



EMB145 - EMB135

AIRCRAFT  
MAINTENANCE MANUAL

ELECTRONIC CONTROL SYSTEM - ADJUSTMENT/TEST

EFFECTIVITY: ALL

1. General

- A. This section gives the procedures to do the check of the WOW input signal to the FADEC.
- 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
76-12-00-700-801-A ♦	WOW INPUT SIGNAL TO FADEC - OPERATIONAL CHECK	ALL



# AIRCRAFT MAINTENANCE MANUAL

TASK 76-12-00-700-801-A

EFFECTIVITY: ALL

## 2. WOW INPUT SIGNAL TO FADEC - OPERATIONAL CHECK

### A. General

- (1) To access the FADEC discrete label, obey the instructions below:
  - (a) For aircraft with -009 CMC, use Data Acquisition Software (DAS) GSE 211 or GSE 331 or GSE 505 or GSE 535.
  - (b) For aircraft with -010 CMC, use Data Acquisition Software (DAS) GSE 263 or GSE 331 or GSE 505 or GSE 535.
  - (c) For aircraft with -011 CMC, use Data Acquisition Software (DAS) GSE 331 or GSE 505 or GSE 535.
  - (d) For aircraft with -012 CMC, use Data Acquisition Software (DAS) GSE 505 or GSE 535.
  - (e) For aircraft with -013 CMC, use Data Acquisition Software (DAS) GSE 535, which is compatible with all the CMC versions available.
- (2) Do this check with the aircraft on the ground, not on jacks.
- (3) It is not necessary to operate the engines.

### B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 32-00-01-910-801-A/200	LG SAFETY PIN - INSTALLATION AND REMOVAL

### C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223LZ	Behind the pilot seat

### D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 130	Personal Computer	Downloading	
GSE 134	CMC/PC Interconnection Cable	To interconnect the PC and the CMC	
GSE 211	Data Acquisition Software (DAS)	To read the FADEC discrete label	
GSE 263	Data Acquisition Software (DAS)	To read the FADEC discrete label	
GSE 331	Data Acquisition Software (DAS)	To read the FADEC discrete label	
GSE 505	Data Acquisition Software (DAS)	To read the FADEC discrete label	
GSE 535	Data Acquisition Software (DAS)	To read the FADEC discrete label	



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- E. Auxiliary Items  
Not Applicable
- F. Consumable Materials  
Not Applicable
- 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 DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).

**WARNING: MAKE SURE THAT THE SAFETY PINS OF THE LANDING GEARS ARE INSTALLED ( AMM TASK 32-00-01-910-801-A/200).**

- (3) Make sure that the AIR/GROUND system is serviceable.
- (4) Set the thrust lever to the IDLE position.
- (5) Open access door 223LZ ([AMM MPP 06-41-03/100](#)).
- (6) Make sure that the CMC system is serviceable.
- (7) Connect the Personal Computer (GSE 130) to the CMC maintenance connector, with the Interconnect Cable (GSE 134).
- (8) On the circuit breakers panel, make sure that the AIR/GND A, B, C and D circuit breakers are closed.
- (9) (For Data Acquisition Software - GSE 211 or GSE 263) On the DAS menu, select "DOWNLOAD", then select FADEC 1A.
- (10) (For Data Acquisition Software - GSE 331 or GSE 505 or GSE 535) On the DAS menu, select the "FADEC LABELS" icon, then select FADEC 1A.
- (11) Select DISCRET LABEL.
- (12) Select the LABEL 350 (TDSWRD) to see the status of the WOW.
  - (a) The status of the WOW must be 1 (=GND).
- (13) Check the status of the WOW for FADEC 2A, 1B and 2B.
  - (a) The status of the WOW must be 1 (=GND).

