



www.perma-cool.com

Installation Instructions

This guide covers the following:

Cooler Coils

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

Oil/Fluid Cooler Coil

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

Your new engine oil/transmission fluid cooler, when properly installed, will keep your oil/fluid in its optimum operating temperature range. This results in longer life and better performance for your engine or transmission. The cooler coil relies upon air moving over and through its fins to extract the heat from the oil/fluid. The coil can be mounted in any location, however, the mounting location of the coil directly affects its efficiency. The coil should be protected from flying objects and contact with any other moving parts. The coil can be placed vertically or horizontally. It can be placed in front of or behind the radiator, although if so, the two should not touch each other, 1/4" (6mm) is adequate.

Install fittings in the cooler coil, if applicable. **Always use a backup wrench on the coil.** If the fittings are tapered pipe (NPT), seal the threads with Teflon® tape or appropriate sealer. If the fittings are AN/SAE, **DO NOT** use any type of sealer on the threads. **MAXIMUM TORQUE** on the fittings is 28 ft.lbs. (38Nm). **DO NOT OVERTIGHTEN.** (See illustration A). When mounting the coil to the vehicle, consider the length of hose or line that you will be working with. The coil can be attached to the vehicle in a

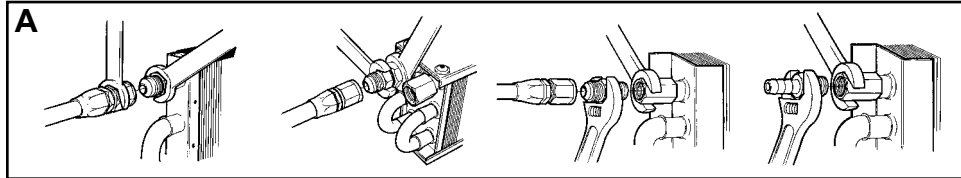
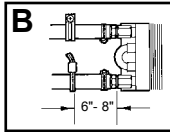
number of ways.

Single Row Coils - Single row coils can usually be attached with nylon tie straps and buttons. If the coil has integral mounting brackets, nuts, bolts, screws, and metal straps may be used.

Double Row Coils - Double row coils have metal tie plates on each end which are held in place by nuts and bolts; metal straps can be attached to the coil at these locations. The tie plate can also be modified and used as a mounting bracket itself. Complete the plumbing of the oil hoses or lines. Always use oil hose suitable for 250°F (121°C) and 250 psi pressure. Use a **MINIMUM** of 1/2" (13mm) / -8AN for engine oil, and 5/16" (8mm) / -6AN for automatic transmission oil. Always support the hoses or lines about 6" to 8" (15cm to 20cm) from the outlets of the coil to avoid unnecessary fatigue (see illustration B).

PERMA-COOL® manufactures a wide variety of quality products, including electric and flex fans; oil filter mounts, adapters and thermostats.

See below for pertinent accessories available or visit www.perma-cool.com



- P/N 103 Metal Mounting Strap System
- P/N 104 Metal Mounting Strap System
- P/N 109 Heavy Duty Metal Mounting System
- P/N 105 Nylon Tie Mounting System
- P/N 130 Replacement Hose 1 1/32" I.D. x 4'
- P/N 131 Replacement Hose 1/2" I.D. x 5'
- P/N 139 Replacement Hose 1/2" I.D. x 8'
- P/N 132 Replacement Hose 1/2" I.D. x 11 1/2'
- P/N 1060 Transmission Fluid Thermostat 3/8" NPT
- P/N 1070 Engine Oil Thermostat 1/2" NPT
- P/N 1071 Competition Engine Oil Thermostat -10 AN
- P/N 15106 Temperature Gauge System

- P/N 15146 Roll Teflon Tape 1/2" x 310"
- P/N 15152 Brass Fittings (2) 3/8" Hose Barb x 3/8" NPT
- P/N 15153 Brass Fittings (2) 1/2" Hose Barb x 3/8" NPT
- P/N 15155 Brass Fittings (2) 3/8" Hose Barb x 1/2" NPT
- P/N 15156 Brass Fittings (2) 1/2" Hose Barb x 1/2" NPT
- P/N 15200 Aluminum Fitting (1) 3/4" NPT x -10 AN
- P/N 15202 Aluminum Fitting (1) 3/4" NPT x -12 AN
- P/N 15260 Aluminum Fitting (1) 3/8" NPT x -10 AN
- P/N 15266 Aluminum Fitting (1) 3/8" NPT x -6 AN
- P/N 15268 Aluminum Fitting (1) 3/8" NPT x -8 AN
- P/N 15280 Aluminum Fitting (1) 1/2" NPT x -10 AN
- P/N 15282 Aluminum Fitting (1) 3/8" NPT x -12 AN
- P/N 15288 Aluminum Fitting (1) 3/8" NPT x -8 AN



www.perma-cool.com

Installation Instructions

This guide covers the following:

Cooler Coils

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

Oil/Fluid Cooler Coil

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

Your new engine oil/transmission fluid cooler, when properly installed, will keep your oil/fluid in its optimum operating temperature range. This results in longer life and better performance for your engine or transmission. The cooler coil relies upon air moving over and through its fins to extract the heat from the oil/fluid. The coil can be mounted in any location, however, the mounting location of the coil directly affects its efficiency. The coil should be protected from flying objects and contact with any other moving parts. The coil can be placed vertically or horizontally. It can be placed in front of or behind the radiator, although if so, the two should not touch each other, 1/4" (7mm) is adequate.

