



AIRCRAFT MAINTENANCE MANUAL

AUXILIARY FLIGHT-DATA ACQUISITION UNIT (AFDAU) / AUXILIARY FLIGHT-DATA ACQUISITION AND MANAGEMENT UNIT (AFDAMU) - MAINTENANCE PRACTICES

EFFECTIVITY: AIRCRAFT WITH AFDAMU

1. General

- A. This section gives the procedures to restore the Auxiliary Flight Data Acquisition and Management Unit (AFDAMU).
- 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
31-31-07-860-802-A	AFDAMU CONFIGURATION CARD - PROGRAMMING	AIRCRAFT WITH AFDAMU
31-31-07-860-803-A	AFDAMU CONFIGURATION CARD - UP-LOADING	AIRCRAFT WITH AFDAMU
31-31-07-900-801-A	AFDAMU - RESTORE	AIRCRAFT WITH AFDAMU
31-31-07-970-804-A	AFDAMU CONFIGURATION CARD - READING	AIRCRAFT WITH AFDAMU



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 31-31-07-860-802-A

EFFECTIVITY: AIRCRAFT WITH AFDAMU

2. AFDAMU CONFIGURATION CARD - PROGRAMMING

A. General

- (1) This task gives the procedures for the programming of the Auxiliary-Flight-Data Acquisition and Management Unit (AFDAMU) PCMCIA card.

B. Zones and Accesses

Not Applicable

C. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 421	GSE Software	To configure the AFDAMU data frame	

D. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	PC	To read the data	1
Commercially available	PCMCIA interface	Connect the PCMCIA card to PC	1
Commercially available	PCMCIA card	To permit the reading of recorded data	1

E. Consumable Materials

Not Applicable

F. Expandable Parts

Not Applicable

G. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the programming	

H. Preparation

SUBTASK 841-003-A

- (1) Connect the PCMCIA interface to the computer.
- (2) Turn the computer on and put the PCMCIA card into the related drive.

I. AFDAMU Configuration-Card Programming

SUBTASK 860-002-A

- (1) Use the GSE 421 software (installed in the personal computer) to create a configuration file (data frame) that will be loaded to the AFDAMU. Set the parameters that will be recorded and the start and the stop recording conditions.



AIRCRAFT MAINTENANCE MANUAL

NOTE: Make sure that the GSE 421 software is correctly configured to store the output files into the PCMCIA card. For more information, refer to the software operational manual.

J. Follow-on

SUBTASK 842-003-A

- (1) Remove the PCMCIA card with the configuration files from the personal computer.
- (2) Turn the computer off.



AIRCRAFT MAINTENANCE MANUAL

TASK 31-31-07-860-803-A

EFFECTIVITY: AIRCRAFT WITH AFDAMU

3. AFDAMU CONFIGURATION CARD - UPLOADING

A. General

- (1) This task gives the procedures to upload the configuration files into the Auxiliary-Flight-Data Acquisition and Management Unit (AFDAMU).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 31-31-07-860-802-A/200	AFDAMU CONFIGURATION CARD - PROGRAMMING

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
272	272DR	Fuselage rear section I - Right side

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 036	Platform - Hydraulic, Aircraft	To get access to the rear electronic compartment	1

E. Auxiliary Items

ITEM	DESCRIPTION	PURPOSE	QTY
Commercially available	PCMCIA card configured with data frame	To permit the upload of the data frame	1
Commercially available	Empty PCMCIA card FAT16 Formatted	To record the configured data	1

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Rear electronic compartment



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

I. Preparation

SUBTASK 841-004-A

- (1) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.
- (3) Open access door 272DR AMM MPP 06-41-01/100.
- (4) Open the AFDAMU front-panel door (6). Refer to (Figure 201).

J. Upload AFDAMU Configuration Files

SUBTASK 860-003-A

CAUTION: CAREFULLY PUT THE PCMCIA CARD INTO THE AFDAMU. DO NOT USE FORCE AGAINST THE PCMCIA CONNECTOR. MAKE SURE THAT YOU PUT THE PCMCIA CARD IN THE CORRECT POSITION.

- (1) Make sure that the card is in the correct position before installation. Put the PCMCIA card (2) with the configuration file into the AFDAMU (1).
- (2) The green PCMCIA operation LED (5) will blink during approximately 5 seconds to show that the AFDAMU (1) loads the data frame. When the green LED (5) blinking stops and the LED stays on continuously, push the eject button (3) and remove the AFDAMU configuration card (2).

If the amber LED (5) stays on during the data frame loading, it means that there is a software error in the PCMCIA card (2). If this occurs, push the eject button (3) to remove the PCMCIA card (2), configure the PCMCIA card (2) again with a valid data frame ([AMM TASK 31-31-07-860-802-A/200](#)), and do the steps above again.

- (3) Put an empty PCMCIA card (2) into the AFDAMU (1). This card will record the flight data based on the configuration programmed with the first card.

NOTE: With the empty card connected, the two PCMCIA operation LEDs will stay off.

