

Service Bulletin No: 45-014

Ref No: 350

Modification No: EC-16-0062

ATA Chapter: 45

CENTRAL MAINTENANCE SYSTEM - CENTRAL COMPUTER - UPGRADE THE HONEYWELL PRIMUS APEX OPERATIONAL SOFTWARE TO BUILD 10.9**1. Planning Information****A. Effectivity**

PC-12/47E aircraft MSN 545 and MSNs 1001 thru 1630.

This modification will be accomplished during production on MSN 1631 and subsequent.

B. Concurrent Requirements

Service Bulletin 31-018 - MSN 545, 1001 thru 1400 - Installation of New Modular Avionics Unit GIO and CSIO Modules in conjunction with Service Bulletin 46-004 - Installation of a Wireless Data Loading System (Connected Flight Deck).

Service Bulletin 22-005 - MSN 545, 1001 thru 1180 - Replacement of the Flight Guidance Panel for coupled VNAV functionality (see AFM Supplement No. 9).

NOTE: It is acceptable to select the coupled VNAV option in the option file without the correct Flight Guidance Panel installed.

Service Bulletin 34-035 (latest Revision) - MSN 545, 1001 thru 1332 - Introduction of a Honeywell Satellite Based Augmentation System (SBAS) Global Navigation System Sensor Unit (GNSSU).

NOTE: It is NOT acceptable to downgrade the Primus APEX Operational software (i.e., to install a lower software Build number than that currently installed on the aircraft).

NOTE: Customers are reminded to request a new Nav database from INDS. The new database is needed following accomplishment of this Service Bulletin.

NOTE: Customers are reminded to co-ordinate with OBDS Customer Support for a new Electronic Check List following accomplishment of this Service Bulletin.

C. Reason

The Honeywell Primus APEX software Build 10.9 contains the following bug fix from the latest Build 10 (MSN 1576 - 1630, Service Bulletin 45-013 for MSN 1576 - 1581 and MSN 1582 - 1630 during production):

- Fixes the intermittent erroneous CAS advisory message Maintenance Fail.

The Honeywell Primus APEX Software Build 10 introduces new functionality and product improvements (MSN 1001 - 1575), including:

- FMS/NAV
 - MFD WX radar control is now independent of PFD
 - Temperature compensation functionality for Baro VNAV
 - Orbital Patterns functionality (software option use Service Bulletin 45-004)
 - Last selected bearing pointer displayed after a power cycle
 - Last selected option on weather menu retained after a power cycle
 - NDB waypoint are no longer appended with NB
 - Pilot defined waypoint are now referred to as pilot-entered (P-E) waypoints
 - Previously created pilot entered (P-E) waypoints are selectable for display on the INAV map
 - Route details (SID, STAR, airway name) available in the flight controller menu
 - Info shortcut added to Aeronautical active layers control bar
 - Altitude intercept point displayed in all map modes (not just HDG UP)
 - Waypoint ETE added to waypoint list information
 - Vertical flight direct to option added to the task menu
 - Flight summary tab automatically displayed after landing
 - Change to charts start up display and expired/no charts warning messages
 - Mode 5 glideslope alerting for LPV approaches with EGPWS
 - In-flight Flight Plan loading via Honeywell myGDC iPad application (Connected Flight Deck Option).
- Primary Flight Display
 - Wind speed and vector removed while on the ground
 - Full time clock displayed on the PFD
 - ILS Excessive Vertical Deviation Indicator
- New Crew Alerting Messages
 - Flap EXT Limit Caution
 - Boots Temp Limit Caution.
- Central Maintenance Computer improvements
- Bug fixes.

For the description of the changes (Reason) between different Primus Apex Software Builds, refer to:

- SB 45-005 for changes between Build 6 and Build 7
- SB 45-008 for changes between Build 7 and Build 8
- SB 45-009 for changes between Build 8 and Build 8.3.3
- SB 45-010 for changes between Build 8.3.3 and Build 8.6
- SB 45-011 for changes between Build 8.6 and Build 8.7 (limited distribution only)
- SB 45-012 for changes between Build 8.7 and Build 8.8.

D. Description

This Service Bulletin gives the data and instructions necessary to do a full software load to update the Honeywell Primus APEX Operational Software to Build 10.9.

E. Compliance

Recommended.

F. Approval

The technical content of this Service Bulletin is approved under the authority of DOA No. 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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H. Manpower

Task	Total
Preparation	0.5
Modification	2.5
Close up	0.5
TOTAL MAN-HOURS	3.5

I. Weight and Balance

None.

J. Electrical Load Data

Not changed.

K. Software

The Honeywell Primus APEX Operational Software is updated to Build 10.9.

L. References

Aircraft Maintenance Manual (AMM): 12-B-06-20-00-00A-040A-A, 12-B-24-00-00-00A-901A-A, 12-B-31-30-01-00A-903A-A, 12-B-45-45-00-00A-550A-A, 12-B-46-21-00-00A-903A-A.

Tool and Equipment Manual (TEM): 12-B-45-45-00-00A-066A-A.

AFM Revision 15.

AFM TR 34.

Honeywell Pilot's Guide, version D201502000001 r001.

M. Publications Affected

AFM (if upgrading from Build 8.8 or earlier)

AMM and Honeywell Primus APEX Pilot Guide.

N. Interchangeability of Parts

Not applicable.

2. Material Information**A. Material - Price and Availability**

If you want more information about this modification, please contact us as follows:

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Operators are requested to advise Pilatus Aircraft Ltd, of the Manufacturer's Serial Number (MSN) and the flying hours of aircraft which are affected by this Service Bulletin.

B. Warranty

Honeywell agrees to cover the costs for labor of affected aircraft on approval of a warranty claim, provided the work is accomplished by an appropriately rated Honeywell Service Centre within 12 months of the issue date of this Service Bulletin.

C. Material Necessary for Each Aircraft

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 with the Modification Kit are correct when the kit is dispatched. This could lead to differences between those part numbers quoted in this Service Bulletin and the Modification Kit if parts are superseded. Operators are requested to check the IPC for delivered parts which differ from those listed in the Service Bulletin Materials Kit List.