER 19 (20) (21) (22) GG or BSCU

Note : TACHOMETER 19 stands for wheel n° 1, 20 for wheel n° 3, 21 for wheel n° 2, and 22 for wheel n° 4.

If this message is present for one of the non affected wheels (ie, two tachometers are inoperative), dispatch is not possible.

32-44-01 Yellow Brake System

MAINTENANCE

32-44-01	YELLOW BRAKE SYSTEM – YELLOW HYD SUPPLY DISCONNECTION	
ACCESS ZONE : 731 / 741		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

CAUTION : – THE YELLOW HYDRAULIC CONNECTION ON THE BRAKE IS ALWAYS BEHIND THE LEG GEAR.

– MAKE CERTAIN THAT THE LANDING GEAR SAFETY-LOCKS AND THE WHEEL CHOCKS ARE IN POSITION.

– MAKE CERTAIN THAT PARKING BRAKE CONTROL SWITCH IS IN OFF (RELEASED) POSITION BEFORE DEACTIVATION

1 – Loosen the knurled sleeve of the hydraulic self-sealing coupling (located behind the leg gear) and turn to disconnect.
2 – Wipe the hydraulic half-coupling (hose side), clean and apply 2 or 3 turns of 20 to 30 mm wide self adhesive fabric tape around sleeve.
3 – Tightly wind 3 or 4 turns of lockwire around mid-area of tape-lagged sleeves.
4 – Twist the lockwire and put it through the nearest locking hole in the hexagonal head of the fixed half coupling. Tighten the lockwire and twist it.
5 – Remove the bleed screw plug (2) from the bleed screw (1).
6 – Connect a vinyl hose to the bleed screw and put the other end in a container.
7 – Slowly loosen the bleed screw to release hydraulic residual pressure from the brake.
8 – Tighten the bleed screw, disconnect the vinyl hose and install the bleed screw plug on the bleed screw.
9 – Tests
  – Pressurize the yellow hydraulic system and then the hydraulic line associated to deactivated alternate brake and check for leakage with related pedals fully pushed.
  – In flight compartment, install a temporary placard to warn the flight crew that the alternate braking on wheel n° 1 (2, 3, 4) was deactivated.

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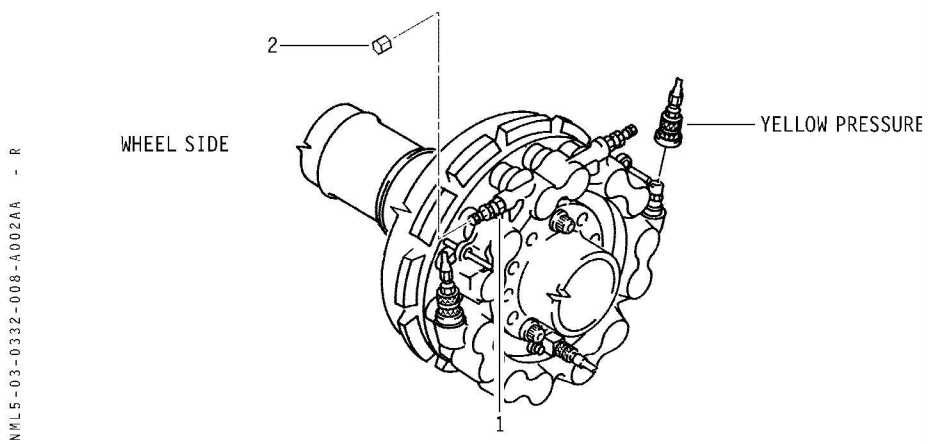
32-44-01 Yellow Brake System

MAINTENANCE



32-45-01 Parking Brake

MAINTENANCE

32-45-01	PARKING BRAKE	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

Note : The parking brake control valve is fitted with two electrical motors :

a) "STBY " motor supplied by the hot bus 701PP
b) "NORM " motor supplied by the service bus 601PP.

If "STBY" motor is inoperative, the parking brake valve will not operate if the aircraft is supplied by batteries only.

PROCEDURE

If "STBY" motor is inoperative, aircraft towing is not allowed if the aircraft is supplied by batteries only.

32-60-02 Gear Not Down Warning

MAINTENANCE

32-60-02	TEST OF THE GEAR NOT DOWN WARNING	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2GA	HYDRAULIC/LGCIU/SYS 2	121VU Q35
1DA1	ANTI ICE/PROBES/1/TAT	122VU Z12
1DA2	ANTI ICE/PROBES/2/TAT	122VU Y15
3DA1	ANTI ICE/PROBES/PITOT/1	49VU D02
3DA2	ANTI ICE/PROBES/2/PITOT	122VU Y14
3DA3	ANTI ICE/PROBES/3/PITOT	122VU Z16
4DA1	ANTI ICE/PROBES/AOA/1	49VU D04
4DA2	ANTI ICE/PROBES/2/AOA	122VU Y13
4DA3	ANTI ICE/PROBES/3/AOA	122VU Z15
5DA1	ANTI ICE/PROBES/1/STATIC	122VU Z13
5DA2	ANTI ICE/PROBES/2/STATIC	122VU Y11
5DA3	ANTI ICE/PROBES/3/STATIC	122VU Z14

PROCEDURE

CAUTION : AS A SAFETY PRECAUTION, MAKE SURE THAT THE GROUND SAFETY LOCKS ARE ON THE LANDING GEAR.

1 – Energize the aircraft electrical circuits.
2 – On the ECAM select the WHEEL page.
3 – Select ON the YELLOW ELEC PUMP

Note : PTU may be selected OFF to avoid pressurization of the green hydraulic system.

4 – Select FLAP 3 or FULL.
5 – Open, safety and tag C/B 2GA, 1DA1, 1DA2, 3DA1, 3DA2, 3DA3, 4DA1, 4DA2, 4DA3, 5DA1, 5DA2 and 5DA3.
6 – Make sure that ENG MASTER 1 and MASTER 2 levers are in the OFF position.
7 – On the panel 50VU, select ON the FADEC 1 or 2 GND PW.
8 – On the center pedestral, put the throttle levers in the IDLE position.
9 – On the MCDU, get access to the L/G page.
10 – Do the following test :

(continued)

(continued)

32-60-02 Gear Not Down Warning

MAINTENANCE

ACTION	RESULT
A – On the MCDU : – push (in) the LGCIU1 P/BSW – push (in) the NEXT PAGE P/BSW – push (in) the LANDING GEAR SIMULATION P/BSW. – push (in) the NOSE+LH+RH P/BSW – push (in) the UPLOCKED P/BSW.	On the MCDU : – the LGCIU1 menu shows – the LGCIU1 Page 2 menu shows – the LANDING GEAR SIMULATION page shows – the NOSE+LH+RH page menu shows – the UPLOCKED '<' goes off. On the ECAM lower DU : – the WHEELS page shows the wheels in the UP position and L/G CTL in amber. *Note : The amber crosses will stay on screen because the n° 2 LGCIU circuit breaker is open.* On 402VU : – the UNLK (red) indicator lights show. On the ECAM upper DU : – the L/G GEAR NOT DOWN display comes into view and after 30 seconds, L/G GEAR NOT DOWNLOCKED shows. On the panels 130VU and 131VU : – the MASTER WARN lights flash – you can hear the warning chime.
B – On the ECAM CP : – push (in) the EMER CANC P/BSW.	The warning chime stops. On the panels 130VU and 131VU : – the MASTER WARN lights go off. On 402VU : – the UNLK (red) indicator lights stay on.
C – on the MCDU – push (in) the DOWNLOCKED P/BSW.	On the ECAM upper DU : – the L/G GEAR NOT DOWN and L/G GEAR NOT DOWNLOCKED display goes out of view. – the UNLK (red) indicator lights go out and the LKD (green) indicator lights come on. On the ECAM lower DU : – the WHEELS page shows the wheels in the DOWN position. *Note : The amber crosses will stay on screen because the N° 2 LGCIU circuit breaker is open.*
D – Push (in) the RETURN P/BSW until the CFDS menu page shows.	– the CFDS menu page shows.
E – Push in the MCDU MENU P/BSW.	

11 – Close C/B 2GA, 1DA1, 1DA2, 3DA1, 3DA2, 3DA3, 4DA1, 4DA2, 4DA3, 5DA1, 5DA2 and 5DA3.
12 – Restore aircraft to required configuration.

32-60-03 Indications on ECAM WHEEL Page

MAINTENANCE

32-60-03Hb)	BRAKES TEMPERATURE – TEMPERATURE SENSOR DISCONNECTION	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1GW 4GG	HYDRAULIC/BRK/TEMP/DET/UNIT HYDRAULIC/BRAKING AND STEERING/SYS2/SPLY	121VU M37 121VU M36

PROCEDURE

1 – Open safety and tag, C/B 1GW and 4GG

2 – On the affected brake, disconnect the connector from the temperature sensor.

3 – Put a blanking cap on both connectors.

4 – Clean the electrical connector of the brake temperature sensor. Apply two or three turns of 20-30 mm wide self adhesive tape around the electrical connector.

5 – Tightly wind two or three turns of lockwire 0.8 mm, around the tape on the electrical connector.

6 – Twist the lockwire. Put it through the nearest locking hole.

Note : Make sure that the lockwire cannot rub when the L / G operates.

7 – Push C/B 1GW and 4GG.

8 – In flight compartment, install a temporary placard to warn the crew that the affected brake system temperature is inoperative.

32-60-03 Indications on ECAM WHEEL Page

MAINTENANCE

32-60-03Hb)	BRAKES TEMPERATURE – TEMPERATURE SENSOR DISCONNECTION	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1GW 4GG	HYDRAULIC/BRK/TEMP/DET/UNIT HYDRAULIC/BRAKING AND STEERING/SYS2/SPLY	121VU M37 121VU M36

PROCEDURE

1 – Open safety and tag, C/B 1GW and 4GG

2 – On the affected brake, disconnect the connector from the temperature sensor.

3 – Put a blanking cap on both connectors.

4 – Clean the electrical connector of the brake temperature sensor. Apply two or three turns of 20-30 mm wide self adhesive tape around the electrical connector.

5 – Tightly wind two or three turns of lockwire 0.8 mm, around the tape on the electrical connector.

6 – Twist the lockwire. Put it through the nearest locking hole.

Note : Make sure that the lockwire cannot rub when the L / G operates.

7 – Push C/B 1GW and 4GG.

8 – In flight compartment, install a temporary placard to warn the crew that the affected brake system temperature is inoperative.

32-60-03 Indications on ECAM WHEEL Page

MAINTENANCE

32-60-03Hb)	BRAKES TEMPERATURE – TEMPERATURE SENSOR DISCONNECTION	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1GW 4GG	HYDRAULIC/BRK/TEMP/DET/UNIT HYDRAULIC/BRAKING AND STEERING/SYS2/SPLY	121VU M37 121VU M36

PROCEDURE

1 – Open safety and tag, C/B 1GW and 4GG

2 – On the affected brake, disconnect the connector from the temperature sensor.

3 – Put a blanking cap on both connectors.

4 – Clean the electrical connector of the brake temperature sensor. Apply two or three turns of 20-30 mm wide self adhesive tape around the electrical connector.

5 – Tightly wind two or three turns of lockwire 0.8 mm, around the tape on the electrical connector.

6 – Twist the lockwire. Put it through the nearest locking hole.

Note : Make sure that the lockwire cannot rub when the L / G operates.

7 – Push C/B 1GW and 4GG.

8 – In flight compartment, install a temporary placard to warn the crew that the affected brake system temperature is inoperative.

BLANK

33-20-02 Cabin Signs (No Smoking/ Fasten Seat Belt/ Return to Seat)

MAINTENANCE

33-20-02	CABIN SIGNS (NO SMOKING/FASTEN SEAT BELT) – BLOCKAGE OF THE SEAT	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Do the operational test of the Cabin Signs (Ref. TASK AMM 23-73-00-710-017) and find the defective NS/FSB/RTS sign(s).

2 – Find the passenger seats from which you cannot see the serviceable NS/FSB/RTS sign.

3 – Put warning notices in position on these seats to tell the passengers not to use them.

Note : It must be possible to see a serviceable NS/FSB/RTS sign from every passenger seat that is in use.

33-50-07 EMER LIGHT TEST

MAINTENANCE

33-50-07-B	SYS TEST – OPERATIONAL TEST OF THE EMERGENCY LIGHTING SYSTEM	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2WL	LIGHTING/EMER LT/CABIN	49VU H06
1WL	LIGHTING/EMER LT/CABIN	49VU H05
3WL	LIGHTING/CABIN/EMER/LT	122VU V07

PROCEDURE

Note : The time taken to do the test should not exceed 3 minutes to prevent discharge of the emergency lighting batteries.

Do this test with the circuit breakers 1WL and 2WL on the circuit breaker panel 49VU.

ACTION	RESULT
1. In the cockpit, on the SIGNS panel 25VU : – set the EMER EXIT LT switch 4 WL to the ARM position.	In the cockpit, on the SIGNS panel 25VU : – the EMER EXIT LT OFF annunciator 5WL goes off.
2. On the circuit breaker panel 49VU : – open the circuit breakers 1WL and 2WL	In the cabin : – all ceiling emergency lights come on – all exit marking signs come on – all exit location signs come on – all emergency-escape hatch-handle lights come on
– close the circuit breakers 1WL and 2WL	– all emergency ceiling lights go off – all exit marking signs go off – all exit location signs go off – all emergency-escape hatch-handle lights go off
3. On the SIGNS panel 25VU : – set the EMER EXIT LT switch 4WL to the OFF position.	On the SIGNS panel 25VU : – the EMER EXIT LT OFF annunciator 5WL comes on.

De-energize the aircraft electrical circuits.

33-50-08 EMER EXIT LT OFF light on SIGNS overhead panel

MAINTENANCE

33-50-08	OPERATIONAL TEST OF THE EMERGENCY LIGHTING SYSTEM	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
2WL	LIGHTING/EMER LT/CABIN	49VU H06
1WL	LIGHTING/EMER LT/CABIN	49VU H05
3WL	LIGHTING/CABIN/EMER/LT	122VU V07

PROCEDURE

Note : The time taken to do the test should not exceed 3 minutes to prevent discharge of the emergency lighting batteries.

Do this test with the circuit breakers 1WL and 2WL on the circuit breaker panel 49VU.

ACTION	RESULT
1. In the cockpit, on the SIGNS panel 25VU : – set the EMER EXIT LT switch 4 WL to the ARM position.	In the cockpit, on the SIGNS panel 25VU : – the EMER EXIT LT OFF annunciator 5WL goes off.
2. On the circuit breaker panel 49VU : – open the circuit breakers 1WL and 2WL	In the cabin : – all ceiling emergency lights come on – all exit marking signs come on – all exit location signs come on – all emergency-escape hatch-handle lights come on
– close the circuit breakers 1WL and 2WL	– all emergency ceiling lights go off – all exit marking signs go off – all exit location signs go off – all emergency-escape hatch-handle lights go off

3. Set the EMER EXIT LT switch 4WL on the SIGNS panel 25VU to the OFF position.
4. De-energize the aircraft electrical circuits.

BLANK

35-10-02 Indications on DOOR/OXY ECAM Page

MAINTENANCE

35-10-02-A)	OXY HIGH PRESSURE INDICATION – DIRECT READING		
ACCESS ZONE :	812	ACCESS ITEM :	5750 HM
GSE :			
ASSOCIATED CIRCUIT BREAKERS			
FIN	DESIGNATION		LOCATION

PROCEDURE

1 – Put the acess platform in position.

2 – OPEN the access door 812.

3 – Check the OXYGEN pressure on the direct reading pressure gage.

4 – Close the access door 812.

5 – Remove the access platform.

6 – Transmit the reading to the crew.

BLANK

36-11-02 Bleed valve (PRV)

MAINTENANCE

36-11-02	BLEED VALVE (PRV) – CLOSURE PROCEDURE	
ACCESS ZONE :	437 AL, 451 AL, 438 AR 447 AL, 461 AL, 448 AR	**ACCESS ITEM :** Direct
GSE :	access platform 0.5 m (1 ft. 8 in.)	

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
3HA1	AIR BLEED/ENG 1/CTL	49VU D12
2HA1	AIR BLEED/ENG 1/MONG	49VU D11
3HA2	AIR BLEED/ENG 2/CTL	122VU Z23
2HA2	AIR BLEED/ENG 2/MONG	122VU Z22

PROCEDURE

WARNINGS : MAKE SURE THAT THE PNEUMATIC SYSTEM IS DEPRESSURIZED BEFORE YOU START WORK ON THE PNEUMATIC SYSTEM.
BE CAREFUL WHEN YOU WORK ON ENGINE COMPONENTS IMMEDIATELY AFTER THE ENGINE IS SHUTDOWN. THE ENGINE COMPONENTS CAN STAY HOT FOR UP TO ONE HOUR.

1 – Energize the aircraft electrical circuits.
2 – Make sure that the engine 1(2) is shutdown occurred not less than five minutes.
3 – On panel 50VU :
. Make sure that the ON legend of the ENG/FADEC GND PWR 1(2) p/b switch is off.
. Put a warning notice to tell persons not to energize the FADEC 1(2).
4 – On panel 30VU :
. Make sure that the ENG 1(2) BLEED P/B switch is released (the OFF legend is on).
. Make sure that the APU BLEED P/B switch is released (the ON legend is off).
5 – Open, safety and tag these C/Bs : 3HA1, 2HA1, 3HA2, 2HA2.
6 – Open the fan cowl door : For 1000EM1 (437AL, 438AR)
For 1000EM2 (447AL, 448AR)
7 – Make the thrust reverser unserviceable.
8 – Open the left thrust reverser cowl door : For 1000EM1 (451AL)
For 1000EM2 (461AL)
9 – Deactivate the Bleed Pressure Regulator Valve as follows :
. On the Bleed Pressure Regulator Valve (4001HA) :
. Use a hexagonal wrench to set the manual override control to the CLOSED position.
. Remove and discard the lockwire from the locking pin (1).
. Lock the override control (the pressure of the valve is released when you remove the locking pin from its storage port).
. TORQUE the locking pin (1) to between 0.8 and 0.9 m.daN (70.79 and 79.64 lbf.in) if the locking pin head is hexagonal.
. Manually tighten the locking pin (1) if the locking pin is a knurled knob.

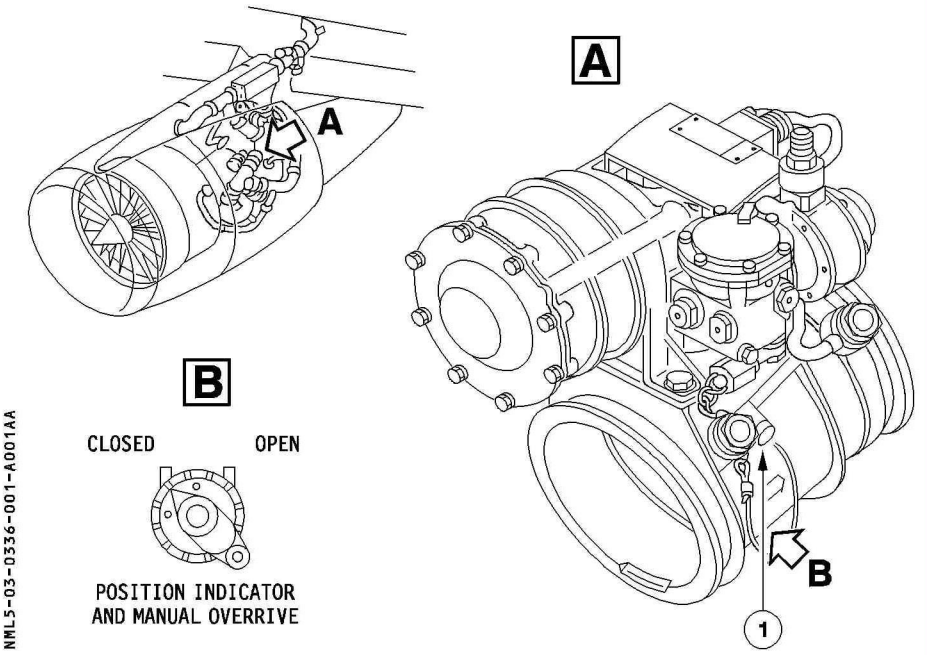
(continued)

(continued)

36-11-02 Bleed valve (PRV)

MAINTENANCE

10 – On the ECAM control panel, push the BLEED key (on the SD, the BLEED page comes into view).
On the SD, on the BLEED page :
– The related bleed valve is shown fully closed.
11 – Close the left thrust reverser cowl door.
12 – Make the thrust reverser serviceable.
13 – Close the Fan cowl door.
14 – Remove the warning notice(s).
15 – Put a warning notice in the cockpit to tell the crew that the left (right) bleed pressure regulator valve is closed and deactivated.
16 – Close the C/Bs : 2HA1, 2HA2, 3HA1, 3HA2.
17 – Restore the Aircraft to the required configuration.



36-11-06 Intermediate Pressure Check Valve (IP)

MAINTENANCE

36-11-06	IP CHECK VALVE – HP VALVE CLOSURE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 36-11-07 in Section 03

36-11-07 High Pressure valve (HPV)

MAINTENANCE

36-11-07	HP VALVE – HP VALVE CLOSURE	
ACCESS ZONE :	437 AL, 451 AL (447 AL, 461 AL)	**ACCESS ITEM :** direct
GSE :	access platform 0.5 m (1 ft. 8 in.)	

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
3HA1	AIR BLEED/ENG 1/CTL	49VU D12
2HA1	AIR BLEED/ENG 1/MONG	49VU D11
3HA2	AIR BLEED/ENG 2/CTL	122VU Z23
2HA2	AIR BLEED/ENG 2/MONG	122VU Z22

PROCEDURE

1 – Energize the aircraft electrical circuits.
2 – Make sure that the engine 1(2) is shutdown occurred not less than five minutes.
3 – On panel 30VU :
. Make sure that the ENG 1(2) BLEED P/B switch is released (the OFF legend is on).
. Make sure that the APU BLEED P/B switch is released (the ON legend is off).
4 – On panel 50VU :
. Make sure that the ON legend of the ENG/FADEC GND PWR 1(2) P/B switch is off.
. Put a warning notice to tell persons not to energize the FADEC 1(2).
5 – Open, safety and tag these C/Bs : 3HA1, 2HA1, 3HA2, 2HA2.
6 – Open the fan cowl doors : For 1000EM1 (437AL, 438AR)
For 1000EM2 (447AL, 448AR)
7 – Make the thrust reverser unserviceable.
8 – Open the left thrust reverser cowl door : For 1000EM1 (451AL)
For 1000EM2 (461AL)
9 – Deactivate the HP Bleed Valve as follows :
. On the HP Bleed Valve (4000HA) :
. Use a hexagonal wrench to set the manual override control to the CLOSED position.
. Use the locking pin (1) to lock this override control.
10 – Close the left thrust reverser cowl door.
11 – Make the thrust reverser serviceable.
12 – Close the Fan cowl door.
13 – Remove the warning notice(s).
14 – Close the C/Bs : 2HA1, 2HA2, 3HA1, 3HA2.
15 – Put the aircraft back to the serviceable condition.

