

SERVICE BULLETIN



Service Bulletin No.: D42L-28-01 Rev. 0

Date Issued: December 10, 2009

Title: Lighted Fuel Pump Switch

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- 1. ATA Code:** 2820
- 2. Effectivity:** DA42 L360 aircraft with STC SA09-54 installed.
- 3. General:** Installation of this Service Bulletin provides a lighted FUEL PUMP switch that will give an indication of loss of current to the fuel pump. An amber light will illuminate on the FUEL PUMP switch when there is a failure and it is selected on.
- 4. Compliance:** Optional.
- 5. Approval:** Engineering data referenced or contained in this service bulletin is approved as part of the type design.
- 6. Labour:** Approximately 1.5 hours will be required to accomplish this Service Bulletin.

This estimate is for direct labour performed by a technician and it does not include setup, planning, familiarization, cure time, part fabrication or tool acquisition.

7. Material:	Description	Qty	P/N
	170 mm Wire, 22 AWG	2	M22759/34-22-9
	Ring Terminal	1	36151
	Faston	2	2-520184-2
	FUEL PUMP Switch	2	K1ACBTDADA
	Current Monitor	2	C61-2428-107-001

The above materials may be ordered as a Kit D42L-28-01.

- 8. Special Tools:** Faston Crimpers and Ring Terminal Crimpers.
- 9. References:** DA42 L360 Aircraft Maintenance Manual, Document # D42L-AMM-001.
DA42 Series Airplane Maintenance Manual, Document # 7.02.01

10. Accomplishment Instructions

- 10.1 Disconnect the aircraft battery. Refer to AMM # 7.02.01 Chapter 24-31.
- 10.2 Remove the instrument panel cover. Refer to AMM # 7.02.01 Chapter 25-10.
- 10.3 Cut the tywraps behind the FUEL PUMP switches.
- 10.4 Remove the left and right FUEL PUMP switches from the instrument panel.
- 10.5 Install the new FUEL PUMP switches (P/N K1ACBTDADA) provided.
- 10.6 Access GS-IP-19 to connect a ring terminal.
- 10.7 Use the two 22 AWG wires provided as ground wires for the FUEL PUMP switches. Terminate both ground wires in the ring terminal (P/N 36151) provided.
- 10.8 Connect the other ends of the ground wires to the FUEL PUMP switches with the Fastons (P/N 2-520184-2) provided (See Figure 1).
- 10.9 Route the ground wires, in the ring terminal, from the FUEL PUMP switches to GS-IP-19 (See Figure 1).
- 10.10 Assemble again GS-IP-19.
- 10.11 Secure the Current Monitor Assemblies (P/N C61-2428-107-001) provided to the existing instrument panel harness with tywraps (See Figure 2).
- 10.12 Route the Current Monitor wires to the FUEL PUMP switches (See Figure 2).
- 10.13 Connect the wires from the Current Monitors to the FUEL PUMP switches and to the existing aircraft wiring with Faston connectors (See Figure 1).
- 10.14 Replace the tywraps behind the FUEL PUMP switches.
- 10.15 Connect the aircraft battery. Refer to AMM # 7.02.01 Chapter 24-31.
- 10.16 Do a Functional Test of the fuel pumps to test the operation of the FUEL PUMP switches, as follows:
 - 10.16.1 Set the ELECT MASTER switch to ON.
 - 10.16.2 Set the related FUEL PUMP L/R switch on.

