SUBJECT: INFORMATION ON THE MULTI-MODE DIGITAL RADIO 2 (SUPERSEDES SL-225)

To all Customers, Operators and Service Centers:

Date: Mar 31/22

Effectivity: PC-12/47E Series Aircraft MSN 1720, 2001 and Up.

This Service Letter is issued to draw attention to an issue with the Multi-Mode Digital Radio 2 (KTR 2280A Honeywell P/N 069-01039-0101).

Pilatus Aircraft Ltd have identified a recent increase in the failure rates of the Multi-Mode Digital Radio 2. A root cause investigation has been launched and has identified two systematic issues with the radio that are leading to the increased failure rate:

- Problem 1:
  During power down, the data in the flash memory integrated circuits are being corrupted causing the system at power up to detect this corruption and fail the power-up built-in test. This results in a MMDR fail CAS message.
- Problem 2:
  The RF output stage power transistor is failing due to a timing conflict between data and voice transmissions. This results in the loss of the ability to transmit on COM 2.

NOTE: Both of the above problems result in an unrecoverable radio leading to a maintenance action for removal and replacement. Problem 2 is occurring frequently and is the primary cause of the increased failure rate.

1. Short Term Workaround

If there is no operational requirement for VHF Datalink then it is recommended to inhibit the radio datalink transmissions. This can be done through one of the following mechanisms:

A. Work Around 1:

The radio datalink transmissions can be inhibited using the “DATA MODE” radio button on the radio window detail page with only STBY Bus powered.

NOTE 1: For aircraft battery starts, the radio window can be accessed on the lower MFD in STBY power mode. Make sure that the focus is on the FMS window and right click the scroll wheel selecting “Radios”.

Place the cursor over COM 2 and then press the “DETAIL” button on the Pilots PFD Controller. This will then display the selection to disable the “DATA MODE”. It is important to make sure that this is completed prior to requesting engine start clearance over the radio.

NOTE 2: The power up default status of this setting is ON, so it is required to be done at every Avionics System power up.

B. Work Around 2:

The radio datalink transmissions can be disabled by updating the installed APM option file.

NOTE: This can be achieved by deactivating the “VHF Datalink with AFIS” factory option (P/N 500.04.12.001) via Service Bulletin SB 45-019 (Latest Revision).

2. Solution

Honeywell are updating the radio design to introduce additional memory protection circuitry that prevents a flash memory write during power down, and additional timing margins will be introduced in the software to prevent conflicts between voice and datalink transmissions.
The radio software and hardware modification revisions, and the Pilatus Part Number, will be updated and included in the Illustrated Parts Data (IPD).

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