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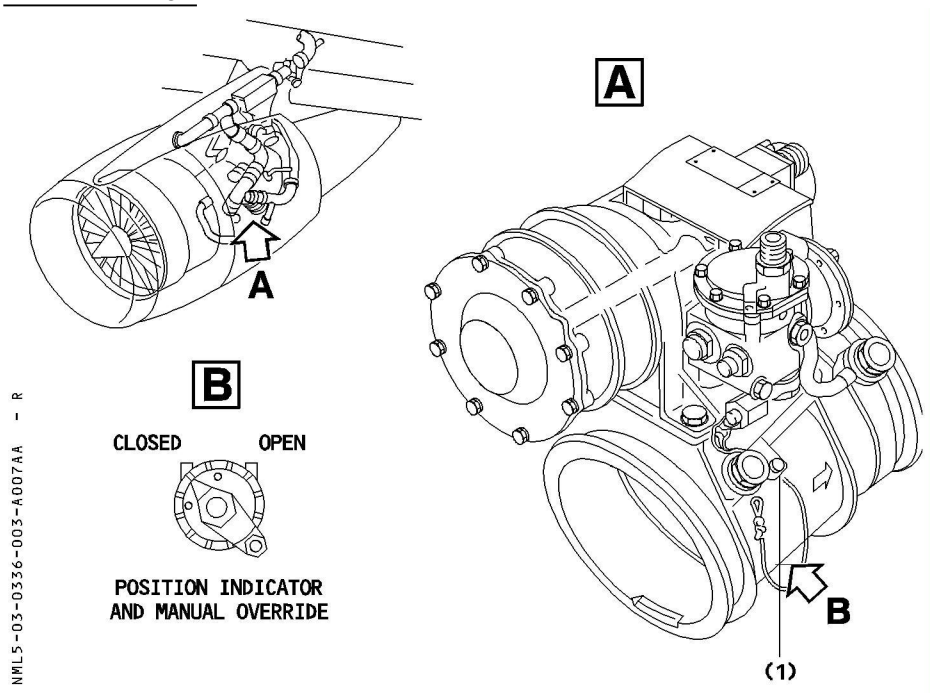
36-11-07 High Pressure valve (HPV)

MAINTENANCE



36-12-02 APU BLEED valve

MAINTENANCE

36-12-02	APU BLEED VALVE – CLOSURE PROCEDURE	
ACCESS ZONE : 315AL, 316AR		**ACCESS ITEM** :
GSE : Access platform 3.5 m – Blanking caps		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1KD 2KD 1HV	APU / ECB / SPLY APU / APU / CTL AIR BLEED / X FEED VALVE / NORM	121VU L41 121VU L42 122VU Z20

PROCEDURE

WARNING : DO NOT TOUCH THE APU UNTIL IT IS SUFFICIENTLY COOL TO PREVENT BURNS WHEN YOU DO THE MAINTENANCE TASK(S).

1 – Energize the ground service network.
2 – On the panel 25VU, make sure that the APU MASTER SW P/B SW is OFF.
3 – Put a warning notice in the cockpit to tell persons not to start the APU.
4 – Make sure that hydraulic systems are depressurized.
5 – Open, safety and tag C/B(s) : 1KD, 2KD, 1HV.
6 – Put the access platform in position below the APU access doors 315AL and 316AR.
7 – Open the APU access doors 315AL, 316AR.
8 – Set the LIGHT control SW 11LJ to the ON position.
9 – Make sure that the APU load control-valve position-indicator on the valve body shows the CLOSED position.
10 – Disconnect the APU load control-valve electrical plug (P12) and attach it to the aircraft structure with adhesive tape.
11 – Put blanking caps on the disconnected electrical connectors.
12 – Install a placard to tell that the APU Load Control Valve is deactivated.
13 – Make an entry in the aircraft technical logbook.
14 – Make sure that the work area is clean and clear of tool(s) and other items.
15 – Set the LIGHT control SW 11LJ to the OFF position.
16 – Close the APU access doors 315AL, 316AR.
17 – Remove the safety clip(s) and the tag(s) and close C/B(s) : 1KD, 2KD, 1HV.
18 – Put the aircraft back to the serviceable condition.

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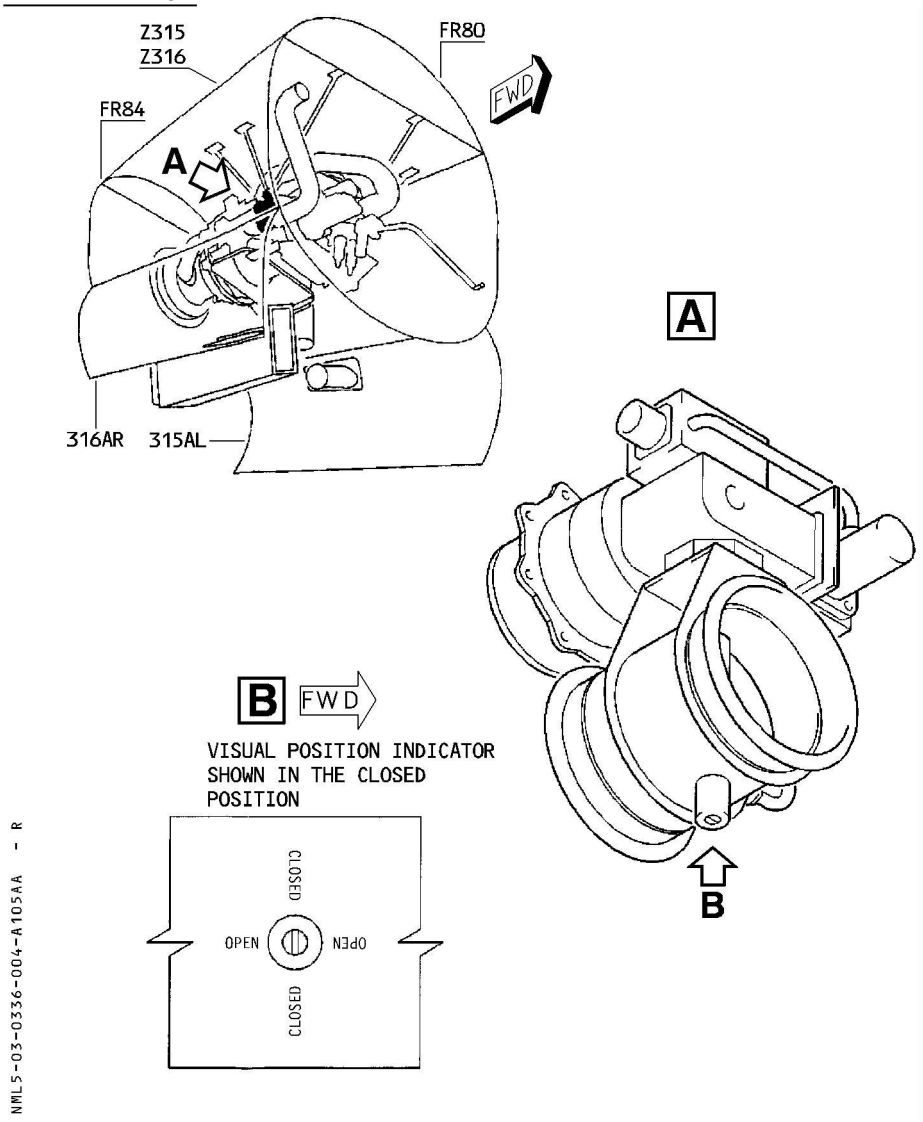
36-12-02 APU BLEED valve

MAINTENANCE



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49-10-02 Air Intake Flap

MAINTENANCE

49-10-02	APU AIR INTAKE FLAP – OPENING PROCEDURE	
ACCESS ZONE :		ACCESS ITEM :
GSE : Access platform 3 m		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1KD 2KD	APU / ECB / SPLY APU / APU / CTL	121 VU 41L 121 VU 42L

PROCEDURE

WARNING : – DO NOT TOUCH THE APU UNTIL IT IS SUFFICIENTLY COOL TO PREVENT BURNS WHEN YOU DO THE MAINTENANCE TASK(S).

– LOCK THE MECHANISM OF THE ACCESS DOOR 316AR WITH THE PIP PIN WHEN YOU OPEN THE ACCESS DOOR. THIS WILL PREVENT INJURY.

– MAKE SURE THAT THE AIR INTAKE FLAP IS FULLY EXTENDED BEFORE YOU INSTALL THE TEMPORARY CONNECTOR. IF NOT, YOU WILL CAUSE DAMAGE TO THE APU.

1 – Put the access platform below the maintenance door 314 AR.
2 – Open the maintenance door 314 AR.
3 – Open, safety and tag C / B 1 KD and 2 KD.
4 – Disconnect the electrical connector from the fixed connector 7527 VC located at the maintenance frame of the air intake-flap actuator at FR 78.
5 – Install a blanking cap to the free electrical connector and attach the connector to the maintenance frame. Use a TYRAP.
6 – Release the fasteners in the access plate of the maintenance frame and remove the access plate from the maintenance frame.
7 – Put a torque wrench in position on the manual-drive device of the air intake-flap actuator.
8 – Turn the manual drive shaft on the air intake flap actuator until the air intake flap is in the fully open position.

(continued)

(continued)

49-10-02 Air Intake Flap

MAINTENANCE

Notes : 1. Make sure that the torque necessary to turn the manual drive shaft is not greater than 0.3 mdaN (26.55 lbf.in) for the actuator 43-1-1100 Amendment 1, (respectively 0.4 mdan (35.4 lbf.in) for the actuator 106-1-1100-02). Be careful when you come to the mechanical stop at the travel ends. If you turn the manual drive shaft with a torque which is more than the limit, damage to the air intake flap actuator 4015 KM will occur.

2. Approximately 47 turns for the actuator 43-1-1100, Amdt. 1 (respectively 87 turns for the actuator 106-1-1100-02) are necessary on the manual drive shaft for one full travel of the air intake flap actuator 4015 KM.

9 – Use a dummy connector to close the electrical control circuit between the ECB 59 KD and the air intake-flap actuator. Do the subsequent step to make the dummy connector.

(1) Connect a jumper lead, made from wire CF24 gauge between the pins C and D of the connector-E0052R14B12PNF.

(2) Hold the jumper lead in position on the connector with the backshell E0080-01-14C.

(3) Paint the dummy connector red with STRUCTURE PAINTS (Material No 16-018) to make sure that the dummy connector is easily identified.

10 – Connect the dummy connector to the connector 7527 VC.
11 – Put the access plate in position on the maintenance frame and lock the fasteners.
12 – Make sure that the work area is clean and clear of tools and other items.
13 – Close the maintenance door 314 AR.
14 – Remove the safety clip(s) and the tag(s) and close this(these) circuit breaker(s) : 1KD, 2KD.
15 – Remove the access platform(s).
16 – Put a warning notice in the cockpit to tell persons that the air intake-flap actuator is de-activated in the OPEN position.

Note : After the reactivation of the air intake flap, a detailed visual inspection of the air intake components must be made, augmented by tap testing of all readily accessible bonding surfaces (acoustically treated or not) exposed to the airstream.

52-10-01 Cabin Passenger Door

MAINTENANCE

Refer to Operational procedures.

52-10-01 Cabin Passenger Door

MAINTENANCE

Refer to Operational procedures.

52-10-01 Cabin Passenger Door/Emergency Exit

MAINTENANCE

Refer to Operational procedures.

52-10-02 Overwing Emergency Exit

MAINTENANCE

Refer to item 52-10-01 operational procedures.

52-10-02 Overwing Emergency Exit

MAINTENANCE

Refer to item 52-10-01 operational procedures.

52-30-01 Cargo door actuator

MAINTENANCE

52-30-01	CARGO DOOR ACTUATOR OPERATION OF A CARGO COMPARTMENT DOOR WITH A CRANE	
ACCESS ZONE : 831-841-832-842	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

CAUTION : The door can be operated using a crane provided the actuators have been removed. Apply following procedure for actuators removal.

I. REMOVAL OF DOOR ACTUATORS (See Fig I)

Note : Make sure that the SUPPORT STRUT-CARGO DOORS (98D52307524000) are installed between the cargo door and the fuselage frame.

1. Depressurize the Yellow hydraulic system.
2. Depressurize the reservoir of the Yellow hydraulic system.
3. Put the container below the hydraulic connections of the door actuator to collect the hydraulic fluid.
4. Disconnect the electrical connector (27) from the door actuator (16) and put blanking caps on the disconnected electrical connectors.
5. Remove the bonding jumpers (14) and (19) from the door actuator (16).
6. Disconnect the hydraulic connections (28) and (29) from the door actuator (16) and install blanking plugs in the open ports and blanking caps on the flexible hoses (28) and (29).
7. Disconnect the door actuator (16) from the cargo door structure.
8. Disconnect the door actuator (16) from the fuselage structure.

II. OPENING OF A CARGO COMPARTMENT DOOR USING A CRANE (See Fig II)

1. Push the handle flap in and pull the locking handle away from the cargo door.

Note : Make sure that you can see the red mark of each safety cam through the indication windows of the access panel 825AR and/or 826AR.

2. Turn the locking handle down to the UNLOCKED position.
3. Attach the SLING – CARGO DOORS (98A52307529001) (1) to the crane.
4. Remove the plastic plug (4) from the lower hoist fitting (3).
5. Install the hoisting lug (2) with the eye-end outboards into the lower hoist fitting (3).
6. Attach the fastener of the sling (1) to the eye-end of the lower hoisting lug (2).
7. Operate the crane to lift the cargo door in the open position.
8. Install the SUPPORT STRUT – CARGO DOORS (98D52307524000) between the cargo door and the fuselage frame.

(continued)

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52-30-01 Cargo door actuator

MAINTENANCE

III. CLOSURE OF A CARGO COMPARTMENT DOOR USING A CRANE (See Fig II)

1. Operate the crane until the sling (1) is tight.
2. Remove the support struts from the cargo door and the fuselage frames.
3. Operate the crane so that the cargo door moves slowly down to its vertical position.
4. Loosen the fastener of the sling (1) from the eye end of the lower hoisting lug (2).
5. Push the cargo door manually into the fuselage opening so that you can turn the locking handle.
6. Turn the locking handle up to the LOCKED position and push it into the recess of the handle flap.
7. Remove the SLING – CARGO DOORS from the crane.
8. Remove the hoisting lug (2) from the lower hoist fitting (3).
9. Install the plastic plug (4) in the lower hoist fitting (3).
10. Make sure that the applicable cargo door is correctly closed and locked.
    NOTE : Make sure that you can see the green mark of each safety cam through the indication windows of the access panel 825AR and/or 826AR.

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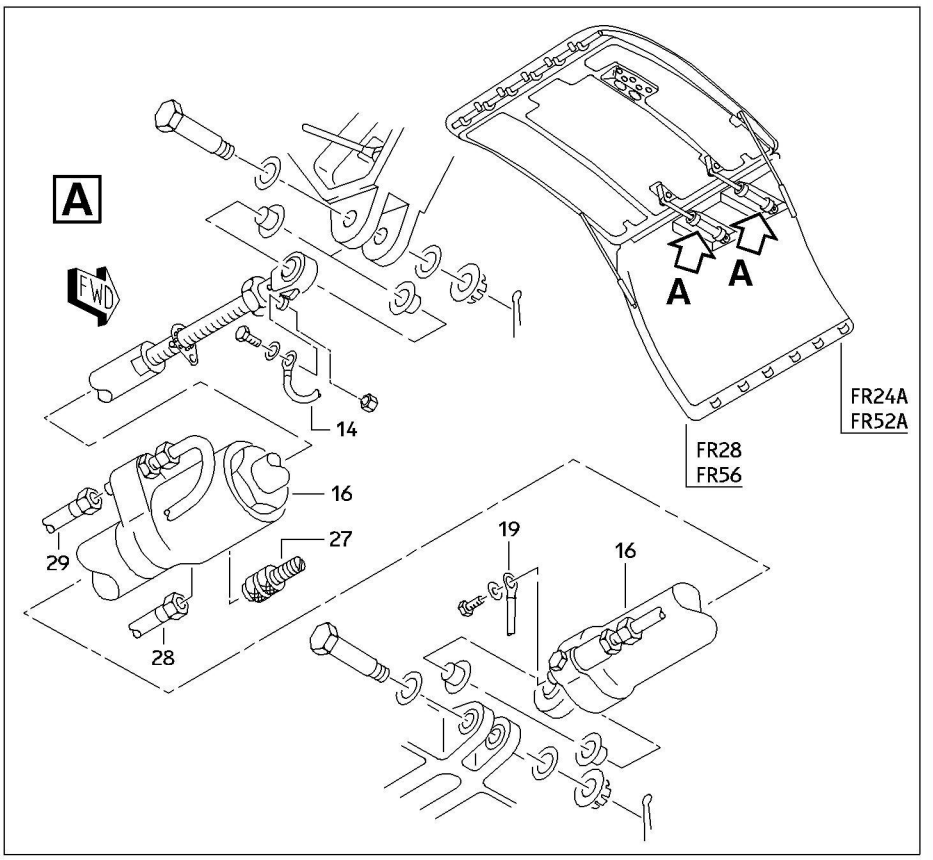
52-30-01 Cargo door actuator

MAINTENANCE

I - REMOVAL OF DOOR ACTUATORS



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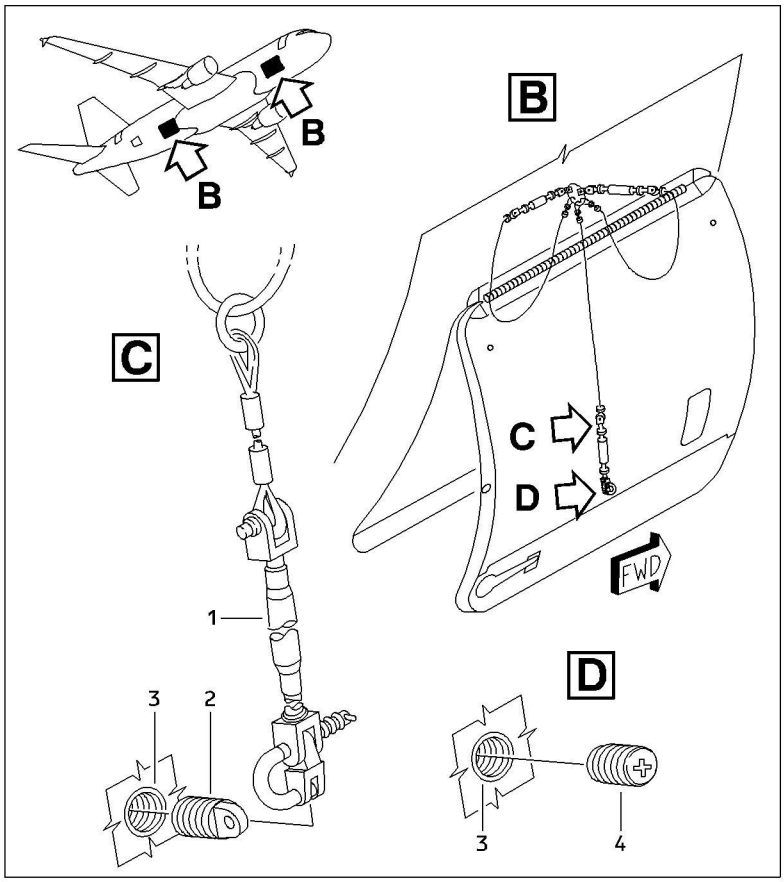
52-30-01 Cargo door actuator

MAINTENANCE

II - III - OPENING (CLOSURE OF THE DOOR)



52-30-04 Cargo Doors

MAINTENANCE

52-30-04	CARGO DOORS - CHECK THAT DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

REFER TO MMEL ITEM : 52-70-01 C) in Section 03

52-33-01 Cargo Door Balance Mechanism

MAINTENANCE

52-33-01	BULK CARGO DOOR BALANCE MECHANISM	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

I – Install a placard on the bulk cargo door to warn ground personnel that bulk cargo door balance mechanism is inoperative.

II – When opening the bulk cargo door
- 1 – Push door upwards until hook engages
- 2 – Use strap or rope holder for additional device to safely maintain the door in open position.

III – When closing the bulk cargo door
- 1 – Remove the strap or rope holder
- 2 – Support the door before handle is turned in "OPEN" position to release hook.
- 3 – Lower the door slowly to the closed position.
- 4 – After the handle is turned to the "LOCKED" position, check that door is correctly locked, door skin faired with fuselage and outer door handle faired with door.

52-50-02 Cockpit Door Locking System (CDLS)

MAINTENANCE

52-50-02	COCKPIT DOOR - DEACTIVATION IN THE UNLOCKED POSITION	
ACCESS ZONE :		ACCESS ITEM : Direct
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1MQ	DOORS/PAX/MONG	122VU T13

PROCEDURE

This procedure applies to comply with the general note at the beginning of the MMEL Item 01-52-50-02 (Cockpit Door Locking System (CDLS)).

1 – Make sure that access to the flight compartment is available.
2 – Make sure that the aircraft electrical circuits are energized.
3 – Open, safety and tag C/B 1MQ.
4 – Put the aircraft back to the serviceable condition.

52-50-02 C) FAULT Light

A procedure has to be performed before the first flight under this item to check that with the COCKPIT DOOR toggle switch in the NORM position the three latches of the door are maintained in the lock position. This can be performed by a manual inspection: pushing the latches and visually confirming they remain in their position.

