



EMB145 – EMB135

AIRCRAFT
MAINTENANCE MANUAL

IC-600 CONFIGURATION MODULE (IM-600) - MAINTENANCE PRACTICES

EFFECTIVITY: AIRCRAFT WITH IC-600 CONFIGURATION MODULE (IM-600)

1. General

- A. This section gives the procedures to download the configuration files into the IC-1 and IC-2 configuration modules (IM-600).
- B. The configuration module (IM-600) is an EEPROM that stores the IC-600 configuration data, instead of the hard-wired straps. The module gives an accessible memory area and a protected memory area. The protected area is only accessible by the manufacturer. The accessible area is programmed with a laptop computer connected to the existing RS-232 data bus for the IC-600. The check of the configuration module is only done by the IC-600 during on-ground power-up.
- C. The procedure to download the configuration files into the IM-600 of IC-1 and into the IM-600 of IC-2 is the same. The indications in parentheses are applicable to the IC-2 IM-600.
- D. Download the configuration files into the IM-600 by the time of installation or by the time when you apply an SB (Service Bulletin) that has effect on the IM-600 configuration.
- E. Get the configuration files for IM-600 from the Maintenance/Tech Support, accessible through the Internet (www.flyembraer.com), and put them in a group in a directory in a laptop. Each directory has a part number for each aircraft configuration.
- F. 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
31-42-02-860-801-A	IC-600 CONFIGURATION MODULE - DOWNLOADING	AIRCRAFT WITH IC-600 CONFIGURA- TION MODULE (IM-600)



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TASK 31-42-02-860-801-A

EFFECTIVITY: AIRCRAFT WITH IC-600 CONFIGURATION MODULE (IM-600)

2. IC-600 CONFIGURATION MODULE - DOWNLOADING

A. General

- (1) This task gives the procedures to download the configuration files into the IC-1 and IC-2 configuration modules (IM-600).
- (2) For aircraft with EICAS versions before 17 and with IC-600 configuration module (IM-600), this procedure is not applicable. In this case, call Embraer Technical Support.
- (3) The procedure to download the configuration files into the IM-600 of IC-1 and into the IM-600 of IC-2 is the same. The indications in parentheses are applicable to the IC-2 IM-600.
- (4) Download the configuration files into the IM-600 by the time of installation or by the time when you apply an SB (Service Bulletin) that has effect on the IM-600 configuration.
- (5) Run the executable file (FLST.EXE) from the same directory as that into which it is downloaded from the Maintenance/Tech Support.

NOTE: Some FLST versions can present problems when it runs in computers with dual core microprocessors. If this occurs, try to disable one of the processors through the computer BIOS configuration. Refer to the computer documentation.

B. References

REFERENCE	DESIGNATION
AMM MPP 06-41-03/100	- COMPONENT LOCATION
AMM SDS 32-30-00/1	
AMM SDS 34-22-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE
IPC - "ADDITIONAL CROSS-REFERENCE SECTION"	-

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223LZ	Maintenance panel - Cockpit, LH side

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 130	Laptop computer	To run the FLST software	
GSE 135	Box-Interface Test	To interface the laptop and the IC-600 through the maintenance panel	
GSE 379	IM 600 Configuration Cable	To interface the laptop and the maintenance panel (optional)	



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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 ([Figure 201](#)) ([Figure 202](#))

SUBTASK 841-002-A

- (1) Download the configuration file from the Maintenance/Tech Support through the Internet, into a directory in the laptop as follows:

CAUTION: IF YOU DOWNLOAD INTO THE IM-600 AN INCORRECT FILE, THE IM-600 CONFIGURATION WILL NOT BE COMPATIBLE WITH THE AIRCRAFT.

