



# Instruction Sheet

## ELECTRIC FAN WIRING HARNESS

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### Kit Contents for # 75017, #75021 or #75032:

Relay with socket and fuse holder Fan harness rewired to plug into the fan Fuse  
 Temperature Switch (#75029 or 75030)

#### Design:

- This wiring harness kit is designed to enable simple installation of high performance electric fans.
- It is compatible with all vehicles. It can be used on 12 volt DC positive or negative ground vehicles with no modifications.
- The electric cooling fans are designed to force air through the core of a "Heat Exchanger", i.e.: radiator, A/C condenser, oil cooler, etc.
- The wiring harness is protected by many weather-proof components. However, care should be taken to position the devices where they will be least exposed to extremes of heat or temperature.

#### Installation of the Electric Fan:

- The electric fan should cover as much radiator surface as possible.
- The fan should be mounted as high on the radiator core as possible.
- The spacing between the radiator and the electric fan should be approximately 3/8" to maintain air flow through the core. The best results are obtained by using Be Cool fan mounting brackets.

- Do not attach through the radiator core, use the radiator flanges where there is a metal lip.
- Do not bend or force fan for mounting purposes. This may cause damage to fan or radiator, voiding warranty.

#### Installation of the Thermal Switch:

- Do not attempt installation when the engine is hot
- The thermal switch is designed to mount in the cylinder head for the most accurate control of the system.
- The 195 F. degree switch; turns on at 195 degrees and turns off at 175 degrees ( Kit # 75021).
- The 185 F. degree switch; turns on at 185 degrees and turns off at 165 degrees ( Kit # 75032).
- The switch has 3/8-18 NPT threads and will work in many applications.
- If larger threads are needed for this switch installation a 1/2" adapter is included in the kit.
- Do not use "Teflon" style tape on the switch as this will cause poor electrical connection and improper operation.
- See back side for wiring diagram.

### Trouble-Shooting

Problem	Probable cause	Solution
Engine overheats at idle or low speeds	Poor air flow at the radiator	Install a higher performance fan
	Poor engine ventilation	Make sure engine compartment can vent hot air out.
	Insufficient radiator cooling	Clean core or replace with the appropriate size.
	Improper spacing of cooling fan	Use proper mounting brackets for the electric fan
	Engine idle adjusted too lean	Enrich idle circuit
Engine overheats continuously	Engine timing too far advanced	Retard timing - Check timing for proper operation.
	Poor radiator/ engine combination	Install proper size radiator
	Defective or stuck thermal switch	Install new Be Cool temperature switch
	Electric fan not working	Check fuse, replace as needed. Check wiring connections for broken or loose connections.
	Electric fan not working - Fuses blowing	Check motor, check for frayed wire or poor connections.

## Wiring:

**Before** mechanical or electrical installation **DISCONNECT BATTERY.**

Mount the relay in a dry position on the vehicle. When this is completed, connect the wires as per the diagram.

- Red Wire:** Connect to the butt connector on the fuse holder wire, slide short "shrink tubing" over the butt connector and heat the tubing with a heat gun using moderate heat.
- Gray Wire:** Connect to the temperature switch using the enclosed connector (and/or to triary or manual switch, see drawing)

**Yellow Wire:** Connect to the positive battery terminal using the enclosed connector

**Orange Wire:** Connect to the ignition switch (+12 volt DC), power when switch is in run position

**Black Wire:** Connect the ring terminal to the chassis ground

**Options:** Connect a toggle switch to the gray temperature switch. This will close the circuit when the switch (SPST) is on. Switch rating must be at least ¼ Amp (.250 ma ).

