

Service Bulletin No: 42-026
Modification No: EC-24-0105

Ref No: 272
ATA Chapter: 42

**INTEGRATED MODULAR AVIONICS - GENERAL
HONEYWELL PRIMUS APEX DFZ BUILD 6.0 SOFTWARE LOAD**

1. Planning information

A. Effectivity

PC-24 aircraft MSN 101 thru MSN 600.

This modification will be incorporated on MSN 601 and subsequent during production.

B. Concurrent requirements

The Service Bulletins listed below are to be embodied prior to, or in conjunction with, the accomplishment of this Service Bulletin:

MSN 101 thru MSN 230 only

- Service Bulletin SB 42-015 - Honeywell Primus APEX DFZ Build 5.1 (or higher) Software Load (Latest Revision).

NOTE: For aircraft MSN 231 thru MSN 337 - APEX DFZ Build 5.1 was installed in production.

NOTE: For aircraft MSN 501 thru MSN 600 - APEX DFZ Build 5.3 was / will be installed in production.

MSN 101 thru MSN 337 only

- Service Bulletin SB 42-022 - UMS Build 10.0 (or higher) Software Load (Latest Revision).

NOTE: For aircraft MSN 501 thru MSN 600 - UMS Build 10.0 was / will be installed in production.

C. Reason

To upgrade the Honeywell APEX DFZ Operational Software to Build 6.0.

The APEX software is upgraded to improve performance, introduce new features, and fix some deficiencies reported as feedback from the PC-24 fleet. APEX Build 6.0 introduces improvements and bug fixes for the following systems:

- ATA 22 - Auto Flight Control System
- ATA 23 - Communications
- ATA 31 - Indicating and Recording System
- ATA 34 - Navigation

NOTE: PC-24 Service Letter SL-071 (Information on APEX Build 6.0 Software Update) provides further detailed information.

D. Description

This Service Bulletin gives the data and instructions necessary to load the software:

- Honeywell Primus APEX DFZ Build 6.0
- FDR Rev.8 FRED File.

E. Reason for revision

Revision No.1 of this Service Bulletin is issued to include:

- An amendment to the compliance time in Para. 1.F.
- An amendment to the warranty statement in Para. 2.B.
- Due to a superseding Temporary Revision (TR), an amendment to the TR number in Para. 3.F.
- Minor improvements to update this Service Bulletin to the latest PC-24 standard.

For Operators that have accomplished this Service Bulletin at a previous Issue/Revision, no further action is necessary.

F. Compliance

Mandatory

To be embodied during the next scheduled maintenance event, but not later than 13 months from the issue date of this Service Bulletin.

G. Approval

The technical content of this document is approved under the authority of the DOA ref. EASA.21J.357.

Pilatus advises Operators/Owners to check with their designated Airworthiness Authority for any changes, local regulations or sanctions that may affect the embodiment of this Service Bulletin.

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I. Manpower

Description	Man-Hours
Preparation	0.50
Modification	2.75
Test	0.25
Requirements after job completion	0.25
TOTAL MAN-HOURS	3.75

J. Weight and balance

Not changed.

K. Electrical load change data

Not changed.

L. Software

This modification loads the software listed below:

- Honeywell Primus APEX DFZ software Build 6.0
- FRED File FDR Rev.8.

M. References

Aircraft Maintenance Manual (AMM):

PC24-A-E20-10-0003-00A-913A-A PC24-A-E20-10-0003-01A-913A-A
PC24-A-E20-10-0004-00A-913A-A PC24-A-E24-00-0000-00A-913A-A
PC24-A-E45-45-0000-00A-750C-A

N. Publications affected

Airplane Flight Manual (AFM).

Aircraft Maintenance Manual (AMM).

Flight Crew Operating Manual (FCOM).

O. Interchangeability of parts

One-way Interchangeable.

The new P/N is installed in place of the old P/N, but the old P/N cannot be installed in place of the new P/N.

