

# SERVICE BULLETIN

SERVICE BULLETIN NO: 46-001

REF NO: 64

MODIFICATION NO: EC 08-0965

ATA CHAPTER: 46

## SYSTEMS INTEGRATION AND DISPLAY - GENERAL PRIMARY FLIGHT DISPLAY (PFD) - SOFTWARE UPDATE

### 1. Planning Information

#### A. Effectivity

PC-9(M) aircraft MSNs 655 thru 670

All PFD Units (P/N 975.96.32.722) held as spare, or in stores

#### B. Concurrent Requirements

None.

#### C. Reason

##### (1) Problem

The flap actuator can fail and send two outputs to the PFD flap inputs. At the moment, the PFD has a priority logic implemented for a multiple flap input, which is - Flaps LDG - Flaps TO - Flaps UP. This can cause an incorrect flap indication.

##### (2) Cause

Software problem.

##### (3) Solution

Change the software to implement new logic. The new logic will be that if two or more flap inputs to the PFD go active, the FLAPS will be indicated in red on the PFD.

#### D. Description

This Service Bulletin gives the data and instructions necessary to update the software on the PFD.

#### E. Compliance

Mandatory.

To be accomplished as soon as possible, but within 3 months of the issue date of this Service Bulletin.

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**F. Approval**

The technical content of this Service Bulletin is approved under FOCA accepted procedures.

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

**G. Manpower**

	Total
Preparation	0.75
Modification	See Note
Close up	1.00
<b>TOTAL MAN-HOURS</b>	<b>1.75</b>

**NOTE:** Refer also to Astronautics Service Bulletin SBL10884A.

**H. Weight and Balance**

**(1) Weight Change**

Not affected.

**(2) Moment Change**

Not affected.

**I. Electrical Load Data**

Not changed.

**J. Software**

The software for the PFD is updated from Part Number 198233-0037 to 198233-0055.

**K. References**

Aircraft Maintenance Manual (AMM): 24-00-00, 25-10-00, 46-30-01.

Astronautics Service Bulletin SBL10884A.

**L. Publications Affected**

Illustrated Parts Catalogue (IPC), 46-30-01.

**M. Interchangeability of Parts**

One way interchangeable. Pre Service Bulletin 46-001 PFD units must not be installed on a Post Service Bulletin 46-001 aircraft.

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**2. Material Information**

**A. Material - Price and Availability**

No Pilatus modification kit is necessary to do this Service Bulletin.

Operators who require further information should contact:

PILATUS AIRCRAFT LTD,  
CUSTOMER LIAISON MANAGER,  
CH 6371 STANS,  
SWITZERLAND

Tel: +41 41 619 62 26 (Government)  
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**B. Material Necessary for Each Aircraft**

**NOTE:** The placards which indicate the ACA HW and SW P/Ns and TSO approval are supplied as part of the PFD Service Bulletin kit from Astronautics. The new P/N of the PFD (P/N 975.96.32.731) is also on these placards.

**Operator Supplied Material**

None.

**C. Material Necessary for Each Spare**

**NOTE:** The placards which indicate the ACA HW and SW P/Ns and TSO approval are supplied as part of the PFD Service Bulletin kit from Astronautics. The new P/N of the PFD (P/N 975.96.32.731) is also on these placards.

**D. Tooling - Cost and Availability**

Not applicable.

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**3. Accomplishment Instructions - Aircraft**

**WARNING:** MAKE SURE THAT BOTH EJECTION SEATS HAVE THE SAFETY PINS INSTALLED IN THE SAFE FOR SERVICING LOCATIONS BEFORE YOU GO INTO THE COCKPIT (REF. AMM, 25-10-00, PAGE BLOCK 201).

**A. Preparation**

- (1) Make sure the aircraft electrical system is de-energized (Ref. AMM, 24-00-00, Page Block 201).
- (2) In the front and rear cockpits, open and install a safety clip to the circuit breakers:  
  
PFD (BATTERY AVIONIC BUS CB panel)  
PFD (GENERATOR AVIONIC BUS CB panel).
- (3) Make sure that the COCKPIT LIGHTS - INSTR switch is set to OFF.
- (4) Remove the PFD unit (P/N 975.96.32.722) from the front and rear cockpits (Ref. AMM, 46-30-01, Page Block 401).

**B. Modification**

Do the Astronautics Service Bulletin SBL10884A to update the software in the PFD to version 198233-0055.

**NOTE:** Install the new ACA HW and SW P/Ns and TSO approval placards (which are supplied as part of the PFD Service Bulletin kit from Astronautics) in the same position as the removed items.

**NOTE:** The new Pilatus P/N of the PFD (P/N 975.96.32.731) is also on these placards.

**C. Job Close-Up**

- (1) Install the modified PFD units in the front and rear cockpits (Ref. AMM, 46-30-01, Page Block 401).
- (2) In the front and rear cockpits, remove the safety clips and close the circuit breakers:  
  
PFD (BATTERY AVIONIC BUS CB panel)  
PFD (GENERATOR AVIONIC BUS CB panel).
- (3) Do a test of the PFDs (front and rear cockpit) as follows:
  - (a) Energize the aircraft electrical system (Ref. AMM, 24-00-00, Page Block 201).
  - (b) Make sure that the PFD comes on and shows the applicable primary flight indications (no red crosses displayed and no red captions displayed on the top right of the PFD display).
  - (c) On the PFD, press and hold the REF key for more than 5 seconds to enter the PFD maintenance mode.

**NOTE:** The aircraft must be on the ground for the selection of the PFD maintenance page.

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- (d) On the PFD, make sure the part number, the version, and the CRC displayed for FLT and TBL are the same as shown in Table 1.

	<b>P/N</b>	<b>VER</b>	<b>CRC</b>
FLT	198233-0055	PILT	FE90F1AE
TBL	198233-0055	PILT	B479382C

**Table 1**

- (e) De-energize the aircraft (Ref. AMM, 24-00-00, Page Block 201).

- (4) Make sure the work area is clean and clear of tools and other items.

**D. Documentation**

- (1) Make an entry in the Aircraft Logbook that this Service Bulletin has been incorporated.

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**4. Accomplishment Instructions - Spares**

**A. Modification**

Do the Astronautics Service Bulletin SBL10884A to update the software in the PFD to version 198233-0055.

**NOTE:** Install the new ACA HW and SW P/Ns and TSO approval placards (which are supplied as part of the PFD Service Bulletin kit from Astronautics) in the same position as the removed items.

**NOTE:** The new Pilatus P/N of the PFD (P/N 975.96.32.731) is also on these placards.

**B. Documentation**

- (1) Make an entry in the Aircraft Logbook that this Service Bulletin has been incorporated.
- (2) Make sure the equipment label shows the new part number (P/N 976.96.32.731) of the PFD Unit.