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# Service Bulletin

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**Subject:**

Overheating of overhead electrical connection used by cabin fresh air blower.

**Applicability:**

All GA8 aircraft with serial numbers GA8-00-004 to GA8-06-104, GA8-06-106, GA8-06-107, GA8-07-109 and GA8-07-111.

**Amendments:**

Part number for wire corrected.

**Background:**

There have been some field reports indicating overheating of the connector plug J104/P104 at pin 8 between the aircraft wiring loom and the overhead electrical panel.

**Compliance:**

Inspection of the connector is recommended during the next 100 hour or periodic inspection conducted after 30 November 2009.

**Weight and Balance:**

Negligible effect on weight and balance.

**Approval:**

The technical aspects of this Service Bulletin have been approved under a CASA Authorisation.

**Parts:****Option 1**

Item	Part Number	Description	Qty
1	350689-1	Crimp contact socket (AMP)	9
2	350690-1	Crimp contact pin (AMP)	9
3	350547-1	Crimp contact pin (AMP)	2
4	350550-1	Crimp contact socket (AMP)	2
5	1-480708-0	Plug Housing 12 way (AMP)	1
6	1-480709-0	Cap Housing 12 way (AMP)	1

**Option 2**

Item	Part Number	Description	Qty
1	MT2-6.4 DG or equivalent	Pre Insulated Terminal Male 6.4 x 0.8 mm, Blue (to suit conductor 1.04 - 2.63 mm <sup>2</sup> )	2
2	FIQC2-6.4 DG or equivalent	Pre Insulated Terminal Female 6.4 x 0.8 mm, Blue (to suit conductor 1.04 - 2.63 mm <sup>2</sup> )	2
3	M22759/16-14-9	Wire ETFE 14 AWG	12"

**Parts Availability:**

Parts can be obtained directly from GippsAero.

Tel.: +61 3 5172 1200

Fax.: +61 3 5172 1201

Email: spares@gippsaero.com

**Labour:**

2-3 hours should be allocated for completing the work detailed in this Service Bulletin.

**Warranty:**

GippsAero factory participation is limited to aircraft in warranty at the time of compliance. For details relating to claims contact GippsAero.

## Instructions:

### 1. Inspection of Connectors

- 1.1. Pull or open all the underfloor circuit breakers.
- 1.2. The affected connectors P104 and J104 are located port side just aft end of the electrical overhead panel. Refer to Figure 1. Remove the forward most centre interior roof panel to access the connectors. Pin 8 of the connectors are used for the blower fan circuits, HC1A14 and HC1B14.

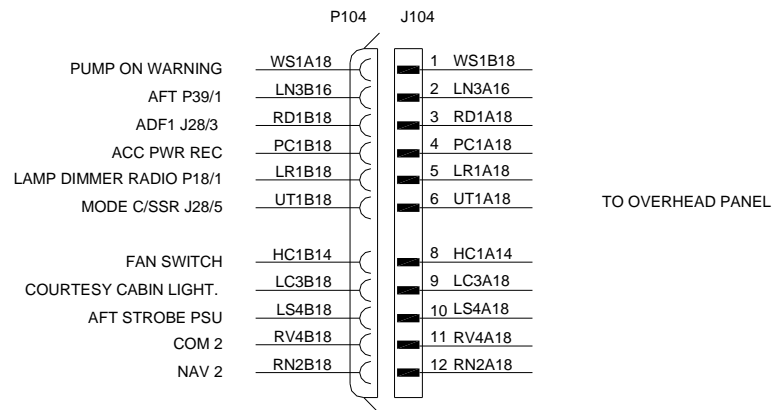


Figure 1

- 1.3. Inspect the connector for signs of burning or charring. Figures 2 and 3 depict damaged connectors.