- (14) On the circuit breakers panel, open the AIR/GND A, B, C and D circuit breakers.
- (15) Select FADEC 1A, LABEL 350.
  - (a) The status of the WOW must be zero (=AIR).
- (16) Check the status of the WOW for FADEC 2A, 1B and 2B.
  - (a) The status of the WOW must be zero (=AIR).
- (17) On the circuit breakers panel, close the AIR/GND A, B, C and D circuit breakers.
- (18) Select FADEC 1A, LABEL 350.
  - (a) The status of the WOW must be 1 (=GND).
- (19) Check the status of the WOW for FADEC 2A, 1B and 2B.
  - (a) The status of the WOW must be 1 (=GND).

**J. Operationally Check WOW Input Signal to FADEC ([Figure 501](#))**

**SUBTASK 710-002-A**

- (1) Do the operational check of the WOW input signal to FADEC 1A and 2A as follows:
  - (a) On the DAS, select FADEC 1A.
  - (b) Select DISCRETE LABEL.
  - (c) Select the LABEL 264 (AIDIF1).
  - (d) On the circuit breakers panel, make sure that the AIR/GND A, B, C, and D circuit breakers are closed.  
 Result:  
 1 The status of the WOWDF must be zero (= no disagreement between FADEC input signals).
  - (e) Open the AIR/GND A and C circuit breakers and wait approximately 20 seconds.  
 Result:  
 1 The status of the WOWDF changes to 1 (= disagreement between FADEC input signals).
  - (f) Close the AIR/GND A circuit breaker.  
 Reset the FADECs and wait approximately 20 seconds.  
 Result:  
 1 The status of the WOWDF changes to zero.
  - (g) Open the AIR/GND A circuit breaker and wait approximately 20 seconds.  
 Result:  
 1 The status of the WOWDF changes to 1.
  - (h) Close the AIR/GND C circuit breaker.  
 Reset the FADECs and wait approximately 20 seconds.  
 Result:  
 1 The status of the WOWDF changes to zero.

- (i) Close the AIR/GND A circuit breaker.
  - (j) Do steps (a) to (i) again for FADEC 2A.
- (2) Do the operational check of the WOW input signal to FADEC 1B and 2B as follows:
- (a) On the DAS, select FADEC 1B.
  - (b) Select DISCRETE LABEL.
  - (c) Select the LABEL 264 (AIDIF1).
  - (d) On the circuit breakers panel, make sure that the AIR/GND A, B, C, and D circuit breakers are closed.
- Result:
- 1 The status of the WOWDF must be zero (= no disagreement between FADEC input signals).
- (e) Open the AIR/GND B and D circuit breakers and wait approximately 20 seconds.
- Result:
- 1 The status of the WOWDF changes to 1 (= disagreement between FADEC input signals).
- (f) Close the AIR/GND B circuit breaker.
- Reset the FADECs and wait approximately 20 seconds.
- Result:
- 1 The status of the WOWDF changes to zero.
- (g) Open the AIR/GND B circuit breaker and wait approximately 20 seconds.
- Result:
- 1 The status of the WOWDF changes to 1.
- (h) Close the AIR/GND D circuit breaker.
- Reset the FADECs and wait approximately 20 seconds.
- Result:
- 1 The status of the WOWDF changes to zero.
- (i) Close the AIR/GND B circuit breaker.
- (j) Do steps (a) to (i) again for FADEC 2B.

