

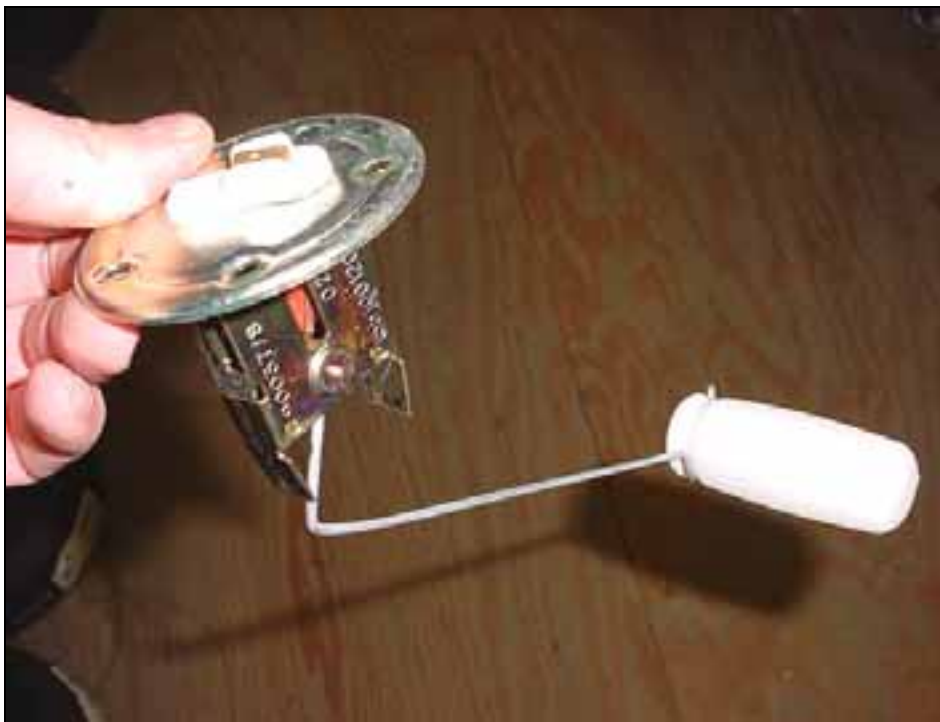


P/N 221-012D



**FUEL SENDER
INSTALLATION KIT
P/N 226-451D**

Float type fuel sender unit in supplier box
Use VDO Fuel Level Gauge 70-10 Ohms, turn to last page this section.



IMPORTANT: Do not adjust or modify the position of the stops.

Note: fuel sender shown with the float in the empty position.

As supplied the fuel sender unit is ready for top mount installation.
When installed on the inboard end of the tank, the float arm must be bent.



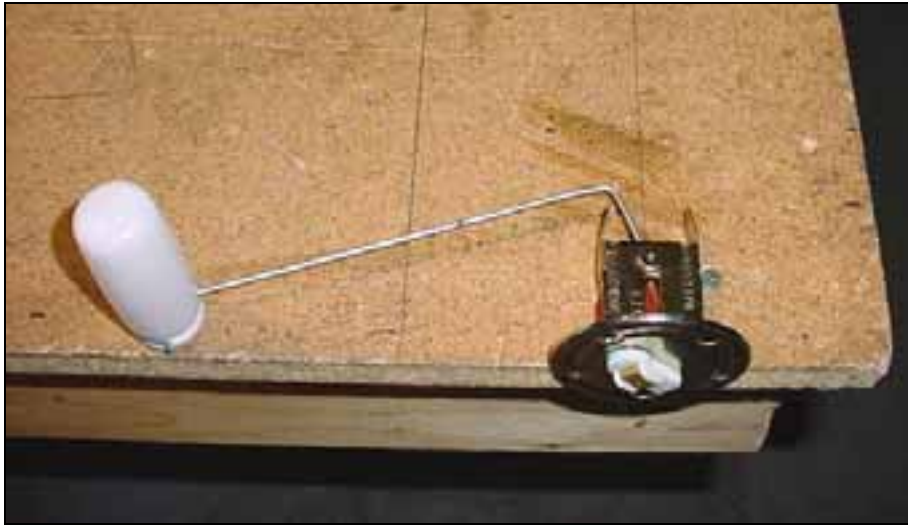
Bending the float arm for installation of the fuel sender unit at the inboard end of the tank.

