

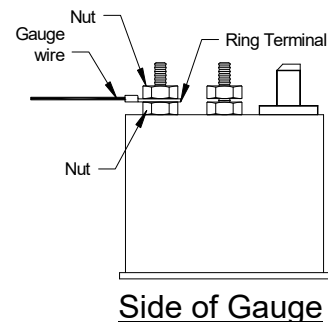
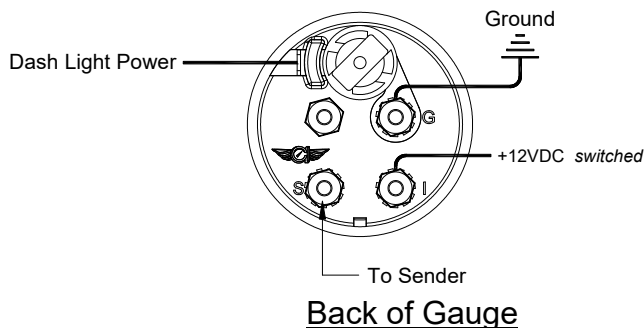
## 2 1/8" Gauge Installation

- 1) Make sure you have sufficient clearance (2 1/2") behind the panel where you intend to mount the gauge.
- 2) If necessary, cut a 2.125" hole in the dash panel at the desired location.
- 3) Fit the mounting bracket over the mounting studs ("O" and "G") of the gauge. The legs of the bracket may be shortened if required.

### 2 1/8" Gauge Wiring

- 1) Always disconnect the ground lead from the vehicle battery before wiring any gauge.
- 2) Connect the sender to terminal "S" on the back of the gauge.
  - a. Volt gauge: no sender is required. **DO NOT connect any wire to the "S" terminal of a volt gauge. The "S" terminal has been intentionally removed on most gauges to help prevent damage.**
  - b. Water Temperature gauge: connect the top terminal of a Classic Instruments temperature sender to the "S" terminal on the back of the gauge.
  - c. Oil Pressure gauge: connect the top terminal of a Classic Instruments oil pressure sender to the "S" terminal on the back of the gauge.
  - d. Fuel gauge: connect the top terminal of a Classic Instruments fuel sender (or signal terminal of an OEM fuel sender if matching gauge was ordered) to the "S" terminal on the back of the gauge.
  - e. Transmission Temperature gauge: connect the top terminal of a Classic Instruments temperature sender to the "S" terminal on the back of the gauge.
  - f. Oil Temperature gauge: connect the top terminal of a Classic Instruments temperature sender to the "S" terminal on the back of the gauge.
- 3) Connect a good ground to terminal "G" on the back of the gauge.
- 4) Connect a switched +12VDC power source to terminal "I" on the back of the gauge.
- 5) Connect dash light power to the spade connector "L" on the back of the gauge.

### 2 1/8" Fuel, Oil Pressure, Temperature and Volt Gauges



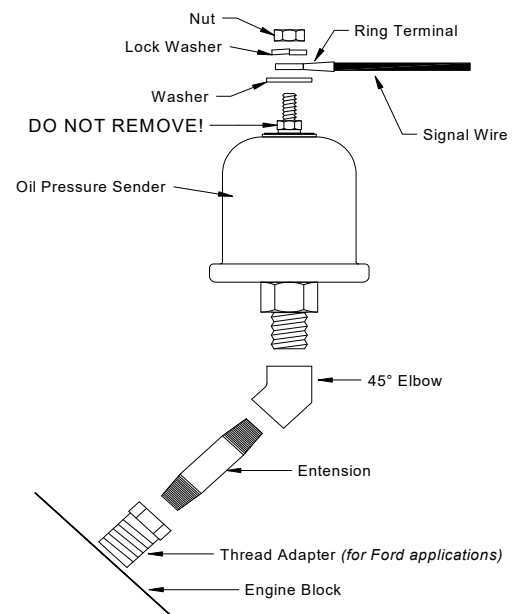
### Oil Pressure Sender Installation

(Part No. SN52)

- 1) Disconnect battery before installation.
- 2) Only install Classic Instruments sending units when the engine is COLD.
- 3) DO NOT use Teflon tape on the threads. These threads are slightly tapered and designed to be self-sealing. The sender uses the threads for its ground connection and sealant may cause a poor ground causing inaccurate readings

**GM Installation:** The correct location on most GM V8-engines to install the oil pressure sender is under the distributor housing at the rear of the block.

