

## INSTRUCTIONS

# *Airguide*<sup>®</sup> Engine Instruments

### FUEL LEVEL GAUGE

Your Airguide Fuel Level Gauge has been designed to either replace an existing mechanical unit or to be installed as original equipment by yourself or your boat dealer. The unit is designed for use on 12 volt, negative ground electrical systems only.

It is an accurate electrical type gauge very similar in design to those used in modern automobiles. It has been carefully tested for ease of installation, accuracy and safety and is designed to give years of satisfactory service.

It is recommended that these instructions be read carefully before beginning installation of your Fuel Level Gauge.

### INSTALLATION

#### Gauge Installation

Locate the Fuel Level Indicator in a position where it may be easily seen from the helm. Remember to check the area behind the mounting position to be sure that it is accessible for the attachment of wires. In the case of flush mounting models, allow sufficient clearance for the case back which extends approximately 1" behind the instrument bezel ring.

Airguide instruments use a special meter movement having a low external magnetic field to minimize compass interference, but it is advisable that at least 10 inches be allowed between the indicator and any compass, to prevent possible compass errors. Consideration should also be given to the possibility of the addition of other matching Airguide marine instruments such as a speedometer, clock, barometer, etc. Avoid mounting any precision instrument where it will be exposed to rain and spray.

Use the enclosed template to mark the location of holes and screw locations for securing the instrument to your boat. Use the oval head wood screws provided to secure your instrument in position.

#### Tank Float Installation

The Tank Float has been designed to accommodate fuel tank depths from 7 in. thru 20 in. in one inch increments. This is accomplished by locating the rheostat

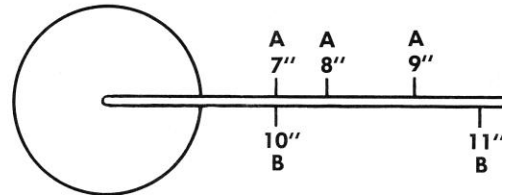
assembly in the proper position on the support bracket and by adjusting the lower float arm to the correct length. The chart of Figure 1 shows the correct rheostat position for each tank depth.

a. *Rheostat Location:* The rheostat is factory-assembled at the center position (B) on the support bracket and may be relocated as follows: Remove the nut and washer from the threaded stud. Locate the rheostat in the proper position making sure that the locating pin on the back side of the phenolic board is positioned in the small hole in the support bracket. (Wrap the surplus connecting wire around the bracket). Replace the washer and nut. Tighten the nut securely.

b. *Lower Float Arm Length:* This length is measured from the center of the float as shown in Figure 1. Cut the float arm to the correct length as determined from the chart of Figure 3 and remove all burrs from the cut end. Place the nut and sleeve on the float arm as shown and insert the arm, sleeve and nut into the connector. Hold the connector firmly and tighten the nut.

Tug gently on the float arm to check for a secure assembly. NOTE: In the completed assembly the axis of the float should be horizontal in the tank.

c. Remove the threaded cap, glass, gaskets and mechanical float mechanism from the fuel tank. Insert the float assembly into the tank with the float arm pointing along the tank length. It may be necessary to reposition the mounting plate with respect to the support bracket. This can be accomplished by loosening the hex nut (See Fig. 1) and rotating the



tank mounting plate to a position that will allow the float arm to lie along the tank length. Re-tighten the nut securely.

Replace the two original gaskets and the new gasket furnished. Replace the threaded cap and tighten securely by hand. Some newer tanks use a 5 hole mounting pattern as shown in Figure 1B. A special tank mounting plate is provided for these installations. Unscrew the hex nut in the center of the notched mounting plate and replace the notched plate with the 5 hole mounting plate. Before tightening the hex nut and jam nut on the new mounting plate, trial fit the tank unit into the tank to align the float arm with the length of the tank. One of the five holes in the mounting pattern is off-set to assure correct final assembly. Then mount the float assembly in the tank using the rubber gasket provided. Be sure the 5 mounting screws are tightened evenly and securely to prevent any leakage.

### Electrical Connections

As shown in Figure 2 connect the green gauge lead to the float terminal as follows: Bare 3/4 inch of the end of a suitable length of 18-22 gauge stranded insulated wire and attach to the float terminal by wrapping around the threaded stud between the two brass washers. Tighten the nut. Bare 1/4 inch of the other end of this wire and connect to the green gauge lead. Wire connectors are furnished to facilitate this operation.