Remove the plastic float to make it easier to hold the ruler along the float arm.



Reference: end of ruler on the wire.

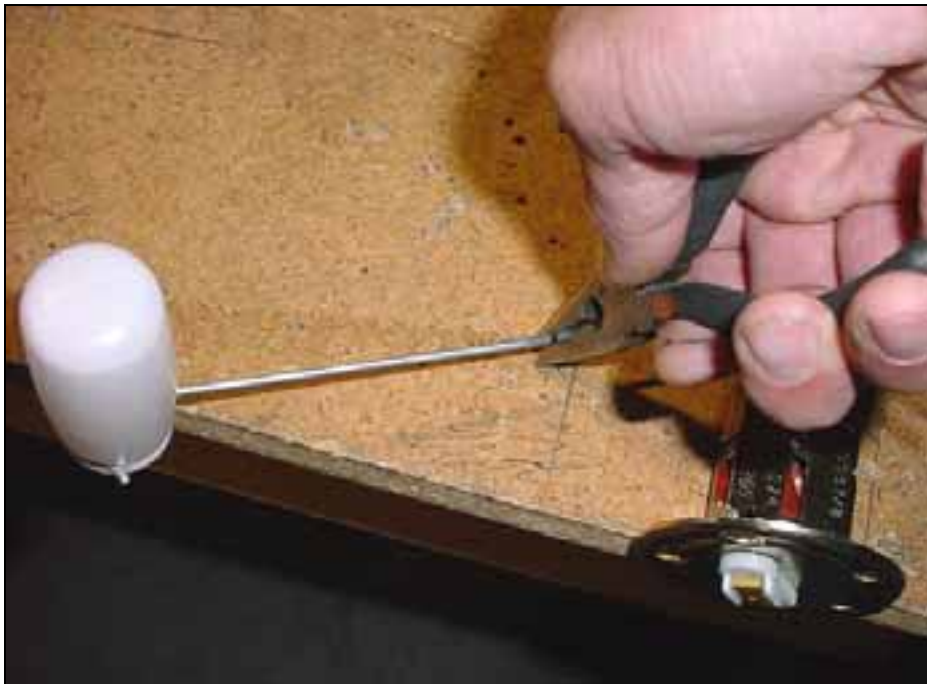
Layout 58mm



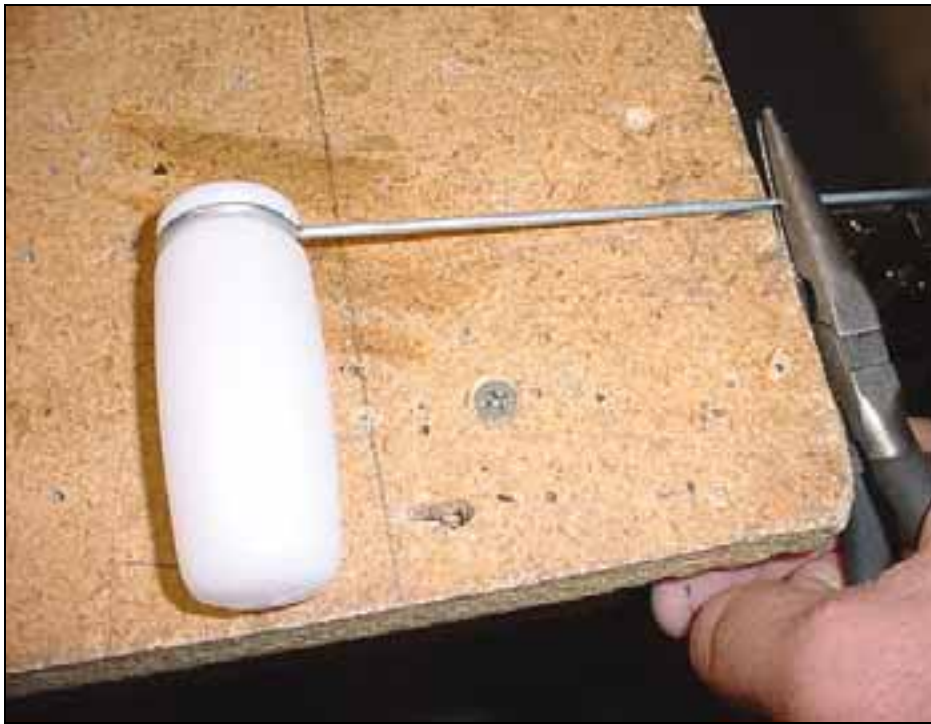
On the work bench layout 2 parallel lines 90mm from the edge of the work bench. The second line represents the top of the tank.

