MANDATORY SERVICE BULLETIN
MSB 42MNG-006

I TECHNICAL DETAILS

I.1 Category

Mandatory.

I.2 Airplanes affected

Type: DA 42 M-NG

Serial numbers: 42.339, 42.MN001 through 42.MN0026

All DA 42 M-NG converted via OSB 42-081 using WI-OSB 42-081 up to and including Revision 1

I.3 Date of effectivity

15-Jul-2013

I.4 Time of Compliance

Within 100 flight hours or 12 month from the date of effectivity, whichever comes first.

I.5 Subject

Installation of an additional wire for the alternator fail relay.

ATA-Code: 24-60

I.6 Reason

The Garmin G1000 incorporates an output of the GEA 71 to activate the alternator fail relay, if either alternator fails. The secondary configuration card Garmin P/N 010-12074-02 adds this additional trigger.

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 42-758, which has been approved under the authority of EASA Design Organization Approval ref. EASA.21J.052.

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 42-MNG006, latest effective issue.

Note: WI-MSB 42-MNG006 is attached to this document.

I.10 Mass (Weight) and CG

The change in mass and CG is negligible.

II PLANNING INFORMATION

II.1 Material and Availability

See WI-MSB 42-MNG006, latest effective issue.

II.2 Special Tools

None.

II.3 Labour Effort

Approx. 4 hours.

II.4 Credit

For all AC mentioned in I.2, 4 man hours of work and material according to WI-MSB 42MNG-006, latest effective issue.

II.5 Reference Documents

DA 42 NG Airplane Maintenance Manual, Doc. No. 7.02.15, 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 that which is 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 within the time of compliance and the Warranty Application incl. Work Report must be sent not later than 30 days after completion of work.
5. In case of doubt contact Diamond Aircraft Industries GmbH.

EXECUTION REPORT TO SERVICE BULLETIN MSB 42MNG-006

AIRPLANE DATA

Airplane Serial Number _____

Airplane Registration _____

Airplane Operator _____

Hours of operation of airplane _____

No. of landings _____

Hours of operation-engine LH _____

RH _____

Typical operation of airplane private, club, training, other _____

_____
Date, Name, Sign

Please fax the completed form to Fax No. +43-2622-26700-1369 or e-mail to airworthiness@diamond-air.at

WORK INSTRUCTION

WI-MSB 42MNG-006

I GENERAL INFORMATION

I.1 Subject

Installation of an additional wire for the alternator fail relay.

I.2 Reference Documents

Diamond Aircraft DA 42 NG Series Airplane Maintenance Manual, Doc. No. 7.02.15, 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

D62-2510-97-00-SB.

II.2 Special Tools

None.

