



A Mahindra Aerospace Company

PO Box 881, Morwell, Victoria 3840, Australia
Ph + 61 (0) 3 5172 1200
Fax + 61 (0) 3 5172 1201
www.gippsaero.com

SB-GA8-2012-77

Issue 4

MANDATORY

Service Bulletin

Subject:

Pitot Heat Connector at wing tip

Applicability:

All GA8 serial numbers which have a heated pitot fitted. This Service Bulletin is not applicable to GA8 aircraft modified by GippsAero Engineering Release ER-GA8-950216 or aircraft serial number GA8-TC-320-12-183 and above.

Amendments:

1. Initial Issue
2. Alleviation in compliance time if no damage found. Install kit added. Part number and illustration of ring terminals corrected. Dimensions for terminal strip and cover added
3. Part number errors corrected for items 1, 12, 13 & 14
4. Applicability modified

Background:

GippsAero has received reports of a burnt 2 way connector used for the pitot heater in the left hand wing tip. The heat resulting from such a failure may damage the pitot or static tubes

Compliance:

Compliance with this Service Bulletin is required at the next 100 hourly inspection. However if there is no evidence of charring associated with the connector, compliance with Parts 2 to 4 of this Service Bulletin may be delayed until the next subsequent 100 hourly inspection, providing the modification is completed before the 7th of February 2013

Weight and Balance:

Negligible effect on weight and balance

Approval:

This modification has been approved pursuant to Regulation 21.095 of CASR (1998)

Parts:

Kit SB-GA8-2012-77-1 may be purchased from GippsAero. It contains:

Item	Part Number	Description	Qty
1	GA8-243017-11	Terminal Cover Assembly	1
2	GA8-243027-23	Barrier Terminal	1
3	MS35206-216	Screw	2
4	AN960-4	Washer	4
5	AN960-6	Washer	4
6	MS21044N04	Nut	2
7	MS21045-06	Nut	2
8	RT2-4	Ring Terminal 4mm Blue	4
9	LHMS-S5-D	Standoff	1
10	Commercial	Placard, "T50", Black lettering on white background.	1
11	TLED440	Pop Rivet	1

The following items may be used in lieu of items 1 & 2. Items 13 and 14 are to be modified in accordance with the instructions contained within this Service Bulletin. **NOTE:** Items 12, 13 and 14 are not available from GippsAero.

Item	Part Number	Description	Qty
12	MS18029-21	Nut/Snap 6-32	2
13	MS18029-1S-20	Terminal Cover	1
14	MS27212-1-20	Terminal Strip	1

Parts Availability:

New parts can be purchased directly from GippsAero.

Tel: +61 (0)3 5172 1200

Fax: +61 (0)3 5172 1201

Email: spares@gippsaero.com

Labour:

4 hours should be allocated to the incorporation of this Service Bulletin.

Warranty:

Aircraft within the warranty period may claim from GA-warranty@gippsaero.com

Installation:

Part 1 - Inspection of the connectors P50 & J50

1. Remove the left hand wing tip from the aircraft. Wing tip removal instructions are provided in Section 57-30-00 of the Service Manual. **NOTE:** Take care as wiring to the Strobe/Nav light is still connected.
2. The electrical connection of P50 & J50 (Figure 1) must not be disconnected at this point in time. Look for signs of charring or discolouration of the connector housing. Inspect for signs of damage to the pitot or static lines in the near vicinity of the electrical connector.
3. In accordance with the directions stated in the Compliance statement of this Service Bulletin, Part 2 of this Service Bulletin is to be carried out. If carrying out Part 2 of this Service Bulletin immediately, proceed to Part 2, Step 2.

