#VSU-3, #VSU-9, Sending Unit Instructions

for use with OE and aftermarket gauges

1. Remove ignition key and disconnect ground (-) cable from battery.

2. Drain fuel from tank and remove from area. Reinstall drain plug. Disconnect the fuel line from the fuel tank. Remove the mounting straps or bolts which fasten the fuel tank to the vehicle than remove tank.

3. Remove old sender and remove all remains of the gasket from the old sender from the fuel tank. A clean surface is required for proper sealing of the new fuel sender and gasket.

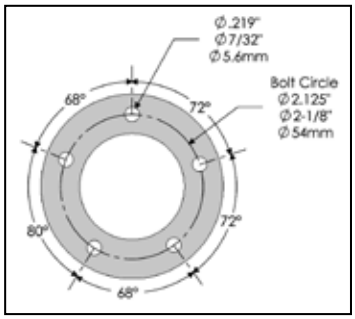
4. Measure depth of the fuel tank. Locate this dimension in Column "A" in chart below. Column "B" shows the length from the underside of the sender flange to the center of the float pivot. Column "C" shows distance from the center of the float pivot to the center of the float. *For example, a tank 15" deep would need a measurement of 7.5" from the flange to the pivot and 10" from the pivot to the float.*

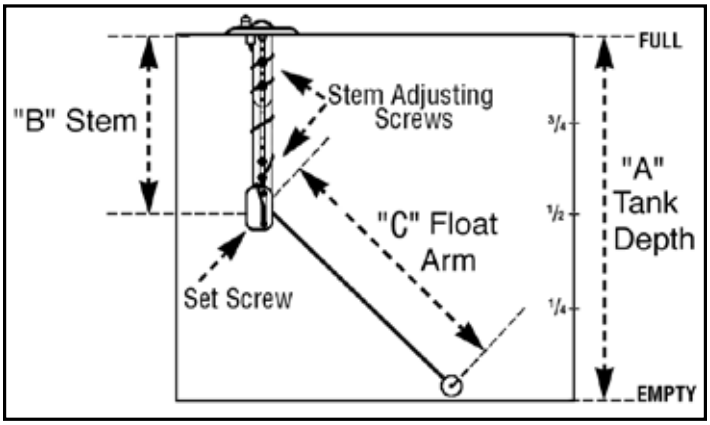
A = Tank Depth, B = Float Pivot Depth, C = Float Arm Length								
A	**B**	**C**	**A**	**B**	**C**	**A**	**B**	**C**
6.0	3.0	3.5	11.5	5.75	7.4	17.0	8.5	11.4
6.5	3.25	3.8	12.0	6.0	7.8	17.5	8.75	11.8
7.0	3.5	4.2	12.5	6.25	8.1	18.0	9.0	12.0
7.5	3.75	4.5	13.0	6.5	8.5	18.5	9.25	12.3
8.0	4.0	4.9	13.5	6.75	8.9	19.0	9.5	12.6
8.5	4.25	5.3	14.0	7.0	9.3	19.5	9.75	12.9
9.0	4.5	5.6	14.5	7.75	10.4	20.0	10.0	13.4
9.5	4.75	6.0	15.0	7.5	10.0	20.5	10.25	13.8
10.0	5.0	6.4	15.5	7.75	10.4	21.0	10.5	14.2
10.5	5.25	6.7	16.0	8.0	10.7			
11.0	5.5	7.1	16.5	8.25	11.0			

**Dimensions in Inches*

5. To install the float assembly, loosen the screw and remove the short piece of rod and discard. Insert the float rod until the proper length "C" from the chart above is met, and then tighten the screw securely. Carefully cut off any excess rod with bolt cutter or similar tool, taking care not to damage the assembly.

6. Slide the gasket over the float arm and sending unit to fit flat against the underside of the mounting plate. *Note: The gasket can only go on one direction. If it does not line up with the underside flange holes, flip the gasket over and re-install.* Place the fuel sender in the fuel tank and align the five holes in the sender flange with the holes in the fuel tank. The five mounting holes are not equally spaced and will only line up in one angular position. This allows repositioning of the float arm relative to the mounting holes every 180°. If necessary to rotate the sending unit for your installation, loosen the brass nut on the top of the mounting plate enough to allow the stem to rotate. Make sure to rotate the stem in 180° increments to insure clearance of the float arm with the tank wall. Check for adequate clearance between float and fuel tank wall. (By holding fuel level sender up along side of the fuel tank, you can better check for clearance of vertical tank wall or internal baffels).





7. Place the fuel level sender back in the fuel tank and check for clearance between the float and the bottom of the tank. The float can not touch the bottom of the tank. If the float does touch the bottom of the tank, double check the tank depth, float arm length and stem length. Make the appropriate adjustments to the sender.

8. Tighten all of the fuel sender's fasteners including the stem mounting nut and case adjusting screws.

9. With the gasket in place below the flange, carefully feed the float arm and sender body into the 1.697" (43mm) hole in the tank. Make sure the float arm has free motion within the tank. Align holes and thread in mounting screws. Check that all screws are secure to complete assembly. *Avoid overtightening.*

10. Reconnect the wire from the fuel gauge using a ring terminal to the sender terminal on the top of the mounting plate. Run a separate wire from one of the five flange screws to a good clean, bare metal area on the body or frame to ground the unit. Note: It is very important to have a good ground. Poor grounding will have a big affect on how the fuel gauge will operate.

11. Tighten all the sender's fasteners and reinstall the fuel tank in the vehicle. Reattach the fuel line to the tank and tighten the drain plug.

OE & AFTERMARKET GAUGES:			
PART#	**APPLICATION**	**EMPTY**	**FULL**
VSU-3	Most GM pre-'65	0 ohms	30 ohms
VSU-9	Most GM '65-present	0 ohms	90 ohms
VSU-F73	Most Fords before '87 and most Chrysler	73 ohms	8-12 ohms
VSU-A	Aftermarket gauge	240 ohms	33 ohms

Rev. 7/10/2012