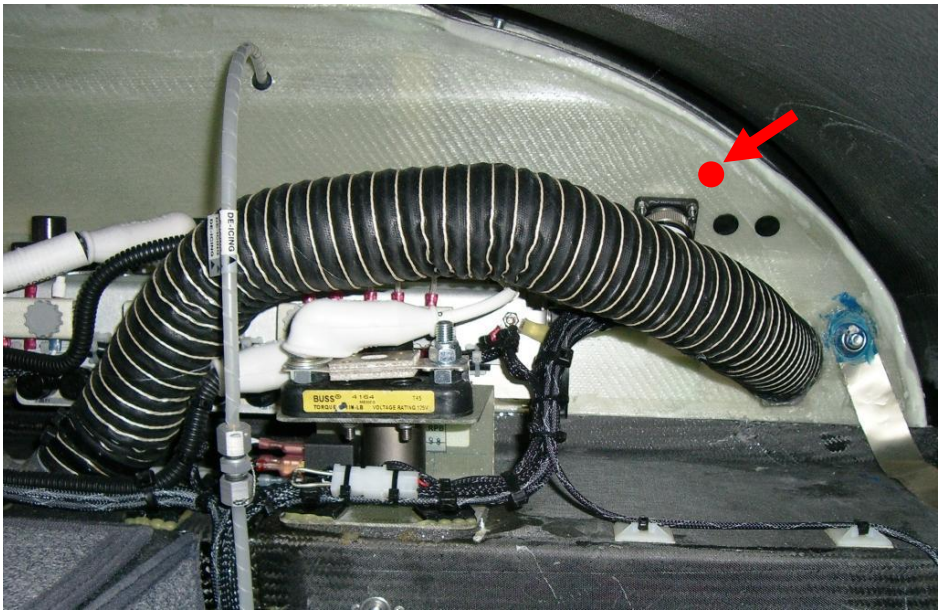
II.3 Material

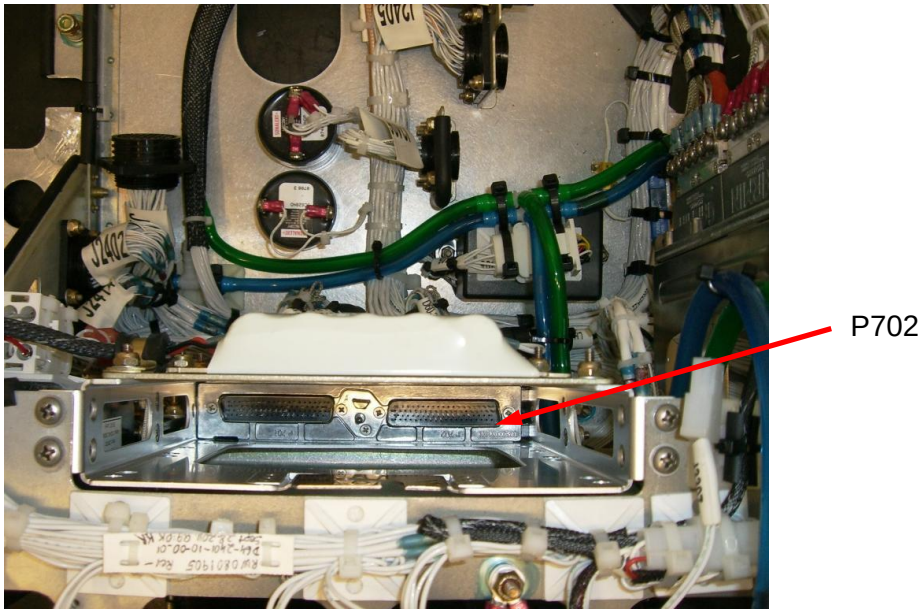
Quantity	Part Number	Description
1	D62-2510-97-00-SB	Control Cable, GEA Alternator Fail
1	5616632	Grommet
15	PLT1MM30	Cable Tie

Material including drawing is available from Diamond Aircraft Industries.

III INSTRUCTIONS

1	Disconnect the main battery for maintance in accordance with AMM Section 24-31.
2	Remove the left baggage compartment rear cover.
3	Remove the instrument panel cover in accordance with AMM Section 25-10.
4	Remove the Garmin GEA 71 in accordance with AMM Section 31-40.
5	Disconnect the wires 25509B22 and 25511B22 (including two diodes) from the alternator fail relay. Refer also to drawing D62-2510-97-00-SB.
6	Connect faston tab side of D62-2510-97-00-SB to the wire (diodes) disconnected above.
7	Connect the faston connector of D62-2510-97-00-SB to the alternator fail relay.

8	If the airplane is <u>not</u> equipped with an oxygen system, replace one hole plug with the grommet P/N 5616632. If the airplane is equipped with an oxygen system, drill a hole diameter 8,5 mm adjacent to the existing holes (see Figure 1) and protect edges with the grommet P/N 5616632.  Figure 1
9	Route wire 31010B22 of D62-2510-97-00-SB through the grommet into the instrument panel.
10	Install the label P2514 onto the wire and insert the pin of wire 31010B22 into the connector position 1. Refer also to drawing D62-2510-97-00-SB.

11	Insert the pin of wire 31010A22 into connector P702, Pin 1 of the GEA 71. Refer also to drawing D62-2510-97-00-SB and the figure below.  Figure 2
12	Connect the connectors P/J2514 of D62-2510-97-00-SB and secure the wires using cable ties.
13	Install the Garmin GEA 71 in accordance with AMM Section 31-40.
14	Clean working areas, check for foreign objects.
15	Install instrument panel cover in accordance with AMM Section 25-10.
16	Install the left baggage compartment rear cover.
17	Connect main battery in accordance with AMM Section 24-31.
18	If required, install the Garmin G1000 secondary loader card P/N 010-12074-02. Refer also to MSB 42-NG003, latest effective issue.
19	Check all altered, replaced, repaired parts for proper function.
20	Test all systems in working area for function.
21	Make all necessary entries in the airplane logs.