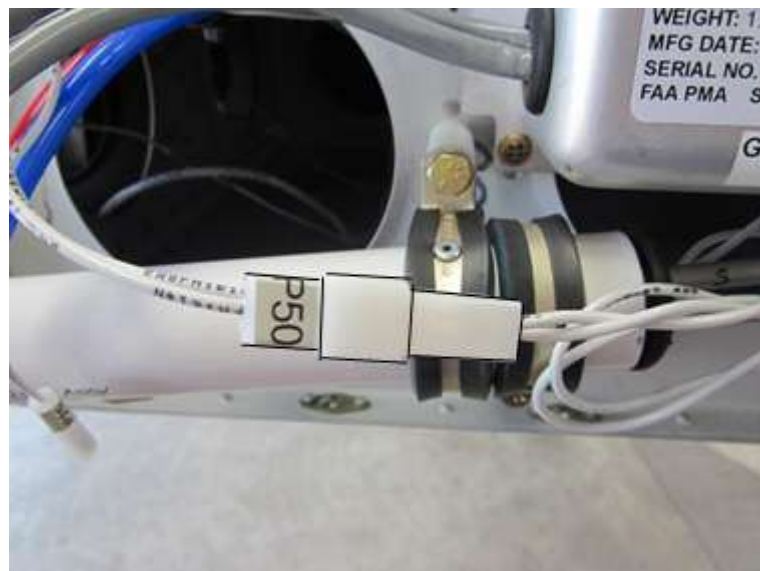


Figure 1 – View of connector P50.

Part 2 - Wiring modification

1. Remove the left hand wing tip from the aircraft. Wing tip removal instructions are provided in Section 57-30-00 of the Service Manual. **NOTE:** Take care as wiring to the Strobe/Nav light is still connected.
2. The standard aircraft wiring to the heated pitot is shown in Figure 2. The modified wiring is shown in Figure 3.

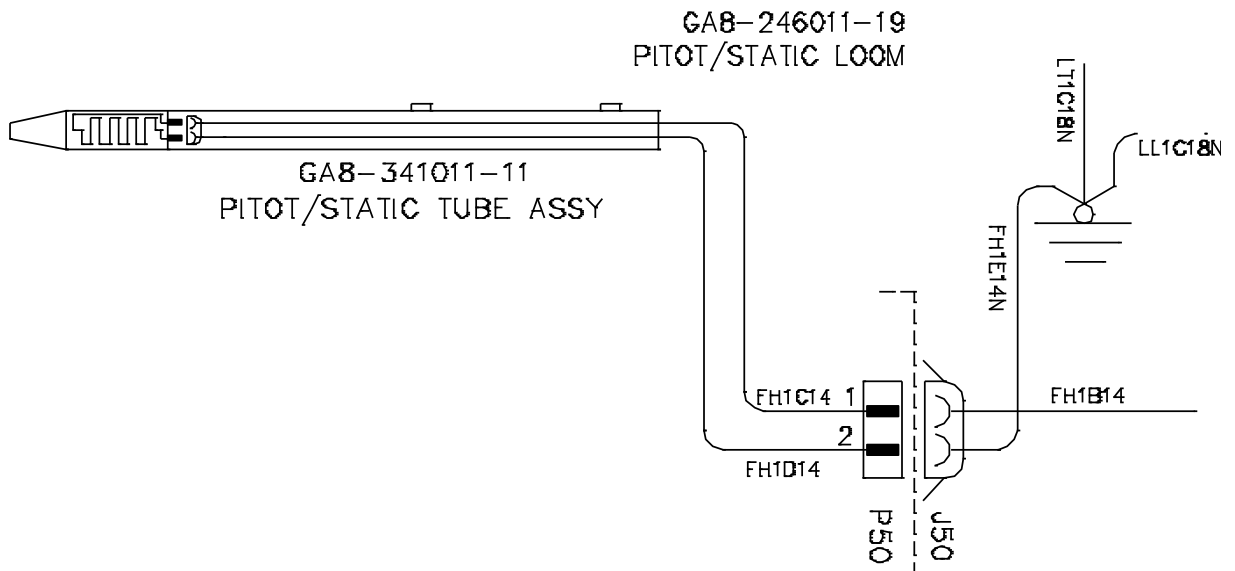


Figure 2 – Unmodified wiring to the pitot static tube assembly.