Reinstall the float.

Lay the sender on the first line along the edge of the workbench to see which way to bend the wire. The wire must be bent to keep the float below the second line (top of tank).



With pliers, grab the wire.



Position the pliers along the edge of the workbench.



Position the sender over the edge of the workbench.

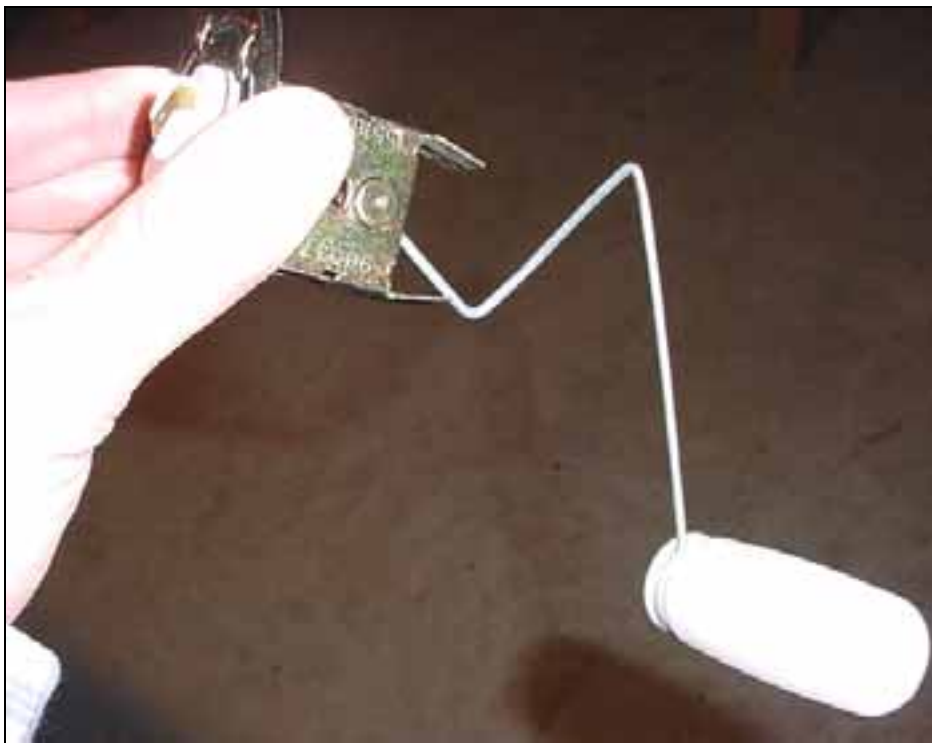


Check that the float lies across the workbench.



Check the pliers are on the edge of the 58mm line.
With one hand pushing down on the plies to keep the wire on the workbench, use your other hand to rotate the pliers to bend the wire.
Position the sender over the edge of the workbench.

Position the sender over the edge of the workbench.



Float arm (wire).



Hold the sender unit level, float in the down position = empty



Ohm meter



70 Ohm = empty



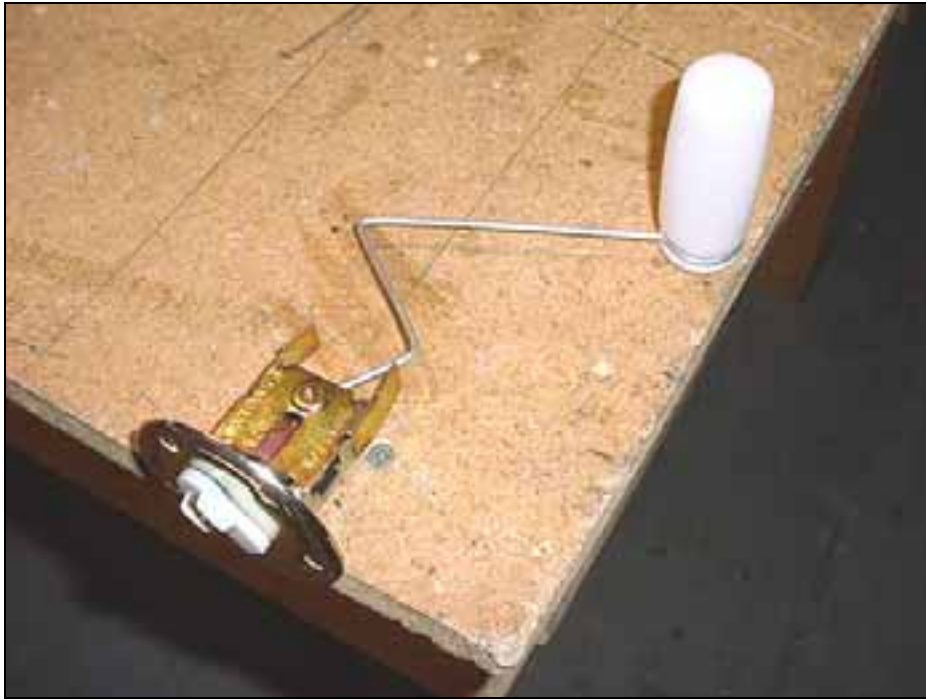
Use an Ohm meter to confirm empty and full
10 Ohm = full



