Installation Instructions

This guide covers the following Item Numbers:

19001/19003/19005/19007

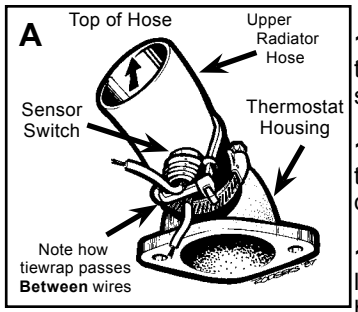
www.perma-cool.com

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

Electric Fan Wiring System (with electronic thermal control sensor)

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

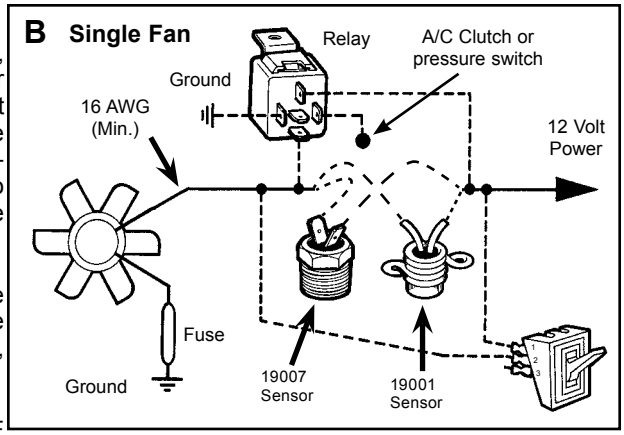
19001 System: Locate a convenient place on the bottom side of the upper radiator hose to attach the sensor switch, near the water thermostat housing is best. Next, press the the sensor switch into the spring mount. Make sure that the wire of the spring does not pinch the electrical wire. Make sure that the sensor switch is as far as it will go inside of the spring. Pass the nylon tie strap down through one eyelet, around the radiator hose, and up through the other eyelet. Position sensor switch, then pull tight (see illustration A).



19003 System: For lowest possible turn on, apply epoxy to the sides of the #19001 sensor switch and to the sides of a head bolt, near an exhaust port. DO NOT apply epoxy directly to the face of the sensor switch. Do not mount the switch on an exhaust manifold.

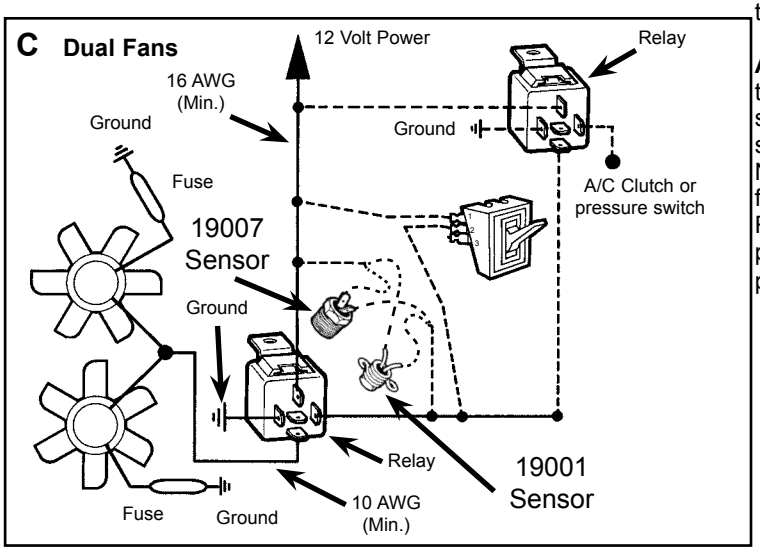
19005 System: For easy installation screw #19005 sensor switch into weld bung and epoxy assembly to engine or radiator tank. Apply epoxy to weld bung only, do not apply epoxy to face of sensor. No drilling necessary!

19007 System: To install the sensor switch, locate a place on the engine block, cylinder head or intake manifold that has the correct thread size. The theaded thermal sensor has 1/2"-14 NPT male threads. Pipe threaded ports are usually where hoses connect to the heater circuit or sending units in the heads. Also, the radiator may have a 1/2" pipe plug in it. If no location can be found, it will be necessary to “T” into an existing upper hose to have a place to screw in the thermal sensor.

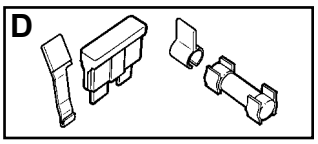


Wire according to the schematics. SINGLE (see illustration B). DUAL (see illustration C). The switch will activate at approximately 180 º F (82º C). The electric fan motors may be reversible. To reverse the rotation of the fan, change the polarity of the fan motor wires and/or reverse fan blades.

WARNING!! This sensor switch and wire are designed for use with a SINGLE electric fan only. DUAL electric fans **REQUIRE** a larger gauge wire or must be wired through a relay switch. Burnout or fire could result if wired improperly. For DUAL fan applications use part number 18902 Heavy Duty Wiring System which includes a 30 Amp relay and wire per illustration C. **Important Note:** When installing a toggle switch with pilot light DO NOT ground the toggle switch! Grounding the switch will cause the thermal sensor to short and fail.



All Systems include power taps for a convenient connection to the electrical power (see illustration D). Before installing, as shown in illustration D, remove any fuse from the accessories side of the fuse block. Switch the ignition key to on, BUT DO NOT START THE ENGINE! Use a test light to determine which fuse clip is the line (power) side. Turn off the ignition key. Reinstall the existing fuse in conjunction with the correct type of power tap, on the line side of the fuse. You have now installed a power tap that will not overload the circuit on which it is installed.



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

300028, rev. 6
Rev. Date: 12022013