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**SB-GA8-2023-216**

Issue 1

**MANDATORY**

# Service Bulletin

## Subject:

Relay Box Bonding

## Applicability:

This Service Bulletin is applicable to the aircraft identified in Table 1.

**Table 1 – Applicability**

| AIRCRAFT   | SERIAL NUMBER(s)   |
|------------|--|
| GA8        | All Serial Numbers up to and including GA8-20-262        |
| GA8-TC 320 | All Serial Numbers up to and including GA8-TC 320-20-261 |

## Amendments:

Issue 1: Initial Issue. Refer to GAE11-2801.

## Background:

This Service Bulletin provides instructions to inspect and, where required, install an electrical bonding connection between the main relay box and the aircraft earth. Poor bonding in this area may cause problems with the electrical equipment connected to Bus 1 or Bus 2 of the aircraft, such as degraded performance, errors, or intermittent failures.

## Compliance:

This Mandatory Service Bulletin is to be carried out within 55 hours or 7 months of the date of receipt, whichever is the sooner.

## Weight and Balance:

This Service Bulletin has no effect on empty weight and empty weight centre of gravity.

## Electrical Load Analysis:

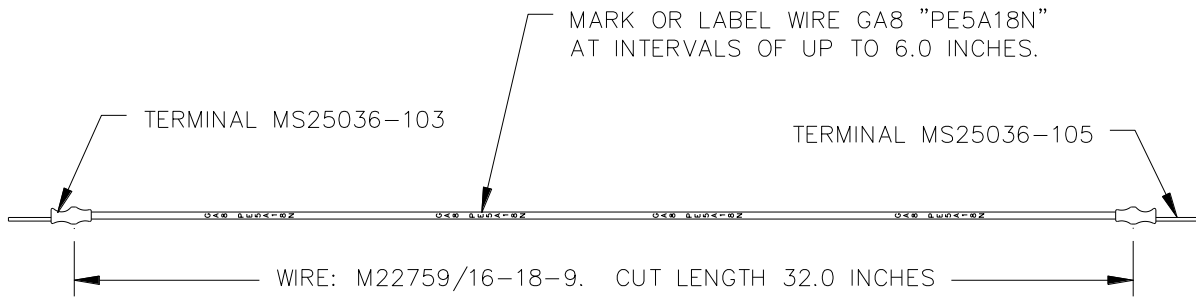
This Service Bulletin has no effect on the aircraft's Electrical Load Analysis.

## Approval:

The airframe and/or electrical system modification/repair described in this Service Bulletin has been approved pursuant to Australian Civil Aviation Safety Regulation 21.095 (1998).

## Parts:

For aircraft requiring the installation of the connection, the parts required may be sourced locally in accordance with Figure 1. Alternately, P/No GA8-246015-053 may be purchased from GippsAero.



**Figure 1: Wire PE5A18N Fabrication Details**

## Parts Availability:

New parts can be obtained directly from GippsAero.

Tel: +61 (0)3 5172 1200

Fax: +61 (0)3 5172 1201

Email: [PARTS@gippsaero.com.au](mailto:PARTS@gippsaero.com.au)

## Labour:

2 man hours should be allocated for completing the work detailed in this Service Bulletin. This time does not include set up etc.

## Warranty:

Aircraft covered by warranty may claim the direct cost of incorporating the requirements of this Service Bulletin by contacting GippsAero Customer Service:

Tel: +61 (0)3 5172 1200

Fax: +61 (0)3 5172 1201

Email: [Support@gippsaero.com.au](mailto:Support@gippsaero.com.au)

## Accomplishment Instructions:

### WARNING:

IT IS THE RESPONSIBILITY OF ALL PERSONNEL TO ENSURE WORK HEALTH AND SAFETY REQUIREMENTS ARE MET AT ALL TIMES. ALL PERSONNEL MUST COMPLY WITH ALL WORK HEALTH AND SAFETY REQUIREMENTS AS DEFINED OR RECOMMENDED BY:

- EQUIPMENT OEM INSTALLATION AND OPERATION MANUALS;
- AIRCRAFT MAINTENANCE AND OPERATION MANUALS;
- ASSOCIATED AIRCRAFT MODIFICATION INSTRUCTIONS;
- RELEVANT NAA REGULATIONS AND ADVISORY DOCUMENTATION;
- ORGANISATION MANUALS, INCLUDING NAA ENDORSED OPERATIONAL AND MAINTENANCE MANUALS; AND
- RELEVANT LOCAL, STATE AND FEDERAL GOVERNMENT REQUIREMENTS.

### WARNING:

READ THE APPLICABLE MATERIAL SAFETY DATA SHEET (MSDS) FOR ANY MATERIAL/CONSUMABLE USED DURING THE ACCOMPLISHMENT OF THIS SERVICE BULLETIN AND EMPLOY ANY RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT (PPE) CONTAINED THEREIN.

