WATER TEMP. METER/GAUGE UNIT

Description of Circuit

The water temperature gauge circuit consists of the temperature gauge installed in the cluster and the gauge unit installed on the intake manifold.

The gauge unit shows different resistance values depending on the coolant temperature. This causes a current flowing through the temperature gauge coil to change, controlling the gauge pointer. That is, when the coolant temperature rises, the gauge unit resistance is decreased with more current flowing through the gauge coil, raising the gauge pointer upward from the "C" position.

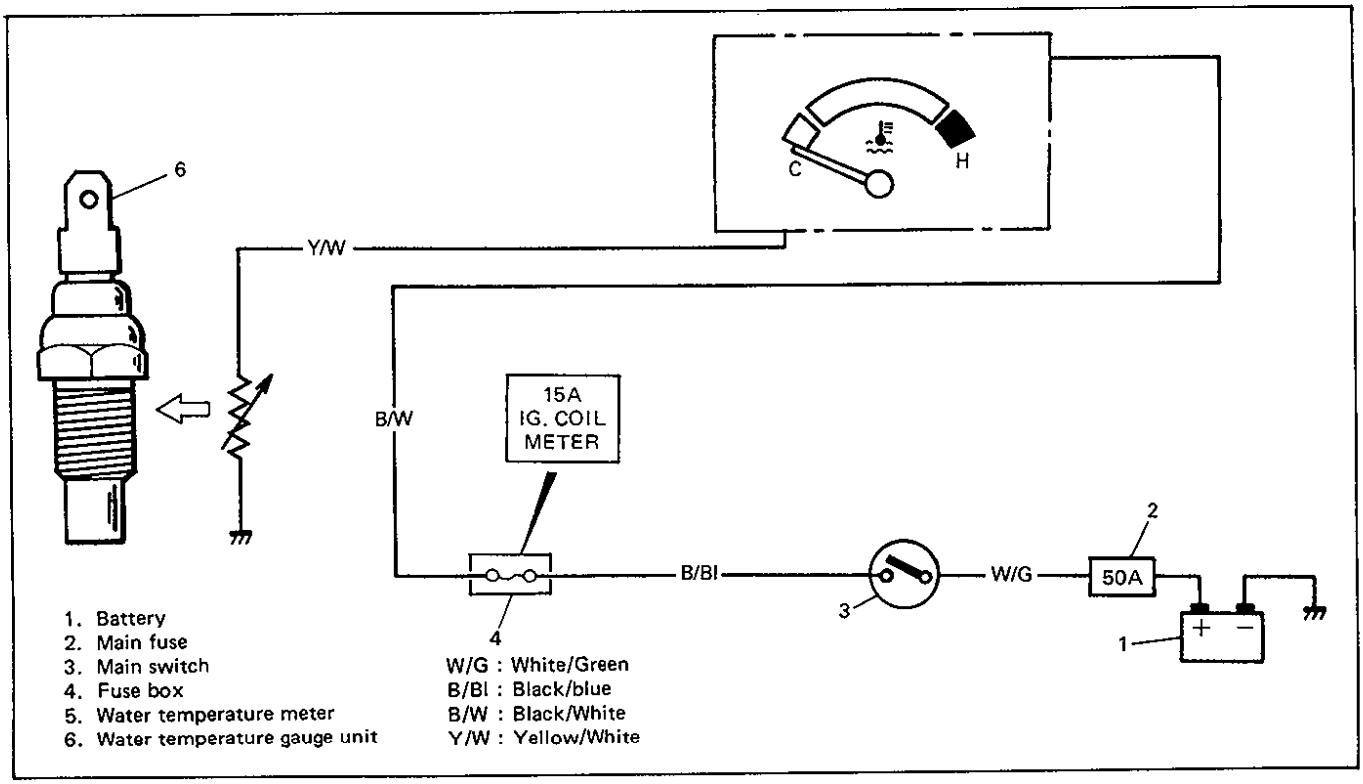

Fig. 8-15 Water Temperature Gauge Circuit

Inspection

WATER TEMP. METER

1. Disconnect Y/W (Yellow/White) lead wire going to gauge unit installed to intake manifold.
2. Use a bulb (12V 3.4W) in position to ground above wire as illustrated.
3. Turn main switch ON. Confirm that bulb is lighted with meter pointer fluctuating several seconds thereafter.
   If meter is faulty, replace it.