(continued)

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52-50-02 Cockpit Door Locking System (CDLS)

MAINTENANCE

52-50-02-D-E-a)	COCKPIT DOOR - DEACTIVATION OF THE KEYPAD	
ACCESS ZONE :	ACCESS ITEM : Direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1MQ	DOORS/PAX/MONG	122VU T13

PROCEDURE

1 – Make sure that the aircraft electrical circuits are energized.
2 – Make sure that access to the cockpit is available.
3 – Open, safety and tag C/B : 1MQ.
4 – Deactivation of the Keypad on the Control Unit.

CAUTION : MAKE SURE THAT THE COCKPIT DOOR DOES NOT CLOSE DURING THE DEACTIVATION PROCEDURE, WHEN NO PERSON IS IN THE COCKPIT.

Note : If the cockpit door closes during deactivation procedure and no person is in the cockpit, de-energize the aircraft electrical circuits to open the cockpit door from the cabin.

– Hold the front face of the control unit (1) and loosen the captive screws (2).
– Carefully remove the control unit (1) until you can get access to the electrical connector (4).
– Disconnect the electrical connector (4) from the receptacle (3) and put blanking caps on disconnected connector and on receptable.
– Safety the electrical connectors (4) with tie-raps on the adjacent fuselage structure.
– Carefully install the control unit (1) and tighten the captive screws (2).
– Put a warning notice on the overhead panel to tell persons that the keypad is deactivated.

5 – Close-up
– Remove safety clip and tag and close C/B : 1MQ.
– Put the aircraft back to the serviceable condition.
– Make an entry in the aircraft technical log that the keypad is deactivated.

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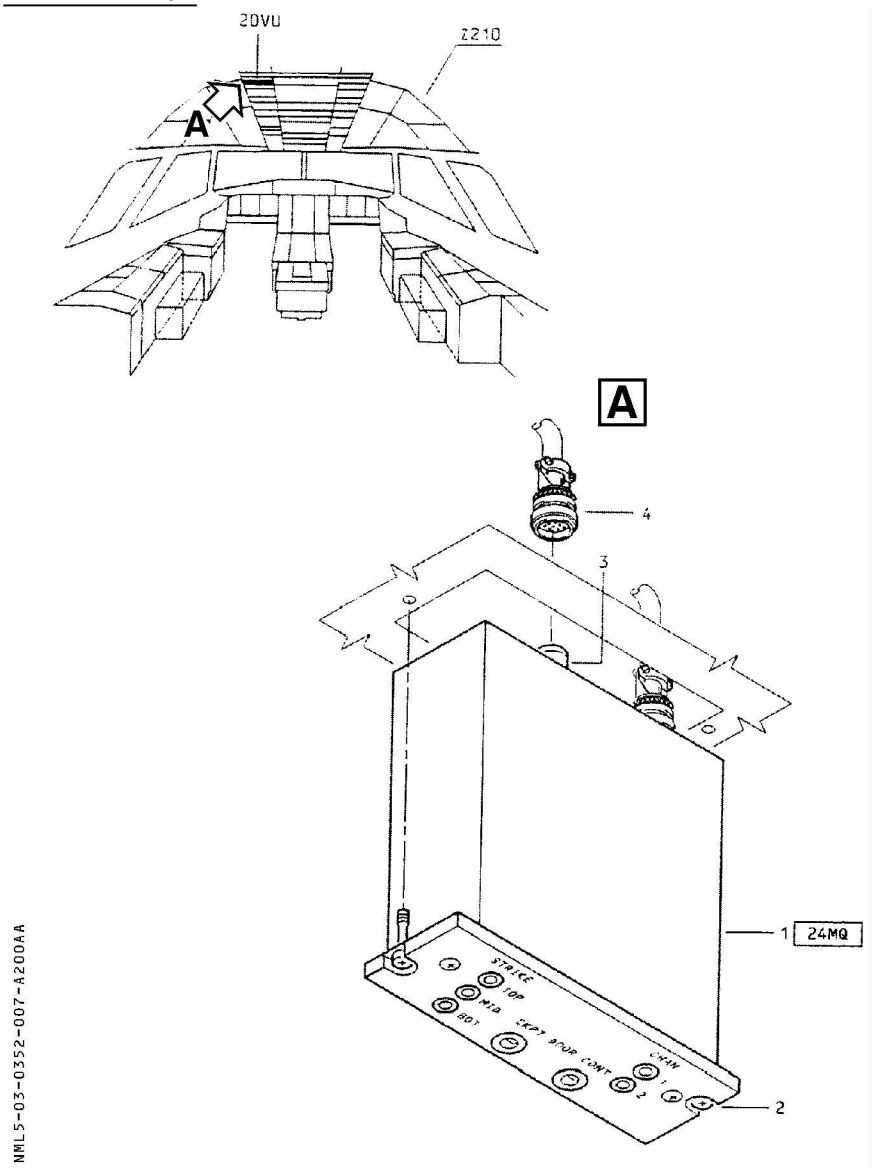
52-50-02 Cockpit Door Locking System (CDLS)

MAINTENANCE



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52-50-02 Cockpit Door Locking System (CDLS)

MAINTENANCE

52-50-02-F	DEACTIVATION OF THE DOOR RELEASE STRIKE	
ACCESS ZONE :	ACCESS ITEM : Direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1MQ	DOORS/PAX/MONG	122VU T13

PROCEDURE

1 – Make sure that the aircraft electrical circuits are energized.
2 – Make sure that access to the flight compartment is available.
3 – Make sure that this circuit breaker is open, safetied and tagged : 1MQ.
4 – Turn the D-ring of the latch mechanism and open the cockpit door.
5 – Manually move the catch of the defective electrical release strike to check that it moves freely.
6 – If the plunger causes a blockage of the catch, remove the defective electrical release strike (Ref. AMM TASK 52-51-12-000-001).

Note : Do not disconnect the jiffi junction connectors at the A/C wire harness for isolation reasons to prevent a short circuit.

7 – If the catch moves freely, disconnect the A/C wire harness from the applicable electrical release strike cables ESPM 204825 and AWM 52-51-02.

Note : Do not disconnect the jiffi junction connectors at the A/C wire harness for isolation reasons to prevent a short circuit.

8 – Make sure that the remaining electrical release strikes operate satisfactorily (Ref. AMM TASK 52-51-00-710-001).
9 – Put a warning notice on the door post to tell persons that the applicable electrical release strike is deactivated or removed.
10 – Remove the safety clip and the tag and close this circuit breaker : 1MQ.
11 – Put the aircraft back to the serviceable condition.

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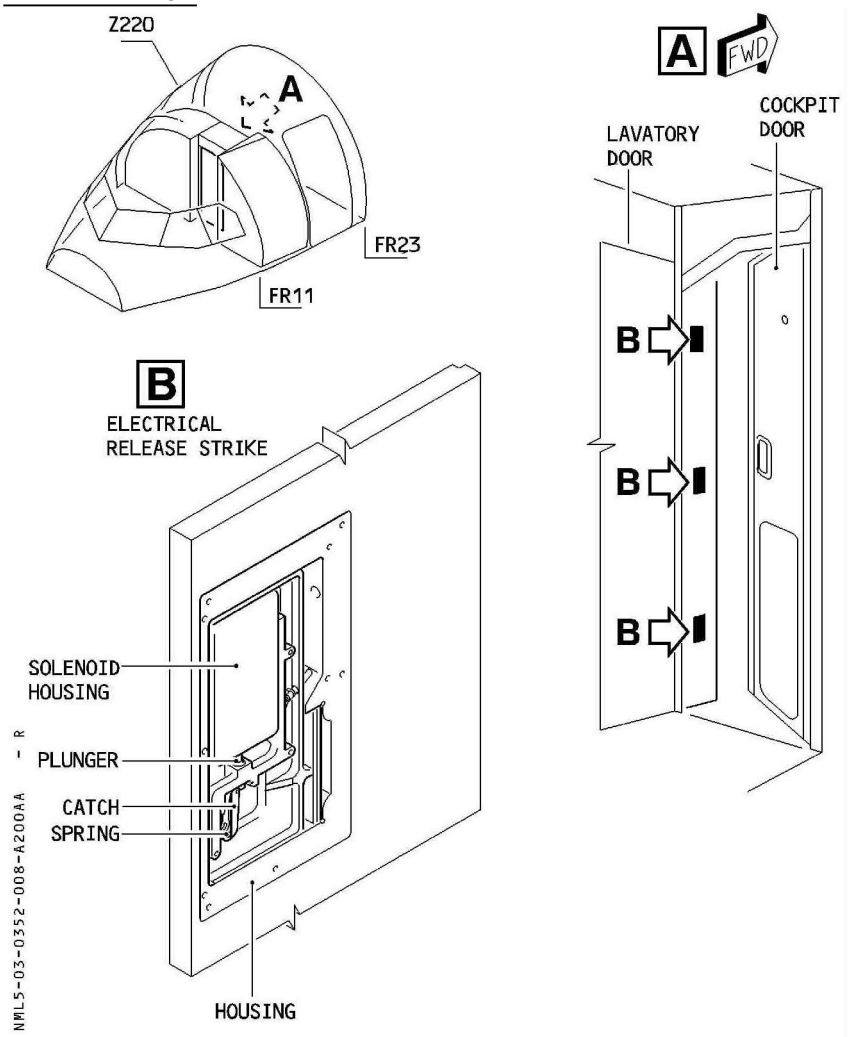
52-50-02 Cockpit Door Locking System (CDLS)

MAINTENANCE



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52-50-02 Cockpit Door Locking System (CDLS)

MAINTENANCE

52-50-02-G-a	CHECK OF THE REMAINING PRESSURE RATE SENSOR	
ACCESS ZONE :		**ACCESS ITEM :**
GSE :	– NORTHWEST AEROSPACE TECHNOLOGIES (NAT) P/N 37 N 00001-3 or – VACUUM PUMP	
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**

PROCEDURE

1 – Make sure that access to the cockpit is available.
2 – Energize the aircraft electrical circuits
3 – Make sure that the C/B 1MQ is closed.
4 – Verification of the remaining Pressure Rate Sensor
  – Do the test to make sure that the remaining pressure sensor in the control unit 24MQ operates correctly.
  – Simulate a rapid decompression of the cabin pressure with a Northwest Aerospace Technologies (NAT) or vacuum pump.

Note : If LED CHAN 1 is on, examine RH pressure sensor hole.
If LED CHAN 2 is on, examine LH presure sensor hole.

ACTION	RESULT
On the CKPT DOOR CONT Panel 20VU :	On the Cockpit Door :
– put the Northwest Aerospace Technologies (NAT) or the vacuum pump in the applicable pressure sensor hole and operate it.	– you can hear a clacking noise from the solenoids of the electrical release strikes.
– remove the Northwest Aerospace Technologies (NAT) or the vacuum pump from the pressure sensor.	– the electrical strike-release units operate automatically to lock the cockpit door.

5 – Put the aircraft back to the serviceable condition.

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01-A)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01 when a door is erroneously indicated open.

Note : This procedure applies when the white SLIDE ARMED light fitted on the door is illuminated together with the erroneous door indication. The intent of this procedure is to clear the warning by cleaning or changing the door handle switch. A failure of this switch erroneously indicating the door in open position may result in the slide integrated lighting system permanent illumination.

PROCEDURE

1) Open affected door

2) On the affected door, get access to the following proximity switch :
   13WV1 if L FWD door affected
   13WV2 if R FWD door affected
   17WV1 if L AFT door affected
   17WV2 if R AFT door affected

   a – Remove the door lining panels
   831 EZ and 831 CZ if 13WV1 affected
   841 EZ and 841 CZ if 13WV2 affected
   832 EZ and 832 CZ if 17WV1 affected
   842 EZ and 842 CZ if 17WV2 affected

   b – Remove the insulation blankets

3) Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth

4) Check if cleaning the proximity switch has cleared the warning

   – If door indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 8.
   – If door indication is still erroneous, continue with step 5.

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

5) Replace the applicable proximity switch
   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
      – Remove the proximity switch of the avionics compartment door
      – Install the proximity switch of the avionics compartment door on the affected passenger door.

6) Adjust the proximity switch (see Fig.)
   a – Close the door
   b – Remove the nut (3) and the washer (4)
   c – Turn the target (2) until the symbol of the door is green on ECAM DOOR page
      Note : the target (2) and the proximity switch (1) must not touch
   d – Turn the target (2) in the opposite direction until the symbol of the door is amber on ECAM DU.
   e – From this position, screw the target (2) by two turns to two turns and a half.
   f – Install the washer (4) and the nut (3)
   g – Torque the nut to between 0.3 and 0.4 daN (26.54 and 35.39 lbf.in) and safety the nut with the washer (4).

7) Check if changing the proximity switch has cleared the warning
   – If door indication is normal, aircraft can be operated, go to step 8
      Note : If switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01 D) will apply if indication is erroneous.
   – If door indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

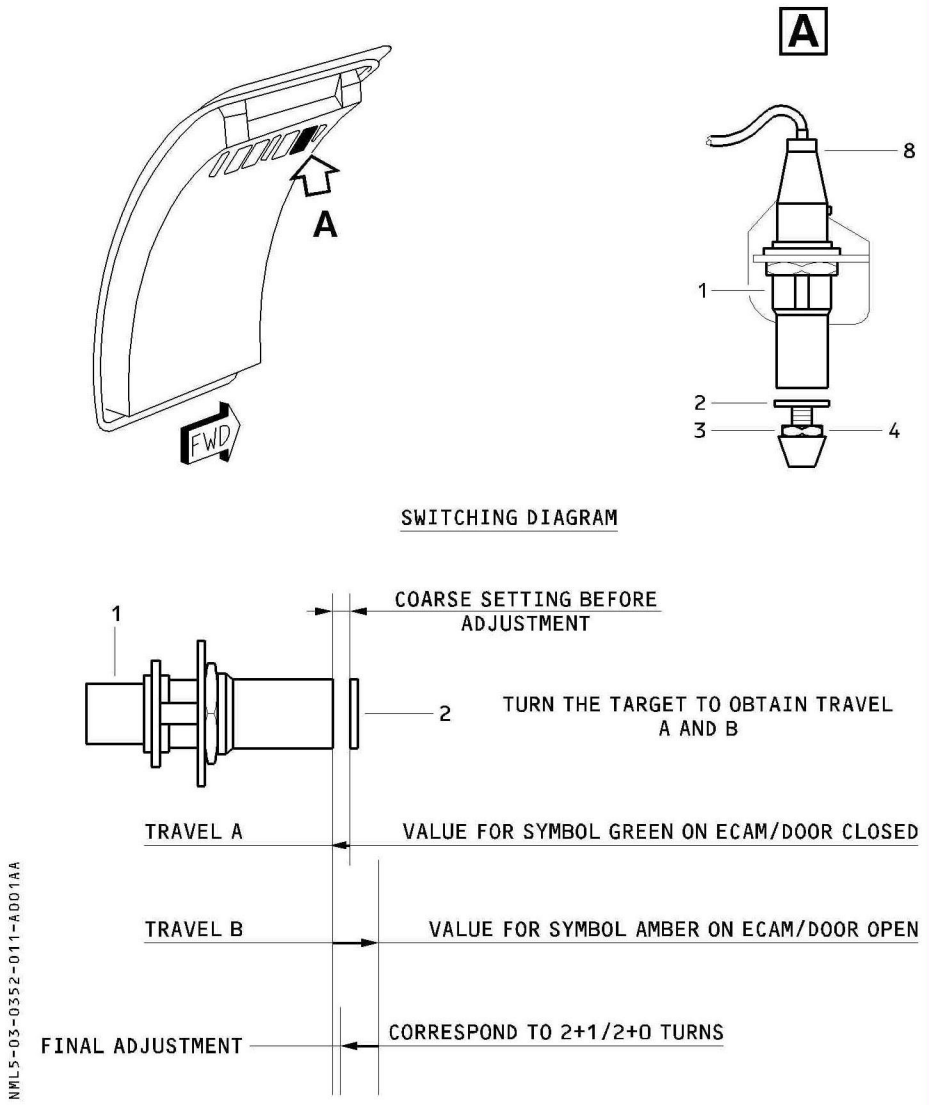
8) Put the aircraft back to the serviceable condition.
   a) re-install insulation blankets
   b) re-install door lining panels.

(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01-A)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01 when a door is erroneously indicated closed.

Note : This procedure applies when a door is erroneously indicated closed.
This failure may occur when both switches fitted on the door are failed in the door closed position (ground signal).
The intent of this procedure is to clear the erroneous indication by cleaning or changing the door handle switch.
Changing only this switch would permit to recover a normal indication and to have the slide integrated lighting system normally operative.
The second switch (door hook switch) will have to be trouble shooted at the first opportunity, when repairs are made.

PROCEDURE

1) Open affected door

2) On the affected door, get access to the following proximity switch :
   13WV1 if L FWD door affected
   13WV2 if R FWD door affected
   17WV1 if L AFT door affected
   17WV2 if R AFT door affected

   a – Remove the door lining panels
   831 EZ and 831 CZ if 13WV1 affected
   841 EZ and 841 CZ if 13WV2 affected
   832 EZ and 832 CZ if 17WV1 affected
   842 EZ and 842 CZ if 17WV2 affected

(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

b – Remove the insulation blankets

3) Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth
4) Check if cleaning the proximity switch has cleared the false indication
   – If door indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 8.
   – If door indication is still erroneous, continue with step 5.
5) Replace the applicable proximity switch
   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
      – Remove the proximity switch of the avionics compartment door
      – Install the proximity switch of the avionics compartment door on the affected passenger door.
6) Adjust the proximity switch (see Fig.)
   a – Close the door
   b – Remove the nut (3) and the washer (4)
   c – Turn the target (2) until the symbol of the door is green on ECAM DOOR page
   Note : the target (2) and the proximity switch (1) must not touch
   d – Turn the target (2) in the opposite direction until the symbol of the door is amber on ECAM DU.
   e – From this position, screw the target (2) by two turns to two turns and a half.
   f – Install the washer (4) and the nut (3)
   g – Torque the nut to between 0.3 and 0.4 daN (26.54 and 35.39 lbf.in) and safety the nut with the washer (4).
7) Check if changing the proximity switch has cleared the false indication
   – If door indication is normal, aircraft can be operated, go to step 8
   Note : If switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01 D) will apply if indication is erroneous.
   – If door indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.
8) Put the aircraft back to the serviceable condition
   a) re-install insulation blankets
   b) re-install door lining panels.

(continued)

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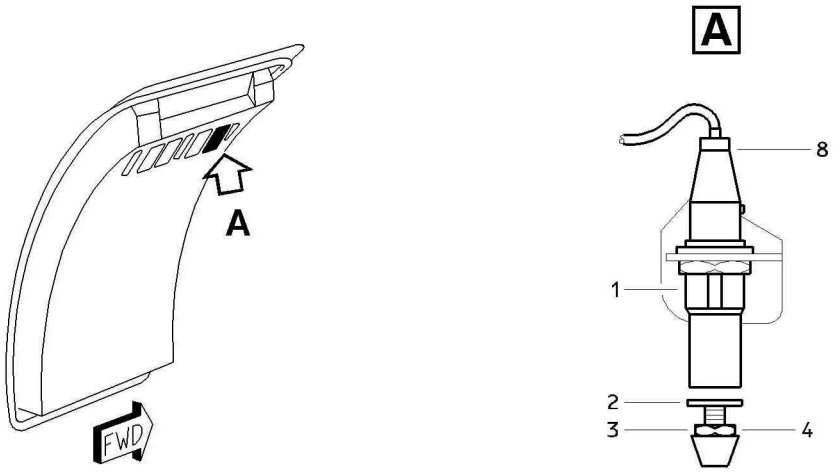
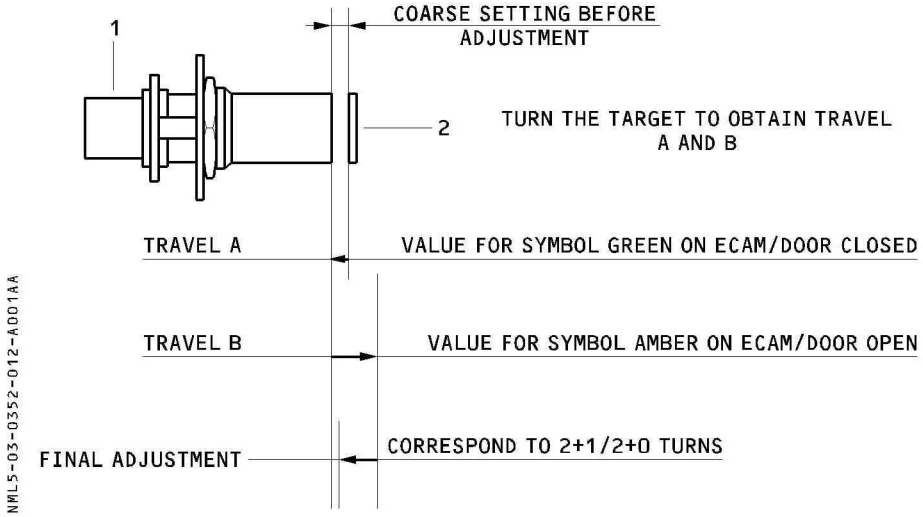
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



SWITCHING DIAGRAM



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 B)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01
– either when an exit is erroneously indicated open
– or when an exit is erroneously indicated closed.
The intent of the procedure is to clear the false indication by cleaning or changing the handle flap proximity switch. A failure of this switch may lead to the slide integrated lighting system being inoperative.

PROCEDURE

1) Pull down the cover flap from the affected emergency exit hatch and remove it.

2) Clean the proximity switch using isopopyl alcohol and lint-free cotton cloth.

3) Check if cleaning the proximity switch has cleared the false indication
   – If exit indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary Go to step 7.
   – If exit indication is still erroneous, continue with step 4.

4) Replace the applicable proximity switch.

   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected exit by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
         – Remove the proximity switch of the avionics compartment door
         – Install the proximity switch of the avionics compartment door on the affected exit.

(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

5) Adjust the proximity switch
   a – make sure that the emergency exit hatch is correctly installed
   b – make sure that the cover flap is correctly engaged on the hatch lining
   c – make sure that the target and the proximity sensor align
   Note : If they do not align, adjust the support bracket and/or the target bracket as necessary.
   d – Measure the clearance between the target and the proximity sensor. The clearance must be between 1.6 mm (0.0629 in) and 2.0 mm (0.0787 in).
   Note : If out of tolerance, adjust the position of the target bracket.