2. Material information

A. Material - Price and availability

Operators that require additional information and/or Service Bulletin material can contact their authorized Pilatus Service Center, or Pilatus Customer Support on www.pilatus-aircraft.com → contact us.

NOTE: Part numbers given in this Service Bulletin are correct at the time of approval. Pilatus Aircraft Ltd reserves the right to change the part numbers as necessary. Part numbers of items delivered are correct when dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and the delivered parts, if parts are superseded. Operators are requested to check the Illustrated Parts Data (IPD) for delivered parts that differ from those listed in the Service Bulletin Materials List.

Operators are requested to advise Pilatus Aircraft Ltd of the Manufacturer's Serial Number (MSN), the flying hours and landings of aircraft that are allocated for this Service Bulletin.

B. Warranty

- (1) Pilatus will supply the required software free of charge for all affected aircraft on approval of a warranty claim, provided the work is accomplished by an authorized Service Center within 13 months of the issue date of this Service Bulletin.
- (2) Honeywell agrees to cover the cost for labour of all affected aircraft on approval of a warranty claim, provided the work is accomplished by an appropriately rated Honeywell Service Center within 13 months of the issue date of this Service Bulletin.

C. Material necessary for each aircraft.

NOTE: Referenced AMM procedures may contain additional materials to be procured.

(1) Software to download from MyPilatus

To download the software Login to <https://my.pilatus-aircraft.com/> and go to the Downloads section.

New part No.	Description	Old part No.	Qty	Disp. code	Fig	Item
985.99.12.566 (Supplier P/N EB60000491- 0108)	Software, APEX DFZ B6.0	-	1	N	-	-
		985.99.12.525	1	D	-	-
		OR				
		985.99.12.508				
		OR				
		985.99.12.427				
		OR				
		985.99.12.416				
		OR				
		985.99.12.405				

Disposition Codes: D - Discard / N - New

PC-24

New part No.	Description	Old part No.	Qty	Disp. code	Fig	Item
531.30.24.033 (See Notes below)	PC-24 FRED File - FDR REV 8	-	1	N	-	-
		531.30.24.017	1	D	-	-
		OR				
		531.30.24.024				
		OR				
		531.30.24.026				

Disposition Codes: D - Discard / N - New

NOTE: The aircraft's existing APM options file ((TT60007950-XXXXX)) can be re-used with Apex Build 6.0. A new option file is only required if enabling or disabling options. Refer to SB 42-003 if a new option file is required.

NOTE: The FRED File software (P/N 531.30.24.033) consists of two files, a txt file and an .xml file. The content of each file is the same, only the format is different. Use the correct file format for the aircraft configuration:

- CVFDR installed - PC-24_FRED_File_Rev8.txt
- CVR and FDR installed - PC-24_FRED_File_Rev8.xml

(2) Additional material to order from Pilatus

New part No.	Description	Old part No.	Qty	Disp. code	Fig	Item
985.99.12.092 (Supplier P/N D202402004287 -r000) (See Note below)	SW, PILOT GUIDE, APEX DFZ B6.0 (For aircraft with the Touch Screen Controller)	-	1	N	-	-
		985.99.12.526	1	D	-	-
		OR				
		985.99.12.507				
		OR				
		985.99.12.429				
		OR				
		985.99.12.417				
		OR				
		985.99.12.396				
OR						

Disposition Codes: D - Discard / N - New / R - Return to Pilatus

New part No.	Description	Old part No.	Qty	Disp. code	Fig	Item
985.99.12.609 (Supplier P/N D202402004288 -r000) (See Note below)	SW, PILOT GUIDE, RF APEX DFZ B6.0 (For aircraft with the Multi- Function Controller)	-	1	N	-	-
		985.99.12.527	1	D	-	-
		OR				
		985.99.12.509				
		OR				
		985.99.12.430				
		OR				
		985.99.12.425				
		OR				
		985.99.12.396				

Disposition Codes: D - Discard / N - New / R - Return to Pilatus

NOTE: As an alternative to updating aircraft documentation with a printed hard copy of the Honeywell Pilot Guide, it is acceptable to download the Pilot Guide via the Honeywell Pilot Gateway and carry it on board the aircraft in an electronic format.

