

SERVICE BULLETIN

SERVICE BULLETIN NO: 31-003

REF NO: 162

MODIFICATION NO: 02-0153

ATA CHAPTER: 31

INDICATING/RECORDING SYSTEMS INSTRUMENT AND CONTROL PANELS - REPLACEMENT OF THE SWITCH CAPS ON THE OVERHEAD PANEL

1. Planning Information

A. Effectivity

All PC-12 and PC-12/45 aircraft MSN 321 and MSN 401 thru MSN 457 and MSN 463 with Overhead Panel P/N: 972.81.32.102 installed.

It is not necessary to do this Service Bulletin on Overhead Panels P/N: 972.81.32.102 at Mod A standard.

B. Concurrent Requirements

None.

C. Reason

It is possible that push switches on the overhead panel will not operate their related systems.

(1) Cause

The switch cap spigots (spigot) are not sufficiently strong. If the spigot breaks, it can prevent operation of the switch.

(2) Solution

Replace the switch caps with items which have stronger spigots.

D. Description

This Service Bulletin (SB) gives the instructions to remove the overhead panel, change the switch caps, install the panel in the aircraft and test the system.

E. Compliance

Mandatory.

At the next 100 Hour Inspection or Annual Inspection whichever comes first.

F. Approval

The technical aspects of this Service Bulletin are approved by the Federal Office for Civil Aviation (FOCA) of Switzerland as an Airworthiness Directive.

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

G. Manpower

	Total
Preparation	0.25
Changes	1.25
Close up	1.0
TOTAL MAN-HOURS	2.5

H. Weight and Balance

(1) Weight Change

Not affected.

(2) Moment Change

Not affected.

I. Electrical Load Data

Not changed.

J. Software

Not changed.

K. References

Aircraft Maintenance Manual (AMM), 31-10-00 and 31-10-01.

L. Publications Affected

Not affected.

M. Interchangeability of Parts

Pre and Post-SB 31-003 overhead panels are not interchangeable.

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2. Material Information

A. Material - Price and Availability

Operators should send orders for Service Bulletin modification kits, to their Authorized Pilatus Service Center, or to:

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

General Aviation:
Tel : + 41 41 619 6319
Fax: + 41 41 619 6224
eMail: pilga@pilatus-aircraft.com

Government:
Tel : + 41 41 619 6509
Fax. + 41 41 619 6224
eMail: rpaterson@pilatus-aircraft.com

PILATUS BUSINESS AIRCRAFT LTD.,
PRODUCT SUPPORT DEPARTMENT
11755 AIRPORT WAY
BROOMFIELD, CO 80021.
UNITED STATES OF AMERICA

Tel : 303 465 9099
Fax: 303 465 6040
eMail: Productsupport@PilBal.com

PILATUS AUSTRALIA (Pty.) LTD.,
PO BOX 732
MARLESTON SA 5033
AUSTRALIA

Tel : (08) 8234 4433
Fax: (08) 8234 4499
Free Call: 1800 445 007
eMail: info@pilatus.com.au

Modification Kit Number	Price	Availability
500.50.12.273	Contact address above	Contact address above

Credit will be issued for all affected aircraft, on approval of a warranty claim, provided the work is accomplished by an authorised Service Center within 12 months from the effective date of this Service Bulletin.

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B. Material Necessary for Each Aircraft

(1) Material to be Procured

Modification Kit No. 500.50.12.273 consists of these parts:

New Part No.	Description	Old Part No.	Qty	Disp. Code	Fig	Item
972.81.32.418	Modification Kit, Switch Cap	N/A	N/A	N/A	N/A	N/A

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

(2) Operator Supplied Materials

Part No.	Description	Qty	Remarks
910.42.12.128	Loctite, Grade 243, blue	A/R	Item No. P08-043 or equivalent
N/A	Permanent Marker	A/R	To change MOD status on Overhead Panel Identification-label


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3. Accomplishment Instructions - Aircraft

A. Preparation

- (1) Get access to the flight compartment.

B. Removal of the Overhead Panel

- (1) Remove the overhead panel (Ref. AMM, 31-10-01, Page Block 401).

C. Modification of the Overhead Panel

This modification is not necessary if the overhead panel is at MOD A standard.

- (1) Modify the overhead panel (Para. 4).

D. Installation of the Overhead Panel

- (1) Install the overhead panel (Ref. AMM, 31-10-01, Page Block 401).
- (2) Do the Operational Test of the overhead panel (Ref. AMM, 31-10-00, Page Block 501).

E. Close up

- (1) Remove all tools and materials. Make sure the work areas are clean.

F. Documentation

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

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4. Accomplishment Instructions - Off Aircraft

The Modification to the overhead panel must be done at a PILATUS Approved Service Center.

WARNING: WORK ON THE OVERHEAD PANEL MUST BE DONE IN CLEAN AND DRY CONDITIONS. DIRT, MOISTURE OR UNWANTED OBJECTS INSIDE THE PANEL CAN BE DANGEROUS AND COULD CAUSE AIRCRAFT SYSTEMS NOT TO OPERATE CORRECTLY.

CAUTION: THE PCB/BACKPLATE IS NOT FLEXIBLE. YOU CAN DAMAGE THE PCB/BACKPLATE IF YOU BEND OR TWIST IT.

CAUTION: THE MAIN ASSEMBLY IS SENSITIVE TO STATIC. OBEY THE STATIC PRECAUTIONS BEFORE YOU TOUCH THE ELECTRICAL CONNECTOR PINS.

