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FHDB / DVDR
DOWNLOAD PROCEDURES

PRIMUS EPIC LOAD 21

EMBRAER 170/190

The purpose of this presentation is to explain the procedures of the
FHDB (Fault History Database) data download
(AMM PART II TASK 45-45-00-970-801/A) and **DVDR
(Digital Voice and Data Recorder)** data download **(AMM
PART II TASKS 31-31-00-970-801/A** and **31-31-00-970-802/A)**

Always refer to the latest version of **AMM Part II** for detailed procedures and
explanations.

**NOTE: ALWAYS ACCOMPLISH THE COMPLETE POWER UP PROCEDURE,
ACCORDING THE AMM PART II, BEFORE PERFORM ANY OF THESE
MAINTENANCE PROCEDURES**

• Make sure that the TLA is less than 50°.

• Make sure that the airspeed indication is less than 50 kts.
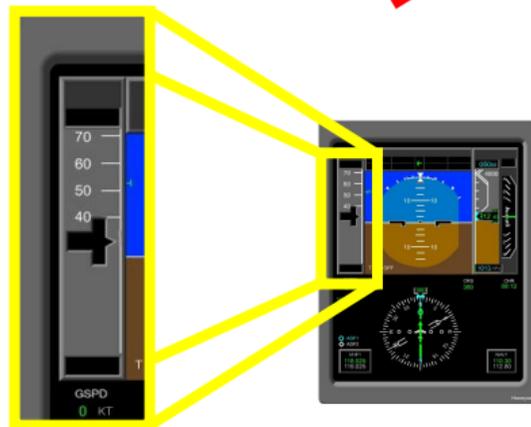
• Make sure that these **CBs are closed**:

  • MAU 1 PWR 1 (DC ESS BUS 1) – LH CBP
  • MAU 1 PWR 2 (DC ESS BUS 1) – LH CBP
  • MAU 1 PWR 3 (DC BUS 1) – LH CBP
  • MAU 1 CUST I/O 1A (DC ESS BUS 1) – LH CBP
  • MAU 1 CUST I/O 1B (DC BUS 1) – LH CBP
  • CMC (HOT BATT BUS 2) – RH CBP
  • MFD 2 (DC BUS 1 DISPLAY/CONTROL) – LH CBP
  • CCD 2 (DC BUS 1 DISPLAY/CONTROL) – LH CBP
  • DMU (DC BUS 2 MISC) – RH CBP (if applicable - it's an option)

The following procedures are applicable when you are using a **notebook PC to download the FHDB**.

Connect the notebook PC to a **LAN port** on aircraft. Refer to **AMM PART II TASK 45-45-00-480-801/A**. There are 4 points of connection in the aircraft:
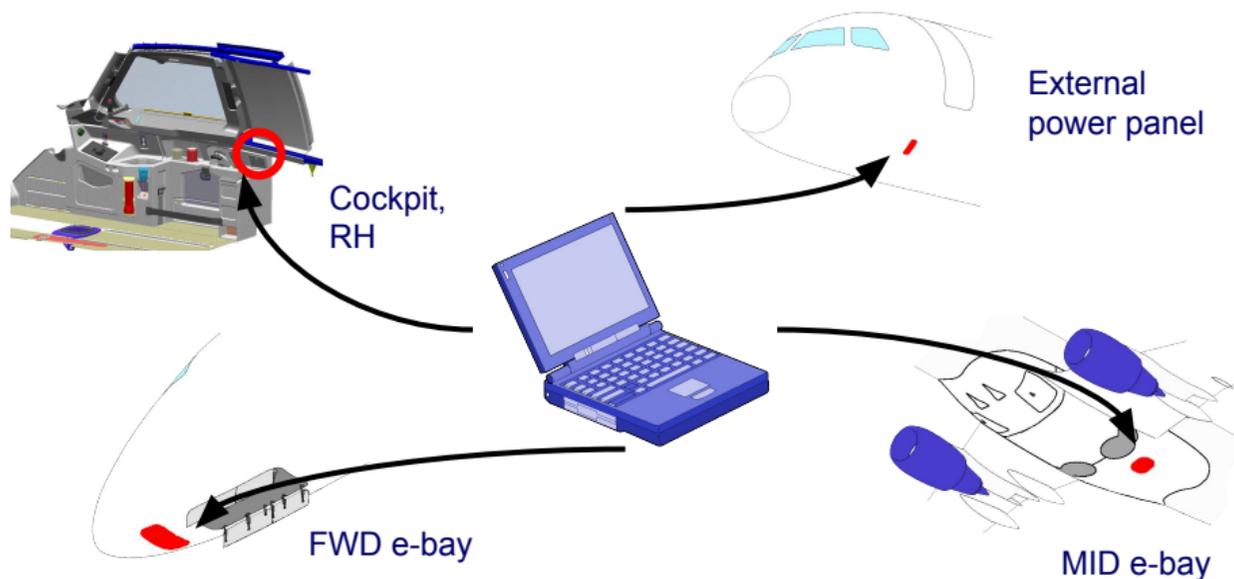
Cockpit, RH

