PILATUS AIRCRAFT LTD. STANS, SWITZERLAND

**SERVICE LETTER**

# PC-12

**SUBJECT: ALL PC-12 SERIES AIRCRAFT - EMERGENCY POWER SUPPLY - L-3 COMMUNICATIONS AVIONICS SYSTEMS SERVICE BULLETIN SB501-1712-11**

To all Customers, Operators and Service Centers: Date: Jun 16/10

This Service Letter is issued to draw attention to the following information:

L-3 Communications Avionics Systems have issued Service Bulletin SB501-1712-11 to advise of the possibility that insulation failure within the PS-855 Emergency Power Supply (EPS) may cause an internal short circuit.

Pilatus recommends that, at the next scheduled capacity test, operators return the EPS to an approved L-3 repair center for the modification.

Operators requiring further information on this subject, please contact one of the addresses given below:

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

General Aviation
Tel : + 41 41 619 3333
Fax: + 41 41 619 7311
eMail: SupportPC12@pilatus-aircraft.com

PILATUS BUSINESS AIRCRAFT LTD.,
PRODUCT SUPPORT DEPARTMENT,
11755 AIRPORT WAY,
BROOMFIELD, CO 80021.
USA

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

PILATUS AUSTRALIA (Pty.) LTD.,
17 James Schofield Drive,
Adelaide Airport SA 5950,
AUSTRALIA

Tel : +61 (08) 8234 4433
Fax: +61 (08) 8234 4499
Free Call: 1800 445 007
eMail: SupportPC12@pilatus.com.au

**Attachments: L-3 COMMUNICATIONS AVIONICS SYSTEMS SERVICE BULLETIN SB501-1712-11**

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communications
Avionics Systems

L-3 Communications Avionics Systems
5353 52nd Street, S.E.
Grand Rapids, MI 49512-9704 USA
Telephone (616) 949-6600
Fax (616) 977-6898
www.as.l-3com.com

# Service Bulletin

**SB501-1712-11 (Rev. A)**

**December 10, 2009**

## PS-855 – Prevent Short Circuits

### Planning Information

**Effectivity:** Emergency Power Supply, PS-855 (A, B, C, D), 501-1712-01, -02, -03, -04

**ECN:** 80621

**Concurrent Requirements:** N/A

**Reason:** To eliminate the potential for short circuits due to insulation failure.

**Description:** Incorporation of this modification to the PS-855 requires the installation of insulation sleeving over the battery wires near the converter board.

**NOTE**

Check MOD status on PS-855D (P/N 501-1712-04) to confirm that MOD 1 and MOD 2 are incorporated and marked. (Refer to SB501-1712-10 for additional information.)

**Compliance:** Customer Units: It is mandatory that units removed from aircraft for required test and evaluation have this modification (see **Identification Procedures**) incorporated.

New Units: Future production units will incorporate this modification (see **Identification Procedures**).

**NOTES**

1. Normal service costs shall be charged for this repair except for units that are under warranty.
2. Authorized Service Centers shall be reimbursed for repair time and material (as defined by Avionics Systems) only for units under warranty.

**Approval:** This service bulletin contains no modification information that revises the approved configuration and therefore does not require governmental or other regulatory agency approval.

**Export Compliance:** This technical data is controlled under the Export Administration Regulations [ECCN 9E991] and may not be exported to a foreign person, either in the United States or abroad without the proper authorization of the U.S. Department of Commerce.

**Manpower:** Removal and replacement of the PS-855 from the aircraft is not reimbursable by L-3 Avionics Systems.

This modification requires approximately 1.5 hours.

| | |
|---|---|
| **Weight and Balance:** | Negligible |
| **Electrical Load Data:** | Not Changed |
| **Software Accomplishment Summary:** | N/A |
| **References:** | TP-483, Component Maintenance Manual |
| **Other Publications Affected:** | None |
| **Interchangeability of Parts:** | N/A |

## Material Information

**Material:**

Silicone Coated Fiberglass Sleeving (red), P/N MIL-I-3190/6-10-2
Silicone Coated Fiberglass Sleeving (green), P/N MIL-I-3190/6-10-5
Silicone Coated Fiberglass Sleeving (black), P/N MIL-I-3190/6-10-0

**NOTE**

If green Sleeving (P/N MIL-I-3190/6-10-5) is not available, than it is permissible to substitute it with white sleeving (P/N MIL-I-3190/6-10-9).

