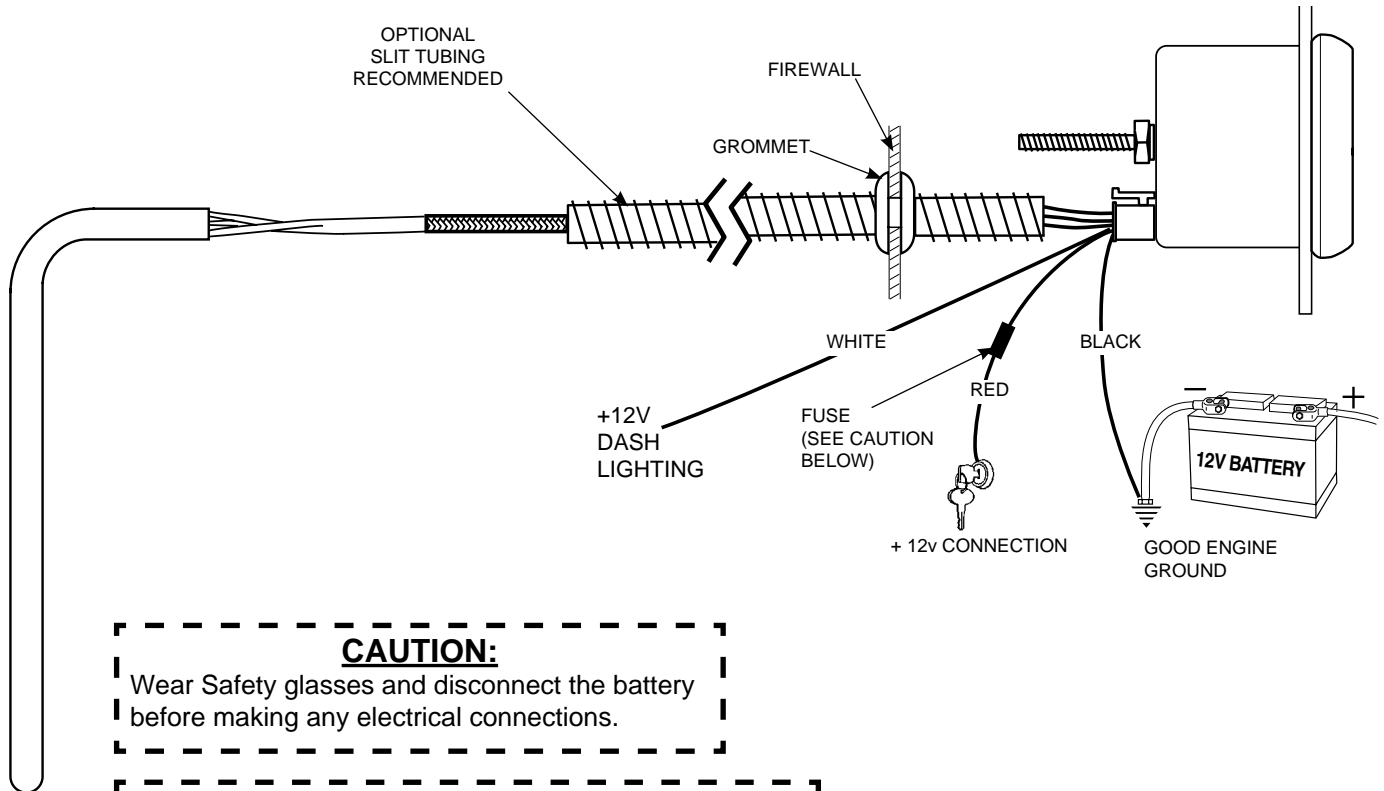


PROFESSIONAL STEPPER-MOTOR ANALOGUE EXHAUST GAS TEMPERATURE GAUGE



Important

Exhaust Gas Temperature gauges (Pyrometers) are sensitive, high accuracy instruments. They must be handled and installed with care to insure proper performance. Carefully read and follow these instructions, and your exhaust gas temperature gauge will provide you with a long and accurate life.



CAUTION:
Wear Safety glasses and disconnect the battery before making any electrical connections.

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 1 Amp, 3AG fast-acting type cartridge fuse.

