



2141 ICON Way, Vacaville, CA 95688 - Tel: 707.564.4000 – www.iconaircraft.com

SERVICE BULLETIN

SB-110521 REV A

DATE ISSUED: 12/13/2021
DATE EFFECTIVE: 12/13/2021
SUBJECT: Fuel Pump Connector/Contact Replacement
AIRCRAFT AFFECTED: **MODEL:** A5
S/N: 00093, 00095, 00114, 00122, 00126, 00134, 00141, 00144
REQUIRED ACTION: Fuel pump connector/contact replacement.
TIME OF COMPLIANCE: Replace at next service interval.

PURPOSE: Aircraft in the affected range may suffer poor fuel pump performance due to lack of proper contact in the electrical connectors. This could lead to a failed fuel pump in flight, leaving less redundancy in the fuel pump assembly. In the unlikely event of a dual pump failure, the engine would shut down.

INSTRUCTIONS:

CORRECTIVE ACTION: FUEL PUMP CONNECTOR REMOVAL AND REPLACEMENT INSTRUCTIONS

Level of Certification Required (any level checked can perform task)

- Pilot/Owner
- LSA Repairman—Inspection
- LSA Repairman—Maintenance
- A&P
- Certified Repair Station
- Manufacturer
- Named Individual

Certificate Holder's Information

Name:	
Address:	
Certificate Type & Number:	
Date:	
Signature:	

Parts, Consumables and bulk materials list:

P/N	Description	Qty
ICA012801	WIRE SEAL, 150 SERIES, OD 1.20-1.70MM	4
ICA011062	CONTACT, CRIMP, FEMALE, SOCKET 20-16	4
ICA013937	SEAL, CONNECTOR, ROTAX, ORANGE	2



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ICA011057	CONNECTOR, CONTACT, SECONDARY LOCK, 2-POSN	2
ICA011058	CONNECTOR, RCPT, SKT, 2-POSN	2
F4TAPEBLACK	TAPE, SELF-FUSING, SILICONE, .02 IN THK, 1 IN WIDE	As Required
TY24MX	CABLE-TIE, NYLON 6-6, 30LB, 5.50, TY-RAP	As Required

Special tools, fixtures, or other special equipment:

1. It is permissible to create and use tools and fixtures as required to properly carry out the instructions presented within this document so long as they do not cause any damage to the aircraft or create any deviation of the aircraft from its intended design.
2. Hand Crimp tool – Aptiv (formerly Delphi) 12085271 or equivalent.
3. Metri-Pack Terminal Removal Tool – 12094429 or equivalent.

Removal and Installation:

1. It is permissible to disassemble the aircraft as required to permit accessibility, inspection, adjustment, maintenance, and repair in accordance with the latest release of the Aircraft Maintenance Manual.
2. Locate the D9087P and D9100P connectors that connect to the fuel pump. D9100P connects at the top of the fuel pump assembly and D9087P connects at the bottom.
3. Remove the connector secondary lock from the back of each connector.
4. Make note of the wire locations within each connector and then remove the contacts from the connector using Metri-Pack Terminal Removal Tool – 12094429 or similar.
5. For steps 6 through 10, refer to **Figure 2**.
6. Cut the terminals off the fuel pump connector wires with cuts made as close to the terminals as possible. Note orientation of wire seal.

Note: All wiring and termination to be manufactured in accordance with process spec IPC/WHMA-A-620, Class 2. Requirements and acceptance for cable & wire harness assemblies.

7. Install 1 each blue wire seal (ICA012801) on each wire in the same orientation as the seals that were removed and slide away from the end of the wire.
8. Strip ¼” of insulation from each wire.
9. Align the blue wire seal with the end of the wire insulation.
10. Position the wire end in the terminal (ICA011062) as shown in Box 4.
11. Optional depending on the tool used: using the tool position for 16 gauge wire, crimp core wings first, then insulation wings using crimp tool 12085271 or equivalent. If the crimping tool is properly equipped, the seal crimp and the core crimp can happen simultaneously.
12. Install 1 each orange connector seal (ICA013937) onto the new connector body in the same location and orientation as the seal on the original connector. See **Figure 1**. **Note: The original connector may**

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have either a blue seal or an orange seal in this location. The replacement connector must have the orange seal installed.

