

MANDATORY SERVICE BULLETIN

NO. MSB-40-058

No. MSB-F4-014

I TECHNICAL DETAILS

I.1 Category

Mandatory

I.2 Airplanes affected

Type: DA 40, DA 40 F

Serial Numbers: 40.006 through 40.079, 40.081 through 40.083, 40.201 through 40.721
40.FC001 through 40.FC029

I.3 Date of Effectivity

14-Feb-2008

I.4 Time of Compliance

At next 200 hours inspection but not later than 31-Oct-2008

I.5 Subject

Installation of the inline 100 ohm resistor, on the AUX line of the alternator, on a circuit board.

I.6 Reason

There have been cases where resistors broke over time. With this service bulletin, a pc-board, reinforcing the resistor connections, gets introduced to eliminate breaking.

I.7 Concurrent Documents

None.

I.8 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. MÄM 40-278/a, which has been approved under the authority of EASA Design Organization Approval No. EASA.21J.052.

The technical content of this document has been approved und the authority of DOA No. EASA.21J.052.

I.9 Accomplishment/Instructions

WI-MSB-40-058 (DA 40) or WI-MSB-F4-014 (DA 40 F), latest effective revision must be complied with.

I.10 Mass (Weight) and CG

Negligible

II PLANNING INFORMATION

II.1 Material & Availability

WI-MSB-40-058 (DA 40) or WI-MSB-F4-014 (DA 40 F), latest effective revision is attached to this Service Bulletin.

All necessary parts can be ordered from Diamond Aircraft Industries Canada or from your local General Distributor or Diamond Service Center.

II.2 Special Tools

None

II.3 Labor Effort

2.5 hours

II.4 Credit

For airplanes affected still covered under warranty:

All parts listed in WI-MSB-40-058 or WI-MSB-F4-014 and 2.5 hours of labor.

For all other airplanes affected:

All parts listed in WI-MSB-40-058 or WI-MSB-F4-014

II.5 Reference Documents

WI-MSB-40-058 and WI-MSB-F4-014, latest effective revision.
Diamond Aircraft DA 40 Series Airplane Maintenance Manual, Doc. No. 6.02.01, latest effective revision.

III REMARKS

1. The work must be carried out by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. Accomplishment of the measures must be confirmed in the log book.
3. In case of doubt, contact Diamond Aircraft.
4. If material or labor hours are subject to be credited through Diamond Aircraft Industries, the SB must be carried out by an authorized Diamond Service Center and the Warranty Application must be sent not later than 30-Nov-2008.

WORK INSTRUCTION

WI-MSB-40-058 & WI-MSB-F4-014

“ENGINE HARNESS RESISTOR BOARD”

I GENERAL INFORMATION

I.1 Subject:

Installation of the inline 100 ohm resistor, on the AUX line of the alternator, on a circuit board.

I.2 Reference Documents:

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

I.3 Remarks:

- a) The work must be carried out by a certified aircraft service station or a certified aircraft maintenance mechanic. In case of doubt, contact Diamond Aircraft.
- b) All works, particular those that are not especially described in this work instruction, must be carried out in accordance with the referenced airplane maintenance manual.

II DRAWINGS, SPECIAL TOOLS & MATERIALS

II.1 Drawings:

DA4-2406-44-00SB

II.2 Special Tools:

None

II.3 Material:

Quantity	Description	Part No.
1	Circuit Board, 100 Ohm, Assembly	DA4-2406-44-00SB

III INSTRUCTIONS

1	Remove Cowlings. Refer to AMM Section 71-00.
2	Disconnect wire 24015A20 with resistor from AUX terminal on alternator. Refer to AMM Section 92-00.
3	Cut off the resistor from the wire.
4	Prepare wire for soldering: <ul style="list-style-type: none"> • Remove outer jacket and shield • Strip wire and tin
5	Apply small piece of 1/8" heatshrink and 1/4" heatshrink over wire 24015A20 prior to soldering. (heatshrink supplied with DA4-2406-44-00SB). Refer also to Figure 1.
6	Solder wire to pad on circuit board. Refer also to Figure 1.
7	Shrink small 1/8" piece heatshrink up as close to solder joint as possible. Refer also to Figure 1.
8	Add small cable tie through board and around heatshrink. (As done on other side of resistor board). (cable tie supplied with DA4-2406-44-00SB). Refer also to Figure 1.
9	Shrink 1/4" heatshrink as close to cable tie as possible. Refer also to Figure 1.
10	Add large heatshrink and shrink it evenly over the whole assembly. (heatshrink supplied with DA4-2406-44-00SB). Refer also to Figure 1.
11	Fasten ring terminal to AUX terminal on Alternator. Refer to AMM Section 92-00.
12	Tie in and secure excess wire inside the firesleeve.
13	Clean working area and check for foreign objects.
14	Install Cowlings. Refer to AMM Section 71-00.
15	Perform functional check of altered, repaired and new parts.
16	Test all systems in working area for function.
17	Make necessary entries into aircraft logs.