6) Check if changing the proximity switch has cleared the false indication
   – If exit indication is normal aircraft can be operated. No MMEL entry is necessary.
   Note : If a switch from the avionics compartment door has been used MMEL for avionics compartment door indication (52.70.01 D) will apply if indication is erroneous.
   – If exit indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

7) Put the aircraft back to the serviceable condition.
   – If not already done, re-install the cover flap on the emergency exit hatch.
   Note : If aircraft is dispatched with exit indication inoperative, go to the procedure on page 03-52 p 8.

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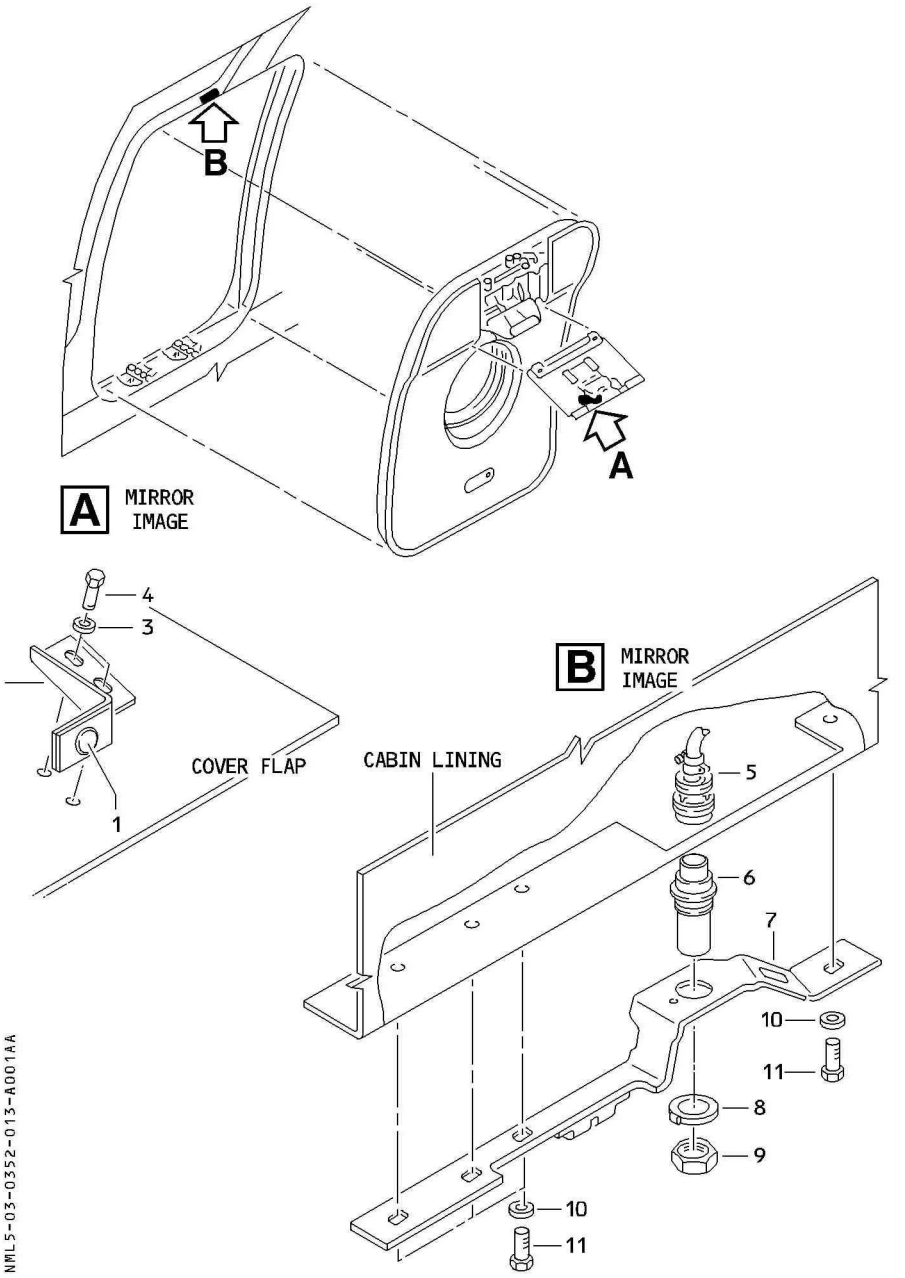
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 B)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT EMERGENCY EXITS ARE CLOSED AND LOCKED	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
		q

PROCEDURE

A – Do a visual check of the Emergency Exit Hatches to make sure that the applicable emergency exit hatch is correctly closed.

1 Pull down the cover flap from the hatch and remove it.

2 Examine the locking hooks to make sure that they are engaged with the upper roller fittings in the hatch frame.

3 Install the cover flap on the hatch and push it against the hatch.
– If the ECAM indication EMERG EXIT stays on, examine the hatch position from the outboard side.

Note : The hatch must be flush with the fuselage.
. If the flushness is correct, the hatch is correctly installed and locked (EMER EXIT indication is defective on the ECAM SD).
. If the hatch position is not correct, remove the hatch and install it again.

B – Do a visual check of the Emergency Exit Slide to make sure that the applicable emergency exit hatch is in the ARMED mode.

1 Make sure that the escape slide release mechanism is not in the MAINTENANCE mode.
a) Pull down the cover flap from the hatch and remove it.
b) Make sure that the latch pin is not in the DISARMED position (latch pin retracted).

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

– If the latch pin is in the DISARMED position (escape slide release mechanism in MAINTENANCE mode), arm the slide release mechanism as follows.
  . With a hexagonal socket wrench, push the latch pin against the spring and turn the head of the latch pin a quarter turn clockwise, to extend the latch pin.
  . Make sure that the SLIDE ARMED white indicator light located in the cabin lining near the emergency exits is on.

2 Install the cover flap on the hatch and push it against the hatch.
Note : The SLIDE ARMED white indicator light goes off.

3 If the latch pin is in the extended position make sure that the ECAM indication is correct.
– If not, the SLIDE indication on the ECAM SD is defective while the hatch is correctly in the ARMED position.

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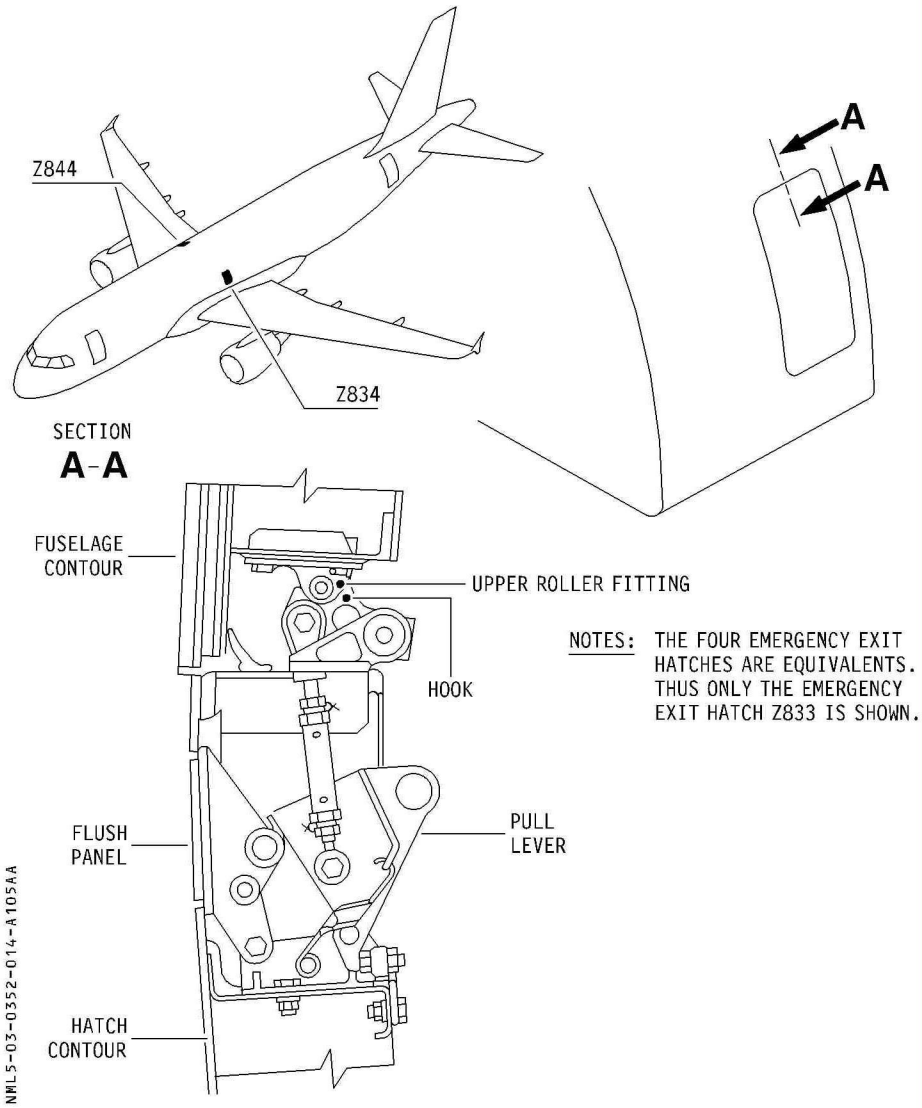
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 C)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT CARGO DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE :	Cargo Compartment Doors	ACCESS ITEM : Direct
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Push the handle flap and pull the locking handle away from the cargo compartment door.

Note : Do not unlock the cargo compartment door at this stage.

2 – Push the locking handle into the recess of the handle flap again.

3 – Do a visual check of the external side of the door to make sure that :
- the cargo compartment door is aligned with the fuselage
- the vent door is fully closed
- the green marks of each safety cam are in view in the indication windows and in the access panels at the lower cargo-compartment door edge
- the locking handle is aligned with the cargo-compartment door contour.

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 D)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT AVIONICS COMPARTMENT ACCESS DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Manually open affected access door(s) 811, 812, 822 or 824

2 – Door open, move the handle so as to operate the locking system.

3 – Make sure that the locks get out of their housing and operate correctly

4 – Put the handle in the open position

5 – Close and lock the access door(s)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01-A)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01 when a door is erroneously indicated open.

Note : This procedure applies when the white SLIDE ARMED light fitted on the door is illuminated together with the erroneous door indication. The intent of this procedure is to clear the warning by cleaning or changing the door handle switch. A failure of this switch erroneously indicating the door in open position may result in the slide integrated lighting system permanent illumination.

PROCEDURE

1) Open affected door

2) On the affected door, get access to the following proximity switch :
   13WV1 if L FWD door affected
   13WV2 if R FWD door affected
   17WV1 if L AFT door affected
   17WV2 if R AFT door affected

   a – Remove the door lining panels
   831 EZ and 831 CZ if 13WV1 affected
   841 EZ and 841 CZ if 13WV2 affected
   832 EZ and 832 CZ if 17WV1 affected
   842 EZ and 842 CZ if 17WV2 affected

   b – Remove the insulation blankets

3) Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth

4) Check if cleaning the proximity switch has cleared the warning

   – If door indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 8.
   – If door indication is still erroneous, continue with step 5.

(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

5) Replace the applicable proximity switch
   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
      – Remove the proximity switch of the avionics compartment door
      – Install the proximity switch of the avionics compartment door on the affected passenger door.

6) Adjust the proximity switch (see Fig.)
   a – Close the door
   b – Remove the nut (3) and the washer (4)
   c – Turn the target (2) until the symbol of the door is green on ECAM DOOR page
      Note : the target (2) and the proximity switch (1) must not touch
   d – Turn the target (2) in the opposite direction until the symbol of the door is amber on ECAM DU.
   e – From this position, screw the target (2) by two turns to two turns and a half.
   f – Install the washer (4) and the nut (3)
   g – Torque the nut to between 0.3 and 0.4 daN (26.54 and 35.39 lbf.in) and safety the nut with the washer (4).

7) Check if changing the proximity switch has cleared the warning
   – If door indication is normal, aircraft can be operated, go to step 8
      Note : If switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01 D) will apply if indication is erroneous.
   – If door indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

8) Put the aircraft back to the serviceable condition.
   a) re-install insulation blankets
   b) re-install door lining panels.

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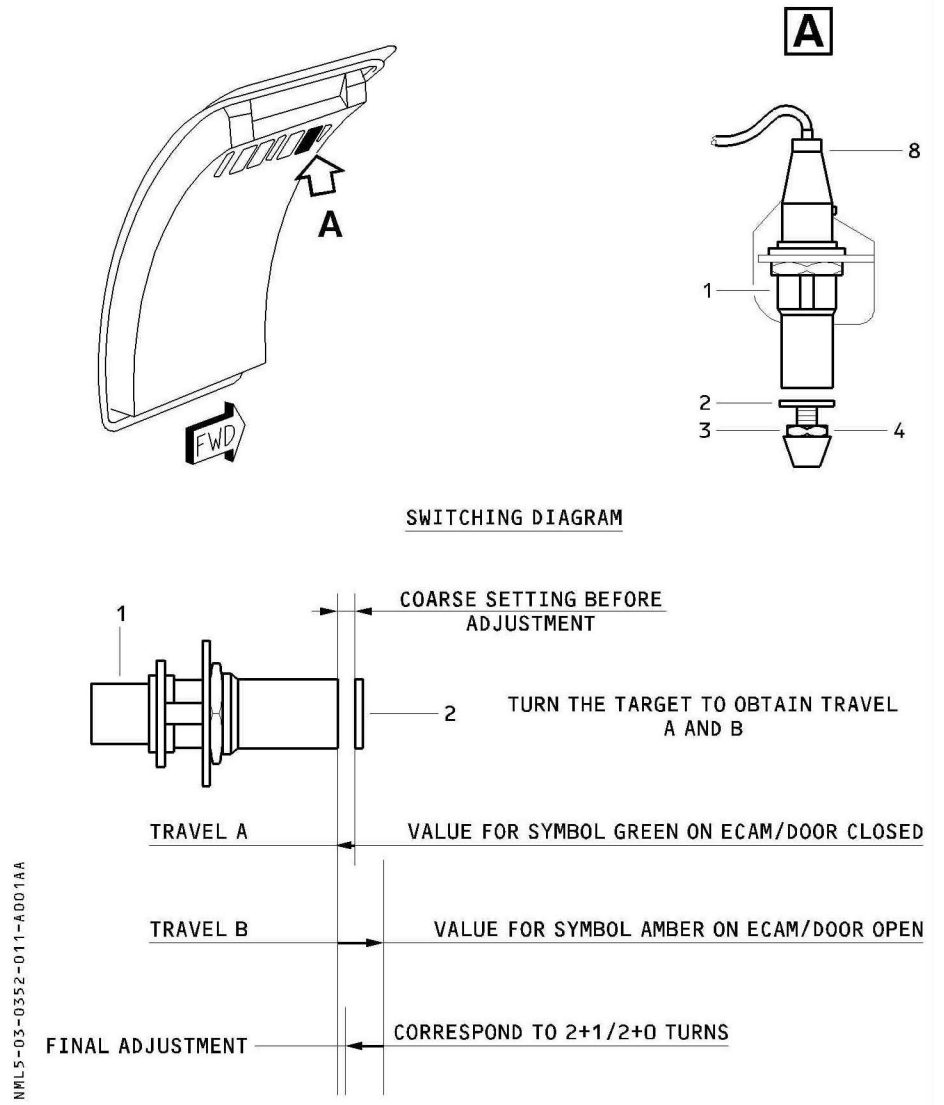
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01-A)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01 when a door is erroneously indicated closed.

Note : This procedure applies when a door is erroneously indicated closed.
This failure may occur when both switches fitted on the door are failed in the door closed position (ground signal).
The intent of this procedure is to clear the erroneous indication by cleaning or changing the door handle switch.
Changing only this switch would permit to recover a normal indication and to have the slide integrated lighting system normally operative.
The second switch (door hook switch) will have to be trouble shooted at the first opportunity, when repairs are made.

PROCEDURE

1) Open affected door

2) On the affected door, get access to the following proximity switch :
   13WV1 if L FWD door affected
   13WV2 if R FWD door affected
   17WV1 if L AFT door affected
   17WV2 if R AFT door affected

   a – Remove the door lining panels
   831 EZ and 831 CZ if 13WV1 affected
   841 EZ and 841 CZ if 13WV2 affected
   832 EZ and 832 CZ if 17WV1 affected
   842 EZ and 842 CZ if 17WV2 affected

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

b – Remove the insulation blankets

3) Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth
4) Check if cleaning the proximity switch has cleared the false indication
   – If door indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 8.
   – If door indication is still erroneous, continue with step 5.
5) Replace the applicable proximity switch
   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
      – Remove the proximity switch of the avionics compartment door
      – Install the proximity switch of the avionics compartment door on the affected passenger door.
6) Adjust the proximity switch (see Fig.)
   a – Close the door
   b – Remove the nut (3) and the washer (4)
   c – Turn the target (2) until the symbol of the door is green on ECAM DOOR page
   Note : the target (2) and the proximity switch (1) must not touch
   d – Turn the target (2) in the opposite direction until the symbol of the door is amber on ECAM DU.
   e – From this position, screw the target (2) by two turns to two turns and a half.
   f – Install the washer (4) and the nut (3)
   g – Torque the nut to between 0.3 and 0.4 daN (26.54 and 35.39 lbf.in) and safety the nut with the washer (4).
7) Check if changing the proximity switch has cleared the false indication
   – If door indication is normal, aircraft can be operated, go to step 8
   Note : If switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01 D) will apply if indication is erroneous.
   – If door indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.
8) Put the aircraft back to the serviceable condition
   a) re-install insulation blankets
   b) re-install door lining panels.

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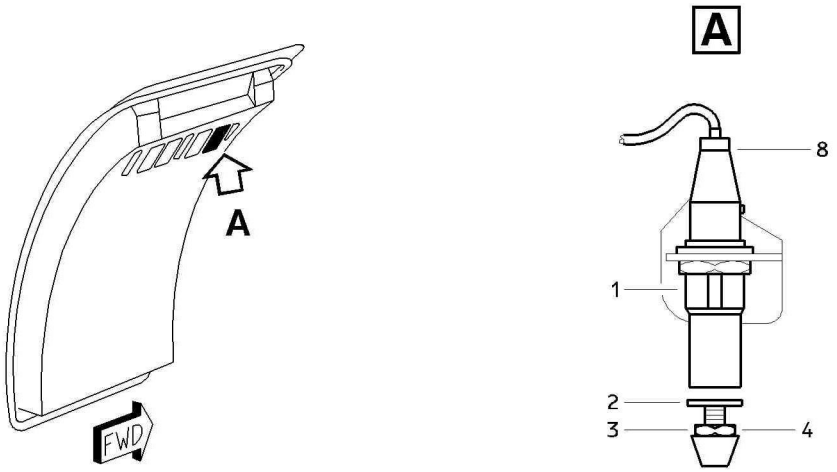
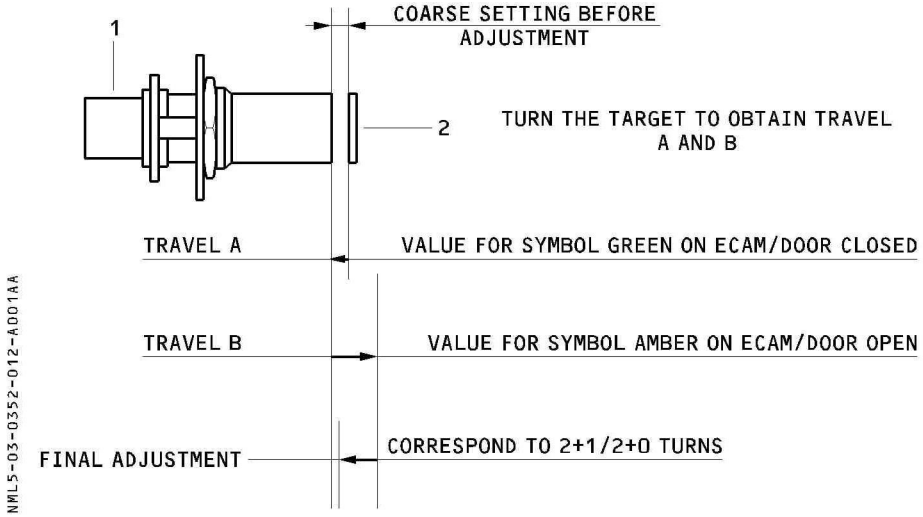
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



SWITCHING DIAGRAM



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 B)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01
– either when an exit is erroneously indicated open
– or when an exit is erroneously indicated closed.
The intent of the procedure is to clear the false indication by cleaning or changing the handle flap proximity switch. A failure of this switch may lead to the slide integrated lighting system being inoperative.

PROCEDURE

1) Pull down the cover flap from the affected emergency exit hatch and remove it.

2) Clean the proximity switch using isopopyl alcohol and lint-free cotton cloth.

3) Check if cleaning the proximity switch has cleared the false indication
   – If exit indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary Go to step 7.
   – If exit indication is still erroneous, continue with step 4.

4) Replace the applicable proximity switch.

   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected exit by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
         – Remove the proximity switch of the avionics compartment door
         – Install the proximity switch of the avionics compartment door on the affected exit.

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

5) Adjust the proximity switch
   a – make sure that the emergency exit hatch is correctly installed
   b – make sure that the cover flap is correctly engaged on the hatch lining
   c – make sure that the target and the proximity sensor align
   Note : If they do not align, adjust the support bracket and/or the target bracket as necessary.
   d – Measure the clearance between the target and the proximity sensor. The clearance must be between 1.6 mm (0.0629 in) and 2.0 mm (0.0787 in).
   Note : If out of tolerance, adjust the position of the target bracket.

6) Check if changing the proximity switch has cleared the false indication
   – If exit indication is normal aircraft can be operated. No MMEL entry is necessary.
   Note : If a switch from the avionics compartment door has been used MMEL for avionics compartment door indication (52.70.01 D) will apply if indication is erroneous.
   – If exit indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

7) Put the aircraft back to the serviceable condition.
   – If not already done, re-install the cover flap on the emergency exit hatch.
   Note : If aircraft is dispatched with exit indication inoperative, go to the procedure on page 03-52 p 8.

