

SHIFTWORKS Gauge Installation The Electronics Conundrum

FUEL GAUGE

1. The fuel gauge is designed to accept the factory plug from your existing wire harness. It should just plug in. The spades can be moved slightly if necessary by loosening the nuts holding them to the studs. The pink wire in your harness is the hot wire, and the Tan wire is from the sending unit in the gas tank.
2. The gauge is a standard 90 OHM gauges, as was the factory gauge. At 45 Ohms it will read half full.
3. Fuel Gauge at 0 OHMS [Empty]



4. Fuel Gauge at 45 OHMS. [Half]



5. Fuel Gauge at 90 OHMS [Full]



6. Fuel Gauge ...No Signal from sending unit ... The Pointer travels up past Full and out of sight.



7. Fuel Gauge... No Ground... Looks like Zero or Empty.



BATT (Battery) GAUGE

1. This is EITHER an Ammeter (S505) or a Voltmeter (S505-V).



How to tell the difference with visual inspection? The Ammeter is on the Left, and the Voltmeter on the Right. Notice that the ammeter pointer centers at rest, and the voltmeter pointer drops below the bottom picket. On the back side the ammeter has two Hot wires that are both insulated from the case, while the voltmeter is pre-wired off the fuel gauge and grounded to the case.

2. AMMETER

- a. The factory (GM) installed ammeters that are known as Shunt Meters. They are wired in parallel to the Battery Charging wire. They measure the Flow of Current in and out of the Battery. EARLIER Ammeters and many Aftermarket Ammeters measure the total Amperage and are wired in series with the cars charging system. These older style Ammeters are a different creature and if you wire up a Shunt Meter that way you will burn it up!!! AND MAYBE MORE!!
- b. The SHIFTWORKS ammeter is wired EXACTLY as GM wired it on the 66-67 Chevelle. Follow the wiring diagram provided.
- c. The top post on the gauge (marked in RED) is wired to the Horn Relay.



- d. The bottom post on the gauge is wired to the Junction Block, located on the Radiator Support by the Battery.



- e. The Ammeter is wired in parallel to the battery charging wire. This wire is a 10 Gauge RED wire that runs from the junction block to the horn relay.

3. VOLTMETER

- a. The Voltmeter option LOOKS exactly like the ammeter, when installed in the dash. This is because we are trying to replicate the look of the Factory Gauges. Since they never made a Voltmeter....we pretend that it's an ammeter.
- b. The voltmeter is pre-wired, so it needs no other wiring.
- c. The Voltmeter measure the Force of the Current, or the strength of the charging system.
- d. At 14 Volts the Gauge will appear as shown on the right.



On the left is an ammeter gauge shown at rest....or when the battery is charged [Normal Driving].

TEMPERATURE GAUGE

1. The Temperature Gauge needs power. A Jumper wire is provided to get power from the Fuel Gauge.
2. It also needs a signal from the new sending unit. This wire must be run directly from the sender to the gauge. The idiot light wire ran through the ignition switch, and this will not work with the new gauge.
3. Temperature Gauge at 180 degrees.



4. Temperature Gauge HOT 250+ degrees



5. Temperature Gauge No Signal from Sender.



6. Temperature Gauge No Ground. Pointer moves up and out of sight.



OIL PRESSURE

1. The Oil Pressure Gauge is designed to mimic the factory gauge. The factory gauge reads about half at 35 pounds pressure.



Zero Pounds

35 Pounds



SHIFTWORKS 35 Pounds

2. At about 50 Pounds the Factory Gauge just stops registering. The SHIFTWORKS Gauge will continue to travel out of sight.



60 Pounds

80 pounds