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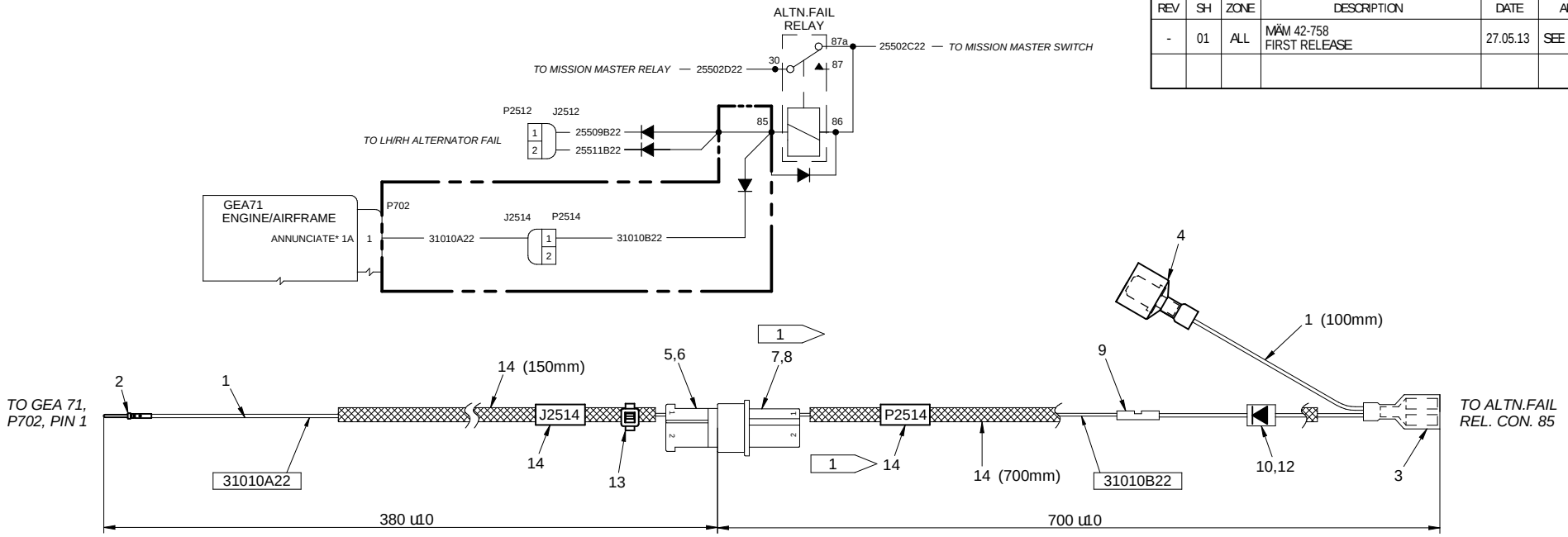
REVISION					
REV	SH	ZONE	DESCRIPTION	DATE	APPROVAL
-	01	ALL	MÄM 42-758 FIRST RELEASE	27.05.13	SEE TB



ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL TYPE	H.T.	MATERIAL SIZE	SPECIFICATION	REMARK
14	0.85m	EXPANDO TSA 2-0/8	Expando					
13	1	PLT1MM30	Cable Tie					
12	A/R	398-458	Heatshrink, clear					
11	A/R	FT500-480	Label, Heatshrinkable					
10	1	1N4006	Diode					
9	1	D-436-36	Splice					
8	1	60618-1	Pin					
7	1	1-480319-0	Connector, 2 Pin					
6	1	60617-1	Socket					
5	1	1-480318-0	Connector, 2 Socket					
4	1	2-520103-2	Faston Tab, red					
3	1	2-520184-2	Faston, red					
2	1	M39029/58-360	Pin					
1	1.2m	M22759/16-22-9	Wire, #22 AWG					

GENERAL NOTES

1. MARK WIRES AS SHOWN.

FLAG NOTES

1 SUPPLY CONNECTOR (ITEM 7) AND LABEL LOOSE.

DIMENSIONS **METRIC**

FIRST ANGLE PROJECTION

FORMAT **A3**

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MM

DIMENSION TOLERANCES

2 DECIMAL	±0,25
1DECIMAL	±0,5
DECIMAL	±1
ANGLE	±1°
RAD	±0,5

3.2 FINISH IN MICRO-METER

IDENTIFICATION MARKINGS
DP-S-17-00001

CLASSIFICATION:
NONE

INTERCHANGEABLE PART **NO**

THIS DRAWING WAS PRODUCED USING
SOFTWARE: **SOLID EDGE V18**

FILENAME
D62-2510-97-00-SB.dft

Diamond Aircraft Industries GmbH

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A-2700 Wiener Neustadt

DEPARTMENT		SIGN	DATE
DRAWN	Kowarsch		28.05.13
CHECKED:	Kowarsch		
QA:	N/A		
STRESS:	N/A		
MANUF.:	N/A		
SYSTEM:	N/A		
APPROVED:	TL		

PROJECT **DA 42 M-NG**

TITLE

Control Cable, GEA Alternator Fail

DWG.ORIG.	DWG.NO.	REV
DAIA	D62-2510-97-00-SB	"-"

CODE **710197** SCALE NTS SH **01** OF **01**

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