

A Mahindra Aerospace Company

SB-GA8-2015-125

Issue 1

OPTIONAL

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# **Service Bulletin**

# Subject:

This Service Bulletin authorises the installation of a filter capacitor across the input terminals of the 14V system controller.

# **Applicability:**

All GA8 & GA8-TC 320 serial numbers.

# Amendments:

Nil (initial issue). Ref GAE11#1561.

# **Background:**

Feedback from operators notes intermittent alternator tripping being experienced when the aircraft is idling. The inclusion of a filter capacitor across the input of the system controller has been demonstrated to significantly reduce this occurrence.

# **Compliance:**

For applicable aircraft this optional Service Bulletin may be incorporated at the owner's discretion.

# Weight and Balance:

Negligible effect on weight and balance.

# Approval:

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

#### Parts:

ltem	Part Number	Description	Qty
1	GA8-243020-011	Filter Capacitor	1

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# Parts Availability:

New parts can be obtained directly from GippsAero.

Tel.: +61 03 5172 1200

Fax.: +61 03 5172 1201

Email: spares@gippsaero.com

## Labour:

1 hour should be allocated to the incorporation of this Service Bulletin.

## Warranty:

Not applicable.

#### Installation:

#### CAUTION:

# ENSURE THAT THE FILTER CAPACITOR IS DISCHARGED PRIOR TO INSTALLATION. THE CAPACITOR WILL BE SUPPLIED IN A DISCHARGED STATE.

#### WARNING:

#### DO NOT PERFORM ANY MAINTENANCE ON THE ELECTRICAL SYSTEM IN CONJUNCTION WITH MAINTENANCE ON THE FUEL SYSTEM. THE ESCAPE OF FUEL FUMES UNDER THE FLOOR AND/OR IN THE AIRCRAFT MAY CAUSE AN EXPLOSION.

- 1. The aircraft shall be powered down.
- 2. Remove the starter key and pull all Solenoid Box circuit breakers.
- 3. Access the system controller panel by lowering the kick panel below the instrument panel forward of the pilot seat. It is possible to install the filter capacitor without removing the Caution Tray Assembly. This will depend upon the specific aircraft configuration such as whether an Electronic Flight Instrumentation System is fitted or not affecting accessibility to the System Controller. If the panel is to be removed, rotate the dzus quarter turn screw located at the top of the tray. Refer to Figure 1.

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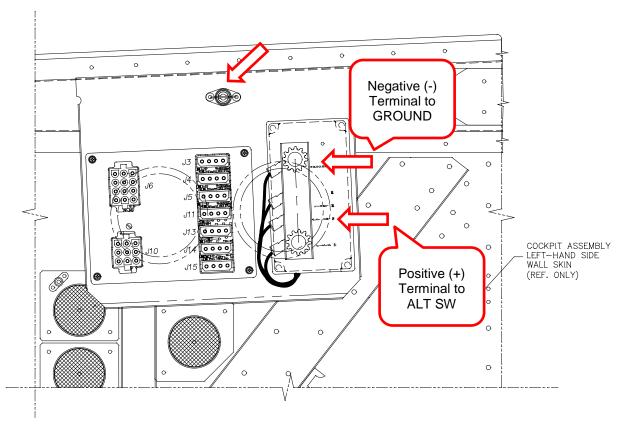


Figure 1 – View looking directly at the Caution Tray Assembly. Aircraft wiring not shown.

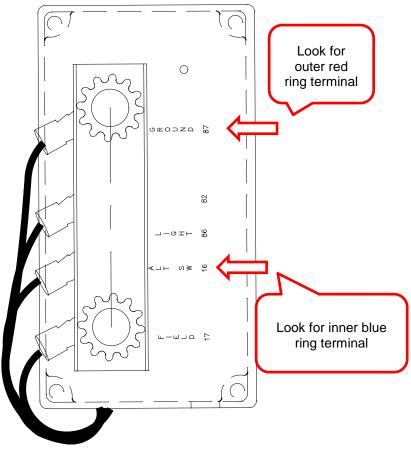


Figure 2 – View of cover of System Controller

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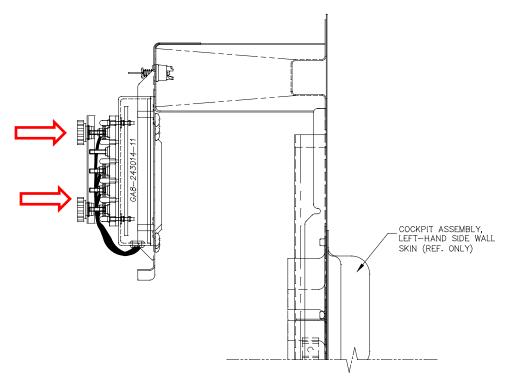


Figure 3 – View looking directly at the side of the Caution Tray Assembly

- 4. Identify the ground and the Alt Switch terminal of the 14V system controller. Refer to Figures 1, 2 and 3. Figures 1 through 3 shows System Controller p/n GA8-243014-011. This Service Bulletin also applies for instances where System Controller p/n GA200-243001-001 is fitted with a similar installation.
- 5. Remove the insulating cover from the System Controller.
- 6. Remove the nuts and adjacent washers.
- 7. Carefully noting the polarity of the capacitor install the device to the Alt Switch (positive) and Ground (negative) terminals. Secure the Filter Capacitor to the aircraft wiring with cable ties. Carefully cut off the cable ties to ensure no sharp edges are present.
- 8. Return the washers and nuts to the terminal block. Re tighten.
- 9. Return the insulating cover to the system controller.
- 10. Re install the Caution Tray Assembly.
- 11. Visually check the installation. If acceptable return the kick plate.

# **Ground Testing:**

- 1. Following observed safety precautions applicable, start the aircraft engine.
- 2. Adjust the engine rpm to 1000 RPM.
- 3. Do not electrically load the aircraft up. The pitot heater and lights are to be switched off.
- 4. Reduce the engine rpm to 500. Observe the voltage on the Electronics International (EI) voltage amp gauge. With the aircraft electrically unloaded, the meter will indicate upto 14.8V. Run the aircraft at 500 RPM for 20-30 seconds. If the alternator "trips" off line, stop the test and advise GippsAero Customer Care. Recheck the installation with the above Procedures. If no tripping off line of the alternator results continue to the next step.
- 5. Adjust the engine rpm to 1000 RPM briefly. Run the aircraft at 500 RPM for 20-30 seconds again. If no tripping off line of the alternator results, the test is considered a pass.
- 6. Stop the engine.

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# **Documentation:**

Update 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. Replacement of the filter capacitor will be on condition.

# **Compliance Notice:**

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

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# DOCUMENT COMPLIANCE NOTICE



Document:

A Mahindra Aerospace Company

Issue 1

SB-GA8-2015-125

Aircraft Serial Number:

GA8-\_\_\_\_\_

Service Bulletin SB-GA8-2015-125 Issue 1 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