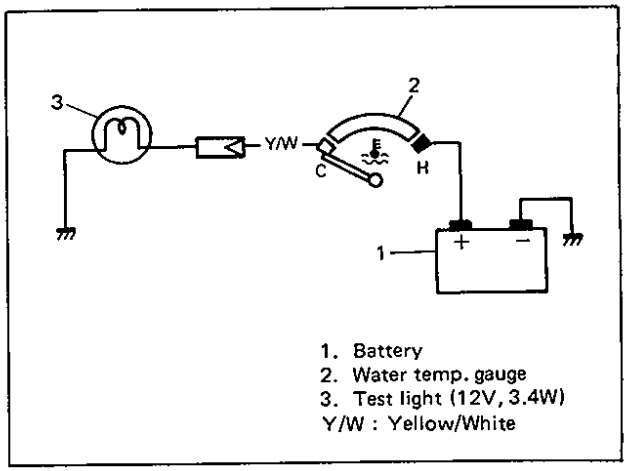

Fig. 8-16 Checking Temperature Gauge

GAUGE UNIT

Warm up gauge unit. Thus make sure its resistance is decreased with increase of its temperature. Temperature and resistance relationship can be plotted in a graph as shown below.

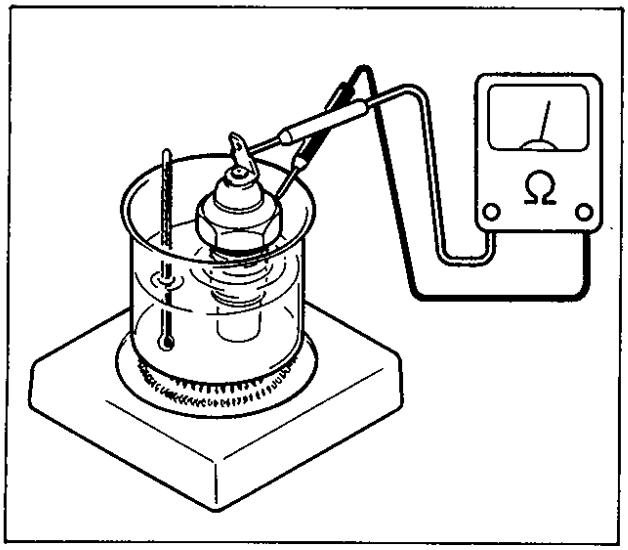

Fig. 8-17

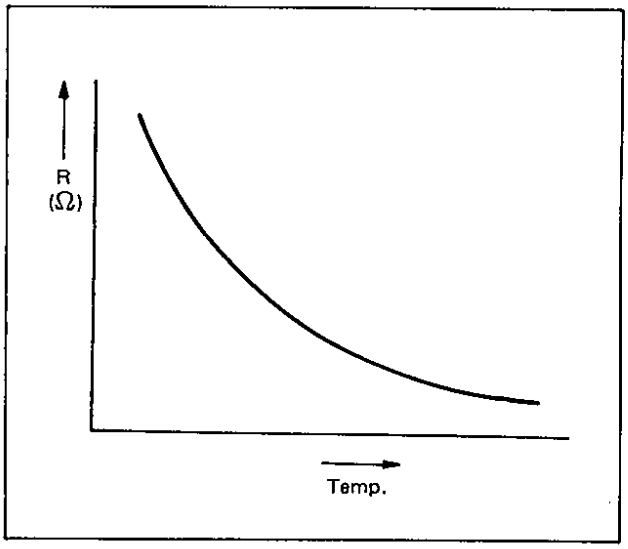

Fig. 8-18 Resistance-Temp. Relationship

Temperature	Resistance
50° C (122° F)	133.9 – 178.9 Ω
80° C (176° F)	47.5 – 56.8 Ω
100° C (212° F)	26.2 – 29.3 Ω

Temperature	Resistance
50° C (122° F)	189.4 – 259.6 Ω
80° C (176° F)	66.3 – 84.5 Ω
100° C (212° F)	36.0 – 43.8 Ω

NOTE:

There are 2 types of gauge unit. For replacement, check which type has been used and make sure to use a new one of the same type.