

Service Bulletin No: 24-041

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Modification No: EC-15-0648

ATA Chapter: 24

**ELECTRICAL POWER - DC GENERATION  
INTRODUCTION OF NI-CAD BATTERIES WITH IN-FLIGHT HEATING****1. Planning Information****A. Effectivity**

PC-12, PC-12/45 and PC-12/47 aircraft with optional single or dual Ni-Cad batteries installed.

**B. Concurrent Requirements**

None.

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

Ni-Cad battery life may be reduced for operations in extended cold weather conditions.

**(2) Cause**

The existing optional Ni-Cad batteries are not heated in-flight.

**(3) Solution**

Install Ni-Cad batteries with heaters that operate in-flight.

**D. Description**

This Service Bulletin gives the data and instructions necessary to install Ni-Cad batteries that have in-flight heaters.

**NOTE:** If the battery relocation Supplementary Type Certificate (STC) has been embodied, contact the STC holder for instructions to remove the standard sealed lead acid batteries and to install heated Ni-Cad batteries.

**E. Compliance**

Optional.

**F. Approval**

The technical content of this document is approved under the authority of DOA No. EASA. 21J. 357.

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**H. Manpower**

| Task                   | Man-hours      |                |
|------------------------|----------------|----------------|
|                        | Single battery | Dual batteries |
| Preparation            | 15.0           | 15.0           |
| Modification           | 12.0           | 14.0           |
| Close up               | 23.0           | 23.5           |
| <b>TOTAL MAN-HOURS</b> | <b>50.0</b>    | <b>52.5</b>    |

**NOTE:** The man-hours above do not include drying/curing time for paints or sealants.

**I. Weight and Balance****(1) Weight Change**

|                |                       |
|----------------|-----------------------|
| Single battery | +2,0 kg (+ 4.4 lb)    |
| Dual batteries | + 3,72 kg (+ 7.54 lb) |

**(2) Moment Change**

|                |               |
|----------------|---------------|
| Single battery | +21963 kg*mm  |
| Dual batteries | + 39683 kg*mm |

**J. Electrical Load Data**

|                |                                   |
|----------------|-----------------------------------|
| Single battery | BATTERY DIRECT BUS:<br>+5.4 Amps  |
| Dual batteries | BATTERY DIRECT BUS:<br>+10.8 Amps |

**K. Software**

None.

**L. References**

Aircraft Maintenance Manual (AMM)

|                          |                          |                          |
|--------------------------|--------------------------|--------------------------|
| 12-A-06-20-00-00A-040A-A | 12-A-24-00-00-00A-901A-A | 12-A-24-30-07-00A-920A-A |
| 12-A-25-10-01-00A-920A-A | 12-A-25-10-03-00A-920A-A | 12-A-25-10-05-00A-920A-A |
| 12-A-25-21-01-00A-920A-A | 12-A-25-21-04-00A-920A-A | 12-A-25-21-05-00A-920A-A |
| 12-A-25-22-01-00A-920A-A | 12-A-25-22-04-00A-920A-A | 12-A-25-23-01-00A-920A-A |

**M. Publications Affected**

AFM, AMM, IPC, WDM.

**N. Interchangeability of Parts**

Not applicable.

**2. Material Information****A. Material - Price and Availability**

If you want more information about this modification, contact your approved Service Center or:

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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.

**B. Warranty**

Not applicable.