

Service Bulletin No: 24-017

Ref No: 143

Modification No: 12/24/102, EC-15-0821

ATA Chapter: 24

**ELECTRICAL POWER - DC GENERATION  
REPLACEMENT OF NICKEL CADMIUM BATTERIES WITH LEAD ACID BATTERIES****1. Planning Information****A. Effectivity**

This Service Bulletin is not valid for aircraft with Nickel Cadmium (NiCad) battery systems that have internal heaters.

PC-12, PC-12/45 and PC-12/47 aircraft MSN 101 up to and including MSN 999 with main only battery systems, except for aircraft MSN 545.

PC-12, PC-12/45 and PC-12/47 aircraft MSN 164, MSN 184 up to and including MSN 999 with main and second battery systems, except for aircraft MSN 545.

PC-12/47E aircraft MSN 1001 thru 9999 with NiCad batteries installed.

**B. Concurrent Requirements**

None.

**C. Reason****(1) Problem**

In some conditions, the performance of lead acid batteries is better than that of nickel cadmium batteries.

**(2) Cause**

Not applicable.

**(3) Solution**

Replace the NiCad battery or batteries with a lead acid battery or batteries.

**D. Description**

This Service Bulletin give the data and instructions necessary to replace NiCad batteries with lead acid batteries in the main and (if applicable) second battery systems. The procedure also includes the replacement of battery tie rods which is only applicable in aircraft MSN 101 thru MSN 140.

Revision 1 to this Service Bulletin removes the lead acid batteries from the Modification Kits.

Revision 2 to this Service Bulletin changes the Effectivity and updates the Service Bulletin to the latest standard.

Revision 3 to this Service Bulletin simplifies the Problem statement, corrects part numbers and updates the Service Bulletin to the latest standard. Aircraft that have already had this Service Bulletin accomplished need no further rework.

Revision 4 to this Service Bulletin adds PC-12/47E aircraft and applicable modification details. Aircraft that have already had this Service Bulletin accomplished need no further rework.

**E. Compliance**

Optional.

**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 can affect the embodiment of this Service Bulletin.

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**H. Manpower**

	Total (Main only battery system)	Total (Main and second battery systems)
Preparation	0.5	0.5
Changes	2.0	4.0
Close up	1.0	2.0
<b>TOTAL MAN-HOURS</b>	<b>3.5</b>	<b>6.5</b>

**NOTE:** Man-hours figures do not include the time required to cure sealants and adhesives.

**I. Weight and Balance**

**(1) Weight Change:**

- Main only battery system, + 5.7 lb (+ 2,6 kg)
- Main and second battery systems, + 11.5 lb (+ 5,2 kg)

**(2) Moment Change:**

- Main only battery system, + 2479.8 lb in. (+ 28,57 kgm)
- Main and second battery systems, + 4804.2 lb in. (+ 55,35 kgm)

**J. Electrical Load Data**

Not changed.

**K. Software**

Not changed.

**L. References**

PC-12, PC-12/45 and PC-12/47 aircraft:

12-A-06-20-00-00A-040A-A	12-A-20-20-00-00A-040A-A	12-A-24-00-00-00A-901A-A
12-A-24-30-07-00A-920A-A	12-A-51-40-01-00A-041A-A	

PC-12/47E aircraft:

12-B-06-20-00-00A-040A-A	12-B-20-20-00-00A-040A-A	12-B-24-00-00-00A-901A-A
12-B-24-30-07-00A-920A-A	12-B-24-30-07-00A-920B-A	12-B-51-40-01-00A-041A-A

**M. Publications Affected**

None.

**N. Interchangeability of Parts**

Not interchangeable.

## 2. Material Information

**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.

### A. Material - Price and Availability

If you require 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.