#### K. Follow-on

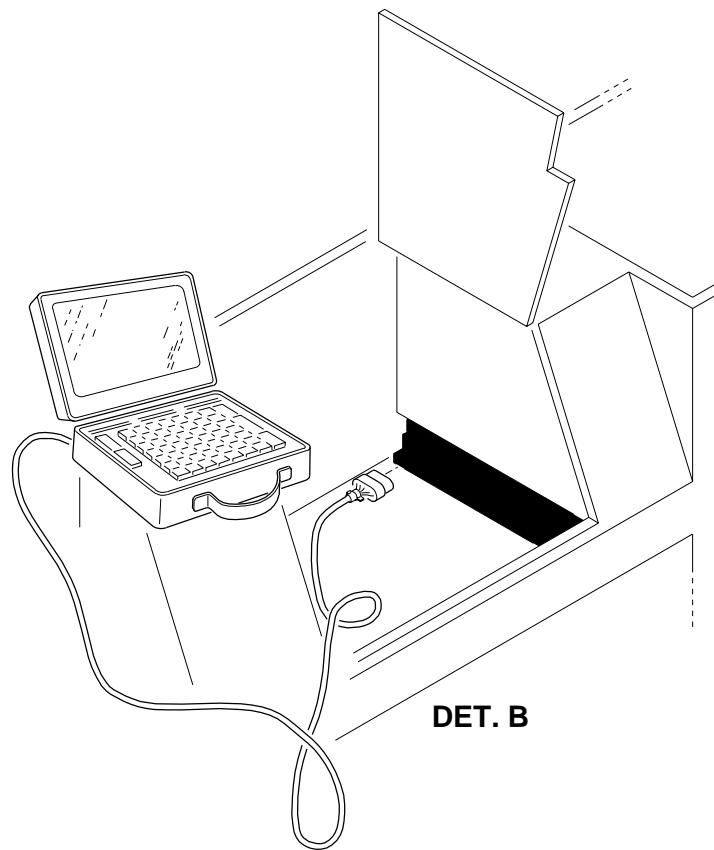
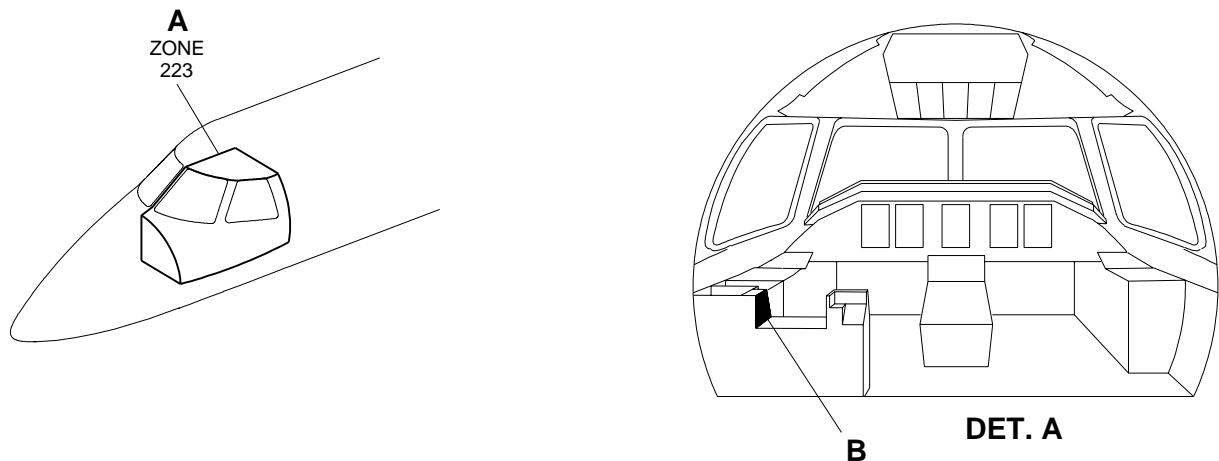
##### SUBTASK 842-002-A

- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Disconnect the Personal Computer (GSE 130) as follows:
  - (a) Get access to the maintenance panel ([AMM MPP 06-41-03/100](#)).
  - (b) Remove the Interconnect Cable (GSE 134) from the CMC maintenance connector to disconnect the Personal Computer (GSE 130).
- (3) Close access door 223LZ ([AMM MPP 06-41-03/100](#)).

**EFFECTIVITY: ALL**

WOW Input Signal to FADEC Operational Check - Component Locations

Figure 501



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