

J.P. INSTRUMENTS
Supplement No. 1
P.O. Box 7033
Huntington Beach, CA 92646

FAA APPROVED
AIRPLANE/ROTORCRAFT FLIGHT MANUAL SUPPLEMENT OR
SUPPLEMENTAL AIRPLANE FLIGHT MANUAL (INCLUDING POH AND FAA AFM)
(FOR THOSE AIRCRAFT WITHOUT A BASIC AIRPLANE FLIGHT MANUAL)

FS-450 FUEL FLOW INDICATOR
FOR

Single and Twin, Reciprocating Engine Powered Aircraft as listed
On Approved Model List of

STC SA00861SE

REG. NO. _____

SER. NO. _____

This Supplement must be attached to the FAA Approved Airplane/Rotorcraft Flight Manual when the

J.P. Instruments FS-450 is installed in accordance with Supplemental Type Certificate SA 00432SE. For those airplanes without a basic Airplane Flight Manual, the Supplemental AFM must be in the aircraft when the FS-450 is installed.


The information contained in this Airplane/Rotorcraft Flight Manual Supplement/ Supplemental Aircraft Flight Manual supplements or supersedes the basic manual/ placards only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic Airplane Flight manual, Markings and Placard

FAA APPROVED:



Manager, Special Certification Branch, ANM-190S
Federal Aviation Administration
Seattle Aircraft Certification Office
Transport Airplane Directorate

Date: December 18, 2000 _____

Revision No.	Description	Affected Pages	Approved
Original	Complete Flight Manual Supplement for FS-450	1 thru 4	 Mgr. Special Certification Branch, ANM-190S FAA, Seattle ACO Transport Airplane Directorate Date: <u>Dec. 18, 2000</u>

FAA APPROVED Date December 18, 2000

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I GENERAL OPERATION

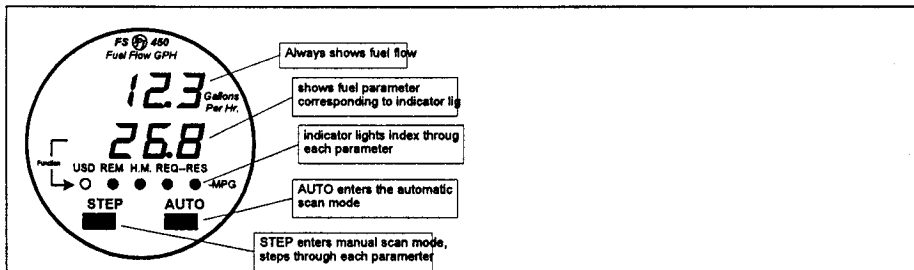
The FS-450 Fuel Scan uses a small turbine transducer that measures the fuel flowing into the engine. Higher fuel flow causes the transducer turbine to rotate faster which generates a faster pulse rate. Prior to engine start you inform the FS-450 Fuel Scan of the known quantity of fuel aboard, and it will keep track of all fuel used.

Start Up Fuel : After initial self-test, you will be asked to inform the FS-450 of start up fuel. The FS-450 will display **FUEL GAL** (or **Ltr** or **Lbs**) for one second, and then flash **F I L L ? n** until any button is pressed. Refer to the column in the chart below corresponding to your fuel tank configuration. Tap the **AUTO** button to select one of the four following fueling choices on the left column of the chart.

AUTO to choose ↓	Main tanks only, no tabs	Main tanks with tabs	Main & Auxiliary tanks
F I L L ? n	Did not add any fuel since last shutdown.		
F I L L 75.	Topped the main tanks.	Filled only to the tabs.	Topped the main tanks. If some additional fuel is added to the auxiliary tanks, you will input this next when 0.0 GAL is displayed
F I L L 120.	(not available)	Topped the main tanks.	Topped both the main and auxiliary tanks.
F I L L Add	Did not top, but added additional fuel to the aircraft, or removed fuel from the aircraft.		

The FS-450 has programmable alarms. When the remaining amount of fuel falls below the alarm limit the bottom display will show the amount of fuel REMaining and the specific cue light will flash. When the remaining time falls below the alarm limit the bottom display will show the MINutes of fuel remaining and the specific cue light will flash. When an alarm is displayed, tapping the **STEP** button will temporarily disable the alarm indication for the next ten minutes. When an alarm is displayed, holding the **STEP** button until the word **OFF** appears will disable that alarm indication for the remainder of the flight. After initial self-test, you will be asked to inform the FS-450 of start up fuel. The FS-450 will display **FUEL GAL** (or **Ltr** liters or **Lbs** pounds) for one second, and then flash **F I L L ? n** until any button is pressed. The display will pause at each parameter for a few seconds in the Automatic indexing mode. In the Manual indexing mode, tap the **STEP** button to advance to next parameter. Holding the **STEP** button will display the previous parameters in the sequence (rapidly backwards).

- Digital display for numeric readouts and messages: top display is fuel flow and the lower display for all other parameters.
- Indicator lights to show what information is being displayed on the digital display



GENERAL OPERATION (CONT.)

Parameter Description

Example

Comments

USD—Total Fuel Used	38.2	Since last refueling or trip total.
REM—Fuel Remaining	37.2	In gallons, liters or pounds
H.M.—Time to Empty	02:45	Hours. Minutes Remaining at current fuel burn
REQ—Fuel required to next GPS WPT or Destination	25.8	Present with GPS interface Valid signal and way point
RES—Fuel Reserve at next GPS WPT or Destination	11.3	Present with GPS interface Valid signal and way point

II OPERATING LIMITATIONS

- A. The FS-450 may not replace any existing instrument or indicator required by the aircraft type design or operating limits.
- B. The FS-450 display may not be used in lieu of, or to supersede, engine-operating limitations established by the airframe or engine manufacturer during certification.

III. EMERGENCY PROCEDURES

No change

IV. NORMAL PROCEDURES

CAUTION

Comply with manufacturer's Airplane Flight Manual leaning procedures. Do not exceed applicable engine or aircraft limitations.

Upon starting the engine, the FS-450 will flash, waiting for the pilot to enter the new fuel on board. If no fuel was added, tap the step button, informing the FS-450 no fuel was added. If fuel was added proceed with the fuel add sequence. With the engine running the upper display will show the actual gallons being used per hour. During flight the cue lights will indicate specific functions like REMaining etc. The upper display will always show fuel flow per hour.

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