Adhesive, 3M-847. See referenced manual for details.
Tie down straps. See referenced manual for details.

| | |
|---|---|
| **Industry Support Information:** | N/A |
| **Material Necessary for Each Aircraft Component:** | N/A |
| **Material Necessary for Each Spare:** | N/A |
| **Re-Identified Parts:** | N/A |
| **Tooling:** | N/A |

## Accomplishment Instructions

When sending the unit to the factory:

It is not necessary to call L-3 Avionics Systems for a return authorization. Send the unit to:

**L-3 Communications Avionics Systems**
Attn: Customer Service
5353 52nd Street, S.E.
Grand Rapids, MI USA 49512-9704
Telephone: (800) 453-0288 or (616) 949-6600
Fax: (616) 977-6898

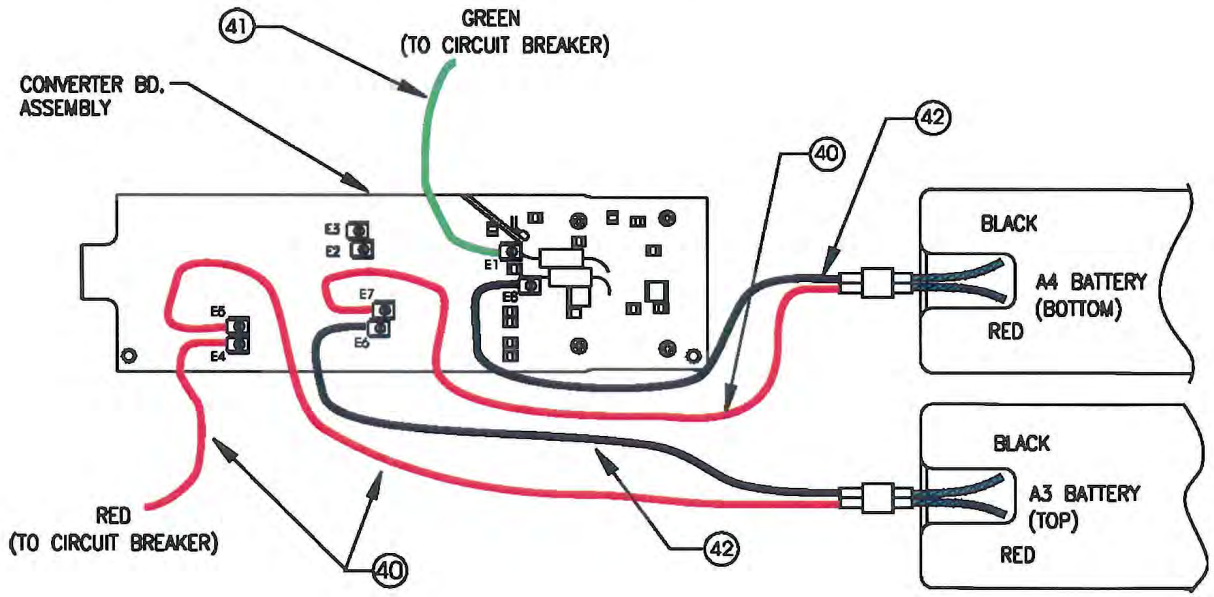
Include shipping instructions, a telephone number and a contact person.

For additional assistance, call L-3 Avionics Systems Customer Service (800-453-0288 or 616-949-6600).

Owners of the referenced manual may repair the PS-855 as follows:

Use the following instructions and the referenced manual to disassemble the unit only to the extent necessary to incorporate this modification.

1. Disassemble power supply Cover by removing 3 Screws.
2. Disconnect wires attached to Heater Control CCA (A2) via Terminal Block TB3 and TB4 using small regular screwdriver. Make sure to identify wires.
3. Remove 4 Screws from the Chassis and remove Upper Support Assembly.
4. Remove top Battery Back (A3) from Chassis Assembly and set to the side.
5. Remove 8 Screws from the Chassis and remove the Center Support Assembly from Chassis Assembly.
6. Remove bottom Battery Back (A4) from Chassis Assembly and set to the side.
7. Refer to Figure 1(below) and add new sleeving as follows:
   a. From converter assembly CCA (A1) disconnect green wire from terminal E1 using small regular screwdriver. (Wire connects to Circuit Breaker, CB1.)
      - Trim a piece of green Silicone Coated Fiberglass Sleeving (P/N MIL-I-3190/6-10-5) that is long enough to cover the green wire from the Terminal E1 up to the rubber Grommet (through the CCA A2).
      - Slide sleeving over green wire and reconnect wire to terminal E1.