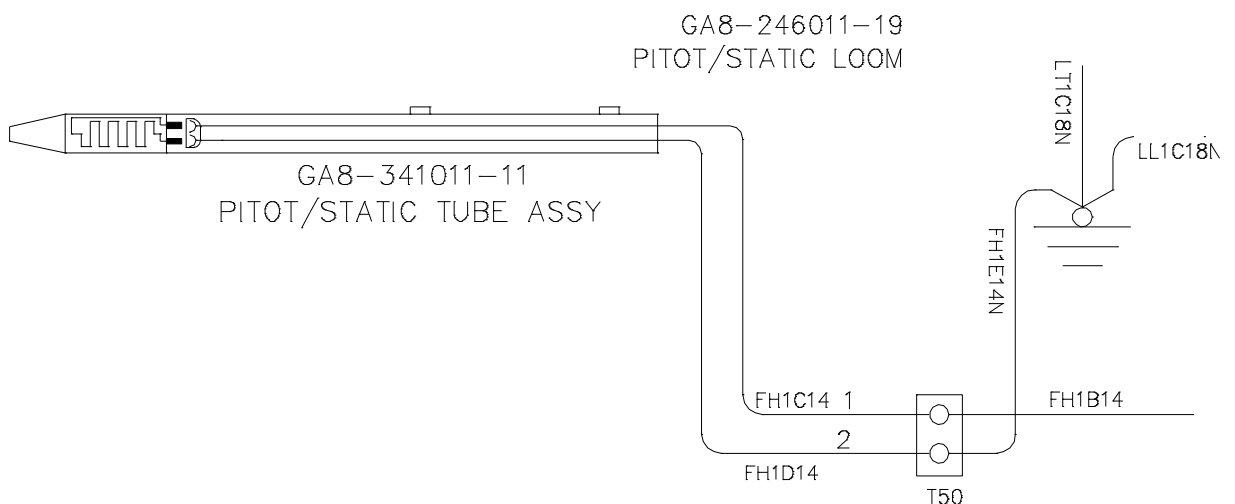


Figure 3 - Modified wiring to the pitot static tube assembly.

3. Discard connector housings P50 and J50, and cut-off the spade terminals.
4. Fit item 2. Alternatively item 14 may be modified in accordance with Figure 4. This can be done by using a hacksaw. File away any "plastic" burring.

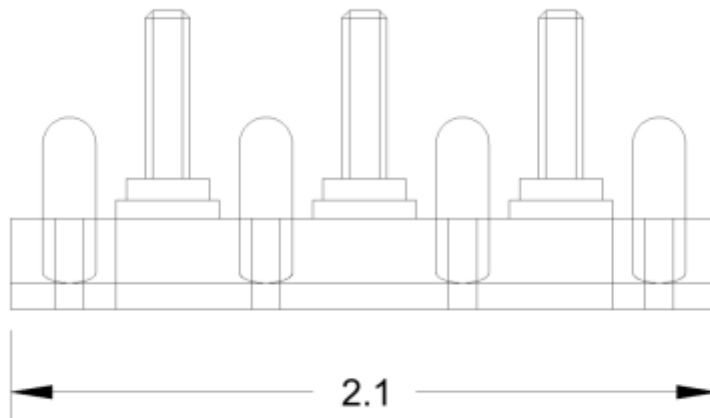


Figure 4 - Dimensions of modified terminal strip.



Figure 5 - Terminal Strip installed (item 2).

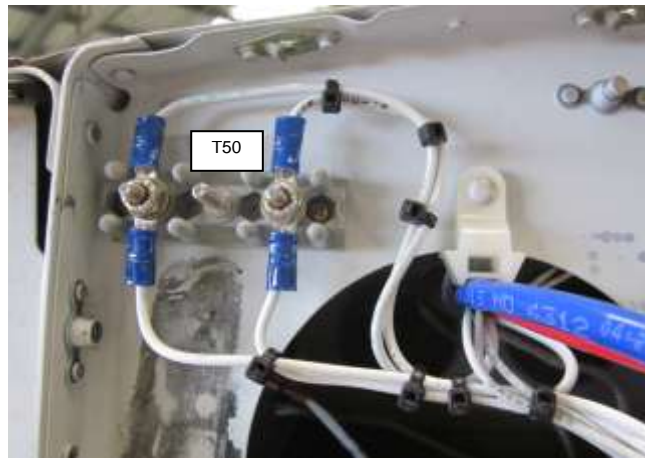


Figure 6 - Ring terminals fitted.

5. Crimp the ring terminals (item 8) to the wire leads.
6. Screw wire FH1C14 and wire FH1B14 to one stud.
7. Screw wire FH1D14 and wire FH1E14N to the second stud.
8. Placard "T50" to be fixed in near vicinity of the terminal strip.
9. Fit the terminal cover as shown in Figure 7. Use either item 1 or items 12 and 13 cut to length as shown in Figure 8.