Install fittings in the cooler coil, if applicable. **Always use a backup wrench on the coil.** If the fittings are tapered pipe (NPT), seal the threads with Teflon® tape or appropriate sealer. If the fittings are AN/SAE, **DO NOT** use any type of sealer on the threads.

MAXIMUM TORQUE on the fittings is 28 ft.lbs. (38Nm). **DO NOT OVERTIGHTEN.** (See illustration A).

When mounting the coil to the vehicle, consider the length of hose or line that you will be working with. The coil can be attached to the vehicle in a

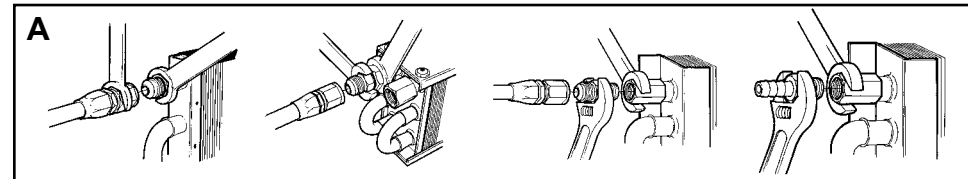
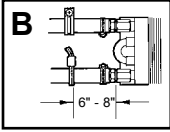
number of ways.

Single Row Coils - Single row coils can usually be attached with nylon tie straps and buttons. If the coil has integral mounting brackets, nuts, bolts, screws, and metal straps may be used.

Double Row Coils - Double row coils have metal tie plates on each end which are held in place by nuts and bolts; metal straps can be attached to the coil at these locations. The tie plate can also be modified and used as a mounting bracket itself. Complete the plumbing of the oil hoses or lines. Always use oil hose suitable for 250°F (121°C) and 250 psi pressure. Use a **MINIMUM** of 1/2" (13mm) / -8AN for engine oil, and 5/16" (8mm) / -6AN for automatic transmission oil. Always support the hoses or lines about 6" to 8" (15cm to 20cm) from the outlets of the coil to avoid unnecessary fatigue (see illustration B).

PERMA-COOL® manufactures a wide variety of quality products, including electric and flex fans; oil filter mounts, adapters and thermostats.

See below for pertinent accessories available or visit www.perma-cool.com



- P/N 103 Metal Mounting Strap System
- P/N 104 Metal Mounting Strap System
- P/N 109 Heavy Duty Metal Mounting System
- P/N 105 Nylon Tie Mounting System
- P/N 130 Replacement Hose 1 1/32" I.D. x 4'
- P/N 131 Replacement Hose 1/2" I.D. x 5'
- P/N 139 Replacement Hose 1/2" I.D. x 8'
- P/N 132 Replacement Hose 1/2" I.D. x 11 1/2'
- P/N 1060 Transmission Fluid Thermostat 3/8" NPT
- P/N 1070 Engine Oil Thermostat 1/2" NPT
- P/N 1071 Competition Engine Oil Thermostat -10 AN
- P/N 15106 Temperature Gauge System

- P/N 15146 Roll Teflon Tape 1/2" x 310"
- P/N 15152 Brass Fittings (2) 3/8" Hose Barb x 3/8" NPT
- P/N 15153 Brass Fittings (2) 1/2" Hose Barb x 3/8" NPT
- P/N 15155 Brass Fittings (2) 3/8" Hose Barb x 1/2" NPT
- P/N 15156 Brass Fittings (2) 1/2" Hose Barb x 1/2" NPT
- P/N 15200 Aluminum Fitting (1) 3/4" NPT x -10 AN
- P/N 15202 Aluminum Fitting (1) 3/4" NPT x -12 AN
- P/N 15260 Aluminum Fitting (1) 3/8" NPT x -10 AN
- P/N 15266 Aluminum Fitting (1) 3/8" NPT x -6 AN
- P/N 15268 Aluminum Fitting (1) 3/8" NPT x -8 AN
- P/N 15280 Aluminum Fitting (1) 1/2" NPT x -10 AN
- P/N 15282 Aluminum Fitting (1) 3/8" NPT x -12 AN
- P/N 15288 Aluminum Fitting (1) 3/8" NPT x -8 AN