



A Mahindra Aerospace Company

SB-GA8-2018-178

Issue 1

OPTIONAL

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

Service Bulletin

Subject:

Alternate fuel pump switch.

Applicability:

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

Table 1 – Applicability

AIRCRAFT	SERIAL NUMBER(s)
GA8	All
GA8-TC 320	All

Amendments:

Issue 1: Initial Issue. Ref GAE11#2172.

Background:

Due to some reports of low in service life of the Fuel Pump switch breaker this Service Bulletin provides instructions for the replacement of the installed Fuel Pump switch breaker with a separate switch and push/pull type circuit breaker with the same trip current.

Compliance:

The accomplishment instructions contained within this Service Bulletin are optional and may be incorporated at the Operator's, Owner's or Maintenance Provider's discretion.

Weight and Balance:

The effect of this Service Bulletin's incorporation on the aircraft's weight and balance is negligible.

Electrical Load Analysis:

This Service Bulletin's incorporation 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). GippsAero Reference GAE11#2172.

Parts:

The following parts are required to accomplish this Service Bulletin.

Table 2 - Parts

ITEM	PART No.	DESCRIPTION	QTY	REMARKS
1	MS35058-23	SWITCH S.P.D.T	1	
2	W23X1A1G-10	CIRCUIT BREAKER 10A	1	
3	GA8-311022-041	BREAKER BUS BAR No. 1	1	
4	GA8-113027-157	PLACARD FUEL PUMP	1	
5	MS25036-149	RING TERMINAL #8 RED	1	
6	MS25036-102	RING TERMINAL #6 RED	3	
7	M22759/16-18-9	WIRE M22759 18AWG WHITE	6"	

Parts Availability:

New parts can be obtained directly from GippsAero.

Tel: +61 (0)3 5172 1200

Fax: +61 (0)3 5172 1201

Email: aircraft.parts@mahindraaerospace.com

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:

Optional modification warranty is not applicable.

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 & -2B 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.

Part A – Preparation

1. Establish if a suitable location exists in the overhead panel for fitment of the new circuit breaker. This Service Bulletin only allows fitment of the new circuit breaker in one of the 3 positions highlighted in Figure 1. The new circuit breaker should be installed in the lowest number possible.
2. Switch all electrical power off within the aircraft.
3. Pull all the circuit breakers located under the floor mounted kick panel in front of the pilot's seat.
4. Lower the Overhead Electrical Panel to gain access to mounted components and wiring as per the instructions contained in the basic GA8/GA8-TC 320 Service Manual.

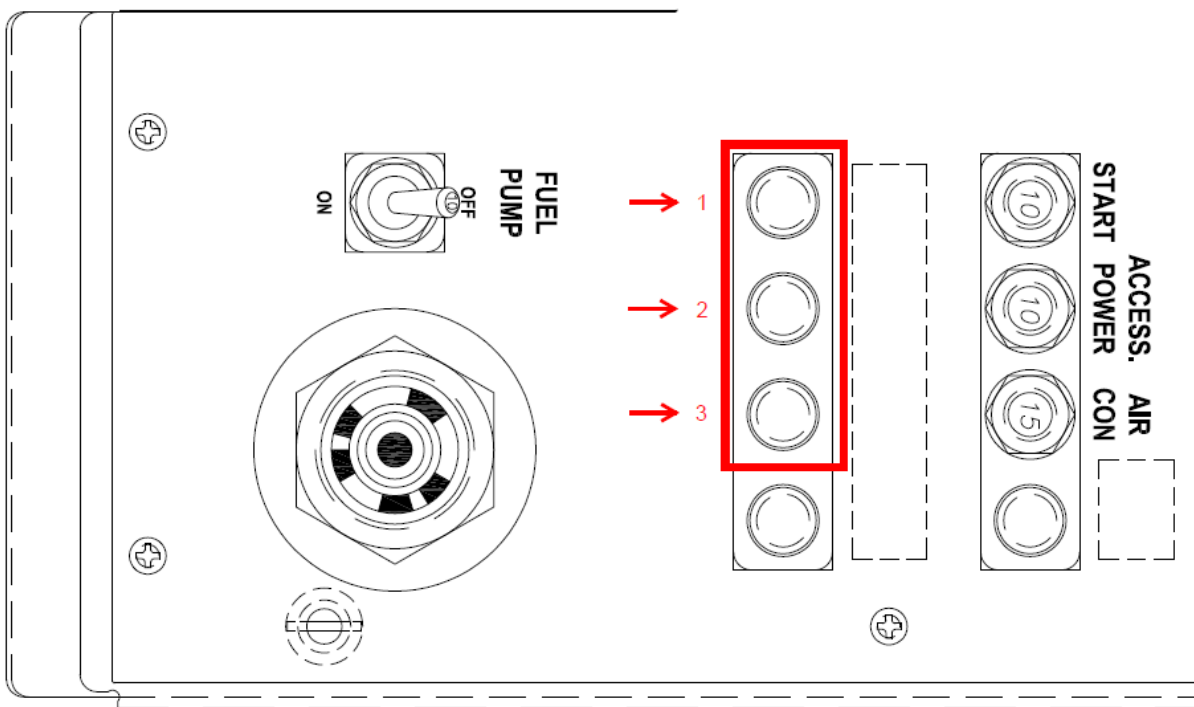


Figure 1 – Suitable Circuit Breaker locations

Part B – Accomplishment

NOTE:

Refer to electrical wiring schematic (Figure 2) when carrying out the accomplishment steps below.