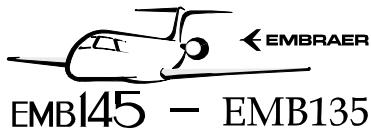
- (a) Refer to the IM-600 Files Specifications Table in the IPC - "ADDITIONAL CROSS-REFERENCE SECTION", to identify the correct part number of the configuration file according to the aircraft serial number.
- (b) Access the FLYEMBRAER through the Internet (www.flyembraer.com).
- (c) With your Username and Password, log in the FLYEMBRAER.

NOTE: If you cannot have access to the FLYEMBRAER or to the Maintenance/Tech Support, call Embraer Technical Support.

- (d) Click on the "Tech Support" tab, in the Maintenance icon.
- (e) Click on the "IM600 - Configuration files" option.
- (f) In the next window, a page with the aircraft type will come into view.
- (g) Click on the correct aircraft type and on the file part number.
- (h) When the window for the downloading comes into view, select a directory to save the file.
- (i) When the downloading to the laptop is completed, make sure that a ZIP file named with the part number is in the selected directory.

NOTE: The file name has a ZIP extension (XXX-XXXXX-XXX.ZIP). This is a compressed file with all the necessary files to download the IM-600 configuration file from the laptop to the IM-600.

- (j) Expand the compressed file with the aid of a software compatible with ZIP files. A directory will be created automatically, with the same file part number.



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- (k) Make sure that the "FLST.EXE" file is in the created directory.

NOTE: If the downloading of the configuration file from the Maintenance/Tech Support or the expansion of the file in the laptop was not satisfactory, do the downloading procedure again.

- (2) Make sure that the aircraft is on the ground (WOW) ([AMM SDS 32-30-00/1](#)) and safe for maintenance.
- (3) Open maintenance panel door 223LZ ([AMM MPP 06-41-03/100](#)).
- (4) If you have interface test box (GSE 135) available, use cable AGE-00646-403 to connect box AGE-00642-401 to the maintenance panel. If not, use cable GSE 379 to connect the notebook directly to the maintenance panel.

J. IC-600 Configuration Module - Downloading Procedures ([Figure 201](#)) ([Figure 202](#))

SUBTASK 860-002-A

- (1) Make sure that the laptop serial port is enabled.
- (2) Download the IC-1 (IC-2) IM-600 configuration files as follows:
 - (a) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)) and make sure that the RA SET area on the PFDs is valid.

NOTE: Make sure that the Avionics Master 1 and 2 pushbuttons, on the electrical control panel, are pushed (striped bars are off).

- (b) On the DC-550 1 (DC-550 2) display controller ([AMM SDS 34-22-00/1](#)), on the glareshield panel, use the RA knob (RA-TEST switch) to set 920 RA (DH) on the onside PFD.
- (c) On the DC-550 1 (DC-550 2), push and hold the TEST pushbutton (RA-TEST switch) for a minimum of 10 seconds. While you hold the TEST pushbutton, push the ET key and release them immediately after.

Result:

- 1 Make sure that these indications come into view on the onside PFD:

- CONFIG MOD LOADING
- PROGRAMMABLE CONFIGURATION MODULE EQUIPMENT IS REQUIRED
- SCREEN WILL BLANK
- CYCLE IC-600 CIRCUIT BREAKER TO RECOVER

- (d) On the DC-550 1 (DC-550 2), momentarily push the NAV key.

Result:

- 1 The onside display units will blank and then show a red X.

- (e) On the laptop, run the FLST software (FLST.EXE) in the directory that was previously created.

Result:

- 1 The "License Agreement" window come into view.

- (f) Click on "Accept".

Result:

- 1 The "Connect LRU" window will come into view with the indication of which of the serial COM ports installed in the laptop is available.
- (g) If you have the interface test box (GSE 135) available, use cable AGE-00647-401 to connect the laptop COM port to the IC-1 (IC-2) connector of the IC-600 section at box AGE-00642-401. If not, use cable GSE 379 to connect the notebook directly to the maintenance panel.
- (h) On the laptop, click on "Next".

Result:

- 1 The "Hardware Description" window will show an amber light that flashes, and the message "Target in progress..." come into view.