K. Follow-on

SUBTASK 842-004-A

- (1) Close the AFDAMU front-panel door (6).
- (2) Close access door 272DR AMM MPP 06-41-01/100.
- (3) Remove the hydraulic platform (GSE 036).
- (4) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

TASK 31-31-07-900-801-A

EFFECTIVITY: AIRCRAFT WITH AF DAMU

4. AF DAMU - RESTORE

A. General

- (1) This task gives the procedures to restore the Auxiliary Flight Data Acquisition and Management Unit (AF DAMU).

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-01/100	-
AMM TASK 31-31-07-000-801-A/400	AFDAU/AF DAMU - REMOVAL
AMM TASK 31-31-07-400-801-A/400	AFDAU/AF DAMU - INSTALLATION
SAGEM CMM 31-35-64	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
272	272DR	Fuselage rear section I - Right side

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 036	Platform - Hydraulic, Aircraft	To get access to the rear electronic compartment	

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	Rear electronic compartment

I. Preparation

SUBTASK 841-002-A

- (1) Put up the hydraulic platform (GSE 036) at the necessary height.
- (2) Open access door 272DR AMM MPP 06-41-01/100.



AIRCRAFT
MAINTENANCE MANUAL

J. Restore AFDAMU

SUBTASK 900-002-A

- (1) Remove the AFDAMU [AMM TASK 31-31-07-000-801-A/400](#).
- (2) Do the test of the AFDAMU. To do this, refer to the last revision of SAGEM CMM 31-35-64.

NOTE: If the test results are not satisfactory or the AFDAMU internal batteries are at or near the expiration date, follow the instructions of the manufacturer for servicing. Refer to the last revision of SAGEM CMM 31-35-64.
- (3) Install the AFDAMU [AMM TASK 31-31-07-400-801-A/400](#).

K. Follow-on

SUBTASK 842-002-A

- (1) Close access door 272DR AMM MPP 06-41-01/100.
- (2) Remove the hydraulic platform (GSE 036).

TASK 31-31-07-970-804-A
EFFECTIVITY: AIRCRAFT WITH AFDAMU
5. AFDAMU CONFIGURATION CARD - READING
A. General

- (1) This task gives the procedures for the reading of the recorded PCMCIA card.

B. References

<i>REFERENCE</i>	<i>DESIGNATION</i>
AMM MPP 06-41-01/100	-
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
AMM TASK 31-31-07-860-802-A/200	AFDAMU CONFIGURATION CARD - PROGRAMMING
AMM TASK 31-31-07-860-803-A/200	AFDAMU CONFIGURATION CARD - UPLOADING

C. Zones and Accesses

<i>ZONE</i>	<i>PANEL/DOOR</i>	<i>LOCATION</i>
272	272DR	Fuselage rear section I - Right side

D. Tools and Equipment

<i>ITEM</i>	<i>DESCRIPTION</i>	<i>PURPOSE</i>	<i>QTY</i>
GSE 036	Platform - Hydraulic, Aircraft	To get access to the rear electronic compartment	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Read the Data	

I. Preparation
SUBTASK 841-005-A

- (1) Energize the aircraft with the External DC Power Supply ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Put up the hydraulic platform (GSE 036) at the necessary height.

(3) Open access door 272DR AMM MPP 06-41-01/100.

(4) Open the AFDAMU front-panel door (6). Refer to ([Figure 201](#)).

J. Recorded Data Reading

SUBTASK 900-003-A

(1) Remove the PCMCIA card (2) with the data from the AFDAMU (1). To do this, push the eject button (3) and remove the PCMCIA card (2).

If you want to continue the recording with the same data frame, put other empty PCMCIA card. If you want to load a new data frame, refer to [AMM TASK 31-31-07-860-802-A/200](#) to create a new data frame and upload it to the AFDAMU ([AMM TASK 31-31-07-860-803-A/200](#)).

NOTE: • When you insert the PCMCIA card to the AFDAMU card slot, the green color operation LED (5) blinks at a frequency of 1 Hz approximately, as a manner to recognize the card.

- If the PCMCIA card is not full, and the recording logic is not satisfied, the green color operation LED (5) will blink six times and then will turn off. If the recording logic is satisfied, the green color operation LED (5) will continue blinking.
- If the PCMCIA card is not correctly formatted, the amber color operation LED (5) comes on.

(2) Put the PCMCIA card (2) with the data from the AFDAMU (1) in a personal computer with PCMCIA interface. ADRAS or ROSE or AGS (Station, Ground Analysis) software can be used to extract, convert, and display digital flight data stored in the AFDAMU.

NOTE: • ADRAS and ADRAS-related support must be ordered directly from Honeywell.

- ROSE and ROSE-related support must be ordered directly from L3.
- AGS and AGS-related support must be ordered directly from SAGEM.
- ADRAS, ROSE, and AGS are the software solution suggested by EMBRAER, but you can use other software to analyze downloaded AFDAMU data. EMBRAER has no responsibility for the parameter conversion settings if other software is used.

