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SB-GA8-2005-18

Issue 3

OPTIONAL

Service Bulletin

Subject:

Ventilation System Blower Fan Upgrade.

Applicability:

Table 1: Applicability.

AIRCRAFT	SERIAL NUMBER(s)
GA8	GA8-00-004 through GA8-05-075*

* For Issue 3 and onwards, an authorisation letter from GippsAero allowing the installation of this Service Bulletin to the aircraft serial number is required for new installations.

Amendments:

Issue 1: Initial Issue.

Issue 2: Introduced new part number for high speed blower fan assembly.

Issue 3: Installation instructions revised. See GAE11#2788

Background:

Previously, to reduce electrical load, the ventilation system blower fan has been installed using the low and medium speeds available for the fan motor only, with the wire for high speed operation not connected. Operational experience has shown that increased performance from the ventilation system blower fan is desirable, particularly in hot climates.

This optional Service Bulletin documents the procedure for modifying the aircraft ventilation system to use the medium and high speeds of the fan motor.

Compliance:

For applicable aircraft this optional Service Bulletin should be incorporated if increased performance from the ventilation system blower fan is desirable.

For aircraft serial numbers GA8-05-076 and subsequent this change has been incorporated in production.

Weight and Balance:

Negligible effect on weight and balance.

Approval:

This Service Bulletin has been approved in accordance with the requirements of Australian Civil Aviation Safety Regulation 21.095 (1998).

Parts and Materials:

The parts required to incorporate this Service Bulletin are detailed in **Table 2** and are available as kit P/No. GA8-SB-2005-18-1.

Table 2: Required Parts

ITEM	P/N	DESCRIPTION	QTY
1	M22759/16-14-9	WIRE, 14 GAUGE	A/R
2	350547-1	CONTACT PIN 20-14 AWG CRIMP MATE-N-LOK	3
3	350550-1	CONTACT SKT 20-14 AWG CRIMP MATE-N-LOK	3
4	W23-X1A1G-15	CIRCUIT BREAKER 15A	1
5	1-480699-0	CONN HOUSING CAP 2 POS UNIVERSAL MATE-N-LOK	1
6	1-480698-0	CONN HOUSING PLUG 2 POS UNIVERSAL MATE-N-LOK	1
7	MS25036-153	TERML LUG INSUL RING 16-14AWG #8 DIA BL	2
8	MS25036-108	TERML LUG INSUL RING 16-14AWG #10 DIA BL	1
9	FIQC1.25-6.4DG	QUICK CONNECTOR TAB 6.4mm RED	2

Parts Availability:

Parts can be obtained directly from GippsAero using the following contact details.

Tel: +61 (0)3 5172 1200

Fax: +61 (0)3 5172 1201

Email: PARTS@gippsaero.com.au

Labour:

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

Warranty:

This is an optional modification. The cost of installation is not eligible for warranty claims, however, component warranties are provided by the respective manufacturers.

Tel: +61 (0)3 5172 1200

Fax: +61 (0)3 5172 1201

Email: 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:

- AIRCRAFT MAINTENANCE AND OPERATION MANUALS;
- 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 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 or 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.

NOTE:

Unless stated otherwise, hardware removed during the procedure below is to be inspected and re-used if serviceable.

1. Cut away the heat shrink tube on the wiring that runs from the blower fan motor to plug P38 sufficient to gain access to the unused orange wire and trim the orange wire to a suitable length for installation in plug P38.

NOTE:

If the orange wire is not long enough to reach plug P38 it may be extended using a suitable length of 14 Gauge wire (Item 1).

2. Remove all wires from plug P38 and slide a length of heat shrink over the wires, sufficient to replace all heat shrink cut away in step 1.
3. Install a contact, Item 2 on the orange wire and insert in position 1 of plug P38.
4. Insert the red wire in position 2 of plug P38.
5. Insert the black wire in position 3 of plug P38.
6. Ensuring the now unused yellow wire is insulated; shrink the heat shrink tubing with the yellow wire folded back inside.
7. Re identify the blower fan as GA8-212002-13.
8. Replace the AIR CON circuit breaker with a 15A circuit breaker, Item 4.
9. Label Item 5 "J104B" and Item 6 "P104B" using a permanent marker.
10. Wire HC1A18 connected the AIR CON circuit breaker with pin 8 of J104. Remove and discard wire HC1A18. Manufacture a 14 gauge wire labelled HC1A14 and install to replace wire HC1A18. Use Item 7 at the circuit breaker and connect the other end, using Item 2, to pin 1 of connector J104B. When installing metal contacts, crimp tool HTR 11-01-0084 (Sargent Tools) is recommended for this task: Use nest B for 14 AWG wires.

11. Wire HC1B18 connected pin 8 of P104 to the + terminal of the blower fan switch. Remove and discard wire HC1B18. Manufacture a 14 gauge wire labelled HC1B14 and install to replace wire HC1B18. Use Item 9 at the switch (+) and connect the other end, using Item 3, to pin 1 of connector P104B.
12. Wire HC1C18 connects terminal 3 of the blower fan switch to pin 1 of J38. Disconnect and insulate both ends of HC1C18. Manufacture a 14 gauge wire labelled HC1C14 and install to replace wire HC1C18. Use Item 9 at the switch (terminal 3) and Item 3 at pin 1 of connector J38.

NOTE:

Wire HC1C14 need not follow the same route as wire HC1C18 as this would require significant disassembly of the aircraft. For convenience, routing wire HC1C14 to the tailcone area via the trim indicator cable conduit is recommended.

13. Wire HC1D18N connects pin 3 of J38 to the aircraft structure (earth). Remove wire HC1D18N. Manufacture a 14 gauge wire labelled HC1D14N and install to replace wire HC1D18N. Use Item 3 at pin 3 of connector J38 and Item 8 at the connection to the airframe. Ensuring a good electrical connection is made to the aircraft structure.
14. Assemble connectors P38, J104B / P104B and P104 / J104.
15. Close the underfloor circuit breakers and conduct functional tests of the blower fan.
16. Replace interior trim panels.

Documentation:

Update aircraft logbook to reflect incorporation of this Service Bulletin.

Compliance Notice:

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

DOCUMENT COMPLIANCE NOTICE



Document:

SB-GA8-2005-18

Issue 3

Aircraft Serial Number: GA8-_____

Service Bulletin SB-GA8-2005-18 Issue 3 has been incorporated in the above aircraft.

Date of Incorporation: _____

Signed

Print Name: _____

Please post, fax or email this compliance notice to:

GippsAero

Attn: Technical Publications

Email: TECHPUBS@gippsaero.com.au

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