NOTE: The detection process takes up to 1-2 minutes.

- (i) After the message "Target identification successful" comes into view, click on "Next".

Result:

- 1 The "Load Page" window will come into view.

NOTE: If a no-connection message comes into view, examine the serial port connections.

- (j) Click on "Load".

Result:

- 1 The IM-600 starts to receive the configuration file. The progress of the downloading process is shown, which includes:

- File name;
- Transmission status ("Transmitting" or "Loaded");
- File size;
- Estimated time for download (in seconds).

- 2 When the process is completed, a window with the message "Download Complete" will come into view. Click on "OK".

NOTE: If a failure occurs, the window "Error Log Details" comes into view.

To save the error log, click on "Save" and select the name of the file. The message "Finished saving error log file" comes to view. Click on "OK" on the active window, click on "Finish" on the "Load Page", and exit the application.

- (k) Click on "Finish".

Result:

- 1 The program will come to an end.

- (l) If IM-600 of IC-1 is under configuration, cycle the IC-1 as given in steps (m) thru (p).

- (m) On the ELECTRICAL panel, on the overhead panel, push the BACKUP pushbutton.

Result:

- 1 On the BACKUP pushbutton, the striped bar comes on.

- (n) On the circuit breaker panel, cycle the IC-1 (Location Tip: ESSENTIAL DC BUS 1/NAV/IC 1) circuit breaker.
- (o) On the ELECTRICAL panel, on the overhead panel, push the BACKUP pushbutton.
Result:
 - 1 On the EICAS display, the BACKUP BATT OFF BUS caution message goes out of view.
 - 2 On the BACKUP pushbutton, the striped bar goes off.
- (p) If IM-600 of IC-2 is under configuration, cycle the IC-2 as given in step (r).

NOTE: Before you cycle IC-2, make sure that you do all the steps to download the configuration file into the IM-600 of IC-2.
- (q) On the circuit breaker panel, cycle the IC-2 (Location Tip: DC BUS 2/NAV/IC 2) circuit breaker.
- (r) Make sure that the IC-1 (IC-2) is completely powered-up and the PFD and MFD display a normal condition.
- (s) Wait for 45 seconds.
Result:
 - 1 Make sure that the cyan message "CONFIG MISMATCH" and/or the amber message "CHK IC CONFIG" are/is not displayed on the EICAS.

NOTE: If one or the two of these messages is/are displayed, do the configuration and downloading procedure again for the IM-600 of IC-1 (IC-2).
- (t) If you used the interface test box (GSE 135), remove cable AGE-00647-401 from the IC-1 (IC-2) connector of the IC-600 section at box AGE-00642-401.

