



AIRCRAFT
MAINTENANCE MANUAL

CENTRAL MAINTENANCE SYSTEM - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives procedures to do the test of the Central Maintenance Computer.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
45-45-00-700-801-A	CMC OPERATIONAL TEST	ALL



EMB145 – EMB135

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TASK 45-45-00-700-801-A

EFFECTIVITY: ALL

2. CMC OPERATIONAL TEST

A. General

(1) The function of this test is to make sure that the CMC operates correctly:

- Aircraft Power-Up - The CMC will make sure that it has the minimum operating conditions. If so, a dedicated DSO is activated and some additional tests are done. The minimum operating conditions include the correct operation of these devices: Data Memory, Program Memory, Timers, and the Interrupt Controller. Thus, the system can operate. During this initial phase, there is the test of the ARINC input buses. It cannot be done during operations.
- Continuous Self-Test - This function is active during the operation mode. It does a check of the CMC system for the correct functioning with the BITE equipment. If the behavior of the CMC is not correct, a discrete signal is activated in a specific output ARINC message. The check messages during operation can be related to: correct operation of the DSI interfaces and ARINC output, correct storage in the NVM, correct operation of the DSO. This task must be done in sequence when a malfunction occurs on the CMC. A CMC FAIL message will be shown on the EICAS.

B. References

REFERENCE	DESIGNATION
AMM SDS 27-36-00/1	
AMM SDS 31-41-00/1	
AMM SDS 31-42-00/1	
AMM SDS 32-30-00/1	
AMM SDS 34-22-00/1	
AMM SDS 45-45-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223BZ	Cockpit, LH side - Main instrument panel

D. Tools and Equipment

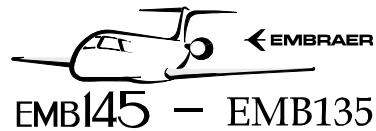
Not Applicable

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable



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G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Cockpit

I. Preparation

SUBTASK 841-002-A

- (1) Make sure that the aircraft is safe for maintenance.
- (2) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (3) Make sure that the Systems below are operational and on:
 - EICAS ([AMM SDS 31-41-00/1](#)).
 - Integrated Computer System ([AMM SDS 31-42-00/1](#)).
 - EFIS ([AMM SDS 34-22-00/1](#)).
 - CMC ([AMM SDS 45-45-00/1](#)).

J. CMC Operational Test - Procedures ([Figure 501](#)) ([Figure 502](#))

SUBTASK 710-002-A

- (1) Make sure that the fail message CMC FAIL is not shown on the EICAS.
- (2) Do the test of the CMC as follows:
 - (a) With the aircraft on the ground (WOW) ([AMM SDS 32-30-00/1](#)), get access to the maintenance page on MFD 1 as follows:
 - Push the MFD button.
 - (Applicable to aircraft with dual FMS) Push the JSTK button.
 - Push the MAINT button.
 - (Applicable to aircraft with -011 CMC and on) A message with the CMC software version comes into view. Push the NEXT button.

Result:

1 MFD 1 shows the maintenance messages.

- (b) On the overhead panel, set the BATT1 and BATT2 switches to the OFF position.

NOTE: Make sure that the AOA sensors ([AMM SDS 27-36-00/1](#)) are in the middle position.

- (c) On the circuit breaker panel, open the AIR/GND A, AIR/GND B, AIR/GND C, and AIR/GND D circuit breakers and attach the DO-NOT-CLOSE tags to them. This is to put the aircraft in the flight configuration.

Result:

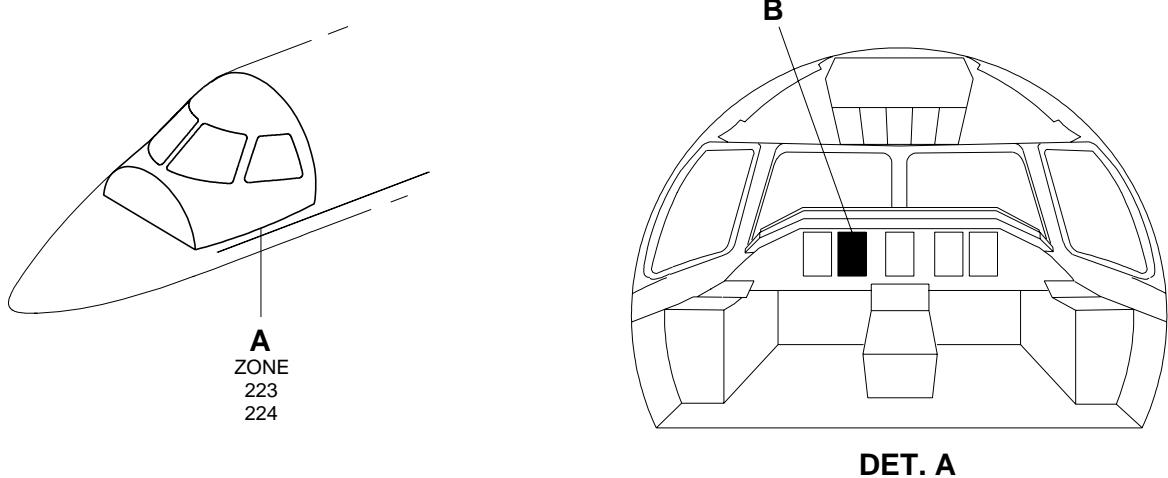
- 1 The MFD 1 maintenance page goes out of view.
 - 2 Make sure that the LG AIR/GND FAIL caution message is shown on the EICAS.
(d) Try to get access to the maintenance page on MFD 1.
- Result:
- 1 The MFD 1 maintenance page is not accessible.
- (e) To put the aircraft in the ground configuration, remove the DO-NOT-CLOSE tags from the four circuit breakers opened in (c) and close them in ten seconds maximum.
- Result:
- 1 Make sure that the LG AIR/GND FAIL caution message is not shown on the EICAS.