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

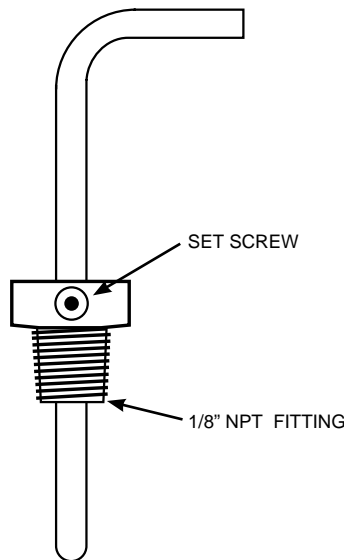
Installation

1. Check that you have all parts required for installation, and the engine is cool.
2. Disconnect the negative (-) battery cable.
3. Gauge mounts in a 52.4mm hole. Use supplied brackets and nuts to secure gauge to dash.
4. Drill 25.4mm diameter hole where sensor passes through sheet metal (such as firewall) and install rubber grommet provided. (Grommet will require slit.)
5. Connect the white wire to dash lighting or switchable 12V light source, black wire to a good engine ground, and red wire to a switched +12V power source.
6. Reconnect negative (-) battery cable.

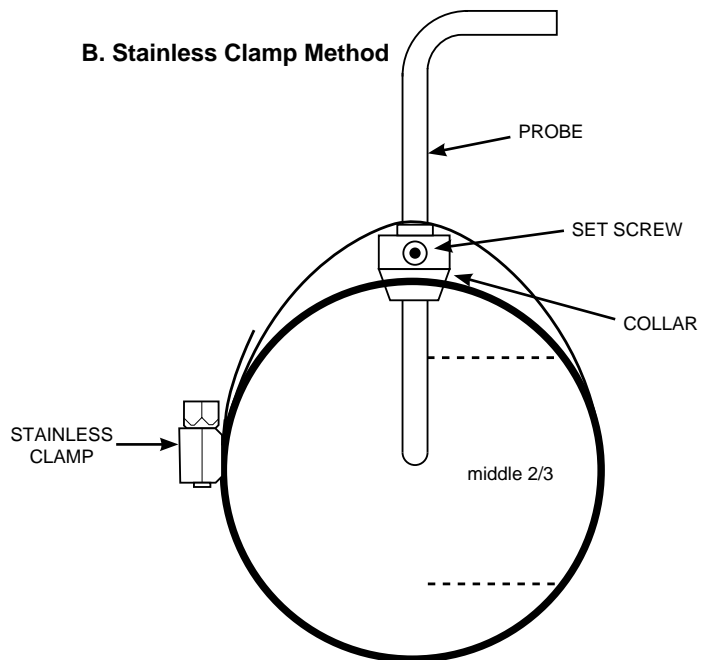
Probe Installation

1. Begin by installing the thermocouple in the exhaust, then work back to the gauge. Installing the probe in the proper location will ensure optimal temperature readings. For non-turbo engines, install the probe 25mm-50mm from the cylinder head. For turbo engines, remove the exhaust manifold and install the probe 25mm-50mm from the cylinder head. If the exhaust manifold cannot be removed, install the probe 25mm-50mm after the turbo exhaust outlet (Exhaust gas temps could drop over 100°C when installing after the turbo). **CLEAN ALL METAL FILINGS** out of the exhaust manifold. Metal filings will damage the turbo impeller if they go through the turbo.
The probe can be mounted in two different ways, so please use the method best suited for your needs.
 - A) Pre-existing 1/8" NPT Threaded Hole: Simply screw the threaded fitting into the hole, insert the probe, and tighten the set screw snugly onto the probe. (Caution: do not over tighten set screw or damage to probe may occur.) Make sure the probe is oriented so the wires do not come in contact with, or become too close to the manifold or other hot engine parts. See illustration below for details.
 - B) Stainless Clamp Method: This method is for applications that require frequent removal of the manifold or header for service, or just faster and easier installation. Drill a 11mm diameter hole approx. 150mm down from the junction of the exhaust pipe to manifold junction. Undo the clamp and slide the probe into the hole in the clamp. Slide the set screw collar onto the probe. Before tightening the collar in position make sure that when inserted, the probe will have its tip in the middle two-thirds of the exhaust stream. Tighten screw collar in position. (Caution: do not over tighten set screw or damage to probe may occur.) Hold the clamp open when inserting the probe into the 11mm hole. Re-join the clamp ends and tighten in position. Make sure the probe is oriented so the wires do not come in contact with, or become too close to the manifold or other hot engine parts. See the illustration below for details.
2. With the probe installed, the wire harness can now be routed to the gauge. The wire harness is an integral part of the pyrometer calibration. It may not be shortened or lengthened without affecting the gauge calibration. You will need to determine a suitable location to coil the excess wire, and tie it loosely with a wire tie. (Loosely tying the excess coil prevents embrittlement caused by vibration.) Pass the harness through the fire wall using an existing hole, or drill a 25.4mm diameter hole and use the rubber grommet provided to protect the wire from damage.

A. Pre-existing 1/8" NPT Threaded Hole



B. Stainless Clamp Method



Power-Up

The pointer will move backward to the stop pin and then display actual temperature. 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.