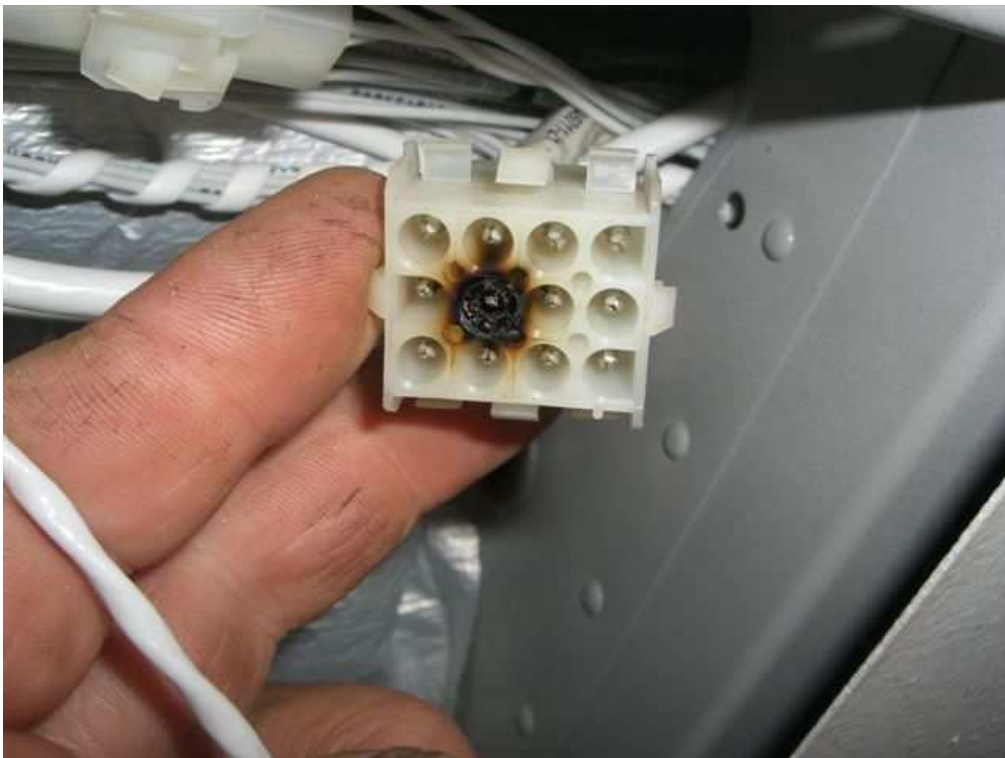


Figure 2



**Figure 3**

- 1.4. If no evidence of heat damage is evident then re-install the interior panels using the existing fasteners. Proceed to Section 2 if evidence of heat damage exists.

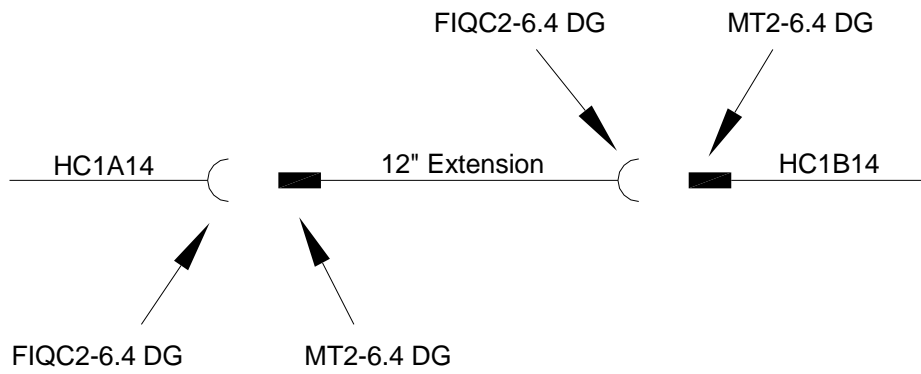
## **2. Repair of damaged connection**

### **Option 1: Replace connectors J104 and P104**

- 2.1. Replace the electrical plug and cap housing and associated crimp contacts as per original aircraft wiring. Connector P104 requires housing part number 1-480708-0. Connector J104 requires housing part number 1-480709-0. Refer to Figure 1 of this Service Bulletin for the pinout for each connector. The 18 AWG wires require crimp contacts part number 350689-1 & part number 350690-1. Crimp contact part numbers 350547-1 and 350550-1 are used on the 14 and 16 AWG wires. Crimp tool HTR 11-01-0084 (Sargent Tools) is recommended for this task. Use nest A for 18 AWG wire and nest B for the 14 and 16 AWG wires.

### **Option 2: Bypass connectors J104 and P104**

- 2.2. If possible, remove the contact crimp pin and socket attached to circuits HC1A14 and HC1B14 from connectors J104 and P104. Cut off the crimp contacts. If the crimp contacts associated with circuits HC1A14 and HC1B14 cannot be readily removed, cut the wires as close as possible to the rear of each of the connectors.
- 2.3. Cut a length of 14 AWG wire (M22759/16-14-9) to 12". Using male and female lug terminals insert the 12" length of wire in between circuits HC1A14 and HC1B14 as shown in Figure 4. The connections are to be covered in heat shrink tubing. Refer to the Parts table for terminal part numbers.



**Figure 4**

**Documentation:**

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

**Compliance Notice:**

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