(3) Locally supplied materials

Not applicable.

D. Material necessary for each spare

Not applicable.

E. Re-identified parts

Not applicable.

F. Tools and equipment

NOTE: Referenced AMM procedures may contain additional tools to be used.

Tools and equipment	Recommended Pilatus part
- Laptop computer - CAT5E ethernet cable - Primus APEX Tools Disc (If necessary) (Downloadable from MyPilatus)	- Local supply - Local supply 985.99.12.424 (TM60000075-112)

3. Accomplishment instructions

WARNING: BE CAREFUL WHEN YOU DO WORK ON THE ELECTRICAL SYSTEM OR A SYSTEM THAT USES ELECTRICAL POWER. MAKE SURE THAT IT IS SAFE BEFORE YOU APPLY ELECTRICAL POWER TO THE AIRCRAFT OR ENERGIZE THE AIRCRAFT ELECTRICAL SYSTEMS. ELECTRICAL POWER CAN CAUSE DEATH OR INJURY TO PERSONNEL AND/OR DAMAGE TO EQUIPMENT.

A. Preliminary instructions

- (1) For aircraft with the PM-CPDLC Factory Option installed, make sure that the Apex DFZ Build Information (listed below) is updated on the EUROCONTROL OneSky Online portal:

- Apex DFZ Build 6.0= EB60000491-0108

Go to: <https://ext.eurocontrol.int/auth4u/login/login>

B. Preparation

- (1) Obey the safe maintenance practices as necessary.
Refer to AMM PC24-A-E20-10-0003-00A-913A-A.
- (2) Connect a Ground Power Unit (GPU) to the aircraft and:
- Energize the aircraft electrical system
 - Make sure that the GPU supplies power to the aircraft.

Refer to AMM PC24-A-E24-00-0000-00A-913A-A.

- (3) Make sure that the aircraft is in safe maintenance mode.
Refer to AMM PC24-A-E20-10-0003-01A-913A-A.

C. Modification

NOTE: The new version of the CMC Remote Terminal (RT) software is available on the Primus APEX Tools Disc (P/N 985.99.12.424).

(1) APEX Software Load

NOTE: The software load procedures for the APEX DFZ Build 6.0 software are part of the 'Apex modular avionics unit - Load software procedure' referenced below.

- (a) Do the full APEX DFZ software load procedure to load the software listed below:

- APEX DFZ B6.0 software (P/N 985.99.12.566).

Refer to AMM PC24-A-E45-45-0000-00A-750C-A for the applicable procedures.

(2) Update the FRED File Software

NOTE: For the FDR (optional) and the CVFDR (standard), the ethernet connection is on the maintenance panel.

(a) On the laptop computer, set the Internet Protocol (IP) TCP/IPv4 network properties to:

- IP Address - 192.168.1.161
- Sub-Net - 255.255.255.0

NOTE: The FRED File software (P/N 531.30.24.033) consists of two files, each with a different format. Use the correct file format for the aircraft configuration:

- CVFDR (standard) - PC-24_FRED_File_Rev8.txt
- CVR and FDR (optional) - PC-24_FRED_File_Rev8.xml

(b) CVR and FDR (optional):

- 1 Use Firefox and navigate to 192.168.1.102.
- 2 Select the SETUP page, then click the BROWSE button on the upload A717 EDS file.
- 3 Select the applicable FRED file, then click the Upload EDS file button to upload the FRED file to the FDR.
- 4 Navigate to the Download page of the FDR web browser and click EDS file.
- 5 Click the Submit Download Request button and select the underlined link.
- 6 Click the SAVE AS button.
- 7 Make sure that the downloaded file is the same as the uploaded EDS file.