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- 10.16.3 Monitor the fuel pressure indication for the related engine fuel system on the integrated cockpit system display. Make sure that there is an increase in fuel pressure.
- 10.16.4 Set the related FUEL PUMP L/R switch off.
- 10.16.5 Set the ELECT MASTER switch to OFF.
- 10.17 To test the operation of the failure indication that will show on the FUEL PUMP switch, do as follows:
 - 10.17.1 Behind the instrument panel, disconnect the Current Monitor wire that electrically connects with the fuel pump (28011 or 28012) at the Faston connectors.
 - 10.17.2 Set the ELECT MASTER switch to ON.
 - 10.17.3 Set the related FUEL PUMP L/R switch on. Make sure that the fail light comes on at the FUEL PUMP switch.
 - 10.17.4 Set the related FUEL PUMP L/R switch off.
 - 10.17.5 Set the ELECT MASTER switch to OFF.
 - 10.17.6 Connect again the Current Monitor wire to the fuel pump wire at the Faston connectors.
 - 10.17.7 Secure the wires.
 - 10.17.8 Repeat the Functional Test of the fuel pumps (Step 10.16).
- 10.18 Install the instrument panel cover. Refer to AMM # 7.02.01 Chapter 25-10.
- 10.19 Insert Supplement S2 into the Airplane Flight Manual (AFM) D42L-AFM-002.
- 10.20 Make a log book entry that this Service Bulletin has been incorporated.

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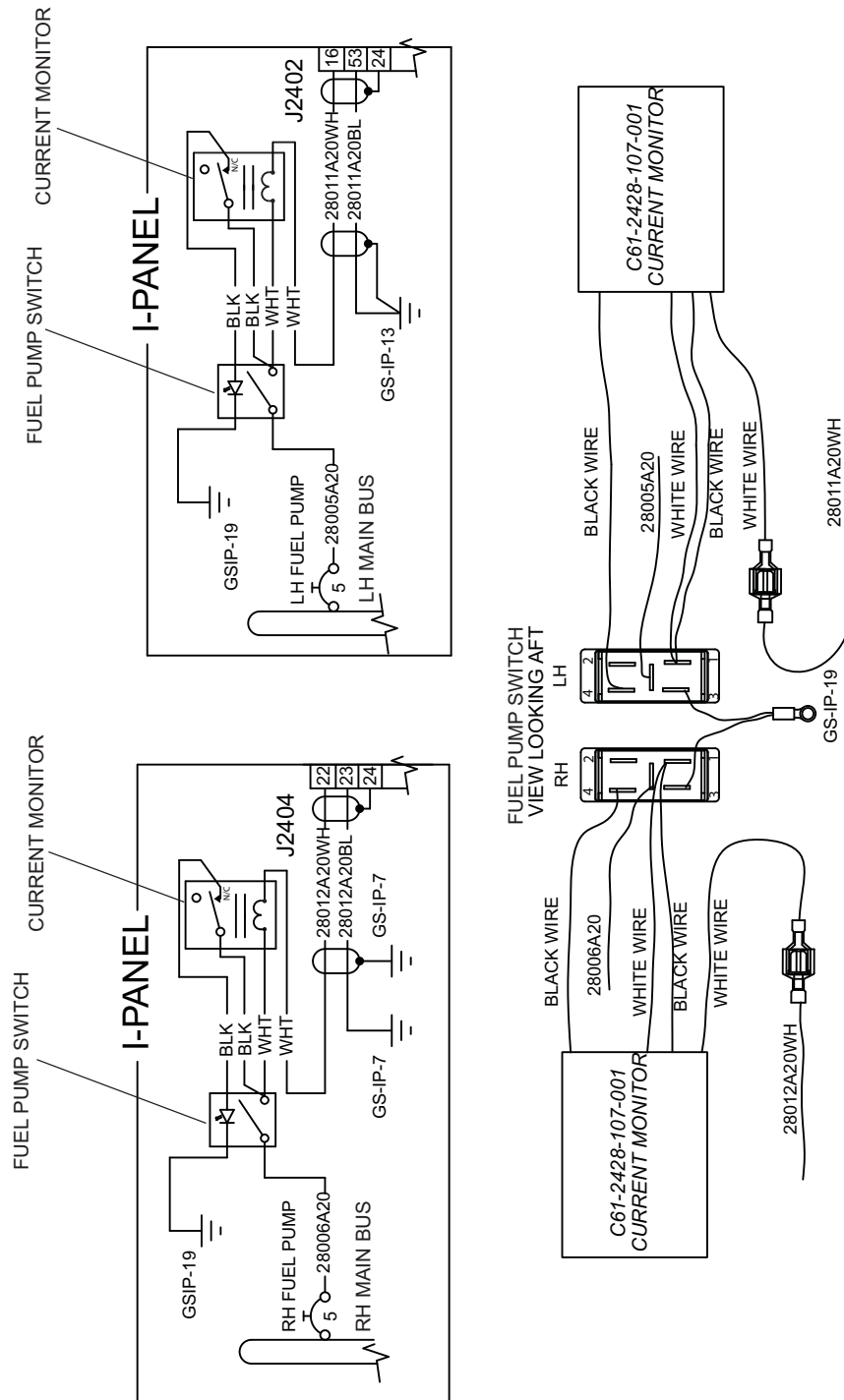