A. Preparation

- (1) On the overhead panel, make sure all toggle switches are in the up position and the circuit breakers are in the closed position.
- (2) Put a soft cover of protective material on the work surface where you will the disassemble and assemble and the overhead panel.

B. Modification of the Overhead Panel (Ref. Fig. 1)

Figure 1 shows all configurations of the overhead panel. Install only the applicable switch caps for the given aircraft configuration.

Replace only the switch caps with ON, OPEN or no caption/symbol. Do not replace the switch caps that have the arrow symbol.

- (1) Put the overhead panel face down on the work surface.
- (2) Remove the ten screws (1) which attach the front panel (2) to the main assembly (3).
- (3) Turn the overhead panel so that the front panel (2) is now face up.
- (4) Remove the front panel (2) from the main assembly (3). Apply a light force adjacent to the internal electrical connectors (between the circuit breakers) to remove the front panel (2).
- (5) Put the front panel (2) face down on the work surface.
- (6) Remove the 26 screws (4).

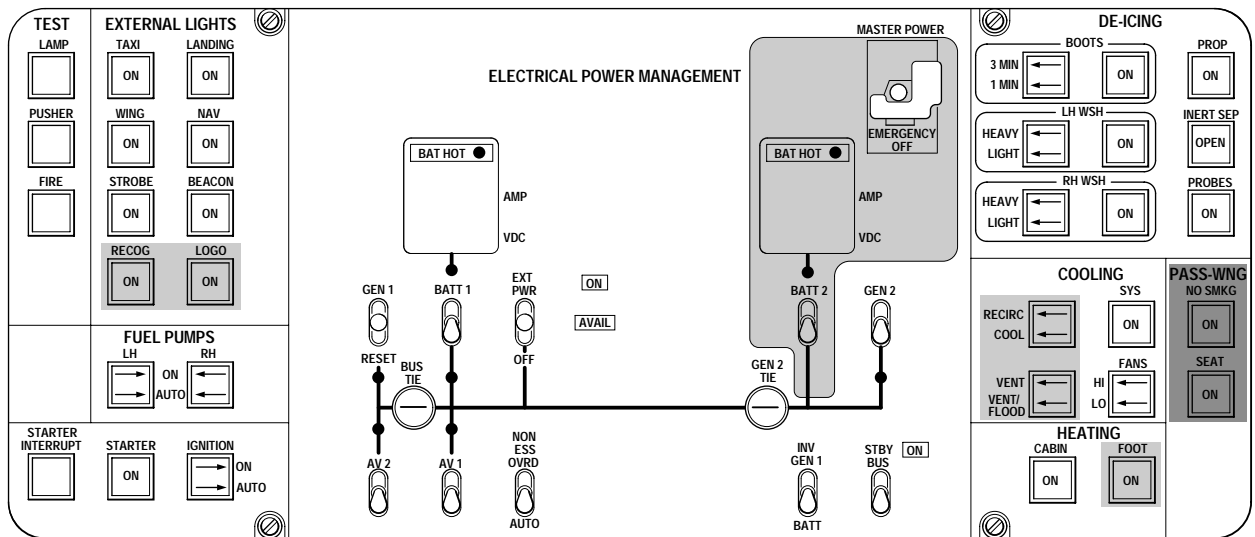
CAUTION: BE CAREFUL WHEN YOU REMOVE THE PCB/BACKPLATE. IT CAN BOND TO THE REAR OF THE FRONT PANEL.

- (7) Make sure the switch caps stay in the front panel when you remove the PCB/backplate. This will help you to install the correct replacement switch-caps.
- (8) Remove the PCB/backplate (5).
- (9) Replace the switch caps (6) one at a time. When you do this, make sure that each new switch cap (6) and its orientation is correct. Install the switch cap with the green ON caption in the STARTER switch position.
- (10) Put the PCB/backplate (5) in position. Make sure it is flat against the front panel (2).

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- (11) Install sufficient screws (4) to hold the PCB/backplate (5) in position. Torque the screws (4) to 0.00885 lbf. in (0,1 Ncm) .
- (12) Turn the front panel (2) face up and do an inspection of the switch caps (6) to make sure that they are installed correctly.
- (13) Put the front panel (2) face down on the work surface.
- (14) Install the remaining screws (4) and torque them to 0.00885 lbf. in (0,1 Ncm).
- (15) Do a check of the internal electrical-connector pins for damage.
- (16) Make sure there are no finger prints, dust or contamination on the battery-indicator display window of the front panel (2). Clean the battery-indicator display window with a soft cloth if necessary.
- (17) On the main assembly (3), make sure all toggle switches are in the up position and the circuit breakers are in the closed position.
- (18) Put the front panel (2) in position on the main assembly (3).
- (19) Lower the top edge of the front panel (2) until the panel rests on the circuit breaker caps.
- (20) Carefully push down the front panel (2) until it moves down over the circuit breaker caps.
- (21) Put the overhead panel face down on the work surface.
- (22) Obey the manufacturer's instructions and apply Loctite (Item No. P08-043) to the threads of the screws (1).
- (23) Install the ten screws (1) to attach the front panel (2) to the main assembly (3) and torque them to 0.00885 lbf. in (0,1 Ncm).
- (24) Operate each switch in the overhead panel to do a check that the switches are free to move.
- (25) Use a permanent marker to make a mark on the MOD Status A of the overhead-panel identification label.

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OPTIONS
 EXECUTIVE FIT

Overhead Panel - Switch Cap Configuration
Figure 1 (Sheet 2 of 2)