(c) CVFDR (standard):

- 1 Use Firefox and navigate to 192.168.1.160.
- 2 On the Configure page, in the Installation Specific Information section, click the BROWSE button.

NOTE: The upload will take approximately 5 seconds. It is possible that you will lose the connection to the ground-support interface home-page.

- 3 Click the Upload FRED File button.
- 4 Navigate to the CVFDR home page and click the Download button.
- 5 Make sure that the FRED file name and date/time of the upload are correct.

D. Test

- (1) On the lower Multi-Function Display (MFD):
 - (a) Select the lower left window and press Page on the MF Controller.
 - (b) Select SCMS/DL.
 - (c) On the SCMS/DL page, make sure that the Part Number shows as follows:
 - APEX DFZ - P/N: EB60000491-0108

E. Requirements after job completion

- (1) Remove all the equipment, tools and materials from the work area. Make sure that the work area is clean.
- (2) Do the Closeup practices. Refer to AMM PC24-A-E20-10-0004-00A-913A-A.

F. Documentation

- (1) Make sure that you have the latest up-to-date Honeywell Pilot Guide:
 - D202402004287-r000) (P/N 985.99.12.092) - SW, PILOT GUIDE, APEX DFZ B6.0 (For aircraft with the Touch Screen Controller)

OR

 - D202402004288-r000) (P/N 985.99.12.609) - SW, PILOT GUIDE, RF APEX DFZ B6.0 (For aircraft with the Multi-Function Controller).
- (2) Make sure that you have the latest Issue and Revision of AFM 02371 Temporary Revision TR 02371-081, or the subsequent approved AFM 02371 with the TR incorporated.
- (3) Make an entry in the Aircraft Logbook and AFM 02371 to record the incorporation of this Service Bulletin.
- (4) Make sure that the Aircraft Logbook shows any new Pilatus Part Number(s) and/or Serial Number(s), as applicable.
- (5) Make sure that all applicable Aircraft Documentation is updated.
- (6) Inform CAMP of the incorporation of this Service Bulletin and any new Pilatus Part Number(s) and/or Serial Number(s), as applicable. Send the completed feedback sheet to: fax@campsystems.com

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PC-24

Software Feedback Sheet for the Accomplishment of SB 42-026

The purpose of this software feedback sheet is to provide CAMP with the current information on each individual PC-24 aircraft.

Please complete the grey cells as appropriate using black ink and block letters.

Print out and send the completed feedback sheet to: fax@campsystems.com

Aircraft MSN		Aircraft Registration		Total Airframe Hours	
Service Center				Total Landings	

APEX Software Information

Description		SOFTWARE, APEX DFZ B6.0	
CAMP Code, Task Number		PC24AE00800100-0110	
Old Part Numbers		New Part Numbers	
Pilatus P/N	Supplier P/N	Pilatus P/N	Supplier P/N
985.99.12.525	EB60000491-0107	985.99.12.566	EB60000491-0108
OR			
985.99.12.508	EB60000491-0106		
OR			
985.99.12.427	EB60000491-0105		
OR			
985.99.12.416	EB60000491-0104		
OR			
985.99.12.405	EB60000491-0103		

FRED File Software Information

Description		PC-24 FRED File - FDR REV 8	
CAMP Code, Task Number		PC24AE00800100-0412	
Old Part Numbers		New Part Numbers	
Pilatus P/N	Supplier P/N	Pilatus P/N	Supplier P/N
531.30.24.017	-	531.30.24.033	-
OR			
531.30.24.024	-		
OR			
531.30.24.026	-		

CAMP Software Feedback Sheet (Sheet 1 of 2)

Software feedback sheet cont'd.

SB Accomplishment Information

We have embodied/accomplished this SB		Fully		Partially
The undersigned confirms the accomplishment of this Service Bulletin				
Date of accomplishment	Name		Signature	
Comments (procedure, kit quality, suggested improvements etc.)				