

# MANDATORY SERVICE BULLETIN

## MSB D4-087

### **I TECHNICAL DETAILS**

#### **I.1 Category**

Mandatory.

#### **I.2 Airplanes affected**

Type: DA 40 D  
Serial numbers: D4.001 through D4.399,  
40.DS001 through 40.DS061

#### **I.3 Date of effectivity**

28-Feb-2012

#### **I.4 Time of Compliance**

Within 200 flight hours, but not later than 28-Feb-2013.

#### **I.5 Subject**

Inspection of battery relay.

ATA-Code: 24-60

#### **I.6 Reason**

On one aircraft a nut connecting the battery relay with the battery bus was found loose. This lead to an ECU reset during ground operation when several additional current consumers were switched on simultaneously. This service bulletin describes the inspection of the battery relay and its connecting parts.

#### **I.7 Concurrent Documents**

None.

#### **I.8 Approval**

The technical content of this document has been approved under the authority of DOA ref. EASA.21J.052.

#### **I.9 Accomplishments / Instructions**

Comply with WI-MSB D4-087, latest effective issue.

Note: WI-MSB D4-087 is attached to this document.

#### **I.10 Mass (Weight) and CG**

No change.

## **II PLANNING INFORMATION**

### **II.1 Material and Availability**

None.

### **II.2 Special Tools**

None.

### **II.3 Labour Effort**

Approx. 1 hours.

### **II.4 Credit**

For all AC within warranty period:

1 man hours of work.

### **II.5 Reference Documents**

Diamond Aircraft DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, latest effective issue.

## **III REMARKS**

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. All work, particular those that are not especially described in this Service Bulletin, must be done in accordance with the referenced Maintenance Manual.
3. Completion of all work must be recorded in the log book.
4. If material and/or labor hours are subject to be credited through Diamond Aircraft Industries, the Service Bulletin must be carried out by an authorized Diamond Service Center and the Warranty Application incl. Work Report must be sent not later than 30 days after the end of time of compliance.
5. In case of doubt contact Diamond Aircraft Industries GmbH.

**EXECUTION REPORT TO  
SERVICE BULLETIN  
MSB D4-087**

## AIRPLANE DATA

Airplane Serial Number: \_\_\_\_\_

Airplane Registration: \_\_\_\_\_

Airplane Operator: \_\_\_\_\_

Hours of operation of airplane: \_\_\_\_\_

No. of landings: \_\_\_\_\_

Hours of operation-engine \_\_\_\_\_

Typical operation of airplane: private, club, training, other \_\_\_\_\_

\_\_\_\_\_  
Date, Name, SignPlease fax the completed form to Fax No. +43-2622-26700-1369 or e-mail to  
airworthiness@diamond-air.at

# WORK INSTRUCTION

## WI-MSB D4-087

### Inspection of Battery Relay

#### **I GENERAL INFORMATION**

##### **I.1 Subject**

Inspection of Battery Relay.

##### **I.2 Reference Documents**

Diamond Aircraft DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, latest effective issue.

##### **I.3 Remarks**

- a) All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
- b) All work, in particular if not described in this work instruction, must be done in accordance with the referenced maintenance manual.
- c) For conversion factors between SI units and US/Imperial units refer to AMM Chapter 02.
- d) In case of doubt, contact Diamond Aircraft Industries GmbH.

#### **II DRAWINGS, SPECIAL TOOLS & MATERIALS**

##### **II.1 Drawings**

None.

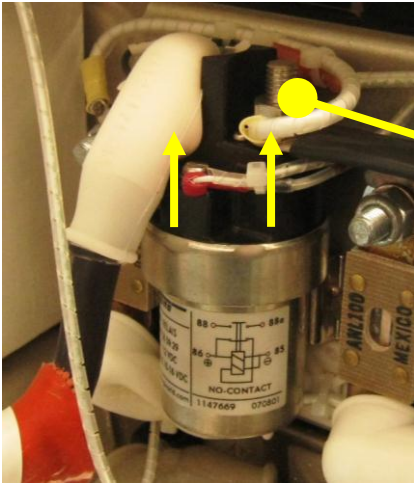
##### **II.2 Special Tools**

None.

##### **II.3 Material**

None.

### III INSTRUCTIONS

1	<p>Remove engine cowlings (refer to AMM Section 71-11).</p> <p><b>WARNING MAKE SURE THAT THE ENGINE IS SAFE BEFORE YOU WORK NEAR THE PROPELLER.</b></p> <ul style="list-style-type: none"> <li>- SET THE ELECTRIC MASTER KEY SWITCH TO "OFF".</li> <li>- SET THE ENGINE MASTER SWITCH TO "OFF".</li> <li>- SET THE POWER LEVER TO "IDLE".</li> </ul>
2	<p>Disconnect the Battery for Maintenance i.a.w. AMM Section 24-34.</p> <p><b>CAUTION DISCONNECT THE BATTERY BEFORE DOING MAINTENANCE ON THE ELECTRICAL SYSTEM. MAKE SURE TO DISCONNECT THE NEGATIVE LEAD FIRST.</b></p>
3	<p>Remove the nuts and washers from the coolant radiator mounting points and raise the coolant radiator, to ease access to the relay box,.</p> <p>Note            You do not have to remove the radiator.</p>
4	<p>Remove the cover from the relay box.</p>
5	<p>Make sure that the nuts on the battery relay are tightened correctly (torque 13 Nm). Apply Torque Seal.</p> <p>Note            The protection cap must be removed for inspection on the RH side nut.</p> <div style="text-align: center;">  <p style="text-align: right;">Torque Seal</p> </div> <p style="text-align: center;">Figure 1: Battery Relay</p>
6	<p>Install the cover to the relay box.</p>
7	<p>Install the coolant radiator with nuts and washer at the mounting points.</p> <p>Note            The front outboard nut also attaches a bonding cable.</p>

8	Connect the battery i.a.w. AMM Section 24-34.  <b>CAUTION    AFTER DOING ELECTRICAL MAINTENANCE ALWAYS DO A CONFIDENCE TEST OF THE SYSTEM WITH A 12 VOLT POWER SUPPLY THAT HAS OVER-CURRENT PROTECTION. DO THIS BEFORE CONNECTING THE BATTERY.</b>
9	Install engine cowlings (refer to AMM Section 71-11).
10	Clean working areas, check for foreign objects.
11	Check all altered, replaced, repaired parts for proper function.
12	Test all systems in working area for function.
13	Make all necessary entries in the airplane logs.