

  
**CHAMPION**  
**Cooling Systems**  
**HIGH PERFORMANCE FANS**

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**Fan Relay Harness**  
**185 Degree Thermostat Controlled Relay**

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**Included Parts:**  
**Fan wiring harness with relay and fuse box**  
**185 degrees fan thermostat**

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**Our fan wiring harness has been designed for simple installation of our performance fans. It can be installed on positive or negative ground vehicles with no modifications and are compatible with all types of vehicles.**

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**Wiring:**

Mount the relay in a secure place in the engine compartment away from heat sources. Once this is completed, connect the wires per the diagram and notes below.

**Red:** Connect to the red wire of fan pigtail with pre-terminated yellow crimp.

**Gray:** Connect to thermostat socket (sending unit) with blue ring crimp connector.

**Yellow:** Connect to positive battery terminal using the fuse holder and yellow crimp connectors per diagram (see back).

**Orange:** Connect to ignition switch +12 vdc when engine is in run position. (Hook to constant +12 vdc for the fan to run continuously when the engine is hot even when the ignition switch is off).

**Black:** Connect ring terminal to chassis ground.

**Fuse Holder:** Connect fuse holder inline per diagram within 12" of the battery using ring terminal or equivalent.

\*On Medium profile single fans use a 20 amp fuse, on low profile single fans use a 15 amp fuse.

\*\*Should your combination of fans exceed 40 amp draw, you must use two relay kits. (See High Current Application)

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**Installing the Thermostat Switch:**

The sensor has 3/8" pipe thread. The thermostat supplied with the kit is an OE type that is designed to mount in the cylinder head of the engine. However, any mounting in water jacket is suitable. The 185FH module turns on at 185 degrees and off at 165 degrees. The modules will work on the majority of applications. If a different size adapter is needed, the correct size thread adapter can be found at most automotive parts or hardware stores (1/2" adapter included in the kit). Do not use Teflon tape on the sensor as it can cause poor electrical contact and incorrect temperature readings.

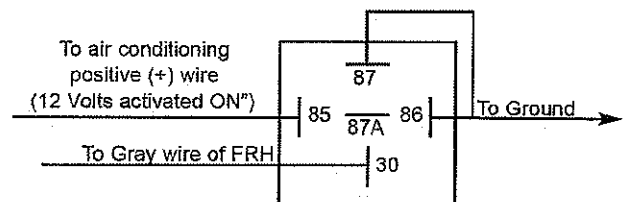
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**High Current Applications:** See multiple fan wiring diagram on reverse page

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**Air Conditioning Relay:**

Additional FRH required. From the (second) A/C relay, connect Yellow and Orange wires to ground. Connect the Red wire to the sending unit wire of the original fan relay harness. The Gray wire from the A/C relay goes to the +12 volt of the A/C compressor clutch wire. The fan will turn on when the A/C compressor activates.



**Tech Support Line: 951 245 9464**

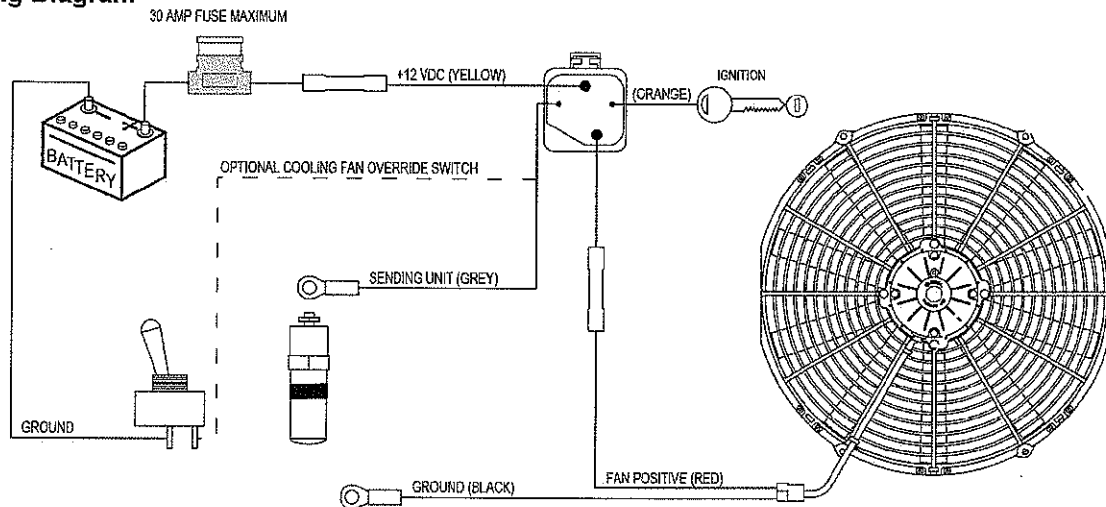
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**General Information:**