External power panel

FWD e-bay

MID e-bay

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- Turn the notebook PC on .

- Click on "Start" button on Windows® platform.

- Click on "Aircraft Diagnostics".

- Click on "CMC Remote Terminal".

Note: This is a typical sequence. If you used a different configuration to install the CMC Remote Terminal program or changed the location of the program, there can be differences.
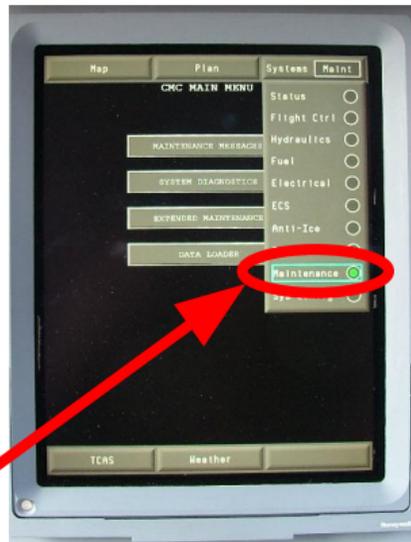
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• Make sure that the **CMC MAIN MENU** is shown on notebook PC screen, just after the **WELCOME TO THE CMC** animated window.

• After this, go to page 8.

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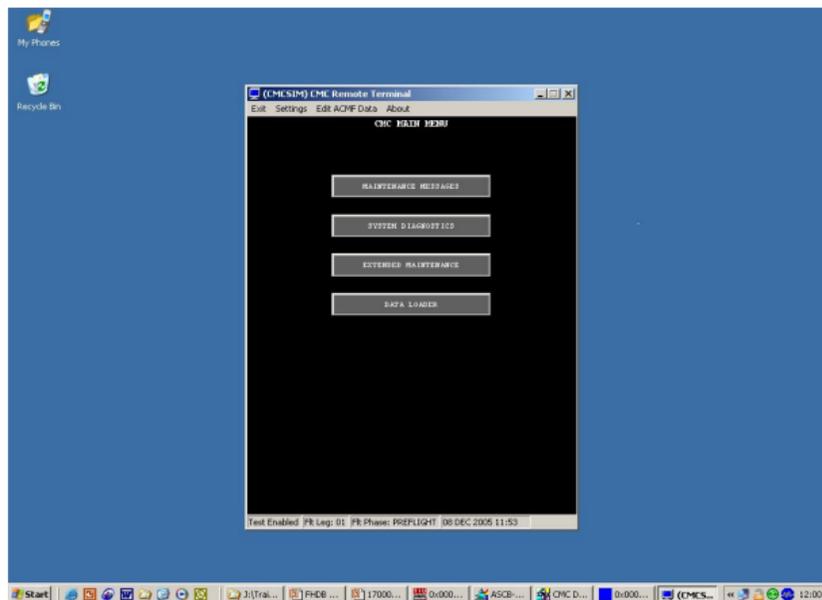
The following procedures are applicable when you are using the **MFD 2 to download the FHDB**:

ENTER KEY

• Push the center pushbutton on **CCD 2** to get access to the **MFD 2**.