Figure 7 - Terminal Cover fitted (item 1).

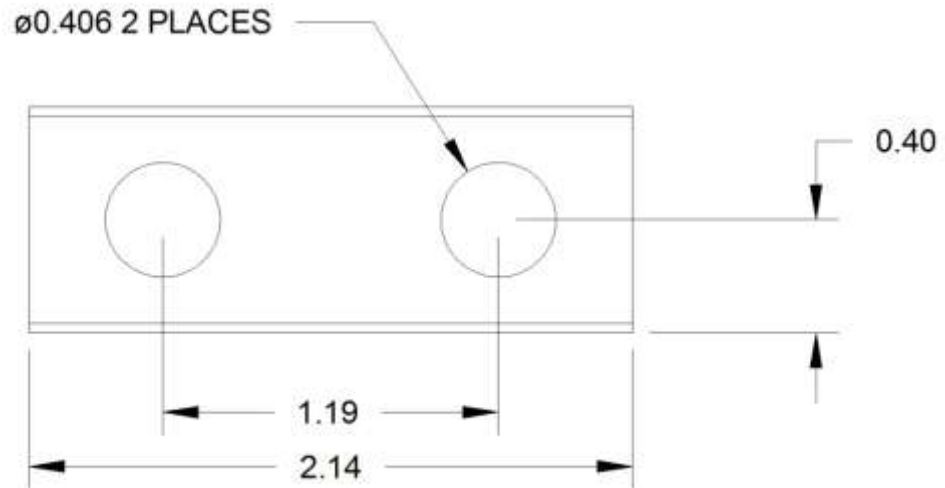


Figure 8 – Dimensions for modified cover.

10. The wiring to the navigation light and strobe is to be checked. To ensure there is no possibility of chaffing as the wire passes through the lightening hole to the lamps a nylon stand-off, item 9, is to be fitted using item 11 Refer to Figure 9.



Figure 9

Part 3 - Testing the Pitot-Heater & Pitot-Heat Caution Light System

WARNING:

REMOVE ANY PROTECTIVE COVERS FITTED TO THE PITOT STATIC TUBE.

1. The pitot-heat caution system is functionally tested as follows:
 - i. Switch on Bus 1 Master ensuring the CAUTION SYS 1 circuit breaker is pushed in.
 - ii. With the pitot-heat switched off, check that the amber pitot-heat caution light is illuminated.
 - iii. Observe the current draw for Bus 1. Switch on pitot-heat. The current draw for Bus 1 should rise and indicate an increase of approximately 10A.
 - iv. Check that amber caution light extinguishes.
 - v. Immediately check the heater tube. It will begin to warm if operating correctly.

CAUTION:

ENSURE CAUTION WHILE TOUCHING THE TUBE TO AVOID BURNING OF HAND.

2. If however the amber light remains on when the tube is operating correctly, the sensor board located in the electrical overhead panel or the wiring from that board to the Caution Unit is likely to be faulty.
3. Switch off the Pitot Heat. Check that the amber pitot-heat caution light illuminates

Part 4 - Testing the Strobe and the Nav Light

CAUTION:

AVOID LOOKING DIRECTLY AT THE STROBE LAMP.

1. The Strobe and Nav lights are to be checked for operation after installing the nylon stand-off.

Documentation:

Update the aircraft log book to reflect incorporation of this Service Bulletin.

Continuing Airworthiness:

There are no additional continuing airworthiness requirements as part of the implementation of this Service Bulletin.

Section 34-10-00 of the Service Manual as amended prior to the approval date of this Service Bulletin is to be altered in the future. Until a revision note is issued by GippsAero, the directions contained within this Service Bulletin for the testing of the pitot heater and heat caution light system shall be followed.

Compliance Notice:

Complete the Document Compliance Notice and return to GippsAero by mail, fax or email.

DOCUMENT COMPLIANCE NOTICE



A Mahindra Aerospace Company

Document:

SB-GA8-2012-77

Issue 4

Aircraft Serial Number: GA8-_____

Service Bulletin SB-GA8-2012-77 Issue 3 has been incorporated in the above aircraft.

Date: _____

Signed

Print Name: _____

Please post or fax this compliance notice to:

GippsAero
Attn: Technical Services
P.O. Box 881
Morwell Victoria 3840
Australia
Fax.: +61 03 5172 1201