The red gauge lead should go to the "on" side of the ignition switch on battery ignition motors. (If your engine has magneto ignition it will be necessary to install a separate on-off switch to operate the fuel gauge and any other

- Check Depth of Tank (inside) in Inches—
- Place Float Assembly on Chart and cut to length indicated
- Assemble in A, B, or C Position according to table

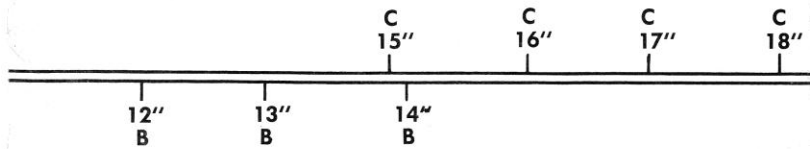


FIG. 3

electrical gauges you may use from your boat battery. The red gauge lead would then be connected to the "on" side of that switch.)

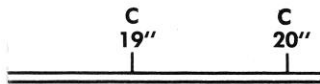
Connect the black gauge lead to a suitable ground on the fuel tank. An extra length of 18-22 gauge stranded wire and wire connectors may be necessary to complete these connections. Ordinary rubber or plastic-covered two-wire conductor, such as lamp cord, may be used to connect the green wire to the float terminal and the black wire to ground.

### Gauge Light Installation

The Airguide Fuel Level Gauge may be illuminated by the addition of a #783 Light Kit. This kit consists of a socket, bulb and wires and may be obtained from your dealer.

Installation may be completed as follows: Remove the plug button from the gauge case back and carefully insert the Light Assembly in place by hand pressure only.

Connect the grey wire to the running light switch (or the dimmer side of the light switch if your boat is so equipped). Connect the black wire (GRD.) to a suitable ground. Wire connectors are provided to facilitate these connections.



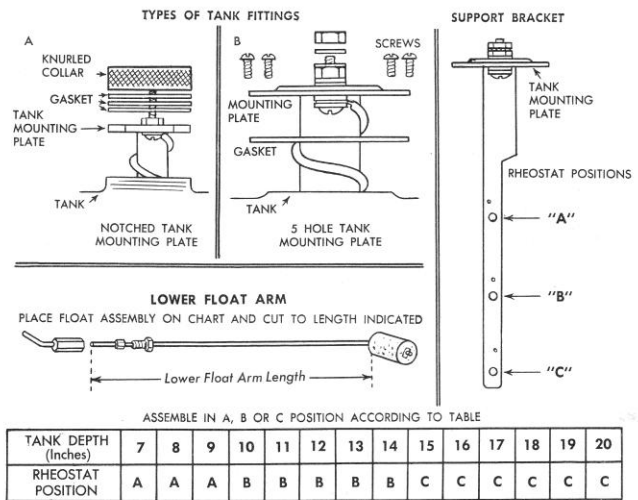


Fig. 1

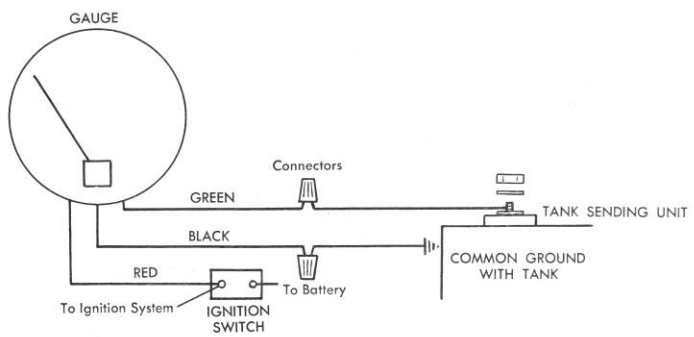


Fig. 2

A decorative rectangular border with ornate, repeating patterns at the corners and midpoints of each side, enclosing the guarantee text.

**GUARANTEE**

We guarantee this Airguide Instrument to be free from defects of workmanship or material and to remain accurate in normal use. If within one year of purchase date this instrument fails to give satisfactory service, it will be repaired or replaced without charge. This guarantee does not cover breakage through accident or misuse. Replacement will be made if this instrument is returned postpaid to

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