K. Follow-on

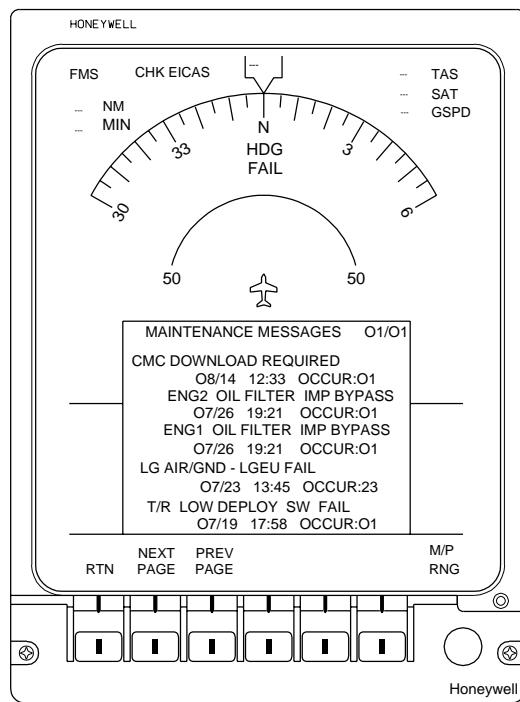
SUBTASK 842-002-A

- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: AIRCRAFT WITH -005 THRU -010 CMC
MFD Maintenance Page
Figure 501



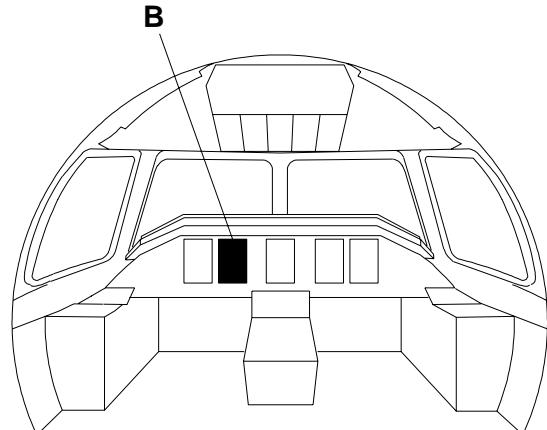
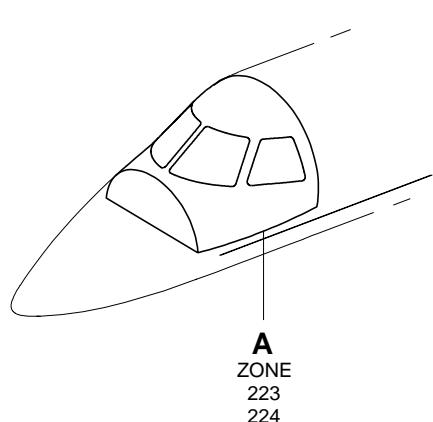
DET. A



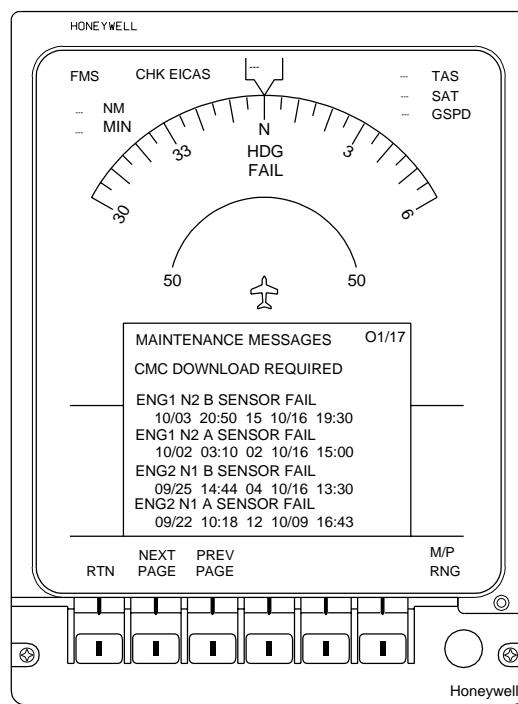
DET. B

145AMM450002.MCE B

EFFECTIVITY: AIRCRAFT WITH -011 CMC AND UP
MFD Maintenance Page
Figure 502



DET. A



DET. B

145AMM450024.MCE