Figure 1 - Electrical Connections

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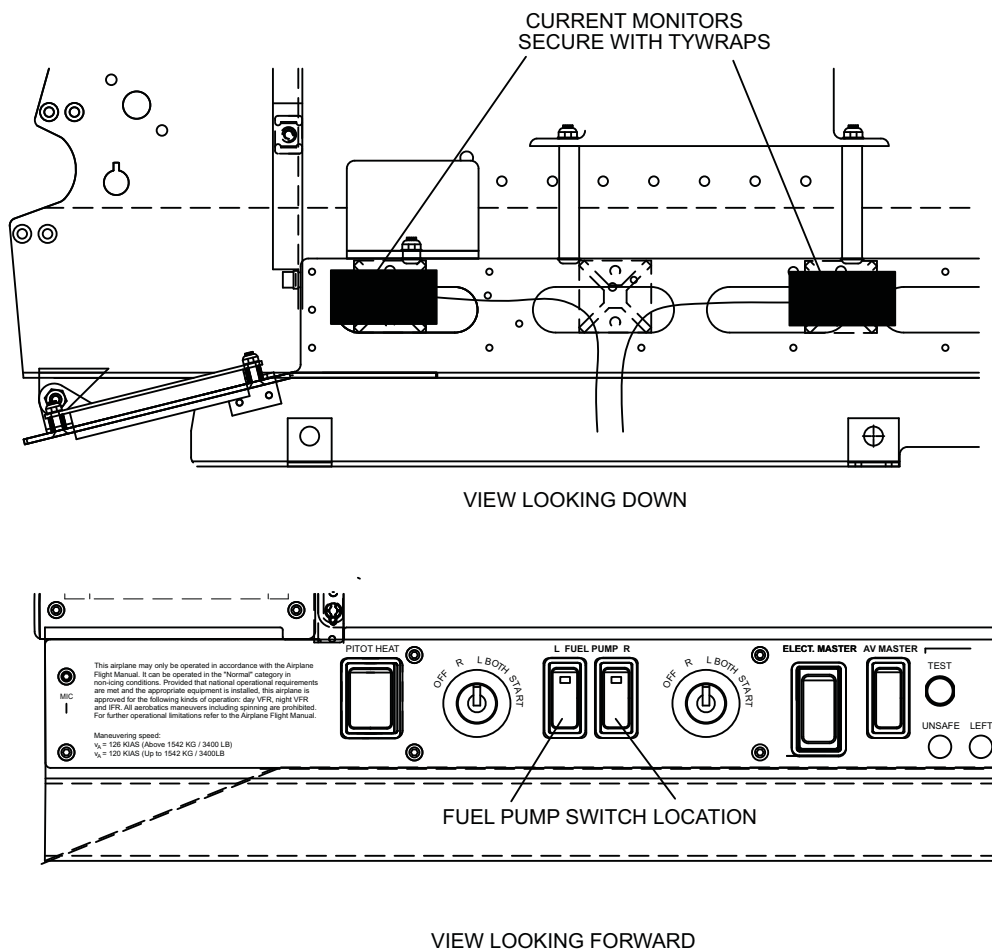


Figure 2 - Physical Locations of Components

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11. Weight and Balance: The weight and balance is not affected by this Service Bulletin.

12. Availability: Contact Diamond Aircraft.

To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service bulletin if it is not incorporated. If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries Inc. at the address below.

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