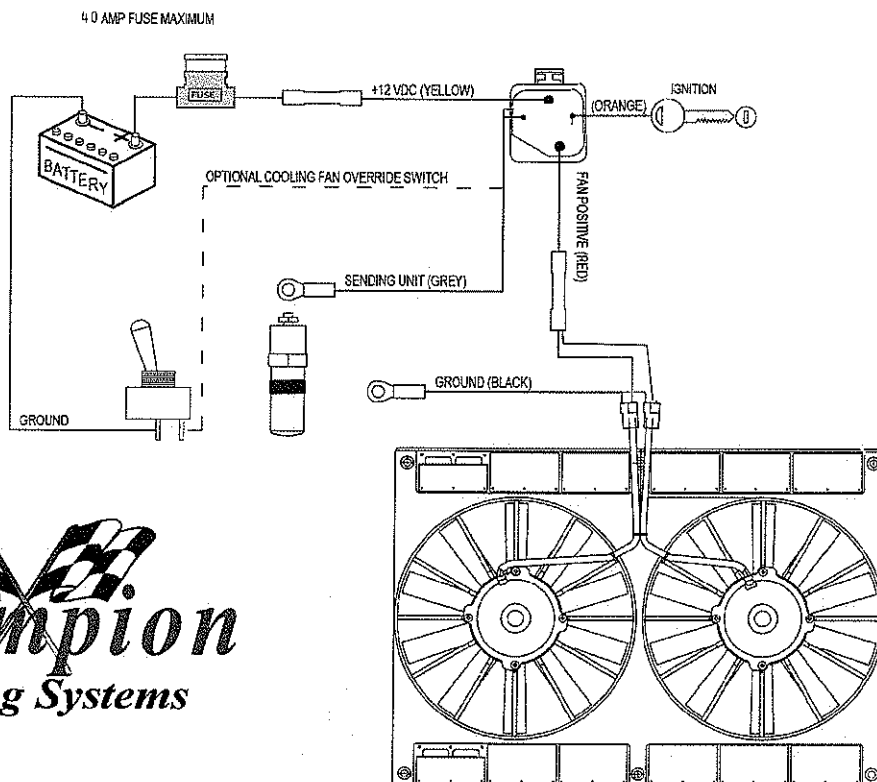
If the vehicle has overheating problems, there can be many causes. Step one is to determine what is causing the vehicle to overheat. The chart below provides several problem, cause and solutions to overheating. Please contact our technical advisors at 951-245-9464 with any additional questions.

Problem	Cause(s)	Solution(s)
Engine overheats at idle and low speeds	Poor air flow through radiator	Install electric fan or duct air into engine compartment.
	Poor engine ventilation	Install fan and make sure engine compartment can vent hot air.
	Insufficient radiator	Have the core cleaned or replaced with an appropriate size.
	Engine idle circuit too lean	Enrich idle circuit.
	Engine timing too advanced	Retard timing.
Engine overheats continuously	Poor radiator / engine combination	Install sufficient radiator.
	Defective or stuck thermostat	Install new thermostat.

**Single Fan Wiring Diagram**



**Multiple Fan Wiring Diagram**



# High Current Application

## Multiple Fan Wiring Diagram

