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# Installation Instructions

This guide covers the following:

Maxi-Cool™ & Maxi-Cool™ Junior Coolers

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

## Maxi-Cool™ Engine/Transmission & Maxi-Cool™ Junior Transmission Coolers

### IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

Your new Maxi-Cool™ or Maxi-Cool™ Junior Cooler Coils, by Perma-Cool®, when properly installed, will help to keep your vehicle in its optimum operating temperature range. This results in both longer and better performance for vehicle. The Maxi-Cool™ coils were designed to meet the needs of today's rising demand for increased cooling. These coils offer the most efficient cooling available today, and can be used for a variety of applications. Some of these include: transmission fluid, engine oil, power steering, gear lube, fuel cooler, or any combination. For extreme high load or severe conditions applications, use the electric fan/cooler coil system.

Install the selected fittings into the cooler coil. Use Teflon® tape or appropriate sealer on all fittings used in the cooler coil. Tighten fittings, maximum torque is 28 ft. lbs. (38Nm), do not over-tighten. If coil has AN fittings, do not use any sealer on threads. **ALWAYS USE A BACKUP WRENCH ON THE COIL** (See illustration A & B).

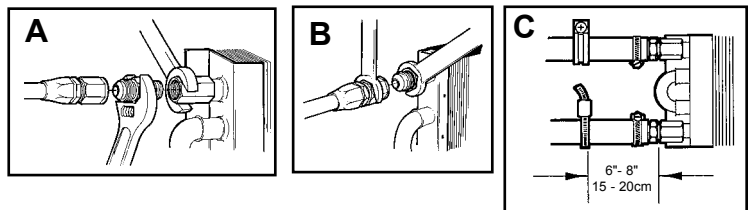
#### Maxi-Cool™ & Maxi-Cool™ Junior HIGH EFFICIENCY COOLER COIL / ELECTRIC FAN UNIT

The cooler coil relies on air moving over and through its fins to extract the heat from the oil or fluid. The unit can be mounted in any location, however, its location directly affects its efficiency. Maxi-Cool™ Six Pass Coolers can use P/N 107 (Transmission) or P/N 108 (Engine) Mounting Systems for an easy installation. Maxi-Cool™ Dual Circuit Coolers require P/N 107 AND P/N 108 Mounting Systems for a complete installation. Maxi-Cool™ Junior Coolers come with mounting brackets, P/N 107 is recommended for a complete and easy installation. Mount the coil/electric fan unit to the vehicle with securely. Allow sufficient space around unit to assure good air flow. Naturally the coil should be protected from flying objects and contact with any other moving parts. When mounting the coil to the vehicle, consider the length of the hose or stainless steel braided line that you will be working with. Avoid placing near the exhaust system, as this will minimize the cooling efficiency. Complete installation by plumbing hoses or braided lines. If using hose, be sure that it is suitable for 300°F (149°C) and 250 lbs. pressure. The MINIMUM sizes to use are 1/2" (13mm) for engine oil, and 5/16" (8mm) for automatic transmission fluid. Always support hoses or lines about 6" to 8" (15cm to 20cm) from inlets to avoid unnecessary fatigue (see illustration C). If coil is to be mounted where excessive vibration is expected, then use rubber pads to help absorb the vibration. Automatically engage the electric fan using one of Perma-Cool's wiring systems. See below for part numbers. Wire the fan according to the wiring system instruction schematic. Be sure to fuse fan with a 25A amp fuse. The fans are intended to PUSH air through the coils, NOT pull through — in excessive conditions, the extremely hot air could distort, warp, or melt fan blade. Verify that the air flow is flowing in the correct direction. If not, reverse the motor wires.

**CAUTION:** Before driving vehicle, be sure to verify ALL nuts, bolts, screws, and fittings for tightness. Start engine and check for leaks. Turn off engine and add oil or fluid as necessary.

Typical mounting ideas and locations include: motorhomes, under the coach; dragsters or hotrods, near transmission; stock cars, inside protected areas; dwarf cars, as a radiator or oil cooling. These coils are protected by U.S. PATENT No. 4,190,105 & U.S. PATENT No. 3,828,412.

Electric Fan Wiring Systems, replacement hose, fittings and additional accessories/parts are available. Visit [www.perma-cool.com](http://www.perma-cool.com)



#### Accessories available:

- 104 Metal Mounting Strap System
- 107 Transmission Cooler Mounting System
- 108 Engine Cooler Mounting System
- 130 Replacement Oil Hose 1 1/2" x 4' (9mm x 1.2M)
- 132 Replacement Oil Hose 1/2" x 11 1/2' (13mm x 3.5M)
- 10601 Remote Fluid Thermostat System 3/8" NPT (int.) ports
- 10701 Remote Oil Thermostat System 1/2" NPT (int.) ports

- 19001 Wiring System (with non-adjustable thermostat)
- 19003 Wiring System (Thermal Switch)
- 19005 Wiring System (Threaded Thermal Sensor)
- 19007 Wiring System (with non-adjustable thermostat)
- 18905 Wiring System (Probe type with adjustable thermostat)
- 18907 Wiring System (Threaded Sensor w/ adjustable thermostat)
- 18899 -6 AN In-line Thermal Switch
- 18900 3/8" NPT (int.) In-line Thermal Switch