1. Disconnect the wiring and bus bar connected to the existing Fuel Pump switch breaker and remove the switch breaker.
2. Disconnect the other end of the existing bus bar and remove. Any screws taken out to allow removal of the bus bar are to be re-installed.
3. Fit the new switch (item 1) into the now vacant hole. There is no small anti-rotation hole for the switch anti rotation locking ring of the switch so the protruding part of the locking ring of the switch needs to be orientated away from the panel. Orientate the switch body such that the keyway faces forward.
4. Push out the blanking cap from the chosen circuit breaker hole and fit the new 10A circuit breaker (item 2).
5. Connect the line side of the new circuit breaker to bus 2 using the new bus bar (item 3). The bus 2 connection point will be the line side of the circuit breaker in the row behind. If position 1 is used then this will be the START circuit breaker.
6. Cut an appropriate length of 18AWG wire (item 7) to connect between the load side of the newly installed circuit breaker and terminal 2 (middle) of the newly installed switch. Keep this wire as short as possible. Crimp ring terminals (items 5 & 6) to the wire.
7. Install the new wire between the load side of the new circuit breaker and the common (middle) terminal of the new switch. The ring terminal with the larger internal hole goes to the circuit breaker side.
8. Cut off the existing ring terminals from the two wires disconnected from the old switch breaker in step 1 and re-terminate these wires with new ring terminals (item 6).
9. Connect the two re-terminated wires to terminal 1 (aft) of the newly installed switch.
10. Apply the FUEL PUMP placard (item 4) in the provided placard location for the circuit breaker location used.

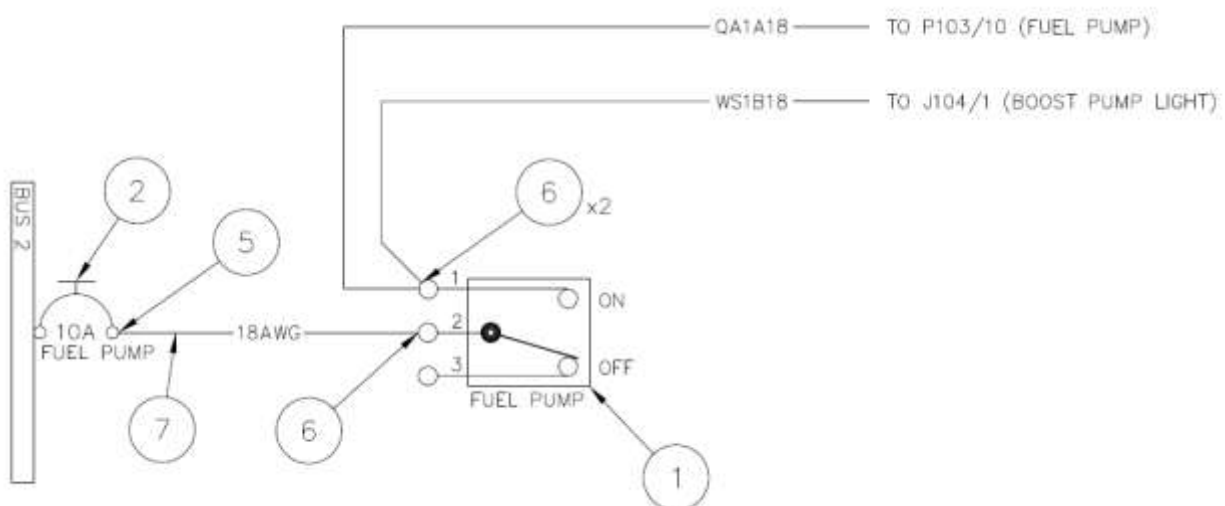


Figure 2 – Electrical Wiring Schematic

Part C – Restoration

1. Re-install the Overhead Electrical Panel.
2. Push in all the circuit breakers located under the floor mounted kick panel in front of the pilot's seat.

Part D – Testing

1. Apply power to the aircraft by initially switching just the BUS 2 MASTER switch to ON.
2. With the new FUEL PUMP circuit breaker pushed in, for a duration of less than a second place the new FUEL PUMP switch to the ON position and ensure the fuel pump operates and the corresponding FUEL BOOST PUMP annunciator is illuminated.
3. Ensure that with either the FUEL PUMP circuit breaker pulled or the FUEL PUMP switch set to the OFF position the fuel pump and FUEL BOOST PUMP annunciator are OFF.
4. Switch the BUS 1 MASTER switch to ON.
5. Perform an aircraft electrical system functional check to ensure all other electrical systems operate correctly.
6. Power down the aircraft by switching both MASTER switches to OFF.

Documentation:

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

Insert Service Manual Supplement, C05-96-79 Alternate Fuel Pump Switch, Initial Issue or later into the aircraft's Service Manual.

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



A Mahindra Aerospace Company

Document:

SB-GA8-2018-178

Issue 1

Aircraft Serial Number: GA8-_____

Service Bulletin SB-GA8-2018-178, Issue 1 has been incorporated in the above aircraft.

Date of Incorporation: _____

Signed

Print Name: _____

If this Service Bulletin requires any inspections be carried out, describe the result of these inspections:

Please post, fax or email this compliance notice to:

GippsAero Technical Services
P.O. Box 881
Morwell Victoria 3840
Australia
Fax.: +61 03 5172 1201
Email: aircraft.techpubs@mahindraaerospace.com