K. Follow-on ([Figure 201](#)) ([Figure 202](#))

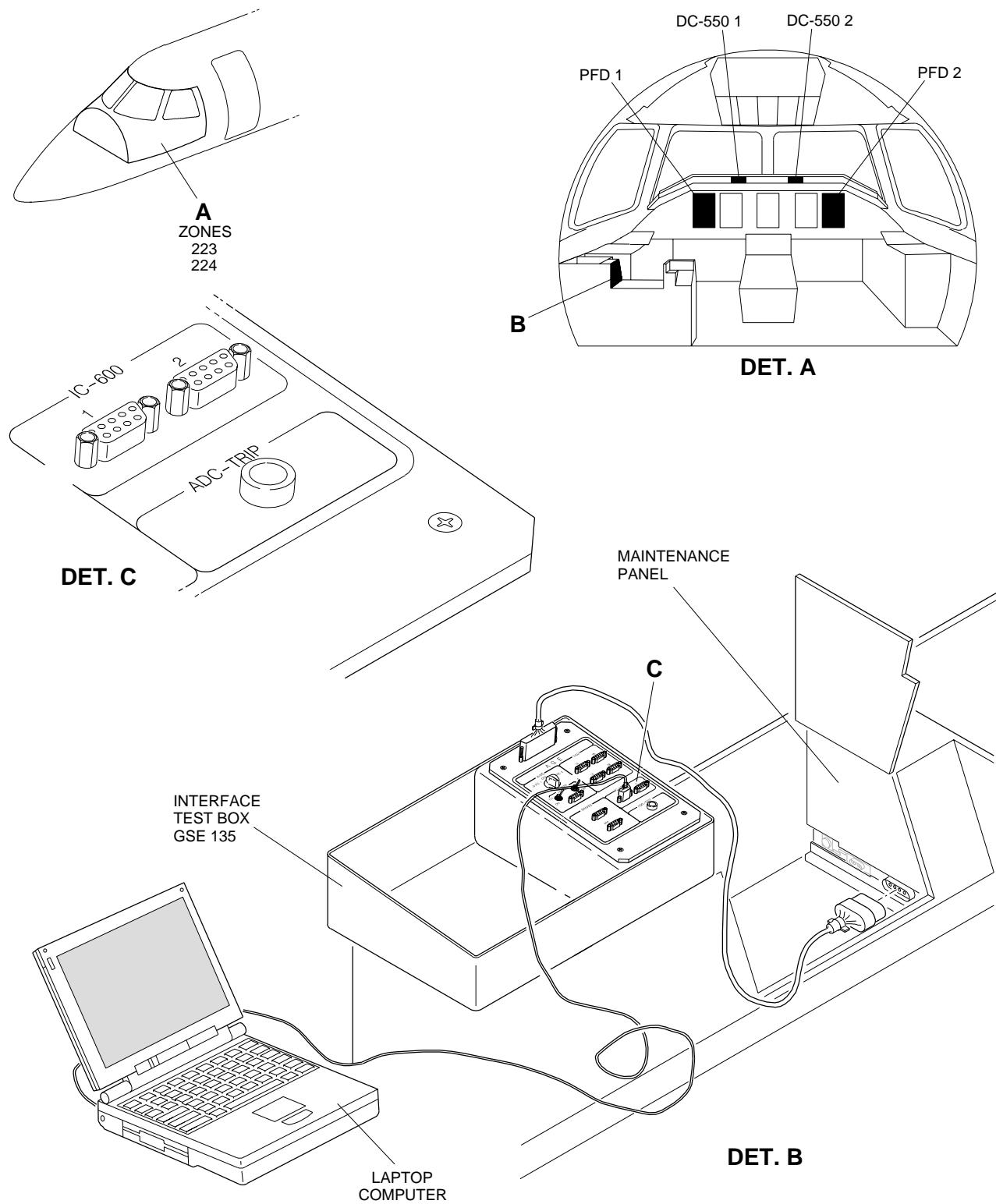
SUBTASK 842-002-A

- (1) Deenergize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) If you used the interface test box (GSE 135), remove cable AGE-00646-403 from the maintenance panel and from box AGE-00642-401. If not, remove cable GSE 379 from the maintenance panel.
- (3) Close maintenance panel door 223LZ ([AMM MPP 06-41-03/100](#)).

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IC-600 Configuration Module - Downloading