13. Slide the new connector contact secondary lock (ICA011057) onto the wires.
14. Insert the contacts into a new connector (ICA011058) with the same location and orientation that the wires were in when removed from the old connector. The contact on the black wire inserts into the “B” side of the connector and the contact on the red wire inserts into the “A” side. See **Figure 1**. Ensure that the contacts positively seat into the connector body. A “click” is heard when the contact seats and a gentle tug on the wire confirms.

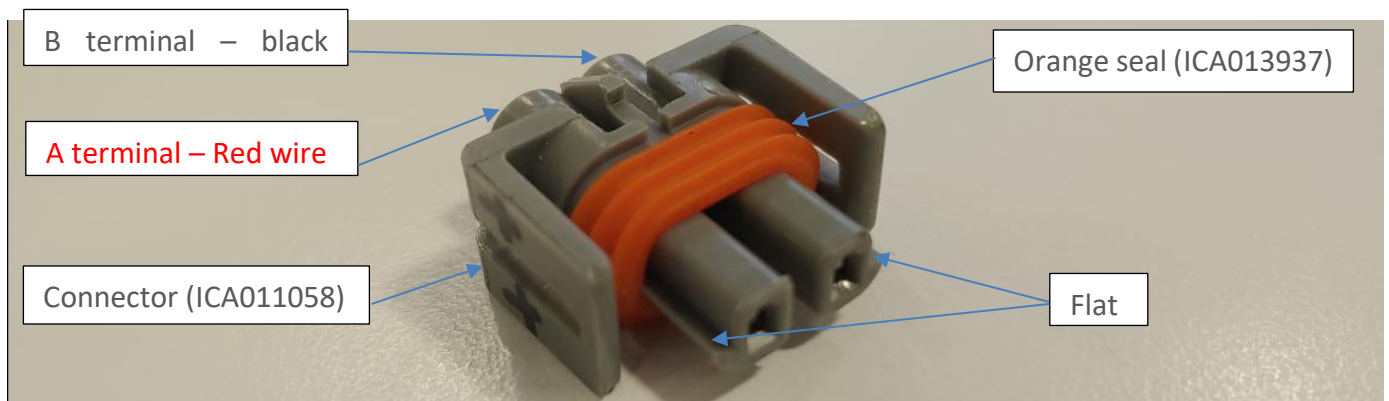
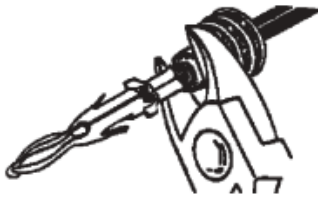


Figure 1: Connector wire locations

15. Seat the secondary lock onto the back of the connector to ensure contact retention.
16. Inspect the pin terminals inside both fuel pump connectors. Gently align if necessary. See **Figure 3**.

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**TERMINAL REPLACEMENT SEALED
WEATHER PACK AND METRI-PACK****1**

CUT OFF TERMINAL BETWEEN CORE AND
INSULATION CRIMP.

(MINIMIZE WIRE LENGTH LOSS)

REMOVE SEAL

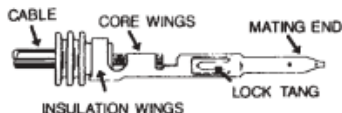
2

APPLY CORRECT SEAL PER GAUGE SIZE OF
WIRE. SLIDE BACK TO ENABLE REMOVAL OF
INSULATION. STRIP 1/4" OF INSULATION.

**CAUTION MUST BE USED NOT TO
CUT STRANDS**

3

ALIGN SEAL WITH CABLE INSULATION

4

POSITION STRIP AND SEAL IN TERMINAL AS
SHOWN. CAUTION MUST BE USED NOT TO
POSITION STRIP TOO FAR FORWARD. IT
MAY INTERFERE WITH MATING PORTION
OF TERMINAL.

Figure 2: Contact preparation

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Figure 3: Fuel pump pins must be straight



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17. Reconnect the D9087P connector onto the bottom connector of the fuel pump
18. Reconnect the D9100P connector onto the top connector of the fuel pump.
19. Verify locking features of both connectors are engaged.
20. Switch the Master Switch to ON.
21. Rotate Ignition Switch to lane A. Verify fuel pump comes on and primes. Confirm FUEL PRESS light out.
22. Rotate Ignition Switch to lane B. Verify fuel pump comes on and primes. Confirm FUEL PRESS light out.
23. Rotate Ignition Switch to BOTH. Confirm ENGINE and LAND AIRCRAFT lights out.
24. Discard the connectors and contacts removed from the aircraft.

