INSTALLATION INSTRUCTIONS

DIESEL EXHAUST PRESSURE GAUGES

2650-1700-00

Installation

1. The 2 1/16" gauges may be mounted in a 2 1/16" diameter hole. The hole may be either a hole in the dash, a gauge panel or an Auto Meter Gauge Pod. (It is best to connect all wiring to the gauge before mounting it into the gauge hole.)
2. Follow the diagram below to connect 12 volt lighting.

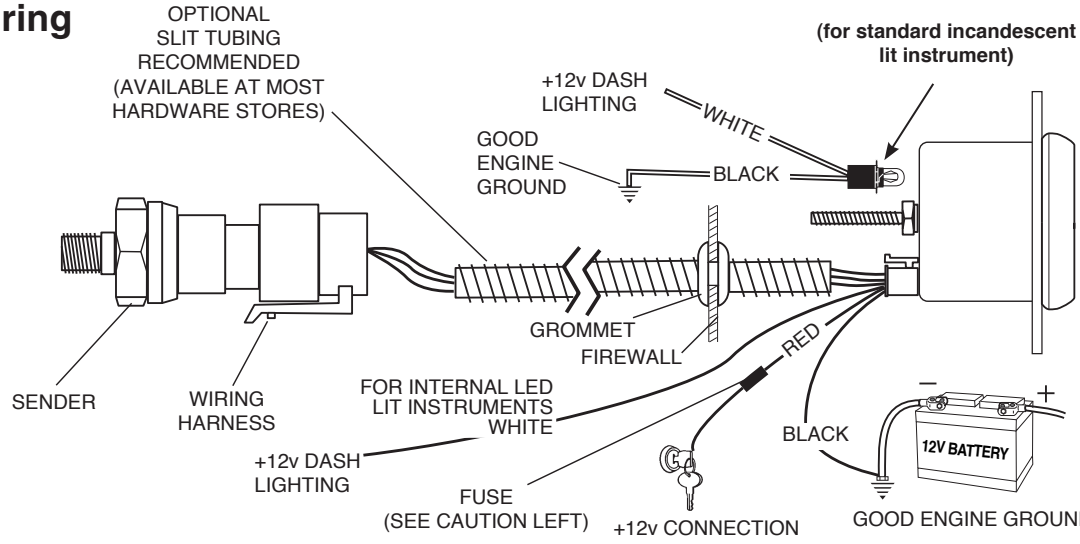
Power-Up

The pointer will move backward to the stop pin and then move to the zero box. This procedure is an auto-calibration function and is performed on every power-up. While this test is being performed, the gauge may make a clicking sound. This is normal.

Exhaust Particle Trap Recommendation

To extend the maintenance period on the copper coil, Auto Meter recommends the installation of the Diesel Particle Trap kit, model #5375. The Diesel Particle is inserted between the copper tubing and either the FSE pressure sensor or the nylon tubing used on the mechanical gauge. The trap provides an expansion chamber for the soot particles to collect, similar to a dust collector. It also incorporates a z brass snubber to minimized pressure spikes at the pressure sensor or mechanical gauge. It is easy to open for removing accumulated soot.

Wiring

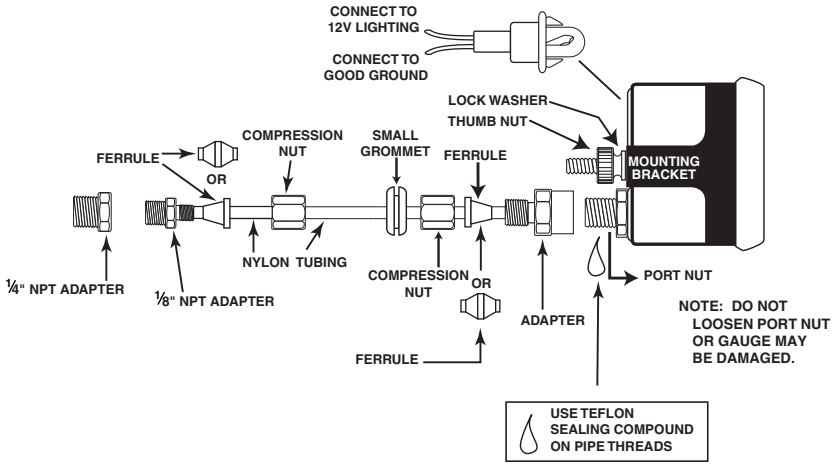


CAUTION!

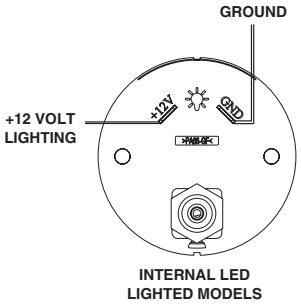
As a safety precaution, the +12V terminal of this product should be fused before connecting to the 12V ignition switch. We recommend using a 3 Amp, automotive type fuse.

NOTE: When the ignition is off the pointer may not always rest at zero.

Mounting and Connecting Mechanical Gauges



NOTE: DO NOT OVER TIGHTEN ADAPTER FITTING OR GAUGE MAY BE DAMAGED.