Large heatshrink not shown in this view:

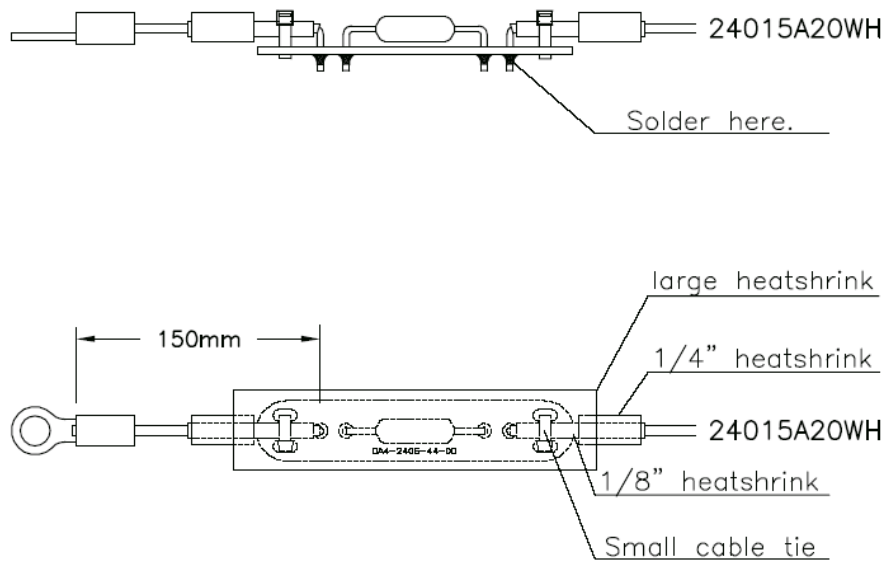


Figure 1

8 7 6 5 4 3 2 1

F

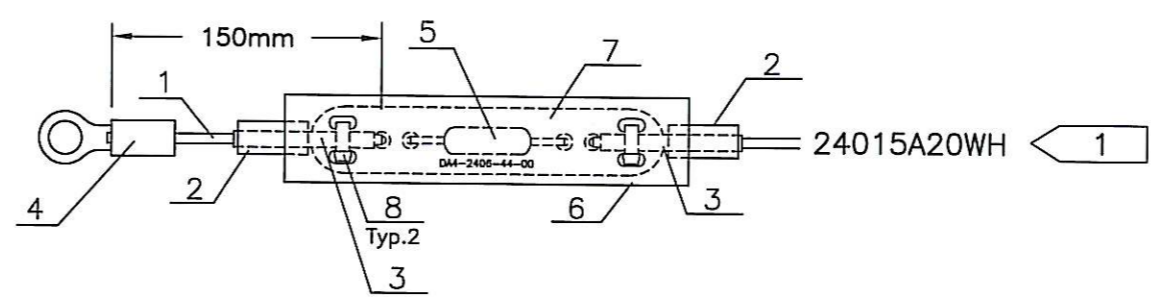
E

D

C

B

A



NOTES:
1. WIRE PART OF ENGINE HARNESS.

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION	MATERIAL TYPE	H.T.	MATERIAL SIZE	SPECIFICATION	SUPPLIER
	2	8	MS3367-4-9	CABLE TIE					
M	1	7	DA4-2406-44-00	CIRCUIT BOARD, RESISTOR					
	1	6	ATUM-1-2-0	HEATSHRINK					
	1	5	43F100	RESISTOR					
	1	4	36154	RING TERMINAL					OHMITE
M	.06	3	ATUM-1/8-0	HEATSHRINK					AMP
M	.04	2	ATUM-1/4-0	HEATSHRINK					RAYCHEM
M	0.16	1	M22759/16-20-9	WIRE, 20 AWG					RAYCHEM

REVISION	-								
AN#	OAM 40-278/a								
DATE	14.02.08								
DRAWN	C.WOOD								
CHECK	M. Kowarsch								
CHECK DATE									
STRESS	14. FEB. 2008								
STRESS DATE									
APPROVAL									
APPROVAL DATE									

		Size:	Scale:	First Angle	TITLE: RESISTOR BOARD ASSEMBLY ENGINE HARNESS
		B	1:2		
This Drawing is the Property of Diamond Aircraft. Unauthorized Reproduction or Disclosure to Third Parties is Prohibited.		Dimensions in Millimetres	Tolerances are ISO 2768 m		
		NEXT ASSEMBLY:		DRAWING NUMBER:	SHEET:
Do Not Scale Drawing				DA4-2406-44-00SB	1/1
				REPLACES DWG.#	