Chapter 73

ENGINE FUEL SYSTEM

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73 ENGINE FUEL SYSTEM

73-00 GENERAL

For information on the fuel system see Chapter 28.

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73-30 FUEL FLOW INDICATION

The 2C1 & 2C2 aircraft are equipped with a fuel flow gauge. For a brief description see Chapter 24, section 34-00. The fuel flow gauge is located on either the center panel or for A/C serial # 40 and up it is located on the right panel. See Figures 34-00-01, 34-00-02 or 34-00-03.

2C3 & 2C4 aircraft are equipped with the MVP glass panel engine monitor. The fuel flow gauge is integral to this display. To remove the display see section 77-00-02.

73-30-10 Electronics International Model FP-5/FP-5L

The E.I. model FP-5 is a fully featured gauge except for a serial data link which can be had on the model FP-5L.

Removal and Installation (Center Panel Installation)

Step 1. Remove the center panel per section 31-12.

Step 2. Disconnect the plastic circular connector integral to the instrument.

Step 3. Remove the four screws attaching the instrument to the center panel. The gauge is now free for removal.

To install reverse the above steps. Verify operation during ground engine run-up.

Removal and Installation (Right Panel Installation)

Step 1. Removing the right panel per section 31-14. (This step may be unnecessary as the connector and gauge can be reached from behind the panel.)

Step 2. Disconnect the plastic circular connector integral to the instrument.

Step 3. Remove the four screws attaching the instrument to the center panel, see Figure 73-30-01. The gauge is now free for removal.

To install reverse the above steps. Verify operation during ground engine run-up.