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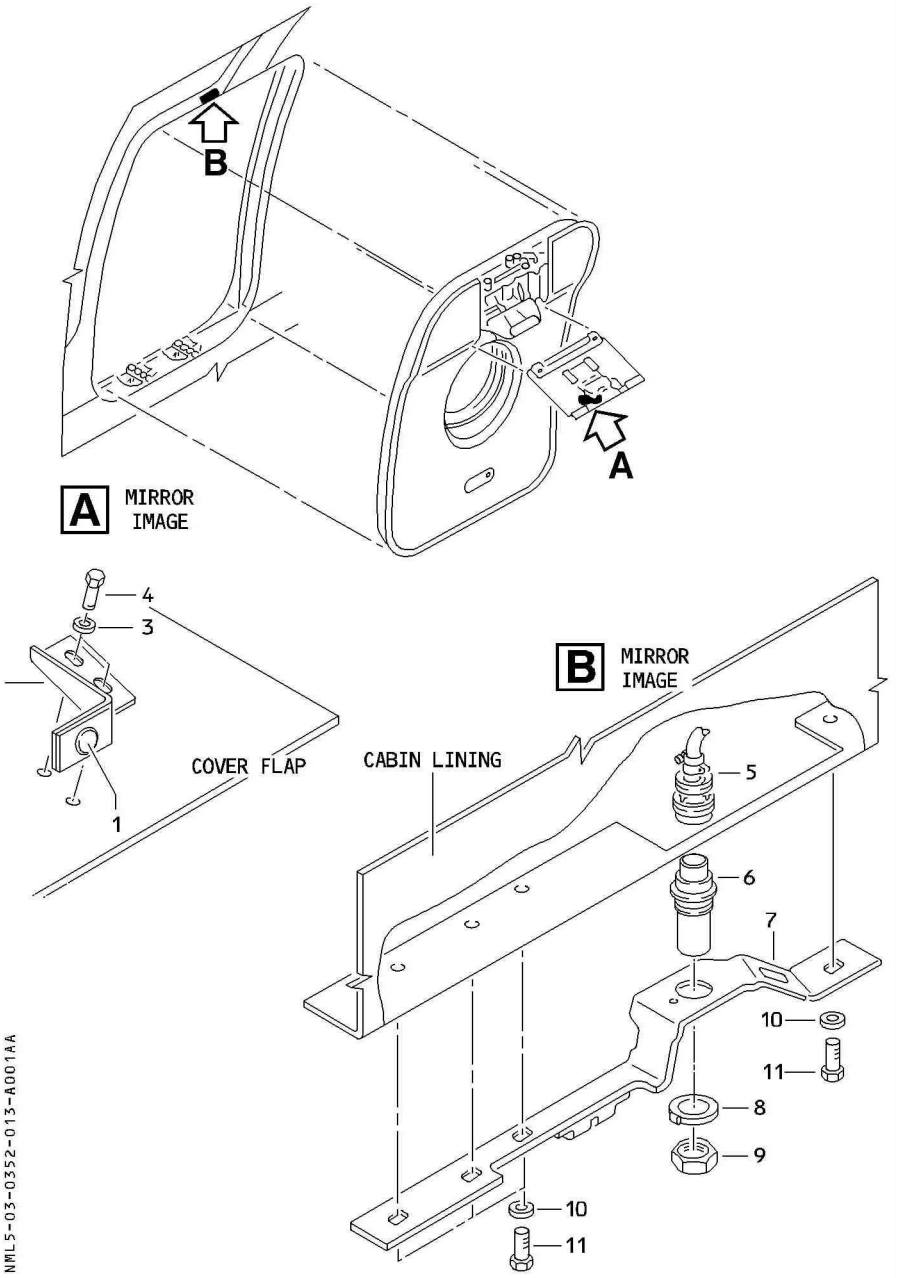
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 B)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT EMERGENCY EXITS ARE CLOSED AND LOCKED	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A – Do a visual check of the Emergency Exit Hatches to make sure that the applicable emergency exit hatch is correctly closed.

1 Pull down the cover flap from the hatch and remove it.

2 Examine the locking hooks to make sure that they are engaged with the upper roller fittings in the hatch frame.

3 Install the cover flap on the hatch and push it against the hatch.

– If the ECAM indication EMER EXIT stays on, examine the hatch position from the outboard side.

Note : The hatch must be flush with the fuselage.

. If the flushness is correct, the hatch is correctly installed and locked (EMER EXIT inndication is defective on the ECAM SD).

. If the batch position is not correct, remove the hatch and install it again.

B – Do a visual check of the Emergency Exit Slide to make sure that the applicable emergency exit hatch is in the ARMED mode.

1 Make sure that the escape slide release mechanism is not in the MAINTENANCE mode.

a) Pull down the cover flap from the hatch and remove it.

b) Make sure that the latch pin is not in the DISARMED position (latch pin retracted).

– If the latch pin is in the DISARMED position (excape slide release mechanism in MAINTENANCE mode), arm the slide release mechanism as follows.

. With a hexagonal socket wrench, push the latch pin against the spring and turn the head of the latch pin a quarter turn clockwise, to extend the latch pin.

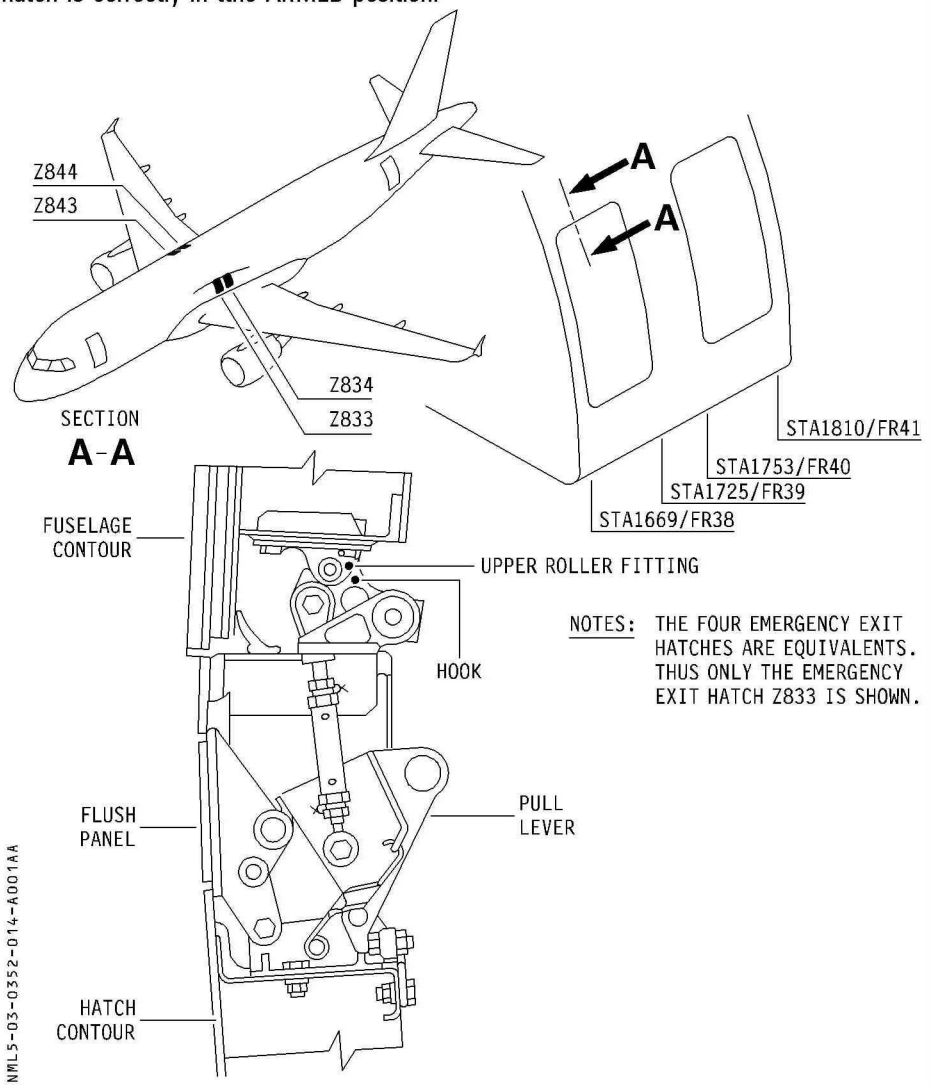
(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

. Make sure that the SLIDE ARMED white indicator light located in the cabin lining near the emergency exits is on.
2 Install the cover flap on the hatch and push it against the hatch.
Note : The SLIDE ARMED white indicator light goes off.
3 If the latch pin is in the extended position make sure that the ECAM indication is corrected.
– If not, the SLIDE indication on the ECAM SD is defective while the hatch is correctly in tthe ARMED position.



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 C)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT CARGO DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE : Cargo Compartment Doors		ACCESS ITEM : Direct
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A – Forward/aft cargo door

1 – Push the handle flap and pull the locking handle away from the cargo compartment door.

Note : Do not unlock the cargo compartment door at this stage.

2 – Push the locking handle into the recess of the handle flap again.

3 – Do a visual check of the external side of the door to make sure that :
- the cargo compartment door is aligned with the fuselage
- the vent door is fully closed
- the green marks of each safety cam are in view in the indication windows and in the access panels at the lower cargo-compartment door edge.
- the locking handle is aligned with the cargo-compartment door contour.

B – Bulk cargo door

1 – Push the button of the external door handle to release it from the recess.
2 – Move the external door handle to the OPEN position and push the bulk cargo compartment door inwards.
3 – Move the internal or external door handle to the LOCKED position and examine the lateral barrel locks.
4 – The barrel locks turn so that their slots cannot engage with the Latch spigots at the door frame.
5 – Move the applicable door handle back to the OPEN position.
6 – Pull the door down into the door opening and move the external door handle to the LOCKED position.
7 – The bulk cargo-compartment door is aligned with the fuselage.
8 – Push the external door handle into its recess : Outer handle faired with door.

(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 D)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT AVIONICS COMPARTMENT ACCESS DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Manually open affected access door(s) 811, 812, 822 or 824

2 – Door open, move the handle so as to operate the locking system.

3 – Make sure that the locks get out of their housing and operate correctly

4 – Put the handle in the open position

5 – Close and lock the access door(s)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01-A)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01 when a door is erroneously indicated open.

Note : This procedure applies when the white SLIDE ARMED light fitted on the door is illuminated together with the erroneous door indication. The intent of this procedure is to clear the warning by cleaning or changing the door handle switch. A failure of this switch erroneously indicating the door in open position may result in the slide integrated lighting system permanent illumination.

PROCEDURE

1) Open affected door

2) On the affected door, get access to the following proximity switch :
   13WV1 if L door 1 affected
   13WV2 if R door 1 affected
   19WV1 if L door 2 affected
   19WV2 if R door 2 affected
   21WV1 if L door 3 affected
   21WV2 if R door 3 affected
   17WV1 if L door 4 affected
   17WV2 if R door 4 affected

   a – Remove the door lining panels
   831 EZ and 831 CZ if 13WV1 affected
   841 EZ and 841 CZ if 13WV2 affected
   832 EZ and 832 CZ if 17WV1 affected
   842 EZ and 842 CZ if 17WV2 affected
   833 EZ if 19WV1 affected
   834 EZ if 19WV2 affected
   843 EZ if 21WV1 affected
   844 EZ if 21WV2 affected.

   b – Remove the insulation blankets

3) Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth

(continued)

(continued)

52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

4) Check if cleaning the proximity switch has cleared the warning
   - If door indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 8.
   - If door indication is still erroneous, continue with step 5.

5) Replace the applicable proximity switch
   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
   - Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
   - Remove the proximity switch of the avionics compartment door
   - Install the proximity switch of the avionics compartment door on the affected passenger door.

6) Adjust the proximity switch (see Fig.)
   a – Close the door
   b – Remove the nut (3) and the washer (4)
   c – Turn the target (2) until the symbol of the door is green on ECAM DOOR page
   Note : the target (2) and the proximity switch (1) must not touch
   d – Turn the target (2) in the opposite direction until the symbol of the door is amber on ECAM DU.
   e – From this position, screw the target (2) by two turns to two turns and a half.
   f – Install the washer (4) and the nut (3)
   g – Torque the nut to between 0.3 and 0.4 daN (26.54 and 35.39 lbf.in) and safety the nut with the washer (4).

7) Check if changing the proximity switch has cleared the warning
   - If door indication is normal, aircraft can be operated, go to step 8
     Note : If switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01 D) will apply if indication is erroneous.
   - If door indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.

8) Put the aircraft back to the serviceable condition.
   a) re-install insulation blankets
   b) re-install door lining panels.

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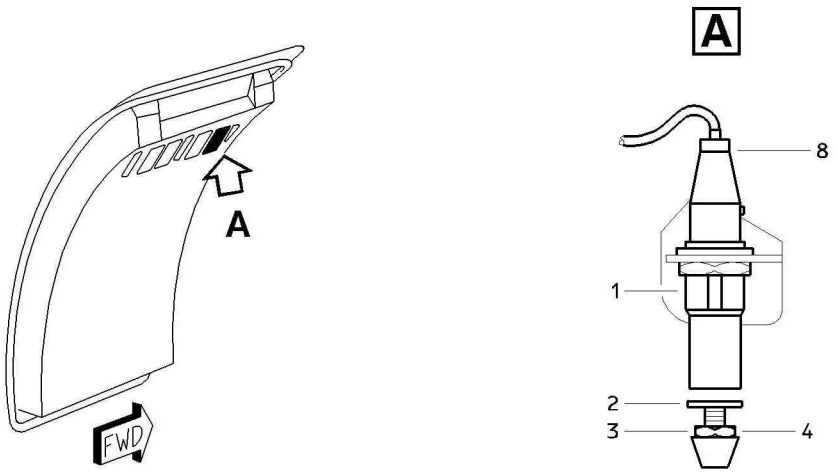
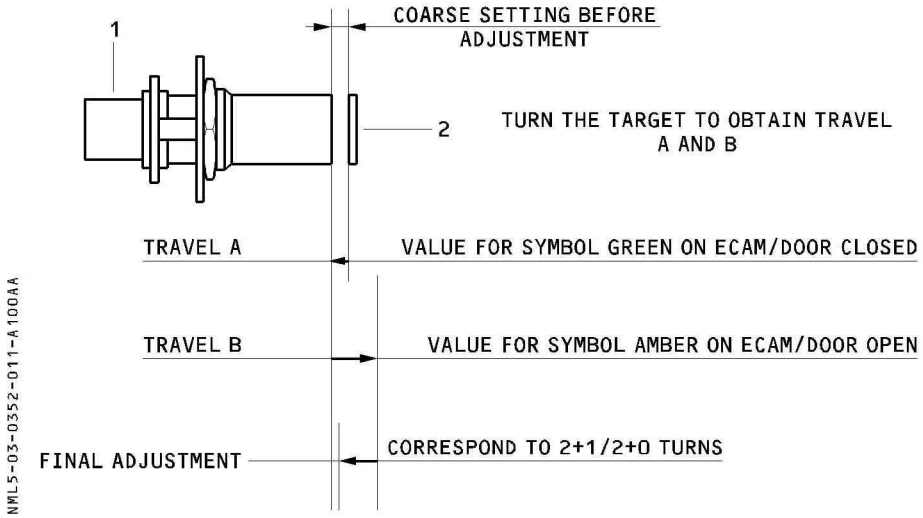
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE



SWITCHING DIAGRAM



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01-A)	INDICATIONS ON ECAM DOOR PAGE CHECK THAT CONTROL CIRCUIT OF SLIDE LIGHTING SYSTEM (PROXIMITY SWITCH) IS OPERATIVE	
ACCESS ZONE :	ACCESS ITEM :	
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

This procedure applies to the note of MMEL Item 01-52-70-01 when a door is erroneously indicated closed.

Note : This procedure applies when a door is erroneously indicated closed.
This failure may occur when both switches fitted on the door are failed in the door closed position (ground signal).
The intent of this procedure is to clear the erroneous indication by cleaning or changing the door handle switch.
Changing only this switch would permit to recover a normal indication and to have the slide integrated lighting system normally operative.
The second switch (door hook switch) will have to be trouble shooted at the first opportunity, when repairs are made.

PROCEDURE

1) Open affected door

2) On the affected door, get access to the following proximity switch :
   13WV1 if L door 1 affected
   13WV2 if R door 1 affected
   19WV1 if L door 2 affected
   19WV2 if R door 2 affected
   21WV1 if L door 3 affected
   21WV2 if R door 3 affected
   17WV1 if L door 4 affected
   17WV2 if R door 4 affected

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

a – Remove the door lining panels
831 EZ and 831 CZ if 13WV1 affected
841 EZ and 841 CZ if 13WV2 affected
832 EZ and 832 CZ if 17WV1 affected
842 EZ and 842 CZ if 17WV2 affected
833 EZ if 19MW1 affected
834 EZ if 19WV2 affected
843 EZ if 21WV1 affected
844 EZ if 21WV2 affected.
b – Remove the insulation blankets

3) Clean the affected proximity switch using isopropyl alcohol and a lint-free cotton cloth
4) Check if cleaning the proximity switch has cleared the false indication
   – If door indication is normal, aircraft can be operated without restriction. No MMEL entry is necessary. Go to step 8.
   – If door indication is still erroneous, continue with step 5.
5) Replace the applicable proximity switch
   a – If a new one is available, install the new proximity switch
   b – If no new proximity switch is available, replace the proximity switch of the affected door by a proximity switch of the avionics compartment doors.
      – Check the proximity switch related to the concerned avionics compartment door for correct operation by checking that indication on ECAM DOOR page is correctly showing door closed and door open condition.
      – Remove the proximity switch of the avionics compartment door
      – Install the proximity switch of the avionics compartment door on the affected passenger door.
6) Adjust the proximity switch (see Fig.)
   a – Close the door
   b – Remove the nut (3) and the washer (4)
   c – Turn the target (2) until the symbol of the door is green on ECAM DOOR page
   Note : the target (2) and the proximity switch (1) must not touch
   d – Turn the target (2) in the opposite direction until the symbol of the door is amber on ECAM DU.
   e – From this position, screw the target (2) by two turns to two turns and a half.
   f – Install the washer (4) and the nut (3)
   g – Torque the nut to between 0.3 and 0.4 daN (26.54 and 35.39 lbf.in) and safety the nut with the washer (4).

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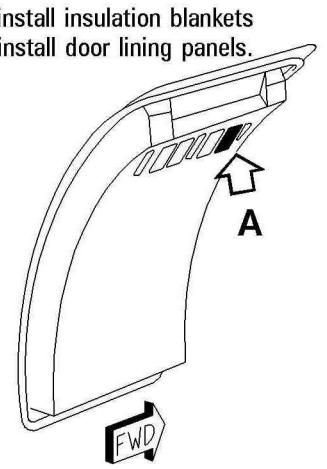
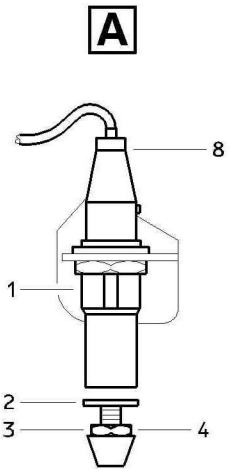
52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

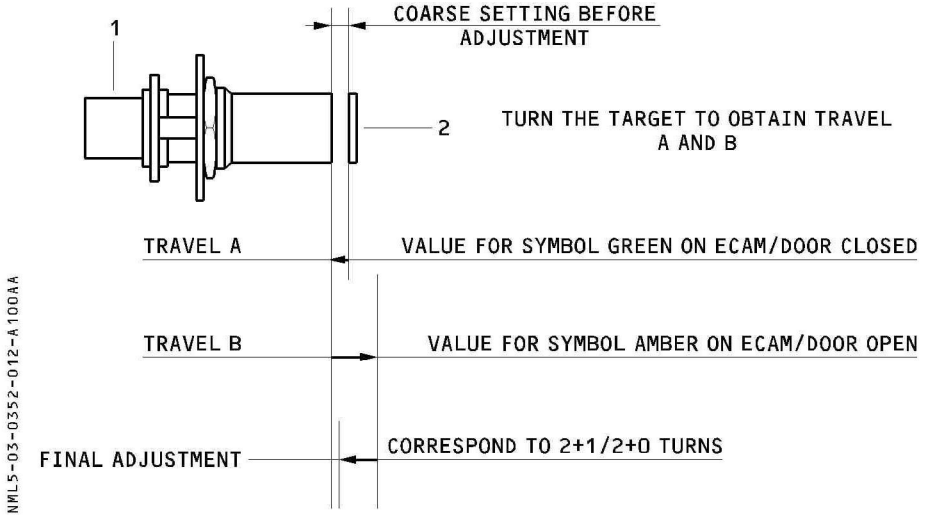
MAINTENANCE

7) Check if changing the proximity switch has cleared the false indication
   – If door indication is normal, aircraft can be operated, go to step 8
   Note : If switch from the avionics compartment door has been used, MMEL for avionics compartment door indication (52-70-01 D) will apply if indication is erroneous.
   – If door indication is still erroneous, refer to MMEL chapter 1 for applicable dispatch conditions.
8) Put the aircraft back to the serviceable condition.
   a) re-install insulation blankets
   b) re-install door lining panels.





SWITCHING DIAGRAM



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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 C)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT CARGO DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE : Cargo Compartment Doors		ACCESS ITEM : Direct
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

A – Forward/aft cargo door

1 – Push the handle flap and pull the locking handle away from the cargo compartment door.

Note : Do not unlock the cargo compartment door at this stage.

2 – Push the locking handle into the recess of the handle flap again.

3 – Do a visual check of the external side of the door to make sure that :
- the cargo compartment door is aligned with the fuselage
- the vent door is fully closed
- the green marks of each safety cam are in view in the indication windows and in the access panels at the lower cargo-compartment door edge.
- the locking handle is aligned with the cargo-compartment door contour.

B – Bulk cargo door

1 – Push the button of the external door handle to release it from the recess.
2 – Move the external door handle to the OPEN position and push the bulk cargo compartment door inwards.
3 – Move the internal or external door handle to the LOCKED position and examine the lateral barrel locks.
4 – The barrel locks turn so that their slots cannot engage with the Latch spigots at the door frame.
5 – Move the applicable door handle back to the OPEN position.
6 – Pull the door down into the door opening and move the external door handle to the LOCKED position.
7 – The bulk cargo-compartment door is aligned with the fuselage.
8 – Push the external door handle into its recess : Outer handle faired with door.