Figure 201

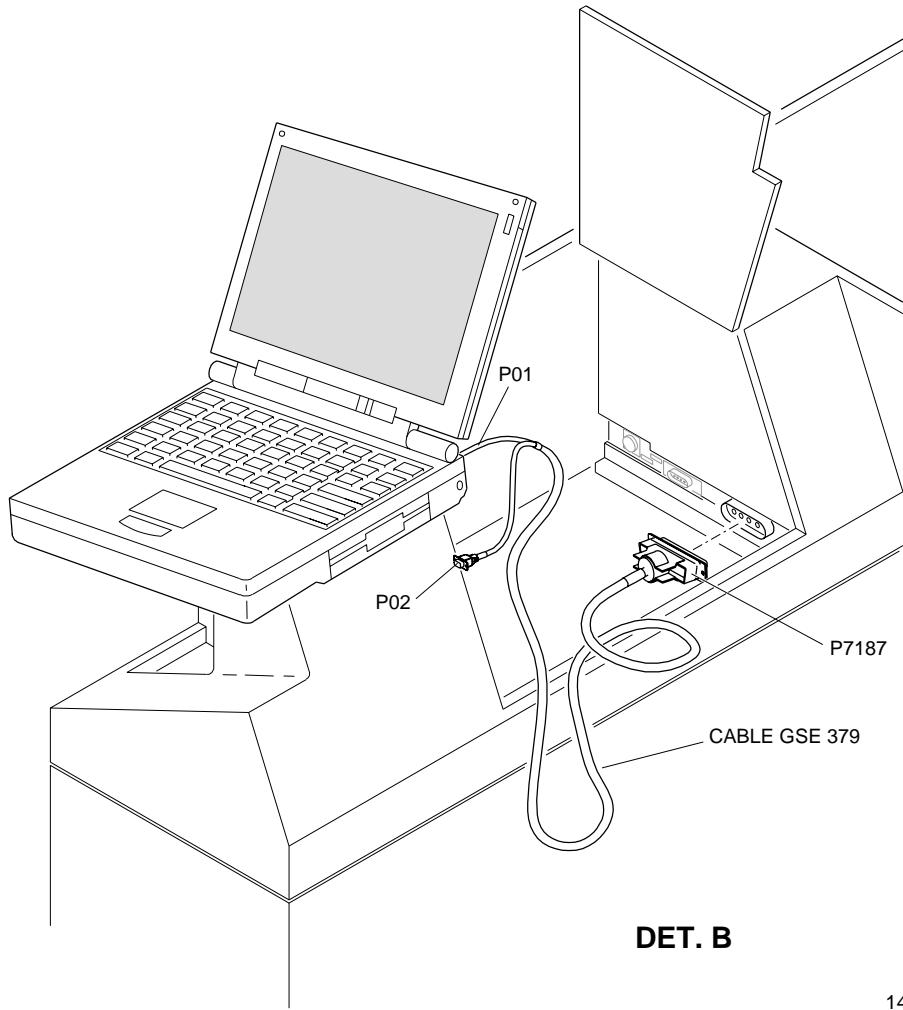
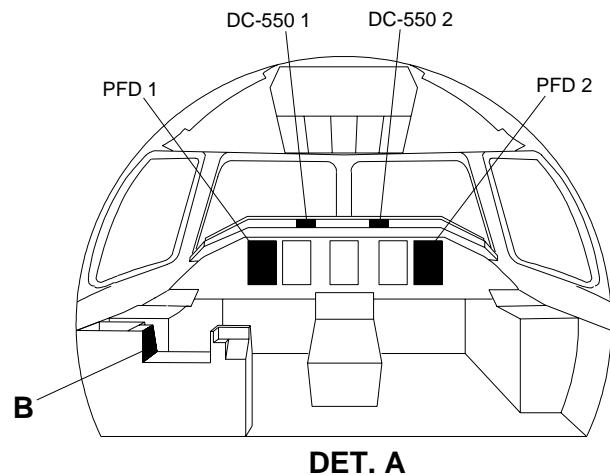
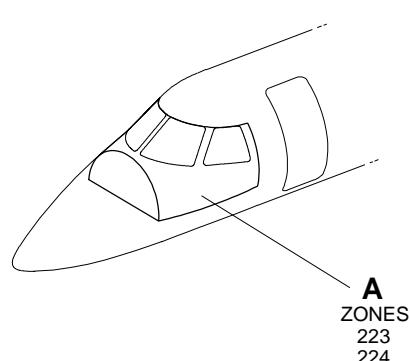


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EFFECTIVITY: AIRCRAFT WITH IC-600 CONFIGURATION MODULE (IM-600)

IC-600 Configuration Module - Downloading

Figure 202



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