



Perma Industries Incorporated
400 South Rockefeller Avenue • Ontario, CA 91761-8144 USA
Tel 909.390.1550 • Fax 909.390.1551
www.perma-cool.com

Installation Instructions

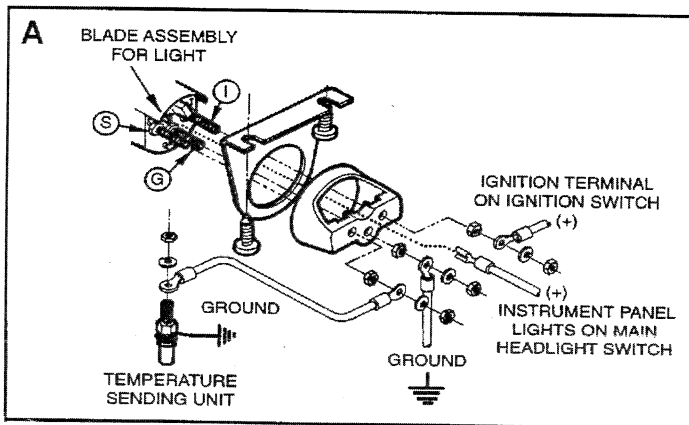
This guide covers the following Item Number:
15106

Congratulations, you have made a wise decision. Thank you for purchasing our product.

Fluid or Oil Temperature Gauge System

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

Standard dashboard warning lights, commonly called idiot lights are rarely accurate. Many vehicles do not have an adequate means of monitoring the oil or fluid temperature of the engine, and/or transmission. With our gauge system, you will be able to observe at all times the temperature of your oil or fluid.



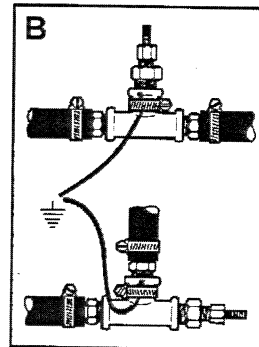
Locate a convenient place to mount the gauge using the bracket and screws provided. If a custom installation is desired, use the mounting bracket as a template for the hole to be cut. Make all electrical connections according to Illustration A. If there is only one wire from the indicator light, the unit must be grounded. To replace the light bulb, twist socket assembly counterclockwise and remove.

Always use Teflon® tape or appropriate sealer on all tapered fittings. Install the correct hosebarb fittings in the "T" fitting. Tighten to 28 ft. lbs. (38 Nm), do not over-tighten. **CAUTION:** The correct fittings **MUST** be used in this system. The larger barbed fittings are for use when installing as an engine oil temperature gauge. The smaller barbed fittings are for transmission gauge installation **ONLY!** Never use the smaller fittings for engine oil applications. If you are installing this system with stainless steel braided lines, then -6AN is used for transmission applications, while -8 or -10AN is used for engine applications. Next, install the temperature sending unit into the "T" fitting (use a reducer bushing if necessary). Secure with hose clamps positioned 1/8" (4mm) from the ends of hose. Do not over tighten the clamps. The proper tension is when the hose surface bulges up slightly through the slots in the bands. Refer to illustration B.

INSTALLATION WITH AN ENGINE OIL COOLER AND/OR OIL FILTER SYSTEM

Install the prepared "T" in-line between the engine and the cooler coil and/or remote oil filter. Make sure that this is the supply (pressure) line. The line that comes from the "OUT" port of the engine oil adapter is the supply line. If the remote oil filter mount in your system has two inlet and two outlet ports, it is preferred to install the sending unit with a reducer bushing into the extra "IN" port instead of interrupting the lines elsewhere. Install the sending unit into a reducer bushing - usually 1/8" NPT (int.) x 1/2" NPT. Reducer bushing not supplied with system, but can be purchased separately.

INSTALLATION WITH A TRANSMISSION OIL COOLER AND/OR EXTERNAL FLUID FILTER SYSTEM



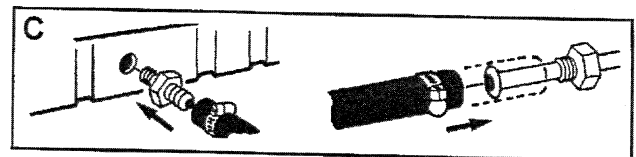
To install gauge system for transmission in conjunction with a transmission fluid cooler system or external filter system, determine which is the pressure (supply) line. There is only ONE correct way to install this product. You must determine the correct direction of flow. **Failure to follow all instructions may restrict fluid flow entirely and result in severe damage or failure to your transmission!** To determine the pressure (supply) line: disconnect the electrical coil wire from the ignition coil. Disconnect BOTH transmission lines at the radiator, not the transmission.

Place a plastic bag over the end of each line, secure in place with a rubber band. Crank engine over once or twice - the disconnected coil wire will prevent the engine from starting. Observe the two transmission lines; the one with the fluid is the pressure (supply) line. Place the prepared "T" in-between the transmission and the fluid cooler coil and/or external filter in the supply line. Reconnect the transmission lines. Reconnect the coil wire to the ignition coil.

INSTALLATION WITH NO TRANSMISSION FLUID COOLER AND/OR EXTERNAL FLUID FILTER SYSTEM

If using gauge system for transmission without a transmission fluid cooler system or external filter system, and there is no threaded port to accept the sensor, install as follows. There is only ONE correct way to install this product. You must determine the correct direction of flow. **Failure to follow all instructions may restrict fluid flow entirely and result in severe damage or failure to your transmission!** To determine the pressure (supply) line: disconnect the electrical coil wire from the ignition coil. Disconnect BOTH transmission lines at the radiator, not the transmission. Place a plastic bag over the end of each line, secure in place with a rubber band. Crank engine over once or twice - the disconnected coil wire will prevent the engine from starting. Observe the two transmission lines; the one with the fluid is the pressure (supply) line. The included special brass fitting is installed into the pressure (supply) line side of the internal transmission cooler in the radiator (see illustration C). Slide the nut back on the transmission line and using the hose supplied, install the "T" fitting (prepared as directed above) into the system. Reconnect the transmission lines. Reconnect the coil wire to the ignition coil.

CAUTION: Avoid hot exhaust pipes, or headers. **DO NOT BEND** the hose sharper than a 5 inch radius. Secure hoses with clamps or tie-straps if necessary. Start engine and immediately check for leaks. Add fluid or oil as necessary. After installation, operate vehicle in a normal manner for a day or so. Recheck all fittings and clamps for proper tension. Retighten if necessary.



For additional accessories or replacement parts
visit www.perma-cool.com