(continued)

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52-70-01 Indications on ECAM DOOR/OXY page and associated cautions on ECAM E/WD

MAINTENANCE

52-70-01 D)	INDICATIONS ON ECAM DOOR PAGE AND ASSOCIATED WARNINGS ON ECAM UPPER DISPLAY CHECK THAT AVIONICS COMPARTMENT ACCESS DOORS ARE CLOSED AND LOCKED	
ACCESS ZONE :		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

1 – Manually open affected access door(s) 811, 812, 822 or 824

2 – Door open, move the handle so as to operate the locking system.

3 – Make sure that the locks get out of their housing and operate correctly

4 – Put the handle in the open position

5 – Close and lock the access door(s)

56-10-01 Front Windshields

MAINTENANCE

56-10-01	FRONT WINDSHIELDS – CHECK	
ACCESS ZONE : 211-212	ACCESS ITEM :	Direct
GSE : Nil		

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
1DG1	ANTI ICE/L/WSHLD	123VU AF10
1DG2	ANTI ICE/R/WSHLD	123VU AF03
5SQ1	COM NAV/RADAR/1	121VU K13
5SQ2	COM NAV/RADAR/2	121VU K14

PROCEDURE

1) Pull C/B above listed.
2) Identify windshield supplier and/or P/N for applicable MMEL dispatch conditions.
3) Carry out a visual inspection / check of the front windshields according to following values given permitted damage.

	OUTER PLY	INNER MAIN PLY
SCRATCHES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	PERMITTED IF THE MEASUREMENT VALUE OF THE SCRATCHES DEPTH ARE LESS THAN 50 MICRONS. IF THE DEPTH MEASUREMENT IS NOT PERFORMED, SCRATCHES ARE PERMITTED IF THE OPERATOR CANNOT FEEL THE SCRATCHES BY TOUCHING THE WINDSHIELD WITH A FINGER NAIL.
SCRATCHES (IF SELF HEALING LINER IS INSTALLED (MOD 22893))	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	PERMITTED IS THE SCRATCHES DO NOT REACH THE CHEMICALLY STRENGTENED GLASS AND IF THE VISIBILITY IS NOT DECREASED
CHIPPING	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	NOT ACCEPTABLE
CRACKS	PERMITTED. REFER TO MMEL CHAP 1 56.10.01 – THE AFFECTED WINDSHIELD HEATING IS SWITCHED OFF : . OPEN, SAFETY AND TAG C/B 1DG1 (1DG2)	MIDDLE OR INNER OR BOTH CRACKED PLIES : NOT ACCEPTABLE
BUBBLES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DELAMINATION	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DISCOLORATION OR BURNING	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	

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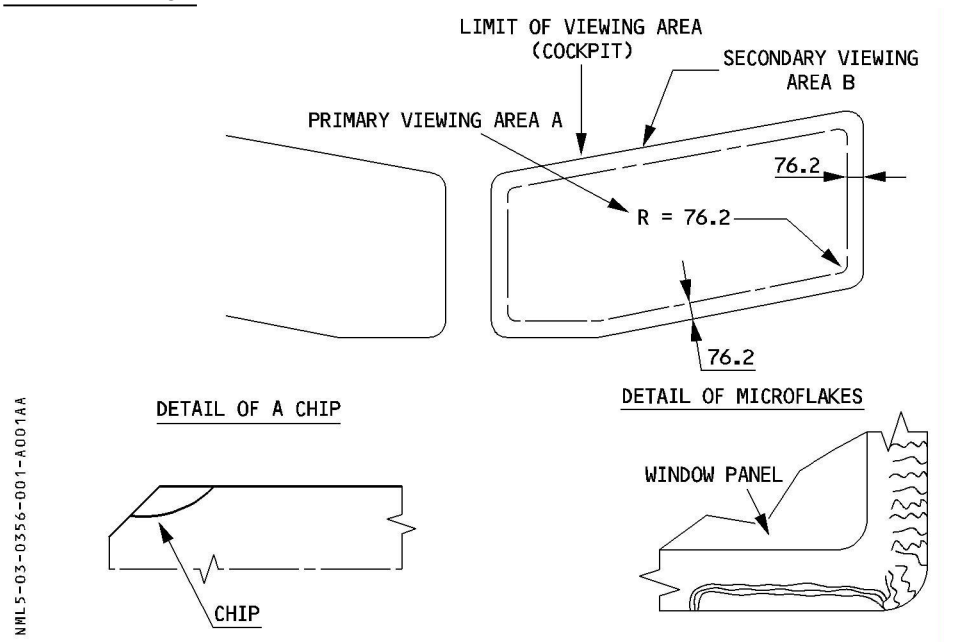
56-10-01 Front Windshields

MAINTENANCE



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56-10-01 Front Windshields

MAINTENANCE

56-10-01	FRONT WINDSHIELDS – CHECK	
ACCESS ZONE : 211-212	ACCESS ITEM : Direct	
GSE : Nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1DG1	ANTI ICE/L/WSHLD	123VU AF10
1DG2	ANTI ICE/R/WSHLD	123VU AF03
5SQ1	COM NAV/RADAR/1	121VU K13
5SQ2	COM NAV/RADAR/2	121VU K14

PROCEDURE

	OUTER PLY	INNER MAIN PLY
INTERLAYER MICROFLAKES	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
BURN SPOTS	BURN SPOTS ON THE BUS BAR AREA PERMITTED. IF THE LENGTH OF ALL BURN SPOTS ADDED TOGETHER ON ONE BUS BAR IS MORE THAN 200 MM (7.874 in) : – THE AFFECTED WINDSHIELD HEATING IS SWITCHED OFF : . OPEN, SAFETY AND TAG C/B 1DG1 (1DG2)	

4) If permitted, close C/B 1 DG1 and 1 DG2.
Close C/B 5SQ1 (5SQ2).

56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE

56-10-02	LATERAL FIXED WINDOWS – CHECK	
ACCESS ZONE : 211-212	**ACCESS ITEM** :	Direct
GSE : Nil		

ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
4DG1	ANTI ICE/WINDOWS/L	122VU X14
4DG2	ANTI ICE/WINDOWS/R	122VU W14
5SQ1	COM NAV/RADAR/1	121VU K13
5SQ2	COM NAV/RADAR/2	121VU K14

Note : – This procedure is applicable for Acrylic Lateral Fixed Windows (LUCAS/ACT P/N NH...).
– For Glass Lateral Fixed Windows (PPG supplier P/N NP... or SPS supplier P/N SPS...) refers to 03-56 p 4.

PROCEDURE

– Pull C/B above listed.

– Carry out a visual inspection / check of the lateral windshields according to following values given permitted damage.

	OUTER PLY	INNER MAIN PLY
SCRATCHES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED. MAX. DEPTH 1MM (.039 in)	
CHIPPING	MAXIMUM DEPTH : 1 mm (.039 in)	
CRACKS	NOT ACCEPTABLE	
BUBBLES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DELAMINATION	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DISCOLORATION OR BURNING	PERMITTED IF THE VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
BURN SPOTS	• BURN SPOTS ON THE BUS BAR AREA IS PERMITTED PROVIDED THAT – DIAMETER OF THE MARKS IS LESS THAN 10 MM (0.39 IN) – THE AFFECTED WINDOW HEATING IS SWITCHED OFF. OPEN, SAFETY AND TAG C/B 4DG1 (4DG2) • BURN SPOTS ON THE CONDUCTIVE WIRE GRID IS PERMITTED PROVIDED THE VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	

– If permitted, close C/B 4DG1 and 4DG2.

– Close C/B 5SQ1 (5SQ2).

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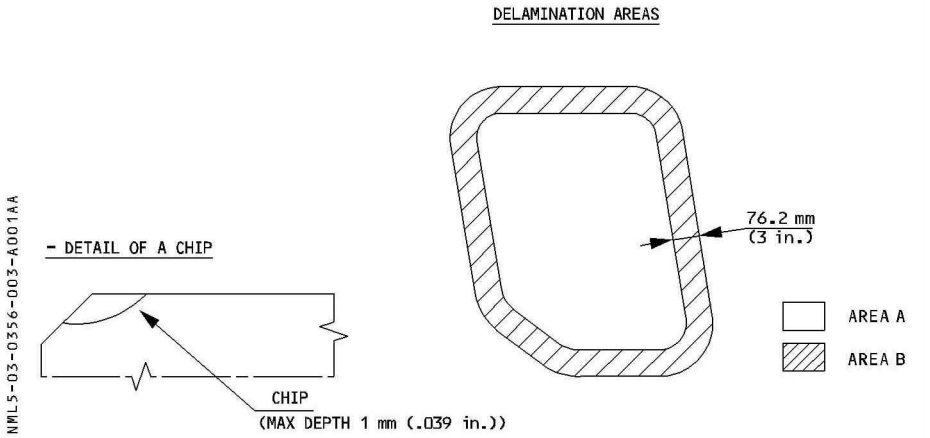
56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE



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56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE

56-10-02	LATERAL FIXED WINDOWS – CHECK	
ACCESS ZONE : 211-212	ACCESS ITEM :	Direct
GSE : Nil		

ASSOCIATED CIRCUIT BREAKERS

FIN	DESIGNATION	LOCATION
4DG1	ANTI ICE/WINDOWS/L	122VU X14
4DG2	ANTI ICE/WINDOWS/R	122VU W14
5SQ1	COM NAV/RADAR/1	121VU K13
5SQ2	COM NAV/RADAR/2	121VU K14

Note : – This procedure is applicable for Glass Lateral Fixed Windows (PPG supplier P/N NP... or SPS supplier P/N SPS...).
– For Acrylic Lateral Fixed Windows (LUCAS/ACT P/N NH...) refers to 03-56 p 3.

PROCEDURE

– Pull C/B listed above.
– Carry out a visual inspection / check of the lateral windshields according to following values given permitted damage.

	OUTER PLY	INNER MAIN PLY
SCRATCHES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED	PERMITTED IF THE MEASUREMENT VALUE OF THE SCRATCHES DEPTH ARE LESS THAN 50 MICRONS. IF THE DEPTH MEASUREMENT IS NOT PERFORMED, SCRATCHES ARE PERMITTED IF THE OPERATOR CANNOT FEEL THE SCRATCHES BY TOUCHING THE WINDOW WITH A FINGER NAIL.
CHIPPING	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED	NOT ACCEPTABLE
CRACKS	PERMITTED. REFER TO MMEL CHAP 1, 56.10.02 DO NOT APPLY ELECTRICAL HEATING IF THERE IS ARCING	MIDDLE OR INNER OR BOTH CRACKED PLIES : NOT ACCEPTABLE
BUBBLES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DELAMINATION	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DISCOLORATION	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
INTERLAYER MICROFLAKES	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
BURN SPOTS	• BURN SPOTS ON THE BUS BAR AREA IS PERMITTED PROVIDED THAT – DIAMETER OF THE MARKS IS LESS THAN 10 MM (0.39 IN) – THE AFFECTED WINDOW HEATING IS SWITCHED OFF/ OPEN, SAFETY AND TAG C/B 4DG1 (4DG2) • BURN SPOTS ON THE CONDUCTIVE WIRE GRID IS PERMITTED PROVIDED THE VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	

– If permitted, close C/B 4DG1 and 4DG2.
– Close C/B 5SQ1 (5SQ2).

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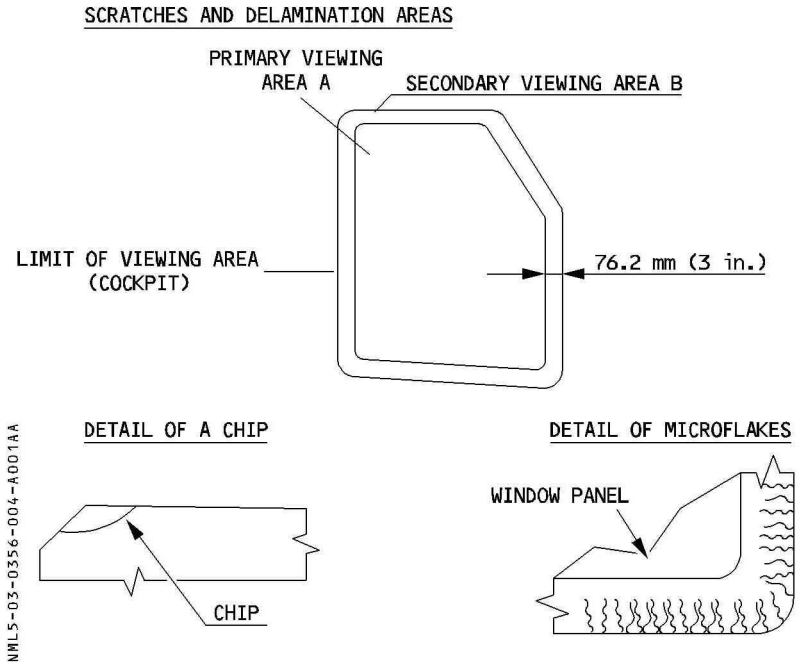
56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE



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56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE

56-10-02	LATERAL SLIDING WINDOWS – CHECK	
ACCESS ZONE : 211-212	ACCESS ITEM :	Direct
GSE : Nil		

ASSOCIATED CIRCUIT BREAKERS

FIN	DESIGNATION	LOCATION
4DG1	ANTI ICE/WINDOWS/L	122VU X14
4DG2	ANTI ICE/WINDOWS/R	122VU W14
5SQ1	COM NAV/RADAR/1	121VU K13
5SQ2	COM NAV/RADAR/2	121VU K14

Note : – This procedure is applicable for Acrylic Lateral Sliding Windows (LUCAS/ACT P/N NH...).
– For Glass Lateral Sliding Windows (PPG supplier P/N NP... or SPS supplier P/N SPS...) refers to 03-56 p 6.

PROCEDURE

– Pull C/B listed above.

– Carry out a visual inspection / check of the lateral windshields according to following values given permitted damage.

	OUTER PLY	INNER MAIN PLY
SCRATCHES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED. MAX. DEPTH 1MM (.039 in)	
CHIPPING	MAXIMUM DEPTH : 1 mm (.039 in)	
CRACKS	NOT ACCEPTABLE	
BUBBLES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DELAMINATION	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DISCOLORATION OR BURNING	PERMITTED IF THE VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
BURN SPOTS	• BURN SPOTS ON THE BUS BAR AREA IS PERMITTED PROVIDED THAT – DIAMETER OF THE MARKS IS LESS THAN 10 MM (0.39 IN) – THE AFFECTED WINDSHIELDS HEATING IS SWITCHED OFF. OPEN, SAFETY AND TAG C/B 4DG1 (4DG2) • BURN SPOTS ON THE CONDUCTIVE WIRE GRID IS PERMITTED PROVIDED THE VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	

– If permitted, close C/B 4DG1 and 4DG2.

– Close C/B 5SQ1 (5SQ2).

(continued)

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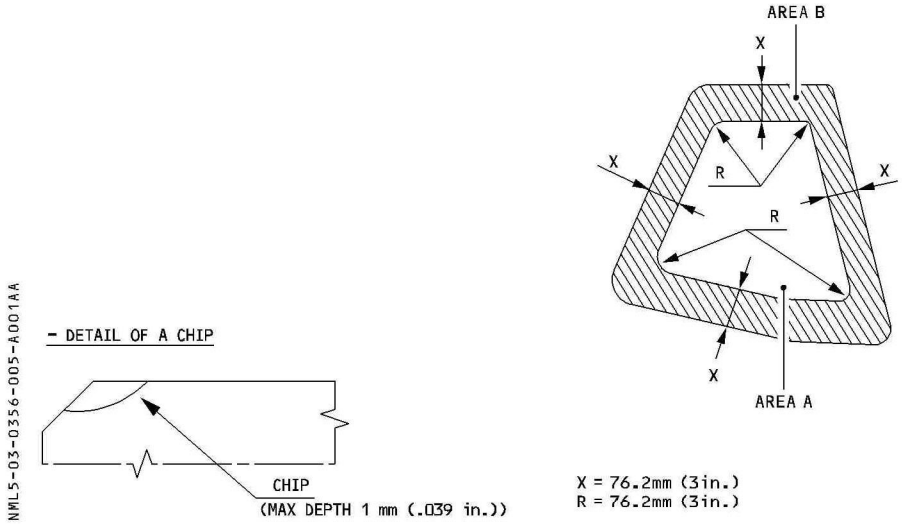
56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE



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56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE

56-10-02	LATERAL SLIDING WINDOWS – CHECK	
ACCESS ZONE : 211-212	ACCESS ITEM : Direct	
GSE : Nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
4DG1	ANTI ICE/WINDOWS/L	122VU X14
4DG2	ANTI ICE/WINDOWS/R	122VU W14
5SQ1	COM NAV/RADAR/1	121VU K13
5SQ2	COM NAV/RADAR/2	121VU K14

Note : – This procedure is applicable for Glass Lateral Sliding Windows (PPG supplier P/N NP... or SPS supplier P/N SPS...).
– For Acrylic Lateral Sliding Windows (LUCAS/ACT P/N NH...) refers to 03-56 p 5.

PROCEDURE

– Pull C/B above listed.
– Carry out a visual inspection / check of the lateral windshields according to following values given permitted damage.

	OUTER PLY	INNER MAIN PLY
SCRATCHES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	PERMITTED IF THE MEASUREMENT VALUE OF THE SCRATCHES DEPTH ARE LESS THAN 50 MICRONS. IF THE DEPTH MEASUREMENT IS NOT PERFORMED, SCRATCHES ARE PERMITTED IF THE OPERATOR CANNOT FEEL THE SCRATCHES BY TOUCHING THE SLIDING WINDOW WITH A FINGER NAIL.
CHIPPING	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	MIDDLE OR INNER OR BOTH PLIES : NOT ACCEPTABLE
CRACKS	PERMITTED. REFER TO MMEL CHAP 1, 56.10.02 DO NOT APPLY ELECTRICAL HEATING IF THERE IS ARCING	MIDDLE OR INNER OR BOTH CRACKED PLIES : NOT ACCEPTABLE
BUBBLES	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DELAMINATION	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
DISCOLORATION	PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
INTERLAYER MICROFLAKES	AREA A : NOT PERMITTED AREA B : PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	
BURN SPOTS	• BURN SPOTS ON THE BUS BAR AREA IS PERMITTED PROVIDED THAT – DIAMETER OF THE MARKS IS LESS THAN 10 MM (0.39 IN) – THE AFFECTED WINDOW HEATING IS SWITCHED OFF. OPEN, SAFETY AND TAG C/B 4DG1 (4DG2) • BURN SPOTS ON THE CONDUCTIVE WIRE GRID IS PERMITTED PROVIDED VISIBILITY IS NOT UNACCEPTABLY IMPAIRED.	

– If permitted, close C/B 4DG1 and 4DG2
– Close C/B 5SQ1 (5SQ2)

(continued)

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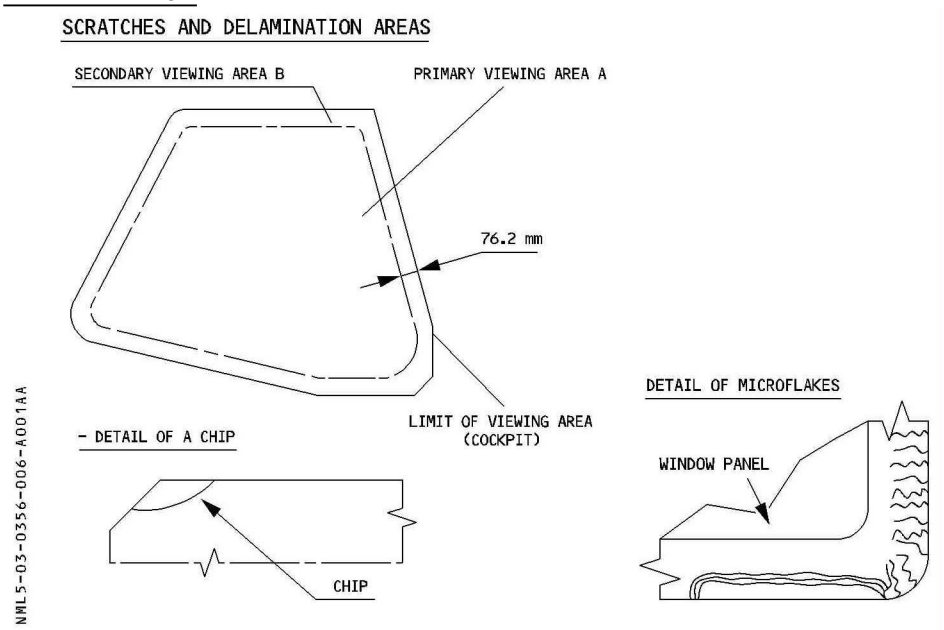
56-10-02 Lateral Fixed/ Sliding Window

MAINTENANCE



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73-30-03 Fuel Filter Clog caution on Ecam E/WD

MAINTENANCE

73-30-03	FUEL FILTER CLOG WARNING – FILTER SERVICING	
ACCESS ZONE :	437 AL (447 AL) 438 AR (448 AR)	ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE

- On panel 115 VU, put a warning notice to tell the persons not to start the engine 1 (2).
- Make sure that the eng.1 (2) is shut down for at least 5 minutes.
- On panel 50 VU, make sure that the "ON" legend of the ENG FADEC GND PWR 1 (2) pushbutton switch is OFF and install a warning notice.
- Open left fan cowl
- Remove fuel filter element
- Renew filter
- Install fuel filter element
- On the panel 115 VU remove the warning notice
- Perform minimum idle check
- Close left fan cowl
- Remove the warning notice from the panel 50VU
- Install a warning notice in flight compartment indicating that eng.1 (2). Fuel filter clogging indicating system is inoperative.

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74-31-03 Warning and Caution on ECAM E/WD

MAINTENANCE

74-31-03	IGN FAULT WARNING – SYSTEM CHECK	
ACCESS ZONE :	437 AL (447 AL) 438 AR (448 AR)	ACCESS ITEM :
GSE :		

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1JH	ENGINE / 1 AND 2 / IGN / SYS A	49VU A03
2KS1	ENGINE / 1 / FADEC A / AND EIU 1	49VU A04
3JH1	ENGINE / IGN / ENG 1 / SYS B	121VU P41
2JH1	ENGINE / IGN / ENG 1 / SYS A BAT	121VU P39
4KS1	ENGINE / 1 / FADEC B / AND EIU 1	121VU R41
2KS2	ENGINE / 2 / FADEC A / AND EIU 2	49VU A05
3JH2	ENGINE / IGN / ENG 2 / SYS B	121VU P42
2JH2	ENGINE / IGN / ENG 2 / SYS A BAT	121VU P40
4KS2	ENGINE / ENG 2 / FADEC B / AND EIU 2	121VU Q40

PROCEDURE

- Energize A / C electrical circuits.
- On panel 50VU, release the ENG / FADEC GND PWR / 1(2) pushbutton switch (ON legend is on).
- On the right or left MCDU get the SYSTEM REPORT / TEST ENGINE.
- Push the line key adjacent to the ENG indication.

