

## WATER TEMPERATURE SYSTEM FOR 240-33 OHM SENDER

Test the gauge's operation by doing the following: Make sure there is a hot wire to the I terminal and ground to the G terminal. Turn the key on. Voltage I to G terminals- 10 to 16 volts. Disconnect the sender wire (usually tan) off the back of gauge. Gauge should read below 120 degrees. Next add a short wire from the S terminal (sender) to ground. Gauge should read above 240 degrees. If the pointer sweeps back and forth, the gauge is working OK.

The sender can be tested by checking its resistance with a volt/ohm test meter. Remove sender wire from sender. Connect two test meter wires to sender terminal and engine block. If the meter reads no resistance or infinite resistance, the sender is faulty. At room temperature (75 F) resistance will be approx. 550-750 ohms, 212F approx. 55 ohms. You will get half these values on a dual gauge sender.

If sender is shorted (0 ohms) gauge will read above 240F.

If sender has infinite resistance (open) gauge will read below 120F.

If the gauge reads lower than expected, was sealer used on the sender threads (see pictures).

The accuracy of the system (gauge, sender, voltage) can vary as much as 12F at 180F.

Pipe extenders to plumb both a sender and a temperature switch (for horn or warning light) from one port is not recommended. The amount of weight extended on the fitting of a vibrating engine could cause fatigue breakage. Also, the sender is removed from the water flow and will cause the gauge to read cooler.

Veethree does not offer senders for metric threaded ports.

Dual Station installations:

Mixing two gauge manufacturers on one sender may cause an error or imbalance at both gauges.

If one gauge fails the second gauge will read much higher.

If the sender fails 'open' both gauges will read below 120F.

If the sender fails 'short' both gauges will read above 240F.

Twin engines- it may be helpful in trouble shooting to switch the gauges to the other senders to see if the problem follows the gauges or the senders.

Gauge part number is located on the side of the housing.