CORRECTIVE ACTION: FUEL PUMP EXTENSION CONNECTOR INSPECTION

25. It is permissible to disassemble the aircraft as required to permit accessibility, inspection, adjustment, maintenance, and repair in accordance with the latest release of the Aircraft Maintenance Manual.
26. Locate fuel pump extension connectors below aft bulkhead cut-out. See **Figure 4 & 5**.
27. Remove tie wraps and F4 tape, as necessary, to facilitate inspection of the connectors.

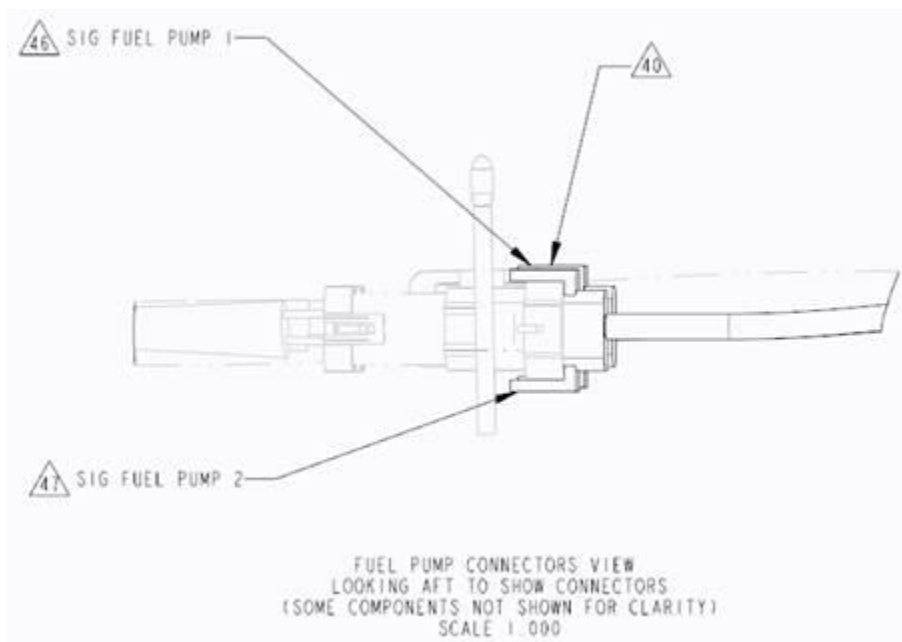


Figure 4: Fuel Pump Extension Connectors View

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Figure 5: Fuel Pump Extension Connectors Location

28. Disconnect Sig Fuel Pump 1 connector from fuselage wire harness connector D9086J. If necessary, remove zip tie holding connectors to fuselage wire harness.
29. Visually inspect both connectors and ensure that contacts are fully inserted in each connector. Gently slide each wire back and forth to ensure that the contact is locked in position.
30. Reconnect Sig Fuel Pump 1 and D9086J connectors. Ensure secondary locking mechanism is fully engaged in each connector.
31. Disconnect Sig Fuel Pump 2 connector from fuselage wire harness connector D9099J.
32. Visually inspect both connectors and ensure that contacts are fully inserted in each connector. Gently slide each wire back and forth to ensure that the contact is locked in position.
33. Reconnect Sig Fuel Pump 2 and D9099J connectors. Ensure secondary locking mechanism is fully engaged in each connector.



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34. Install new F4 tape (F4TAPEBLACK) and tie wraps (TY24MX) to secure connectors in place.
35. Reassemble, as required, in accordance with the aircraft maintenance manual.

Make the following logbook entry:

“The corrective action of Service Bulletin SB-110521-A has been complied with and reported to ICON Aircraft Service.”

Warranty Information:

- 1) 2 hours for connector/contact replacement.

If you have questions, comments, or concerns about this Safety Directive/Alert and/or if you are no longer owner/operator of this aircraft, please forward this information to the present owner/operator and notify ICON Aircraft at:

ICON Aircraft
2141 ICON Way
Vacaville, CA 95688
(855) FLY-ICON or (707) 564-4000
support@iconaircraft.com

Please include the aircraft registration number, serial number, your name, and if known the contact information of the new owner/operator.