• Using your fingers, move the **cyan box** to the **Systems Maint** menu and push the **enter key (either left or right)**.

• Then move the cyan box to the "**Maintenance**" menu. Once you click on the menu, the MFD 2 will show the **CMC page**.

Note: All the CMC menus and functions **are the same**, either using **a notebook PC or the MFD 2**.

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If you want to send the **FHDB** file to the **DMU** (Data-Loader Management Unit), insert a **PCMCIA card** on the DMU slot and close the door. The DMU is located on the maintenance panel, behind of the copilot seat. If the door is not properly closed, the PCMCIA card will not be read. The recommended PCMCIA card capacity is 128 Mb.

PCMCIA slots 1 and 2

DMU panel

DMU

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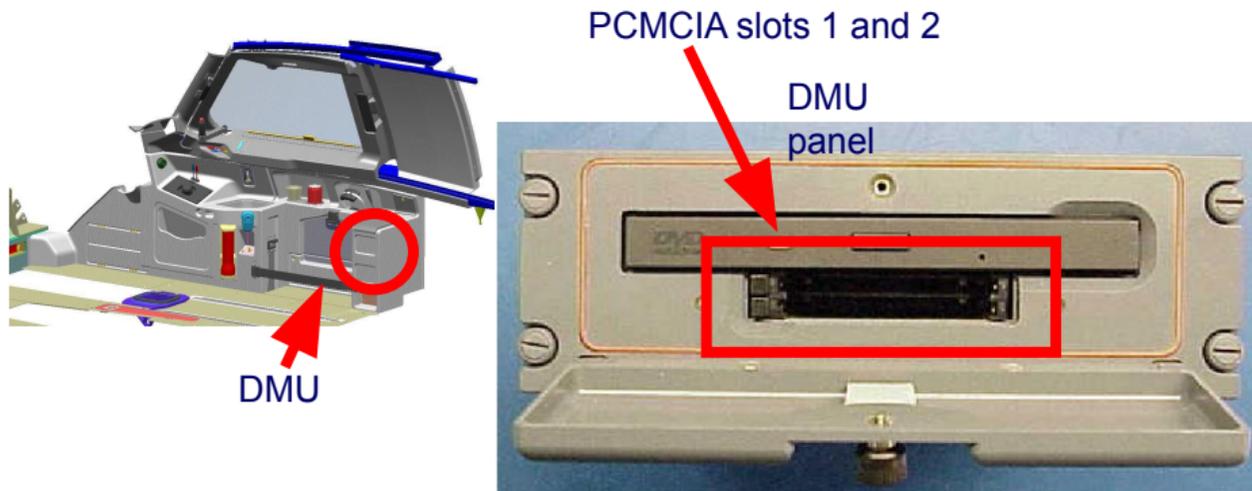
• On the CMC main menu, choose "**EXTENDED MAINTENANCE**"
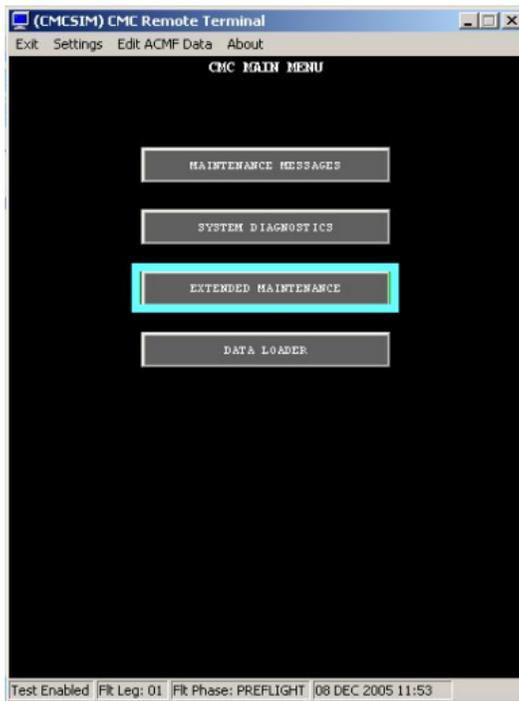
• On the EXTENDED MAINTENANCE menu, choose "**REPORTS**"…
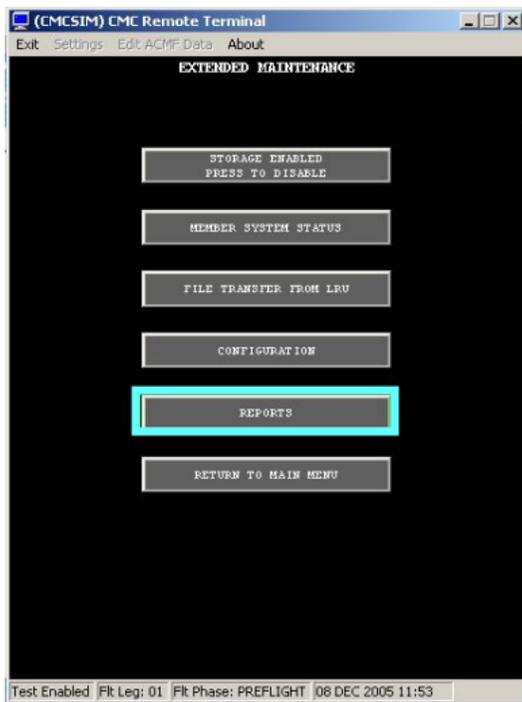
On the **CMC REPORTS** menu, choose "**EXPORT FAULT HISTORY**", and then you will have three options:

• **SEND TO -> LOCAL STORAGE**: the FHDB file will be sent to your notebook PC. If you are using the MFD 2, this option will not be available.

• **SEND TO -> DMU 1 PCMCIA SLOT 1 (2)*:** the file will be sent to your PCMCIA card on the desired slot.

• **SEND TO -> COCKPIT PRINTER*** : the FHDB file will be printed on the cockpit printer.

* - **optional items**; if not installed on the aircraft, these EXPORT FAULT HISTORY options will not be available.


```
(CMCSIM) CMC Remote Terminal                          _ □ ×
Exit  Settings  Edit ACMF Data  About
                         CMC REPORTS

ACMF REPORTS
CMC REPORTS
  ACTIVE FDE/MAINT MSG
  CURRENT LDG FDE/MAINT MSG
  SYSTEM CONFIGURATION
  EXPORT FAULT HISTORY
    SEND TO -> LOCAL STORAGE
    SEND TO -> DMU 1 PCMCIA SLOT 1
    SEND TO -> DMU 1 PCMCIA SLOT 2




REPORT STATUS:



MAIN      PREV
MENU
Test Enabled  Flt Leg: 01  Flt Phase: PREFLIGHT  08 DEC 2005 11:53
```

• Once the download has been finished, there will be a text box indicating where the file has been saved.

The filename is always in the format: **FHDB_** [FULL LDI VERSION] **aaaammddhhnnss.ZIP**, where:

• aaaa: year

• mm: month

• dd: day

• hh: hours

• nn: minutes

• ss: seconds

• [FULL LDI VERSION]: the version of the **LDI (Loadable Diagnostic Information)** installed on the aircraft. The brackets are not included on the filename.

CAUTION: DO NOT RENAME THE FILENAME, OR ELSE IT WILL BE CORRUPTED AND CAN'T BE READED!
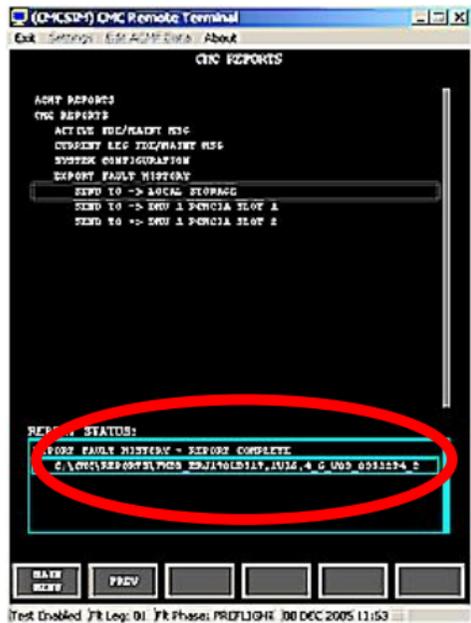
Note: the Export Fault History report generates a file that cannot be directly accessed. The exported file must be sent to **Embraer Customer Support** to be analised.