WIRE ROUTING FOR ILLUSTRATION PURPOSES ONLY,
NOT EXACTLY AS SHOWN.

| Item | Description | Part Number |
|---|---|---|
| 40 | Silicone Coated Fiberglass Sleeving (red) | MIL-I-3190/6-10-2 |
| 41 | Silicone Coated Fiberglass Sleeving (green) | MIL-I-3190/6-10-5 |
| 42 | Silicone Coated Fiberglass Sleeving (black) | MIL-I-3190/6-10-0 |

**Figure 1**

b. From converter assembly CCA (A1) disconnect red wire from terminal E4 using small regular screwdriver. (Wire connects to Circuit Breaker, CB1.)

- Trim a piece of red Silicone Coated Fiberglass Sleeving (P/N MIL-I-3190/6-10-2) that is long enough to cover the red wire from the terminal E4 up to the rubber grommet (through the CCA A2).
- Slide sleeving over red wire and reconnect wire to terminal E4.

c. From converter assembly CCA (A1) disconnect red wire from terminal E5 using small regular screwdriver. (Wire connects to top battery, A3.)

- Trim a piece of red Silicone Coated Fiberglass Sleeving (P/N MIL-I-3190/6-10-2) that is long enough to cover the red wire from the terminal E5 to the heat shrink located on the other end of the wire.
- Slide sleeving over red wire and reconnect wire to terminal E5.

d. From converter assembly CCA (A1) disconnect red wire from terminal E7 using small regular screwdriver. (Wire connects to bottom battery, A4.)

- Trim a piece of red Silicone Coated Fiberglass Sleeving (P/N MIL-I-3190/6-10-2) that is long enough to cover the red wire from the terminal E7 to the heat shrink located on the other end of the wire.
- Slide sleeving over red wire and reconnect wire to terminal E7.

e. From converter assembly CCA (A1) disconnect black wire from terminal E6 using small regular screwdriver. (Wire connects to top battery, A3.)

- Trim a piece of black Silicone Coated Fiberglass Sleeving (P/N MIL-I-3190/6-10-0) that is long enough to cover the black wire from the terminal E6 to the heat shrink located on the other end of the wire.
- Slide sleeving over black wire and reconnect wire to terminal E6.

f. From converter assembly CCA (A1) disconnect black wire from terminal E8 using small regular screwdriver. (Wire connects to bottom battery, A4.)

- Trim a piece of black Silicone Coated Fiberglass Sleeving (P/N MIL-I-3190/6-10-0) that is long enough to cover the black wire from the terminal E8 to the heat shrink located on the other end of the wire.
- Slide sleeving over black wire and reconnect wire to terminal E8.

Use the following instructions and the referenced manual to assemble the unit.

1. Secure Terminals E1, E4, E5, E6, E7, & E8 with Adhesive (3M-847).
2. Place Battery Back (A4) in Chassis Assembly. Secure wires with tie down straps as required.
3. Place Pad and Center Support Assembly in Chassis Assembly. Secure to chassis using 8 Screws.
4. Place Battery Back (A3) in Chassis Assembly. Secure wires with tie down straps as required.
5. Place Pad and Upper Support Assembly in Chassis Assembly. Secure to Chassis using 4 Screws.
6. Run wires through hole in Upper Support Assembly and connect Heater Control CCA (A2) to Terminal Block TB3 and TB4.
7. Secure Terminal Block TB3 and TB4 with Adhesive (3M-847).
8. Secure Cover to Chassis Assembly with 3 Screws.
9. After repairs are accomplished, complete a performance test provide by the referenced manual.

**Testing Procedures:**

A performance test shall be performed on unit after repairs and modifications are accomplished.

**Identification Procedures:**

MOD 9 will be marked on the modification plate for PS-855A (501-1712-01).

MOD 10 will be marked on the modification plate for PS-855B (501-1712-02).

MOD 8 will be marked on the modification plate for PS-855C (501-1712-03).

MOD 3 will be marked on the modification plate for PS-855D (501-1712-04).