



Perma-Cool® Products
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Installation Instructions

This guide covers the following Item Numbers:
19112, 19113, 19114, 19115, 19117

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

Electric Fan Installation Guide

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

Thank you for your purchase of our product(s). Your new electric fan may be installed in front of the radiator and/or air conditioning condenser coil or behind the radiator. Review the various installation methods to determine the correct location and procedure for your car. Be sure to measure the mounting location for proper clearance of your new electric fan. Leave a minimum of 1" (25mm) clearance from all moving engine parts, and a blade clearance of 1/2" (13mm) to 3/4" (19mm) from radiator core. **All our electric fans are shipped pre-assembled as "pullers". RED motor wire is positive (+), BLACK motor wire is ground (-).**

HIGH PERFORMANCE REVERSIBLE 12", 13", 14", 16", 18" FAN (As a Puller)

Fans mounted in this manner will pull air through the radiator core and achieve maximum efficiency (illustration A).

Remove stock fan. Removal of factory fan shroud is recommended. Install a foam pad on the bottom of each leg of the fan bracket. Attach the fan to the radiator core with the nylon ties and buttons supplied with the kit. For cross-flow radiators, allow the ties to be supported by the radiator fins, NOT the cooling tubes (see illustration D). **For off-road or 4WD vehicles, see NOTE below.** Wire according to the instructions provided with your wiring system. Be sure to fuse fan. A 25 or 30 amp fuse is recommended. Verify that the airflow is flowing in the correct direction. If not, reverse the motor wires.

HIGH PERFORMANCE REVERSIBLE 12",13", 14", 16", 18" FAN (As a Pusher)

Fans mounted in this manner will push the air through the radiator core and achieve 80% of fan efficiency (illustration B).

If used in place of the mechanical fan, remove the stock fan. Remove fan shroud, if desired. Install a foam pad on the bottom of each leg of the fan bracket. Electric fans are supplied as puller cooling fans. To convert fan to a pusher fan, remove blade retaining clip by sliding it off slowly with a knife or thin tool. Using a long flat head screw driver and slide it between the bearing housing and the fan blade hub making sure to position the screw driver alongside the roll pin. Twist the screw driver to force the hub off the shaft. Warning! Do not position screw driver under the roll pin. It should be parallel to the notch alongside the pin. Slowly slide the fan blade off the shaft. Flip blade assembly and reinstall. Put a small amount of silicone caulk on the shaft, notch and hub. Slide blade assembly back onto the shaft aligning the notch with the roll pin. Blade assembly is in the correct position when notch captures roll pin. **DO NOT RE-USE** the original retaining clip! Use provided blade-retaining clip by pressing clip onto shaft and placing against blade assembly. It may be easier to correctly position clip using a 3/8" socket. Lightly tap the socket to seat clip properly using a hammer or similar tool. Let the silicone cure completely before activating fan. Attach the fan to the radiator core using the nylon ties and buttons supplied with the kit. For cross-flow radiators, allow the nylon ties to be supported by the radiator fins, NOT the cooling tubes (see illustration D). **For off-road or 4WD vehicles, see NOTE below.** Wire according to the instructions provided with your wiring system. Be sure to fuse fan. A 25 or 30 amp fuse is recommended. Verify that the air flow is flowing in the correct direction. If not, reverse the motor wires.

CAUTION: Before driving vehicle, be sure to re-check for tightness ALL nuts, bolts, screws!! Leave a minimum of 1" clearance between electric fan and any moving parts. **NOTE:** If the electric fan is to be installed on an **off-road or 4WD vehicle**, a direct metal mounting strap system is strongly advised. U.S. Patent No. 4,617,702

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

Accessories Available

Part No.	Description
104	Metal Mounting System (Four metal straps)
105	Universal Mounting System (Nylon tie mounts)
19001	Wiring System 185°F Thermal Switch (Tie wrap mount)
19005	Wiring System 185°F Threaded Thermal Switch (1/2" NPT w/mount)
19007	Wiring System 185°F Threaded Thermal Switch (1/2" NPT screw-in)
18902	Heavy Duty 30-Amp Wiring System for Dual Fans
18905	Adjustable Thermal Switch System (Probe Type)
18907	Adjustable Thermal Switch System (Threaded Type, 1/2" NPT screw-in)