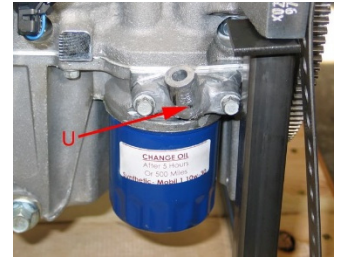
Use the 2 piece bushing kit provided to allow the sender to be mounted at a 45-degree angle pointing towards the driver's knees. This allows the sender to clear the back of the intake manifold, the underside of the distributor housing and also the firewall.



**GM Installation – Big Block Engines:** We do NOT recommend installing Classic Instrument’s oil pressure sender in the opening located just above the oil filter on some big block GM engines. This location may not be a full-pressure passage but instead a “by-pass” oil passageway. Installing our pressure sender at this location may result in some strange low-pressure readings under certain driving conditions. This does not indicate a defective instrument or sender! It simply means you need to move the sender to the correct location.

**GM Installation – LS Engines:** Install the sender in the oil bypass housing located just above the oil filter. The housing will need to be drilled and tapped to 1/8”NPT.

**FORD Installation:** Install the Classic Instrument’s oil pressure sender in the Ford V-8 block using the brass bushing kit (all three pieces) provided. These bushings allow the pressure sender to be installed between the motor mount and stock fuel pump. Ford also manufactures a pressure sender extension and if your engine has one of these in place, our brass bushing kit will not be required.

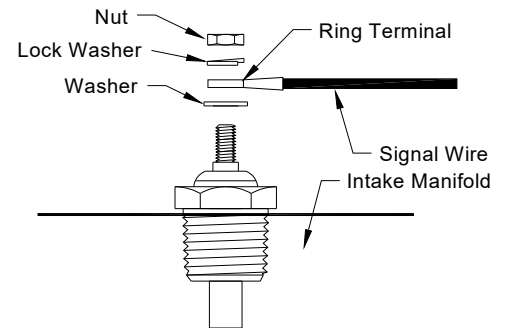


LS1 Oil Bypass Housing

## Temperature Sender Installation

(Part No. SN12MM, SN22, SN23, SN24 & SN25)

- 1) Disconnect battery before making any connections.
- 2) Install the Classic Instrument’s temperature sending unit only when the engine is COLD!
- 3) DO NOT use Teflon tape on the threads. These threads are slightly tapered and designed to be self-sealing. The sender uses the threads for its ground connection and sealant may cause a poor ground causing inaccurate readings
- 4) Install the temperature sender into the intake manifold of your engine as possible. Installing the sender in the engine cylinder head may cause inaccurate temperature readings.
  - a. On GM “LS” engines, the temperature sender mounts on the passenger side of the engine under the rear cylinder. A 12mm thread sender is available to fit this location.
- 5) Connect a wire from the top terminal of the temperature sender to the indicated signal/sensor post on the back of the temperature gauge.
- 6) Tighten until snug. DO NOT OVER TIGHTEN!



**Notice:** Avoid installing the temperature sender into the head of a late-model GMC engine. Even though the stock GMC sender may have been installed there, this opening is too close to the exhaust header and will most likely cause an improper reading.

## VW Oil Temperature Sensor Kit

VW-type oil temperature sensor kits include sender, metric adapter plug and VW sealing gasket. Install without modification into the oil pressure relief plug opening found on most air-cooled 1960’s-type (flat-four air-cooled) VW engines. *Not for installation in the oil-drain plug opening!*

Most VW experts agree the oil pressure relief plug opening in the engine block behind the rear cylinder on the driver’s side (U.S. left-hand drive) is a better choice for oil temperature sensor location than installing in the dip-stick tube or in the oil pan drain opening.

## Oil Pan Temperature Sensor

The temperature of the engine oil in the oil pan can be monitored with our oil temperature sender and gasket. Sender replaces stock drain plug (1/2 – 20 thread) on most GM and Ford engines.

## Transmission Temperature Sensor

Classic Instruments recommends monitoring the transmission fluid temperature from the transmission pan. You may need to drill and mount a weld-in bung in your pan to install the temperature sender.

In line transmission temperature manifolds are also available for mounting the temperature sender. However, some transmission companies have stated you may get higher than normal readings if an in-line manifold is used.

Transmission fluid temperature should be kept under 210 degrees. At 230 degrees, the fluid breaks down and the clutches start to glaze resulting in transmission failure.