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# Installation Instructions

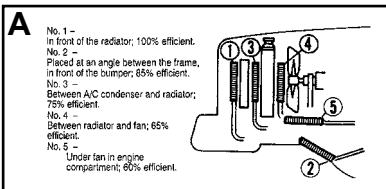
This guide covers the following:

“Spin-On” Style Engine Oil Cooler Systems

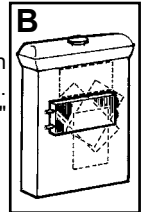
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## “Spin-On” Style Engine Oil Cooler System

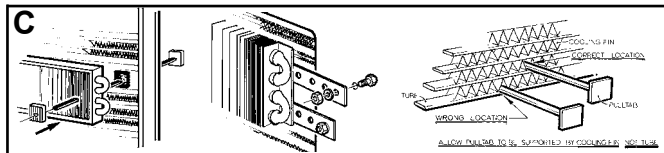
**IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.**



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

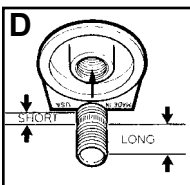


When mounting the coil to the vehicle, consider the length of the hose supplied. Attach the coil with the nylon tie straps and secure with a nylon button on the other end. Place foam pads (and rubber spacer washers, if applicable) between the two coils (see illustration C). If the coil has mounting brackets, you may use nuts, bolts, screws, and metal straps to attach. If additional hose is required, use 1/2" (13mm) I.D. oil hose suitable for 300°F (149°C) and 250 lb. pressure. See below for available lengths.

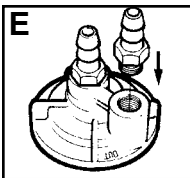


### “SPIN-ON” METHOD

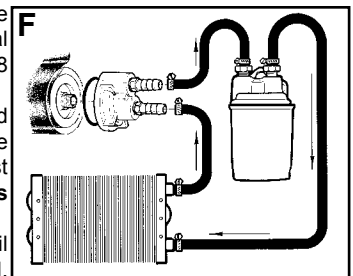
Considering the quantity of hose supplied, locate a convenient location to mount the remote oil filter mount. This may be the firewall, fender, or frame. Install the threaded nipple into the filter mount. Install the shortest end of the nipple into the filter mount (see illustration D). Now attach the mount to



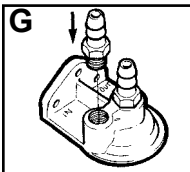
the desired location. Install the hose fittings in the engine adapter, remote oil filter mount, (see illustrations E, & G) and if applicable, the engine oil cooler coil using a backup wrench. Seal the threads with Teflon® tape or appropriate sealer. **MAXIMUM TORQUE** on the fittings is 28 ft.lb. (38Nm). **DO NOT OVERTIGHTEN!**



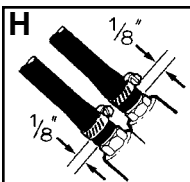
With the engine cool to the touch, remove the oil filter. Wipe the engine sealing surface and filter nipple clean of any dirt or grease. To install apply a thin film of fresh oil to the engine adapter O-Ring. Install the adapter in place of the old filter. Tighten by hand 1/4 turn past O-Ring contact with sealing surface. **Note: An O-Ring MUST be used between all adapters and the engine (see illustration F).**



Install the hose from the “OUT” port on the engine adapter to the “IN” port on the remote oil filter mount. From the “OUT” port of the remote filter mount, route hose to the oil cooler coil. There is no difference between the two outlets on your oil cooler coil. Next finish by routing hose from the oil cooler coil to the “IN” port in the engine adapter (see illustration F). Position the hose clamps 1/8" (3mm) from the ends of the hose and tighten. Do not over tighten the clamps — the proper tension is when the hose bulges up slightly through the slots in the bands (see illustration H).



**CAUTION:** Avoid hot exhaust pipes, manifolds, 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 oil as necessary. After installation, operate the vehicle in a normal manner for a day or so. Recheck all fittings and clamps for proper tension. Retighten if necessary.



**NOTE:** All filter mounts and sandwich adapters utilize a Ford type oil filter. Use the guide below to determine which oil filter to purchase. Some vehicles have extra long oil filter nipples. For these models it may be necessary to cut the nipple at about 5/8" (16mm) from the face of the filter landing. File and remove all chips.  
U.S. Patent Numbers: 4,190,105; 4,335,688; 4,617,702; 5,291,969

**Accessories available:**

- P/N 103 Metal Mounting Strap System
- P/N 105 Nylon Tie Mounting System
- P/N 131 Replacement Hose 1/2" x 5'
- P/N 132 Replacement Hose 1/2" x 11 1/2'
- P/N 15106 Oil Temperature Gauge System
- P/N 81008 Spin-On oil filter 3/4"-16 thread x 5"
- P/N 81043 Spin-On oil filter 3/4"-16 thread x 4 1/4"

Brand Name	Standard Fit	Tight Fit
PERMA-COOL®	81008	81043
AC®	PF2	PF13
FRAM®	PH8A	PH43
LEE®	LF1	LF16
MOTORCRAFT®	FL1A	FL173A
NAPA®	1515	1068
PUROLATOR®	L30001	L14670
WIX®	51515	51068

For additional accessories or replacement parts visit [www.perma-cool.com](http://www.perma-cool.com)