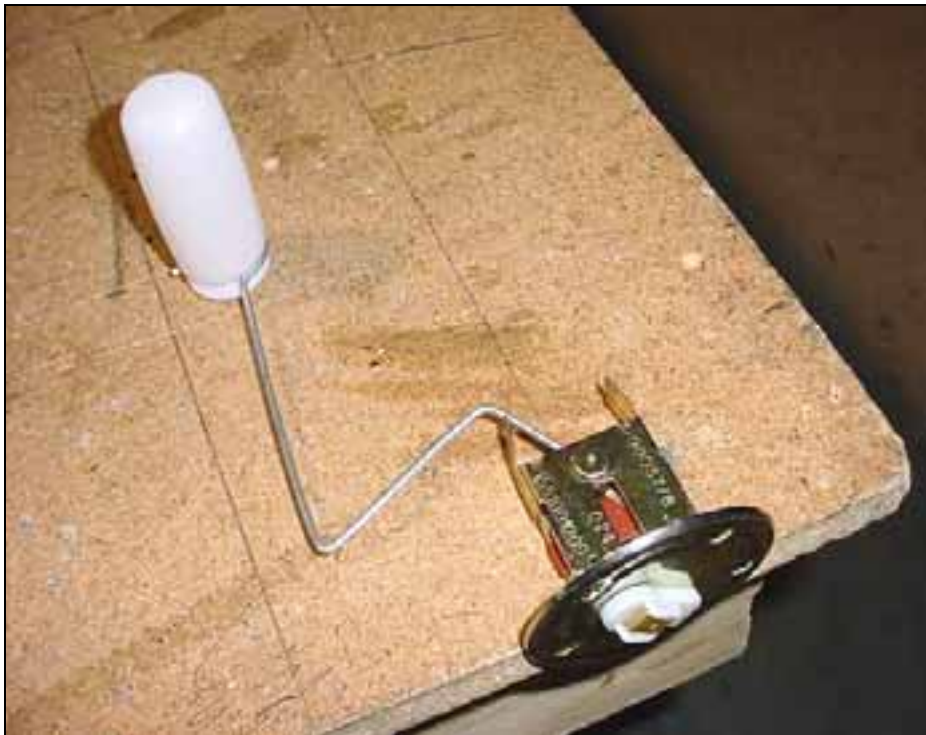
Spade connector = signal



Mark the side of the sender.



Position the sender on the 90mm line.
Keep bending as necessary until the bottom of the float is flush with the edge of the workbench.



Rotate the float arm up. Check that it is below the top of the tank.

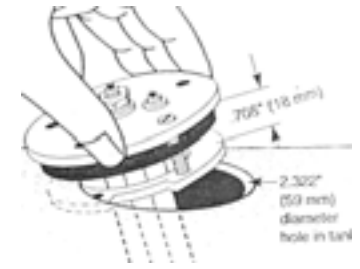


Inboard end of tank is opposite to the fuel filler neck

Use a rear rib to help locate the position the fuel sender unit in the forward lightening hole.



Center is 80mm back from the front edge of the tank and 90 mm up from the bottom.



Cut a 2.322" (59mm) hole in the end of the tank. The mounting ring 226-451 will fit inside the tank.

Cut the hole with a fly-cutter. First do a practice piece, the finished diameter of the hole after deburring must be 59mm, there is only approximately 1/8" overlap of the rudder gasket and the skin. After cutting the hole, make sure to flush out all aluminum material from the inside.