1. Gauges may be mounted in In-dash holes, or in Auto Meter custom mounting Solutions. Secure gauge with mounting clamps supplied. 2-1/16" gauges mount in 2-1/16" diameter hole.
2. Drill 3/8" dia. holes and install rubber grommet where pressure line passes through sheet metal, such as firewall.
3. Attach nylon pressure line to fitting on back of gauge using adapter, ferrule, and compression nut as shown in diagram above. Route line through grommet Connect the nylon line to the coiled copper tube attached to the exhaust manifold using 1/8" connector.
4. Make sure line is free from hazard of moving parts or hot engine components. It is recommended that Auto Meter 3224 copper tubing kit be used where a potential hazard exits.
5. Start engine and thoroughly check installation for leaks.
6. Twist in light socket assembly and connect one wire to dash lighting circuit or other 12V power source and the other wire to a good ground.

Copper Coil Installation

When connecting to the exhaust manifold, it is necessary to prevent the extremely hot gases from entering either the 1/8" nylon tubing (mechanical versions) or the pressure transducer (FSE versions). To adequately cool these gasses, a 6 foot length of coiled 1/4" copper tubing and the necessary fittings are provided. This tubing is to be connected to the exhaust manifold collector.

Use the stainless steel 1/4" tube to 1/8" NPT fitting to make the connection at the manifold. Drill into the cast iron manifold with a 5/16" letter R (0.339) drill bit and follow through with a 1/8" NPT pipe tap. Mount the stainless steel to the exhaust manifold (see fig. 1).

Carefully form the copper tubing (be careful not to kink the tubing) and connect one end in the stainless steel fitting. The tubing should be formed to a shape that allows the other end to be near a point to which it can be secured mechanically (i.e. with a strap, bracket, etc.).

A. Mechanical Version:
Once the copper tubing has bee mounted, connect the 1/8" nylon tubing to the copper tubing using the 1/4" tube to 1/4" NPTF fitting, the 1/4" to 1/8" reducer, and the 1/8" fitting (see fig. #1). To prevent vibrations, secure the copper/nylon tubing to something solid with strapping.

B. FSE Version:
Once the copper tubing has bee mounted, connect the Pressure Sender to the copper tubing 1/4" tube to 1/4" NPTF fitting and the 1/4" to 1/8" reducer (see fig. #2). To prevent vibrations, secure the pressure sender to something solid with strapping, or fabricate a bracket as a mount

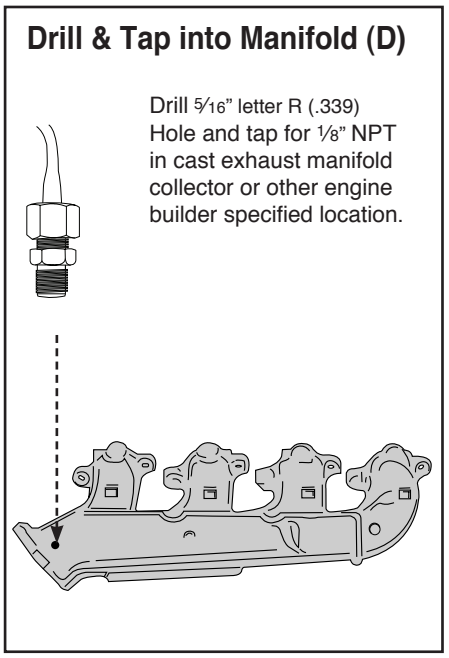
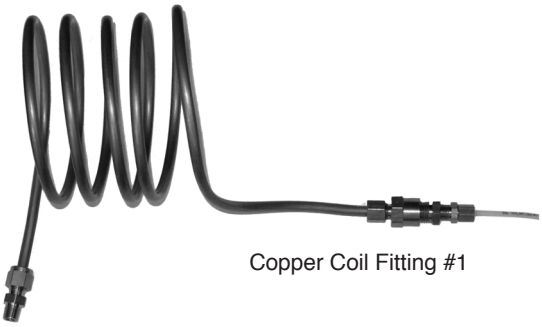
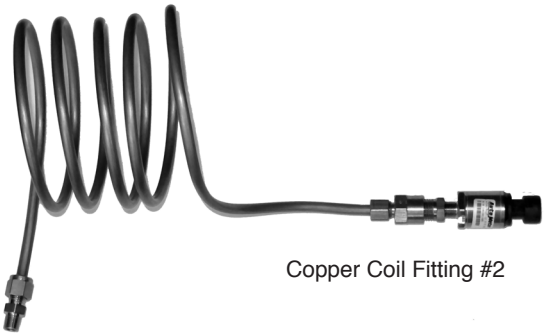


Figure 1



Copper Coil Fitting #1



Copper Coil Fitting #2

Diesel Exhaust Considerations and Installation Maintenance

The pressure in the exhaust system is constantly varying in normal operating conditions. While there is not a “flow” of exhaust gases through the copper tubing, the compression and expansion of the exhaust gases within the tubing will cause some migration of diesel exhaust particulates (soot) into the tubing. Over time these particles may build up to a point that will interfere with proper operation of the gauge (both Mechanical and FSE versions).

For this reason, periodic maintenance of the copper tube is required. It is recommended the copper tube be monitored for build up. To check for build of soot, loosen and remove the 1/4" tubing at the gauge end of the coil. If there is noticeable build, use an air hose to blow air through the coil back into the exhaust manifold. Re-connect the copper tubing.

The frequency and need for the copper tube maintenance will vary. Factors affecting the build up are miles driven, type of driving, etc. If the engine is considered a “smoker”, close monitoring and more frequent maintenance will be required.

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