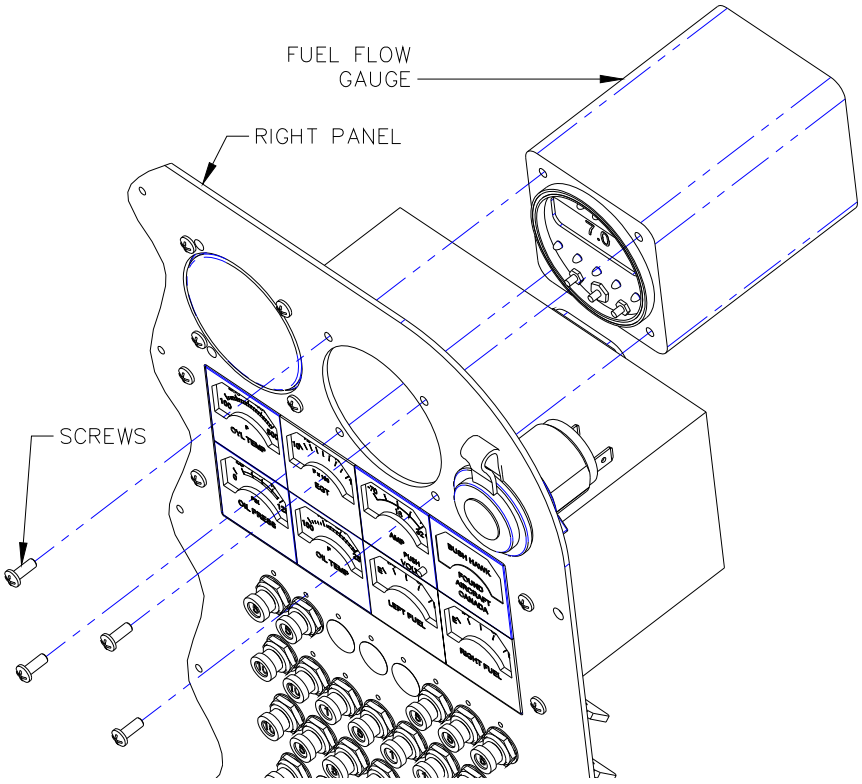

Figure 73-30-01 Right Panel Fuel Flow Gauge Installation

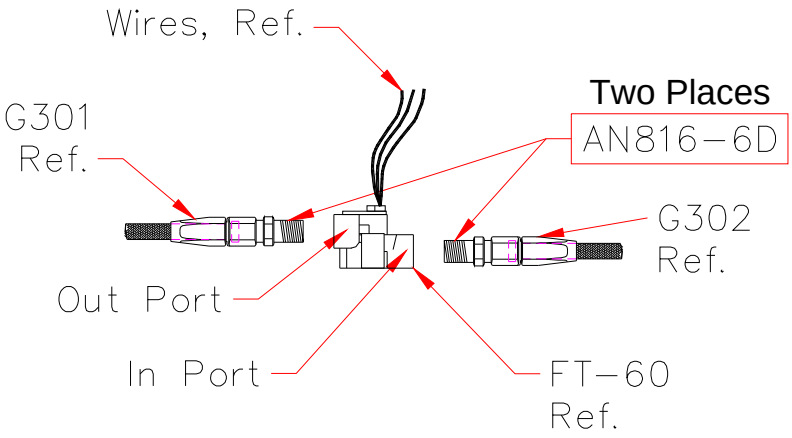

Figure73-30-02 Fuel Flow Transducer Installation

Removal, Fuel Flow Transducer

Step 1. (2C1 & 2C2): Open the lower port cowl door to gain access to the flow transducer. (2C3 & 2C4): Remove port side cowl, see 71-10.

Step 2. Remove the associated cushion clamps and tie wraps to allow the removal of the fire sleeve. Note their numbers and locations.

Step 3. Disconnect the three associated wires, (black, red, white). Note, the connectors are difficult to remove. If the technician simply pulls on the wires the connections will likely be damaged. Use a pair of needle nose pliers and grip the connectors themselves and pull straight apart.

Step 4. Disconnect the fuel lines. The transducer may now be removed. Cap all lines and fittings

Installation, Fuel Flow Transducer

To install the fuel flow transducer reverse the previous steps keeping in mind the following notes.

1) Do not remove the caps on the flow transducer until the fuel hoses are ready to be installed.
2) The flow of fuel through the transducer must follow the direction marked on the transducer.
3) The flow transducer must be mounted so the wires exiting the transducer are pointing up.
4) Before connecting any hoses, thoroughly clean them and insure they are free of any loose material. High air pressure may be used, *however*, ***do not allow high air pressure to pass through the flow transducer.***
5) Before installing the AN816 fittings into the body of the transducer apply a small amount of "Sealube" anti seize compound to the pipe thread.
6) **DO NOT EXCEED a torque of 15 ft.lbs or screw the fittings tighter than two full turns past hand tight, whichever happens first.**
7) After securing the fittings and fuel lines to the transducer cover they assembly with AS1072 fire sleeve. Also carefully cover the vendor supplied wire connectors with the aforementioned fire sleeve. The fire sleeve should then receive a tie wrap each end to secure it against movement.
8) The entire assembly may now be secured to the side of the engine employing cushioned "P" clamps on either side of the transducer. Specifically, attach a cushion clamp to each of the intake manifolds of cylinders 2 & 6 just above the fuel lines. Next attach a cushion clamp to each fuel line which are then secured to the aforementioned clamps.

73-30-12 Shadin Microflo-L Fuel Flow Meter

The Shadin Microflo-L 91204X-38 Fuel Flow Meter consists of two components. The Gauge can be located on the upper right hand corner of the center panel or the upper right corner of the right panel. The transducer is located on the high pressure fuel line between the engine driven fuel pump and the throttle body.

Gauge Removal

Step 1. Remove the center instrument panel. Reference Chapter 31-12.

Step 2. Remove the 4 screws that secure the gauge to the panel.

Step 3. Release the quick disconnect to remove wires from rear of the gauge.

Gauge Installation

Step 1. Attach the wires to rear of gauge with the quick connect.

Step 2. Position the gauge in the panel and install the 4 screws.

Step 3. Place the engine instrument panel in place and attach.

Step 4. Carry out an engine run to confirm operation of gauge.

Transducer Removal

Step 1. Place the fuel selector OFF.

Step 2. Refer to the transducer removal of section 73-31-10.

Step 3. Cap all lines and fittings

Transducer Installation

Step 1. Place the fuel selector OFF.

Step 2. Refer to the transducer installation of section 73-31-10.

This installation is ‘ON CONDITION’. There are no other specific inspections or checks to be carried out on the Shadin Microflo-L 91204X-38 Fuel Flow Meter.