### NOTE:

*Unless otherwise specified, reference to the GA8/GA8-TC 320 Service Manual and FAA Advisory Circular (AC) 43.13-1B should be made when carrying out the procedures prescribed in this Service Bulletin. In case of a discrepancy between the Service Manual and the AC, the Service Manual takes precedence.*

### NOTE:

*Read all the applicable instructions prior to initiating any work.*

### WARNING:

**FOR AIRCRAFT CERTIFIED TO FA23 AMENDMENT 54 OR  
FITTED WITH SB-GA8-2003-08:**

**THE CAPACITOR IS A POTENTIAL HAZARD TO PERSONNEL MAINTAINING THE AIRCRAFT BY VIRTUE OF THE POTENTIAL FOR INADVERTENT SHORTING OF THE POSITIVE SIDE TO GROUND.**

**BEFORE REMOVING THE COVER PANEL TO ACCESS THE UNDERFLOOR AREA IN FRONT OF THE PILOT'S SEAT, PERFORM THE FOLLOWING ACTION TO ENSURE THAT THE CAPACITOR CIRCUIT IS DISARMED:**

- (I) PULL THE 1 A BUS 2 CONTROL BREAKER**
- (II) SWITCH THE BUS 2 MASTER SWITCH ON**

**ENSURE THAT THE BREAKER REMAINS OPEN AND THE MASTER SWITCH REMAINS ON FOR THE DURATION THAT THE COVER PANEL IS REMOVED. NOTE THAT BUS 2 IS NOT LIVE WHILST THE BUS 2 CONTROL BREAKER IS PULLED.**

## Part A: Inspection.

1. In accordance with the applicable Service Manual, disassemble the aircraft to the extent necessary to access the main relay box, located under the pilot's seat.
2. Pull or open all the underfloor circuit breakers.
3. Gain access to the connection terminals for the ground power receptacle.
4. Check that the aircraft has an existing wire connecting the relay box earth point to the ground power socket. If there is no connection, continue to Part B. Otherwise, proceed to the Documentation section below.

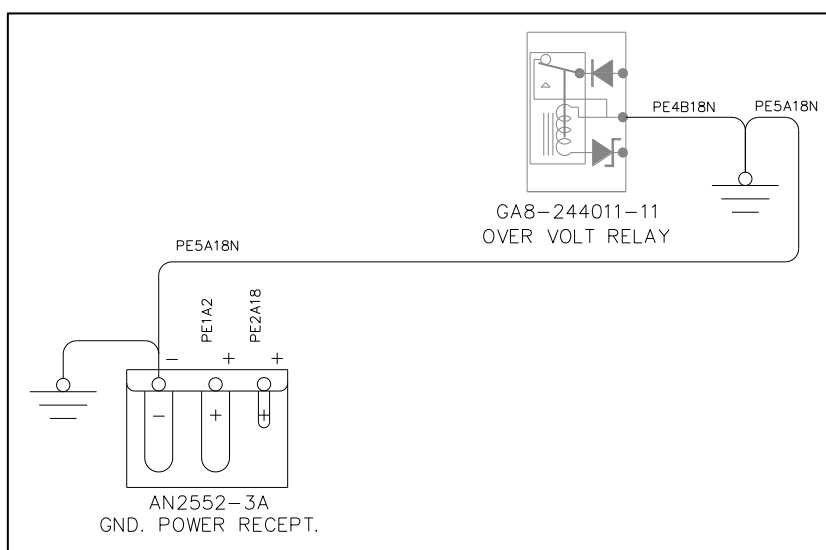
## Part B: Installation of Connection

- Using P/No. GA8-246015-053 (or locally fabricated equivalent), connect the earth terminals of the over-volt relay and ground power socket.
  - Bundle the new wire with the existing ground power connections. Ensure that wire is appropriately restrained and protected.
  - Connect wire to ground power receptacle, earth terminal in accordance with Figure 2.
  - Connect wire to relay box ground point in accordance with Figure 2 and Figure 3.
- After the mechanical connection is completed, measure the resistance for the new connection. Place one probe on the relay box ground point and the other on the engine frame or other suitable airframe earthing point. The resistance is required to be 0.1 ohms or less.

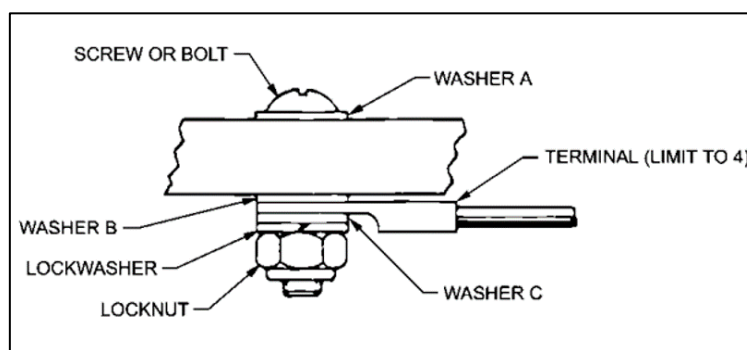
### **NOTE:**

*The regular ohm meter function of a multimeter is not acceptable for this measurement. A Milliohm meter is required.*

- Close underfloor circuit breakers and re-assemble the aircraft in accordance with the applicable Service Manual.



**Figure 2: Wiring Schematic**



**Figure 3: Connection Detail.**

### **Documentation:**

Update aircraft logbook to reflect incorporation of this Service Bulletin.

### **Continuing Airworthiness:**

There are no new Instructions for Continued Airworthiness associated with this Service Bulletin

### **Compliance Notice:**

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

## DOCUMENT COMPLIANCE NOTICE



Document:

**SB-GA8-2023-216**

**Issue 1**

Aircraft Serial Number: GA8-\_\_\_\_\_

Service Bulletin SB-GA8-2023-216, Issue 1 has been incorporated in the above aircraft.

Date of Incorporation: \_\_\_\_\_

\_\_\_\_\_  
Signed

Print Name: \_\_\_\_\_

Please post, fax or email this compliance notice to:

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