If IGN A indication is inop.

- Push the line key adjacent to the FADEC 1A (2A) indication.
- The FADEC menu comes into view.
- Push the line key adjacent to the IGN TEST indication.
- The IGNITION TEST menu comes into view.
- On panel 115VU make sure that the ENG / MODE selector switch is in the NORM position.

Note : Make sure that there is no air pressure at the starter valve inlet.

- Set the ENG / MASTER 1(2) switch to ON.
- On the panel 121VU, open circuit breaker 3JH1 (3JH2).
- On the upper ECAM display unit the message IGN B FAULT appears.
- Push the line key adjacent to the PUSH BUTTON TO START THE TEST indication.
- The WARNING TEST ACTIVE indication comes into view.
- Igniter A will cycle once for 10 seconds.
- IGNITION TEST COMPLETE comes into view when test is finished.
- On the panel 121VU, close circuit breaker 3JH1 (3JH2).
- Set the ENG / MASTER 1(2) switch to OFF.
- Push the line key adjacent to the RETURN indication
- The FADEC menu comes into view

(continued)

(continued)

74-31-03 Warning and Caution on ECAM E/WD

MAINTENANCE

- Push the line key adjacent to the RETURN indication
- The ENG menu comes into view.
- Repeat the procedure for the FADEC 1B (2B)
- Push the key MCDU MENU.
- The MCDU menu comes into view.

If IGN B indication is inop.

- Push the line key adjacent to the FADEC 1A (2A) indication.
- The FADEC menu comes into view.
- Push the line key adjacent to the IGN TEST indication.
- The IGNITION TEST menu comes into view.
- On panel 115VU make sure that the ENG / MODE selector switch is in the NORM position.

Note : Make sure that there is no air pressure at the starter valve inlet.

- Set the ENG / MASTER 1(2) switch to ON.
- On the panel 49VU, open circuit breaker 1JH.
- On the upper ECAM display unit the message IGN A FAULT appears.
- Push the line key adjacent to the PUSH BUTTON TO START THE TEST indication.
- The WARNING TEST ACTIVE indication comes into view.
- IGNITER B will cycle once for 10 seconds.
- IGNITION TEST COMPLETE comes into view when test is finished.
- On the panel 49VU, close circuit breaker 1JH.
- Set the ENG / MASTER 1(2) switch to OFF.
- Push the line key adjacent to the RETURN indication
- The FADEC menu comes into view
- Push the line key adjacent to the RETURN indication
- The ENG menu comes into view.
- Repeat the procedure for the FADEC 1B (2B)
- Push the key MCDU MENU.
- The MCDU menu comes into view.

78-30-01 Thrust Reverser

MAINTENANCE

78-30-01	THRUST REVERSER – DEACTIVATION	
ACCESS ZONE :	438 AR 448 AR	ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

CAUTION : NEVER BLANK OFF HYDRAULIC CONTROL UNIT (HCU) RETURN HOSE AND RELEASE AIRCRAFT (EVEN IF THRUST REVERSER IS DEACTIVATED). THIS ACTION MAY RESULT IN THRUST REVERSER SYSTEM PRESSURIZATION.

PROCEDURE

1 – On the center pedestal, on the ENG panel 115VU :
  – Put a warning notice to tell persons not to start the engine 1(2).
2 – Make sure that the engine 1(2) shutdown occurred not less than 5 minutes before you do this procedure.
3 – On the overhead maintenance panel 50VU :
  – Make sure that the ON legend of the ENG/FADEC GND PWR/1(2) pushbutton switch is off.
  – Put a warning notice to tell persons not to energize the FADEC 1(2).
4 – Open the fan cowl doors.
5 – Put the access platform in position.

WARNING : MAKE SURE THAT THE THRUST REVERSER IS LOCKED. IF NOT, THE THRUST REVERSER CAN OPERATE ACCIDENTALLY AND CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO THE REVERSER.

6 – Do a check of the primary lock, as follows :
  – Make sure the blocker doors are closed and flush with the thrust reverser structure.
  – Pull the blocker door with your hand to make sure the door cannot open.
7 – Make the Thrust Reverser Unserviceable.
  – Remove the quick-release pin from the operational position on the HCU.
  – Move the inhibit lever from the operational position to the OFF position (FIG. 4).
  – Install the quick-release pin to hold the inhibit lever in the OFF position.
8 – Do a test of the deploy switches and make sure that they are operative.
  (a) Do an operational test of the thrust reverser system through the CFDS and when the throttle control lever is in the reverse position :
    – check that the green or amber REV indication in the N1 indicator of the engine 1(2) does not appears.
    – the ECAM warning ENG 1(2) REVERSER FAULT appears

(continued)

(continued)

78-30-01 Thrust Reverser

MAINTENANCE

– check the T/R test report :
  1 If the following message is present, replace the four deploy switches and do the test again :
    – "DEPL SW, J5/J6, ECU"
  2 If the following message is present, replace the four stow switches and do the test again :
    – "STOW SW, J5/J6, ECU"
  3 If the following message is present, replace the four deploy switches and the four stow switches and do the test again :
    – "DPLSTW SW, J5/6, ECU"
  4 If the ECAM warning ENG 1(2) REV PRESSURIZED appears together with one of the following messages, troubleshoot per (Ref. TSM 78 PB101) :
    – "HCU (TRPV OPEN)", or "HCU (TRPV), HYD"
  5 If one of the following messages is present, troubleshoot per (Ref. TSM 78 PB101) and do the test again :
    – "EIU, HCU" or "TR LOCK, TR ACT"
  6 If the message "HCU (TRPV), HYD" or "HCU, TRSOV, HYD" is present and if therse is no other message above mentioned continue the deactivation procedure.
    Note : The maintenance messages linked to the fault(s) occurred before the deactivation, can be recorded in this T/R test report.

9 – Remove the bolts that attach the lockplates to the storage bracket (FIG. 1).
10 – Remove the lockplates from the storage bracket.
11 – Remove the lockout bolts from the storage bracket.
12 – Remove the screws that attach the lockout fairings to the blocker doors (FIG. 2).
13 – Attach the lockout fairings to the storage bracket with the screws (FIG. 1).
14 – Torque screws to between 0.16 and 0.19 m.daN (14.15 and 16.81 lbf.in).
15 – Install the lockout bolts on the blocker doors (FIG. 3).
16 – Torque the lockout bolts to between 0.65 and 0.70 m.daN (57.52 and 61.94 lbf.in).
17 – Put the lockplates over the lockout bolts and install the bolts.
18 – Torque the bolts to between 0.33 and 0.45 m.daN (29.20 and 39.82 lbf.in).
19 – Remove the access platform(s).
20 – Close the fan cowl doors.
21 – Remove the warning notice(s).
22 – Do a FADEC ground test (Engine Non Motoring) and make sure that these fault messages are not in view :
  – "DEPL SW, J5/J6, ECU" or "STOW SW, J5/J6, ECU" or "DPLSTW SW, J5/6, ECU"
23 – In the cockpit, install a warning notice to show the reverser cannot operate.
  – Make an entry in the log book.

(continued)

(continued)

78-30-01 Thrust Reverser

MAINTENANCE

78-30-01	THRUST REVERSER – DEACTIVATION	
ACCESS ZONE : 438AR 448AR		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE (CONT'D)

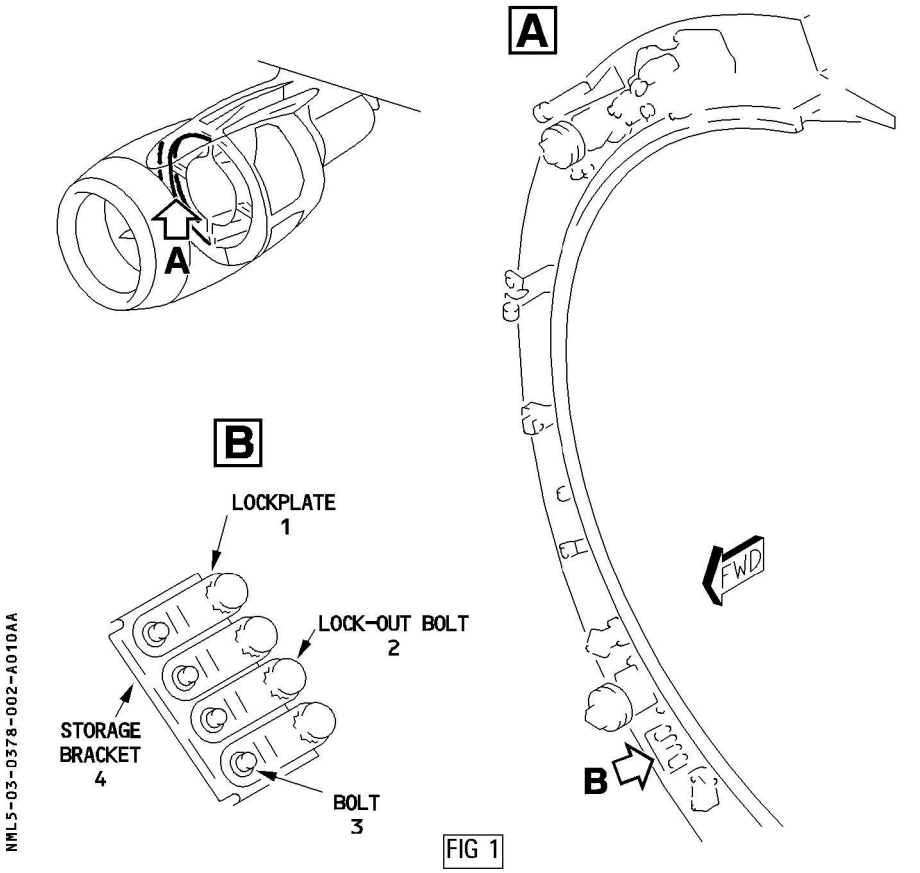


FIG 1

(continued)

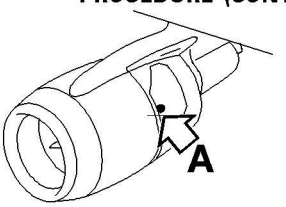
(continued)

78-30-01 Thrust Reverser

MAINTENANCE

78-30-01	THRUST REVERSER – DEACTIVATION	
ACCESS ZONE : 438AR 448AR		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE (CONT'D)



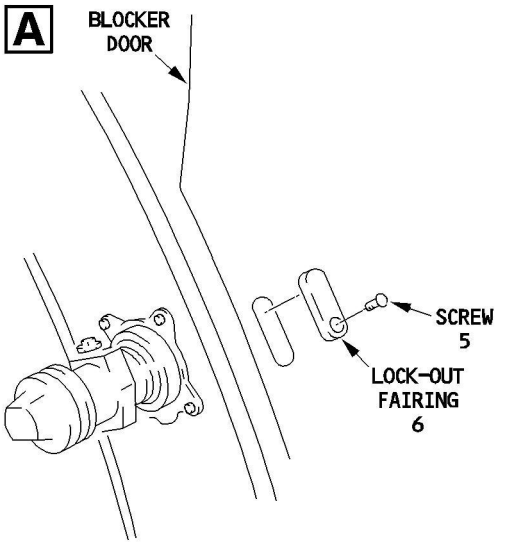


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FIG 2

(continued)

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78-30-01 Thrust Reverser

MAINTENANCE

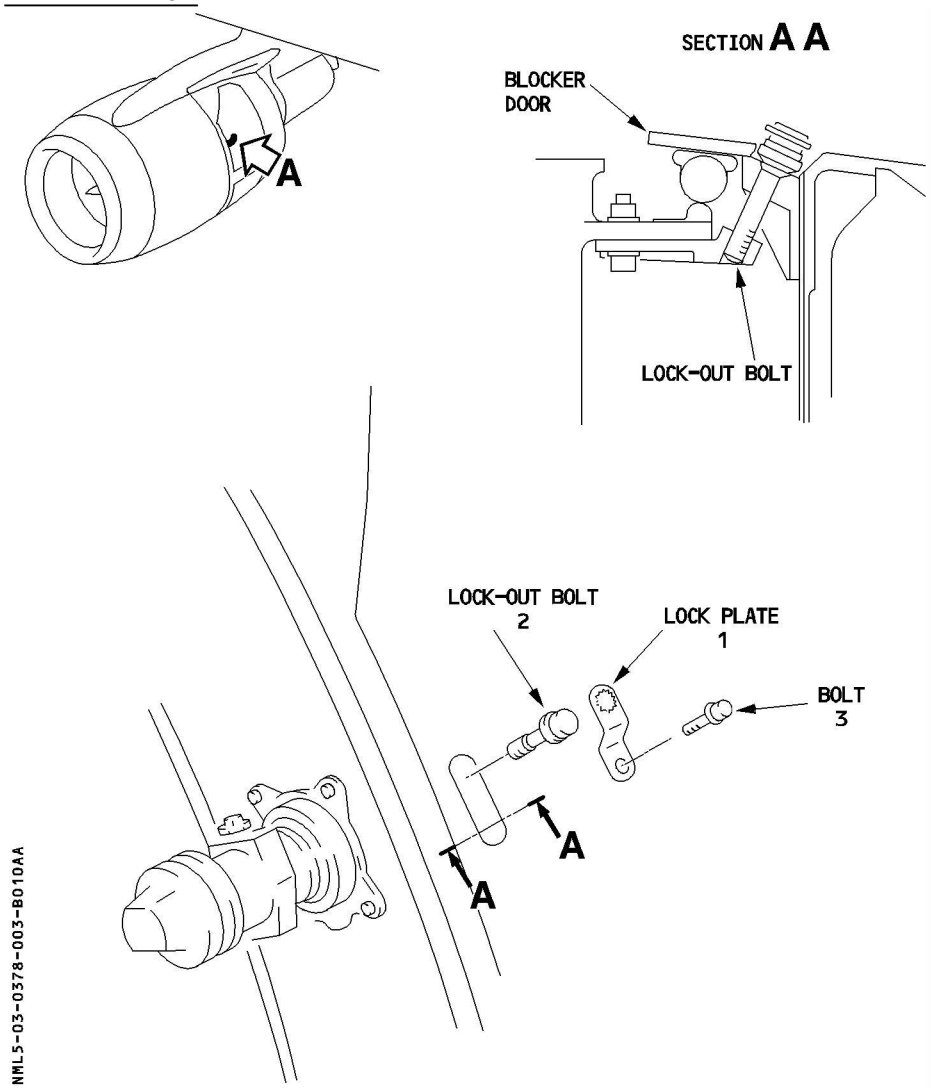

FIG 3

(continued)

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78-30-01 Thrust Reverser

MAINTENANCE

78-30-01	THRUST REVERSER – DEACTIVATION	
ACCESS ZONE :	438 AR 448 AR	ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION

PROCEDURE (CONT'D)

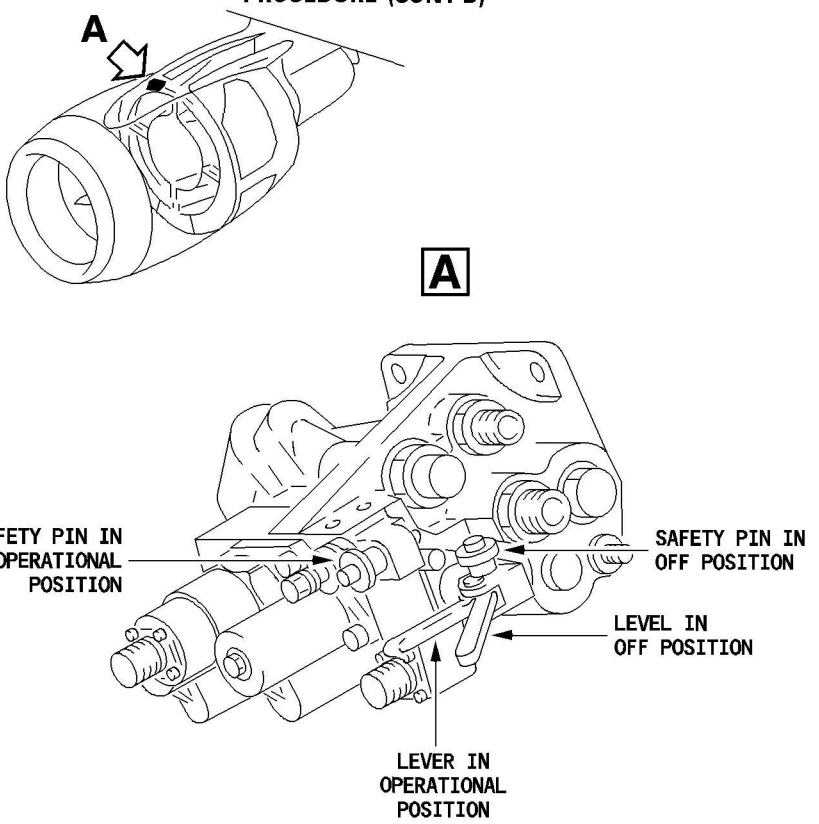

FIG 4

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78-30-01 Thrust Reverser

MAINTENANCE

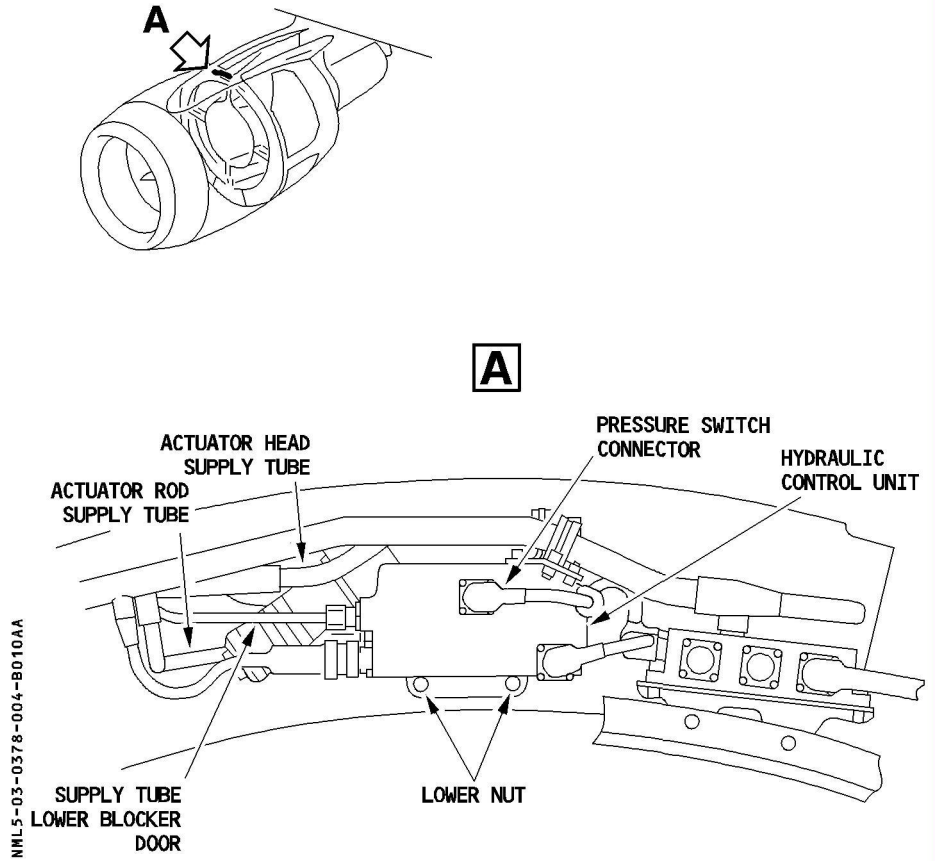

FIG 5

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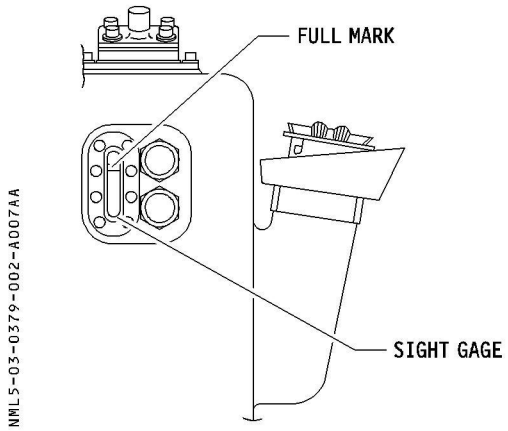
79-31-01 Indication on ECAM ENGINE Page

MAINTENANCE

79-31-01	OIL QUANTITY INDICATION – QTY CHECK	
ACCESS ZONE : 437 BL, 447 BL		ACCESS ITEM :
GSE :		
ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
1EN1	ENGINE/ENG1/OIL/QTY	121VU N39
1EN2	ENGINE/ENG2/OIL/QTY	121VU N41

PROCEDURE

1 – On panel 115VU put a warning notice to tell persons not to start the engine 1(2).
2 – Make sure that the engine 1(2) has been shut down for at least 5 minutes.
3 – On panel 50VU make sure that the ON legend of the ENG / FADEC GND PWR / 1(2) pushbutton switch is off, and install a warning notice.
4 – Check oil quantity in the oil tank
5 – Add oil if necessary
6 – Remove warning notices from the panels 115VU and 50VU
7 – Open, safety and tag C/B 1EN1 (1EN2)
8 – Put a warning notice in the cockpit to tell persons that the oil quantity indication does not operate.



79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE

79-35-02-A)-a)	OIL FILTER CLOG WARNING – REPLACEMENT OF OIL FILTER, CHECK OF THE VISUAL INDICATOR (POP OUT). FUNCTIONAL, CHECK OF THE VISUAL INDICATOR (POP OUT).	
ACCESS ZONE : 437 AL or 447 AL	**ACCESS ITEM** : DIRECT	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
	nil	

PROCEDURE

1 – On the panel 115VU, install a warning notice to tell persons not to start the engine 1(2).