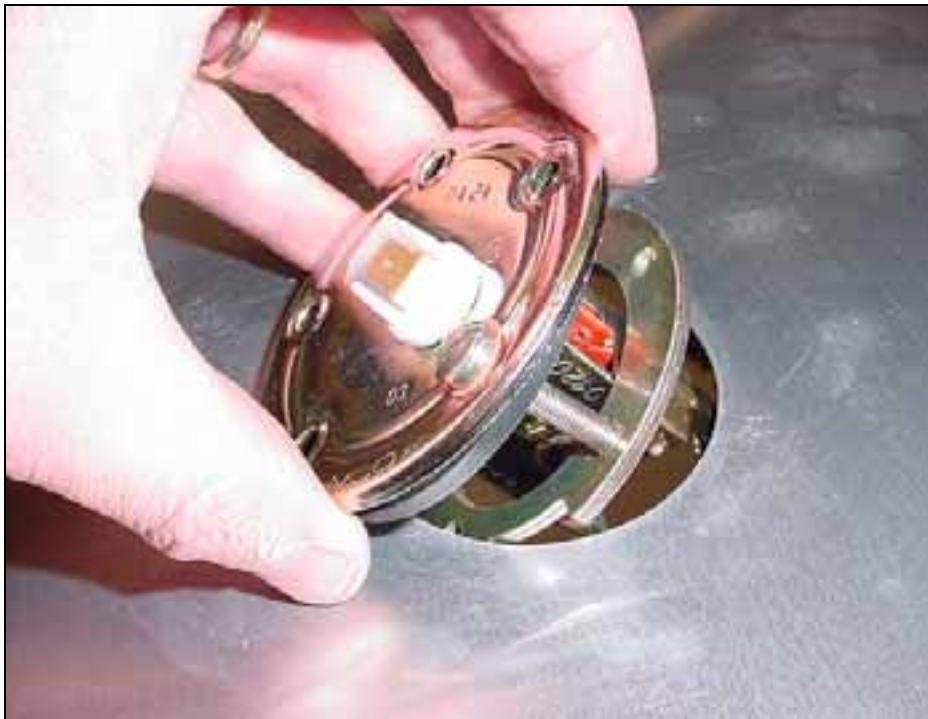


V11-1K Wing Tank



Insert a paper washer on each screws. Position the rubber gasket between the sender and the mounting ring, screw in the longest screw from the bottom.

IMPORTANT: Mark the orientation of the float on the front face of the sender.



Notch in mounting ring.

With only the longest screw in place, insert the mounting ring through the 59mm hole in the tank.



Tighten the screw, then add the remaining screws.
Note: one screw will have a ring terminal to ground the sender unit.



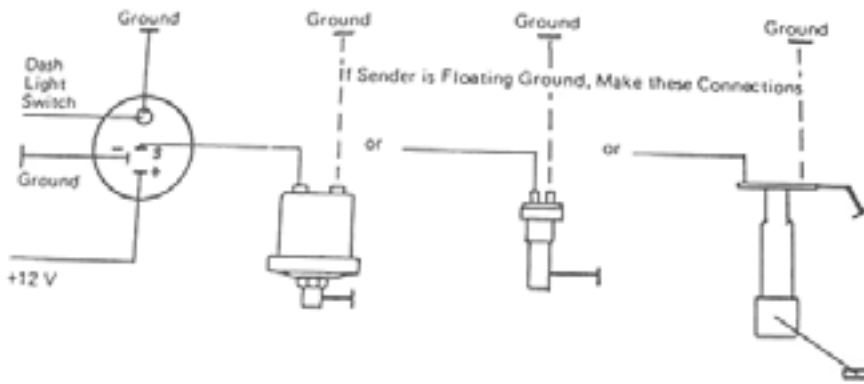
Check the orientation



Tank positioned in wing.



Float in the full position
(inside tank)



Ring terminal

The airframe is ground.

Generic wiring diagram: gauge left side, sender on right side. The terminal on the sender unit connects to the "S" terminal on the gauge.



VDO fuel gauge.
P/N 301-020



Back of gauge. The two connectors on black plastic cap is the internal lightening for the instrument. (not required). Plug can be removed to expose light bulb.



Screw on mounting ring.



Adjustment screw: Connect the gauge to the sender, use a plastic screwdriver to correct scale reading.