K. Follow-on

SUBTASK 842-005-A

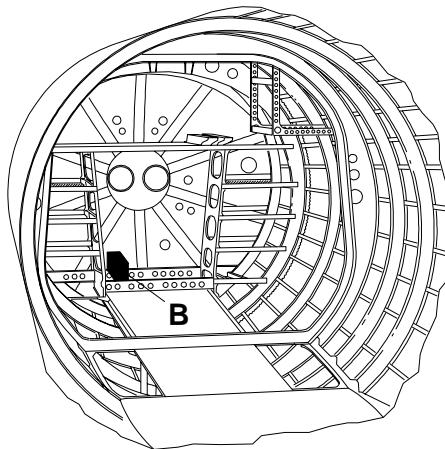
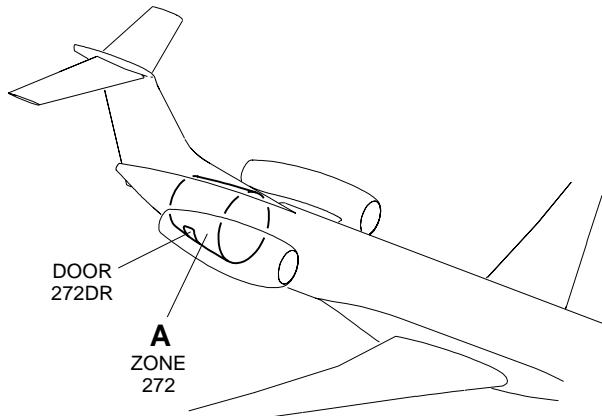
(1) Close the AFDAMU front-panel door (6).

(2) Close access door 272DR AMM MPP 06-41-01/100.

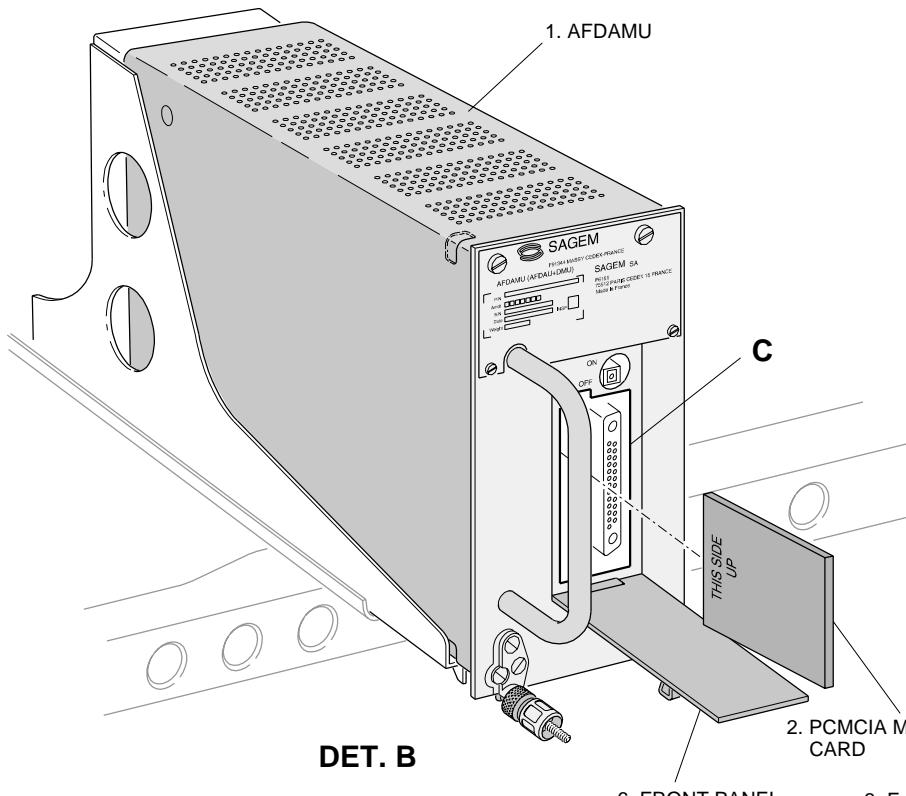
(3) Remove the hydraulic platform (GSE 036).

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

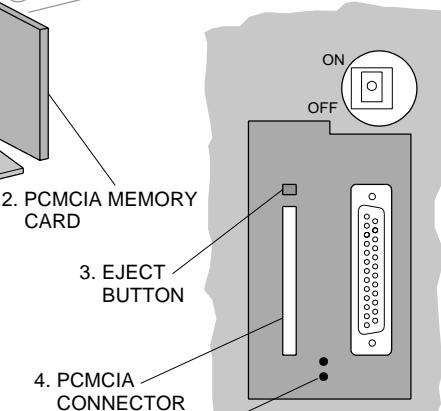
EFFECTIVITY: AIRCRAFT WITH AFDAMU
AFDAMU
Figure 201



DET. A



DET. B



DET. C

EM145AMM310624A.DGN