2 – Make sure that the engine 1(2) has been shut down for at least 5 minutes.

3 – On panel 50VU make sure that the "ON" legend of the ENG / FADEC GND PWR 1(2) pushbutton switch is off and install a warning notice.

4 – Open left fan cowl door.

5 – Remove the Main Oil supply filter
- a) Put a container 1L (0.25 USgal) under the filter to collect the remaining oil.
- b) Cut and remove the lockwire from the drain plug (60).
- c) Loosen the drain plug and let the oil drain.
- d) Remove the drain plug (60) from the filter cover (40). Remove and discard O-ring (50).
- e) Do not remove the back-up seal (80) from the drain plug, but give it a visual inspection.
- f) Only if damaged, cut the back-up seal (80) with a sharp blade. Remove and discard.
- g) Remove the 4 bolts (70) which attach the cover (40) to the lubrication unit housing.
- h) Remove the cover (40) by its 2 integral ears and remove from the housing. Remove and discard O-ring (30).
- i) Do not remove the back-up seal (90) from the cover, but give it a visual inspection.
- j) Do a visual inspection of the cover back-up seal (90). Do not remove if serviceable.
- k) Only if damaged, cut the back-up seal (90) with a sharp blade. Remove and discard.
- l) Remove the lube filter element from the lubrication unit housing.
- m) Discard the filter element and the O-ring (10).

6 – Install the new filter
- a) Lubricate a new O-ring (10) with engine oil (Material N° CP2442).
- b) Install the new O-ring (10) in the groove of the upper part of the new oil supply filter element (20).
- c) Install the new supply filter element (20) in the lube filter housing.
- d) Install the filter cover (40) as follows :

(continued)

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79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS INSTALLED. THE ABSENCE OF THE BACK-UP SEAL CAN CAUSE AN IMPORTANT OIL LEAKAGE DURING ENGINE OPERATION WITH POSSIBLE ENGINE FAILURE.

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS CORRECTLY SET WHEN YOU INSTALL IT.

– If the cover back-up seal (90) has been removed, you must install a new back-up seal, as follows :
  . Lubricate a new back-up seal (90) with engine oil (Material N° CP2442).
  . Make sure that the back-up seal groove is clean and in good condition.
  . Install the new back-up seal (90) in the groove of the cover.
– Lubricate a new 0-ring (30) with engine oil (Material N° CP2442).
– Make sure that the 0-ring groove is clean and in good condition.
– Install the new 0-ring (30) in the groove of the cover (40).
– Lubricate the threads of the bolts (70) with engine oil (Material N° CP2442).
– Put the filter in position.

CAUTION : DO NOT TURN THE COVER TO PREVENT DAMAGE TO THE FILTER.

  . Set the suppply filter cover in position. Push the cover into the housing until it comes against the filter housing flange.
– Install the bolts (70). TORQUE the bolts to between 34 and 45 lbf.in (0.38 and 0.50 m.daN).

e) Install the drain plug (60) as follows :

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS INSTALLED. THE ABSENCE OF THE BACK-UP SEAL CAN CAUSE AN IMPORTANT OIL LEAKAGE DURING ENGINE OPERATION WITH POSSIBLE ENGINE FAILURE.

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS CORRECTLY SET WHEN YOU INSTALL IT.

– If the drain plug back-up seal (80) has been removed, you must install a new back-up seal, as follows :
  1 Lubricate a new back-up seal (80) with engine oil (Material N° CP2442).
  2 Make sure that the back-up seal groove is clean and in good condition.
  3 Install the new back-up seal (80) in the groove of the drain plug.
– Lubricate a new 0-ring (50) with engine oil (Material N° CP2442).
– Make sure that the 0-ring groove is clean and in good condition.
– Install the new 0-ring (50) in the groove of the drain plug.
– Install the drain plug (60) in the supply filter cover. Torque the plug to between 65 and 75 lbf. in (0.73 and 0.84 m.daN).
– Safety the plug (60) to the cover (40) with lockwire 0.032 in. (0.8 mm) dia. (Material N° CP8001) or lockwire 0.032 in. (0.8 mm) dia. (Material N°. CP8002).

f) Remove the oil drain container from under the lube filter.

7 – Check the red visual indicator of the electrical chip detector is not popped out.

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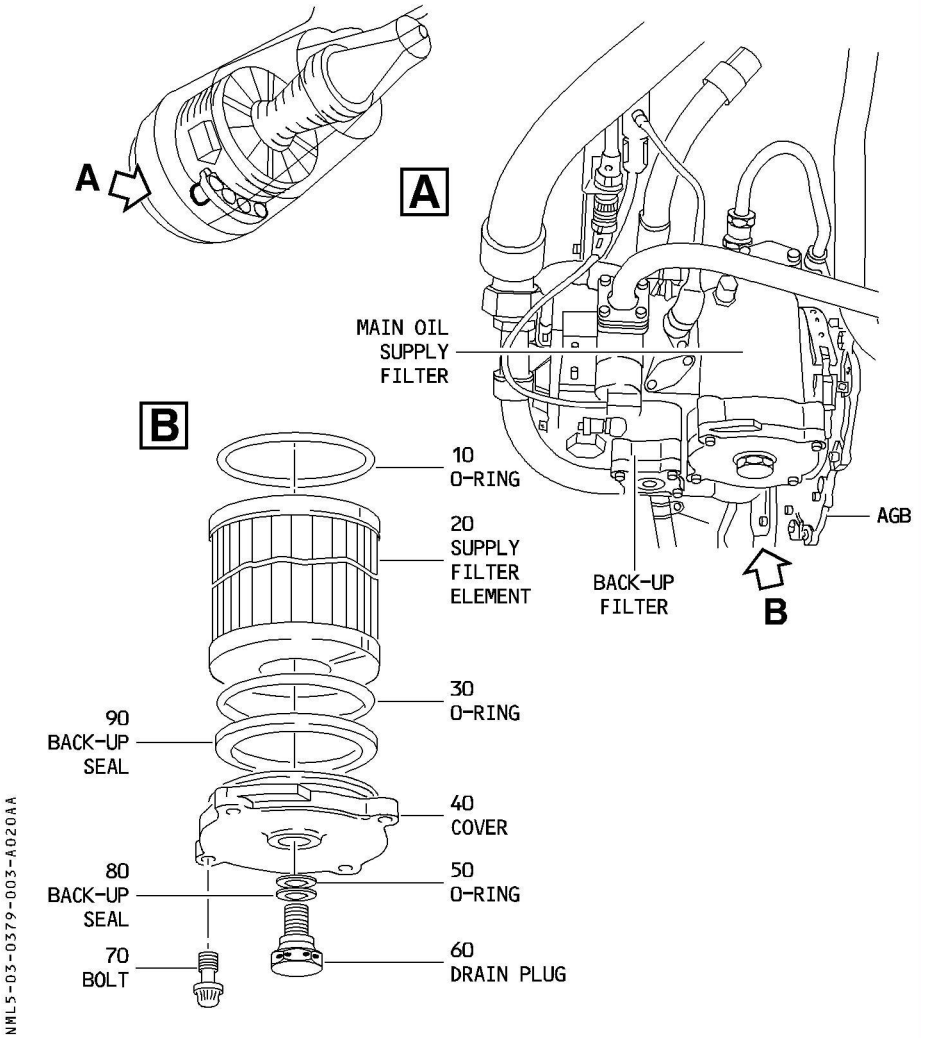
79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE



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79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE

8 – Perform a functional Check of the Visual indicator (pop out) as follows :

a) Disconnect the DPM electrical harness connector B from the visual indicator.
b) Close the circuit between pin N°2 and N°3 of connector B with jumper metallic for 1 second minimum.
c) Check the visual red pop out indicator must extend (extension time < 1 second).
   – If the red pop out has not extended, replace the visual indicator.
   – If red pop out indicator has extended, do the resetting of the visual indicator, then go to the next step.

9 – Do a Minimum Idle leak Check and make sure that there is no leakage from main oil supply filter.

10 – Install warning notice in the cockpit to tell that the oil filter clog warning is inoperative.

11 – Close the fan cowl doors.

12 – Put the aircraft back to the serviceable conditions.

(continued)

(continued)

79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE

79-35-02-A)-b)	OIL FILTER CLOG WARNING – REPLACEMENT OF OIL FILTER, INSPECTION OF THE ELECTRIC MASTER CHIP DETECTOR.	
ACCESS ZONE : 437 AL or 447 AL		ACCESS ITEM : DIRECT
GSE :	nil	

ASSOCIATED CIRCUIT BREAKERS		
FIN	DESIGNATION	LOCATION
	nil	

PROCEDURE

1 – On the panel 115VU, install a warning notice to tell persons not to start the engine 1(2).

2 – Make sure that the engine 1(2) has been shut down for at least 5 minutes.

3 – On panel 50VU make sure that the "ON" legend of the ENG / FADEC GND PWR 1(2) pushbutton switch is off and install a warning notice.

4 – Open left fan cowl door.

5 – Remove the Main Oil supply filter
- a) Put a container 1L (0.25 USgal) under the filter to collect the remaining oil.
- b) Cut and remove the lockwire from the drain plug (60).
- c) Loosen the drain plug and let the oil drain.
- d) Remove the drain plug (60) from the filter cover (40). Remove and discard O-ring (50).
- e) Do not remove the back-up seal (80) from the drain plug, but give it a visual inspection.
- f) Only if damaged, cut the back-up seal (80) with a sharp blade. Remove and discard.
- g) Remove the 4 bolts (70) which attach the cover (40) to the lubrication unit housing.
- h) Remove the cover (40) by its 2 integral ears and remove from the housing. Remove and discard O-ring (30).
- i) Do not remove the back-up seal (90) from the cover, but give it a visual inspection.
- j) Do a visual inspection of the cover back-up seal (90). Do not remove if serviceable.
- k) Only if damaged, cut the back-up seal (90) with a sharp blade. Remove and discard.
- l) Remove the lube filter element from the lubrication unit housing.
- m) Discard the filter element and the O-ring (10).

6 – Install the new filter
- a) Lubricate a new O-ring (10) with engine oil (Material N° CP2442).
- b) Install the new O-ring (10) in the groove of the upper part of the new oil supply filter element (20).
- c) Install the new supply filter element (20) in the lube filter housing.
- d) Install the filter cover (40) as follows :

(continued)

(continued)

79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS INSTALLED. THE ABSENCE OF THE BACK-UP SEAL CAN CAUSE AN IMPORTANT OIL LEAKAGE DURING ENGINE OPERATION WITH POSSIBLE ENGINE FAILURE.

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS CORRECTLY SET WHEN YOU INSTALL IT.

- If the cover back-up seal (90) has been removed, you must install a new back-up seal, as follows :
  . Lubricate a new back-up seal (90) with engine oil (Material N° CP2442).
  . Make sure that the back-up seal groove is clean and in good condition.
  . Install the new back-up seal (90) in the groove of the cover.
- Lubricate a new 0-ring (30) with engine oil (Material N° CP2442).
- Make sure that the 0-ring groove is clean and in good condition.
- Install the new 0-ring (30) in the groove of the cover (40).
- Lubricate the threads of the bolts (70) with engine oil (Material N° CP2442).
- Put the filter in position.

CAUTION : DO NOT TURN THE COVER TO PREVENT DAMAGE TO THE FILTER.

. Set the suppply filter cover in position. Push the cover into the housing until it comes against the filter housing flange.

- Install the bolts (70). TORQUE the bolts to between 34 and 45 lbf.in (0.38 and 0.50 m.daN).

e) Install the drain plug (60) as follows :

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS INSTALLED. THE ABSENCE OF THE BACK-UP SEAL CAN CAUSE AN IMPORTANT OIL LEAKAGE DURING ENGINE OPERATION WITH POSSIBLE ENGINE FAILURE.

CAUTION : MAKE SURE THAT THE BACK-UP SEAL IS CORRECTLY SET WHEN YOU INSTALL IT.

- If the drain plug back-up seal (80) has been removed, you must install a new back-up seal, as follows :
  1 Lubricate a new back-up seal (80) with engine oil (Material N° CP2442).
  2 Make sure that the back-up seal groove is clean and in good condition.
  3 Install the new back-up seal (80) in the groove of the drain plug.
- Lubricate a new 0-ring (50) with engine oil (Material N° CP2442).
- Make sure that the 0-ring groove is clean and in good condition.
- Install the new 0-ring (50) in the groove of the drain plug.
- Install the drain plug (60) in the supply filter cover. Torque the plug to between 65 and 75 lbf. in (0.73 and 0.84 m.daN).
- Safety the plug (60) to the cover (40) with lockwire 0.032 in. (0.8 mm) dia. (Material N° CP8001) or lockwire 0.032 in. (0.8 mm) dia. (Material N°. CP8002).

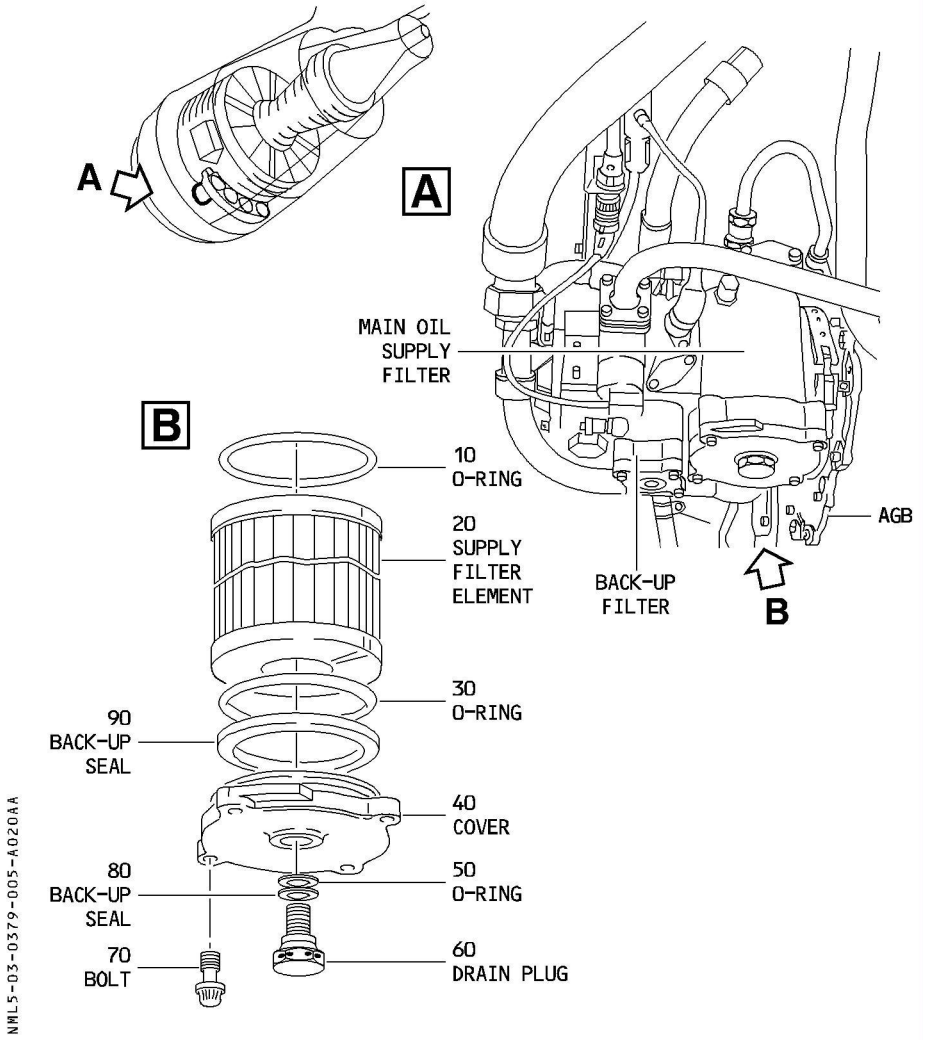
f) Remove the oil drain container from under the lube filter.

(continued)

(continued)

79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE



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79-35-02 Warning and Caution on ECAM E/WD

MAINTENANCE

7 – Remove the Electric Master Chip Detector.

8 – Inspection of the Electric Master Chip Detector
  a) Examine the Electric Master Chip Detector plug for debris presence.
    – Check for debris buid-up within the gap between the 2 magnet poles. If presence of particles then keep them for laboratory analysis as required.
  b) Clean the Electric Master Chip Detector.
  c) Install the Electric Master Chip Detector.

9 – Do a Minimum Idle leak Check and make sure that there is no leakage from main oil supply filter.

10 – Close the fan cowl doors.

11 – Put the aircraft back to the serviceable conditions.

BLANK

80-11-01 Start valve

MAINTENANCE

80-11-01	STARTER VALVE – MANUAL CONTROL		
ACCESS ZONE :	438 AR or 448 AR 438 CR or 448 CR	ACCESS ITEM :	direct
GSE :	nil		
ASSOCIATED CIRCUIT BREAKERS			
FIN	DESIGNATION		LOCATION
	nil		

PROCEDURE

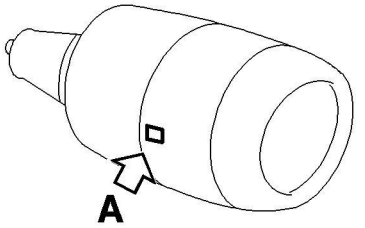
1 – Open the SAV access door on right fan cowl.
2 – Perform engine start by operating the starter valve manually.
3 – After engine start position the starter valve manually in closed position.
4 – Close access door.
5 – Install a warning notice in flight compartment indicating that pneumatic starter valve system is inoperative.

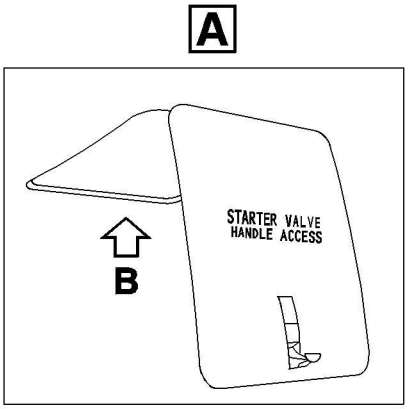
(continued)

(continued)

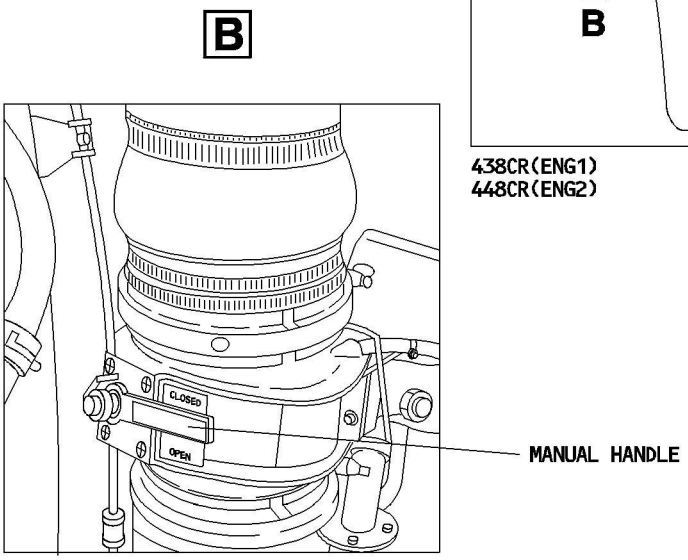
80-11-01 Start valve

MAINTENANCE





438CR(ENG1)
448CR(ENG2)



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80-11-04 Start valve position indication on ECAM lower display

MAINTENANCE

80-11-04	START VALVE POSITION INDICATION – POSITION CHECK	
ACCESS ZONE : 438 CR or 448 CR	**ACCESS ITEM** : direct	
GSE : nil		
ASSOCIATED CIRCUIT BREAKERS		
FIN	**DESIGNATION**	**LOCATION**
	nil	

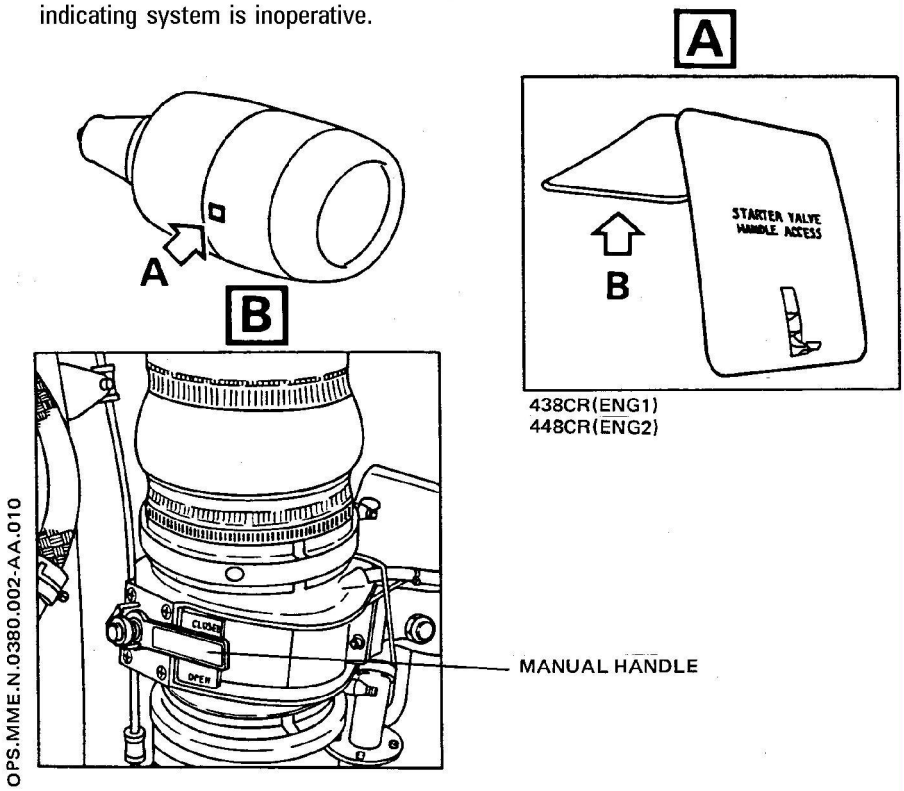
PROCEDURE

1 – Open access door on right fan cowl.

2 – After engine start sequence, ensure that manual handle is in closed position.

3 – Close access door.

4 – Install a warning notice in flight compartment indicating that starter valve 1(2) indicating system is inoperative.



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