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DIGITAL VOICE AND DATA RECORDER (DVDR) – DOWNLOAD PROCEDURES

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The following procedures are applicable when you are using an **PCMCIA** card to download the **DVDR** data. The procedures for downloading data from both DVDRs are the same.

• On the MCDU, make sure that these SSPCs are closed:

  • DVDR 1 (CB MENU / CB BY SYS / FDR/CVR), or

  • DVDR 2 (CB MENU / CB BY SYS / FDR/CVR)

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• Get access to the DVDR that you want to retrieve data. The **DVDR 1** is located in the **FWD e-bay** and the **DVDR 2** is located in the **rear e-bay**.

DVDR #1

DVDR #2
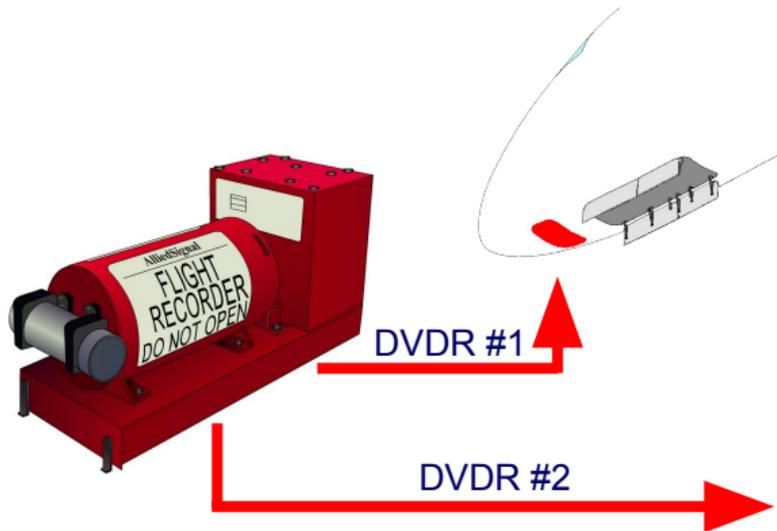
- Lift the black rubber cover on the DVDR front panel.

- Insert the PCMCIA card in the DVDR PCMCIA slot.

Note 1: Make sure that the PCMCIA card has the file **ATC_KEY.TXT** with the encryption key. If not, it's necessary to create it. To create the key file, open any text editor, type AT-COMBI in the file, save as ATC_KEY.TXT and copy it to the PCMCIA card root directory.

If the PCMCIA card does not have the file, you will not be able to read the downloaded data.

Note 2: The download will not start until the DVDR makes sure that the PCMCIA card is compatible and it has enough memory space.

• Check if the BUSY light (amber color) on the DVDR front panel comes on.

Note 1: The BUSY light comes ON during the data transfer to the PCMCIA card. If the BUSY and BITE lights (amber and red, respectively) flash alternately, there is a problem with the PCMCIA card; it cannot be accessed or does not have enough memory space.

Note 2: The DVDR does not record during download, and the complete download to the PCMCIA takes about 20 minutes.

EJECT button

- When the BUSY light goes off and the **DONE light** (green color) comes on, push the EJECT button

Note 1: The DONE light stays on for 30 seconds or until you remove the PCMCIA card.

Note 2: The downloaded filename is formatted as SSSS_YYY.DLU, where SSSS is the serial number of the recorder and YYY is a sequential number, from 000 to 999 (after 1000th download, 000 again).

Note 3: If the downloaded file has the extension .DLE, it means that the downloaded data is encrypted, because the file **ATC_KEY.TXT** was not found in the PCMCIA card or the encryption key on the file was not valid.

- Put the black rubber cover on the DVDR front panel.

- If applicable, perform the complete power down procedure, according to **AMM PART II**.

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