

INSTRUCTIONS

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9106410 - LS Electric Fan Relay Kit, w/ Wiring and 205 Degree Switch

9106420 - SBC Dual Electric Fan Relay Kit, w/ Wiring and Temp Switch

91064048 - Speedway Motors Electric Fan Relay Wiring Kit

2897108 - Electric Fan Relay Wiring Kit, Pro Series

These wiring harnesses have been designed for simple installation for our performance fans. They are designed for 12-volt negative ground applications and compatible with most 12-volt electrical systems. You must mount the relay in a secure place in the engine compartment away from excessive heat sources. Once this is completed, connect the wires per the diagram and notes below.

Terminal	Wire Color	Functions	Connection
30	Yellow	Main power input	Connect to a fused 12V power source, or directly to the battery's positive terminal
87	Red	Normally open 12V output	Connect to the positive wire or terminal of the fan or accessory
86	Orange	Trigger input	Connect to a switched 12V ignition source to activate the relay
85	Gray	Control-side ground	Connect through a toggle switch to a clean chassis ground for manual operation or to a temperature sensing switch to activate your fan(s) automatically by a set temperature
87A	None	Normally closed 12V output	Live when the relay is OFF. Not used in this application

* A 20-amp fuse is recommended for medium-profile single fans, and a 15-amp fuse is recommended for low-profile single fans. The included 30-amp fuse is typically used for high output our dual fans.

WARNING: 40 Amp Maximum Relay Capacity

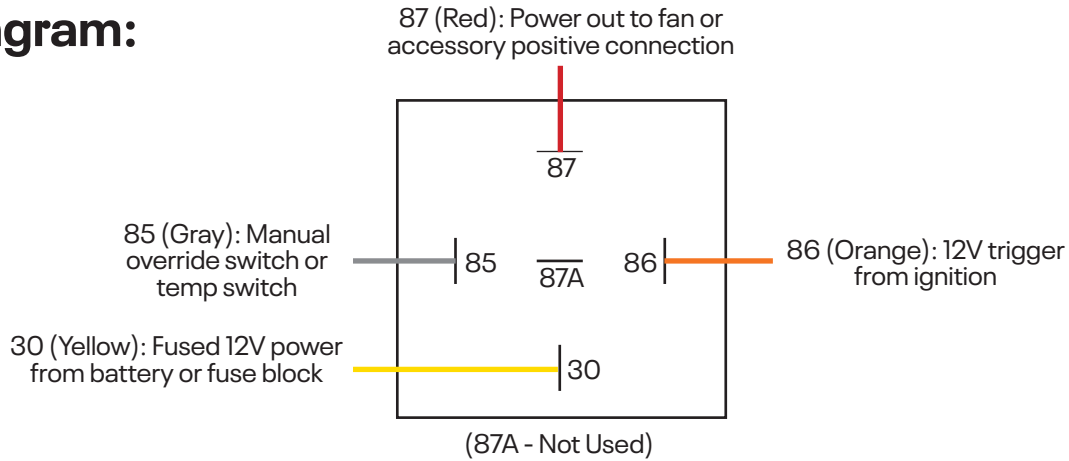
These kits include one relay rated for a maximum of 40 amps. The total current draw of the fan or both fans must not exceed 40 amps. Most electric cooling fans draw 15 to 30 amps each during normal operation and may draw more during startup. Using two fans may exceed the relay rating. Exceeding 40 amps can cause relay failure, wiring damage, or safety hazards. Installers must verify total fan amperage. A separate relay for each fan is required if total amperage exceeds 40 amps.

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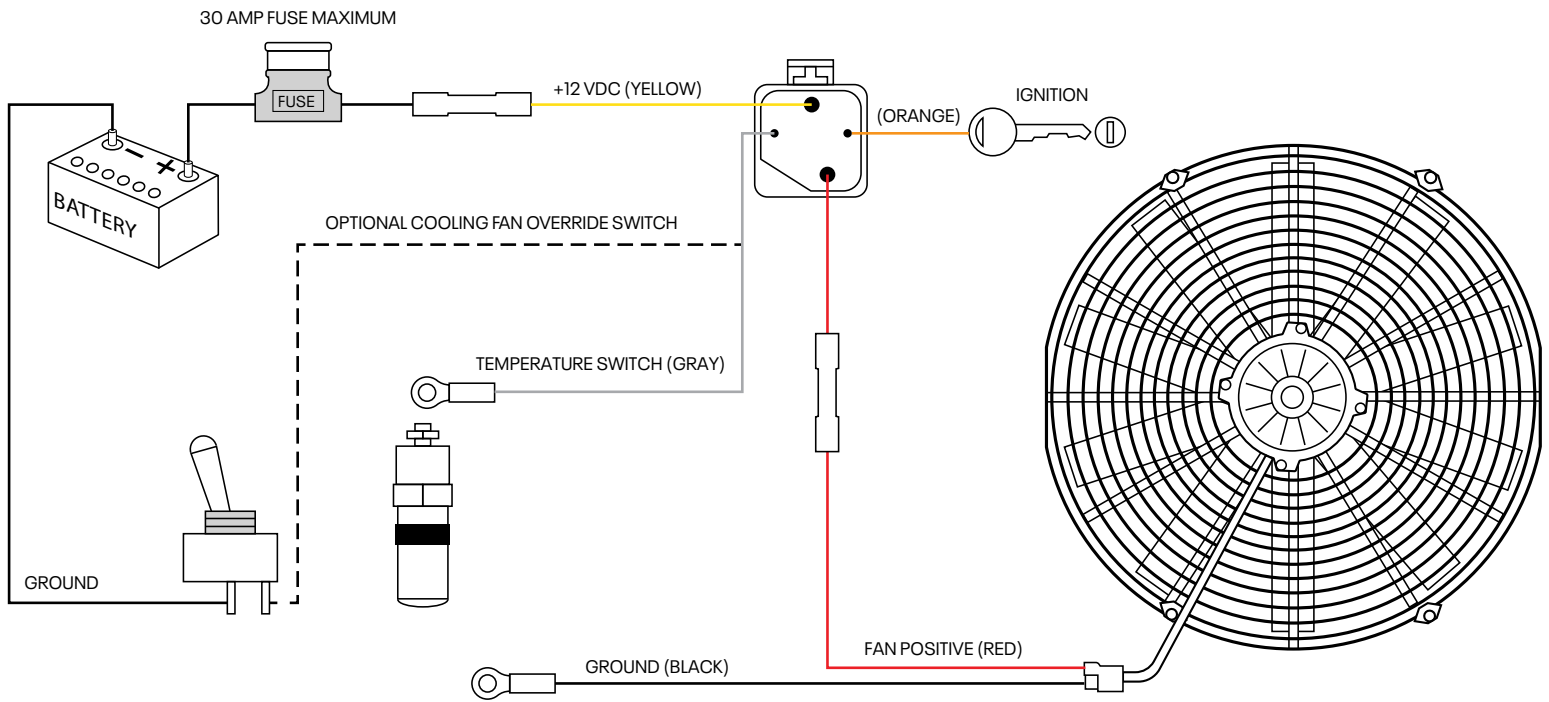
Relay Diagram:



Single Fan Wiring Diagram

Single Fan with Single Relay

(For applications using one fan with a total amperage of 40 amps or less.)



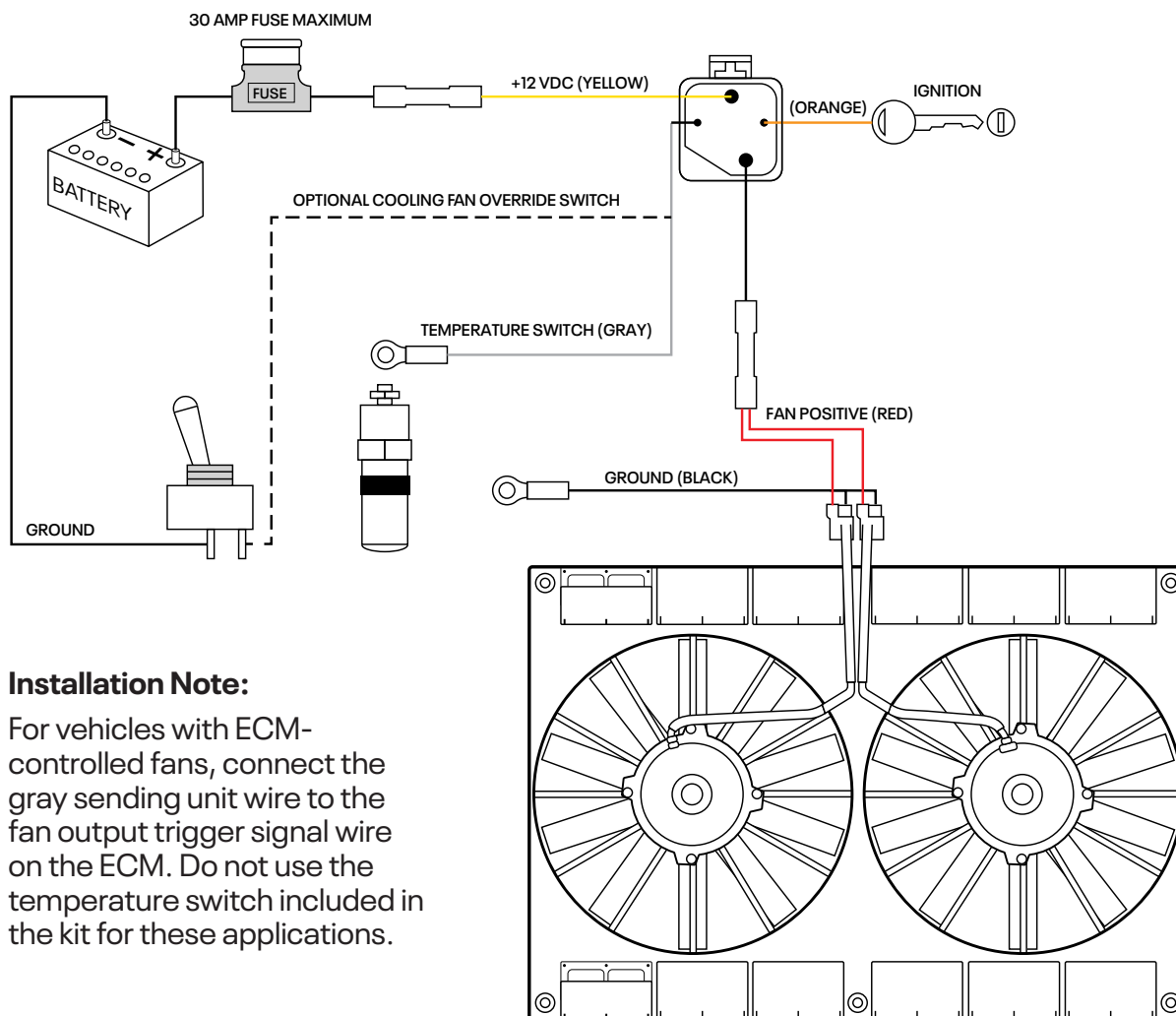
Installation Note:

For vehicles with ECM-controlled fans, connect the gray sending unit wire to the fan output trigger signal wire on the ECM. Do not use the temperature switch included in the kit for these applications.

Multiple Fan Wiring Diagram

Dual Fan with Single Relay

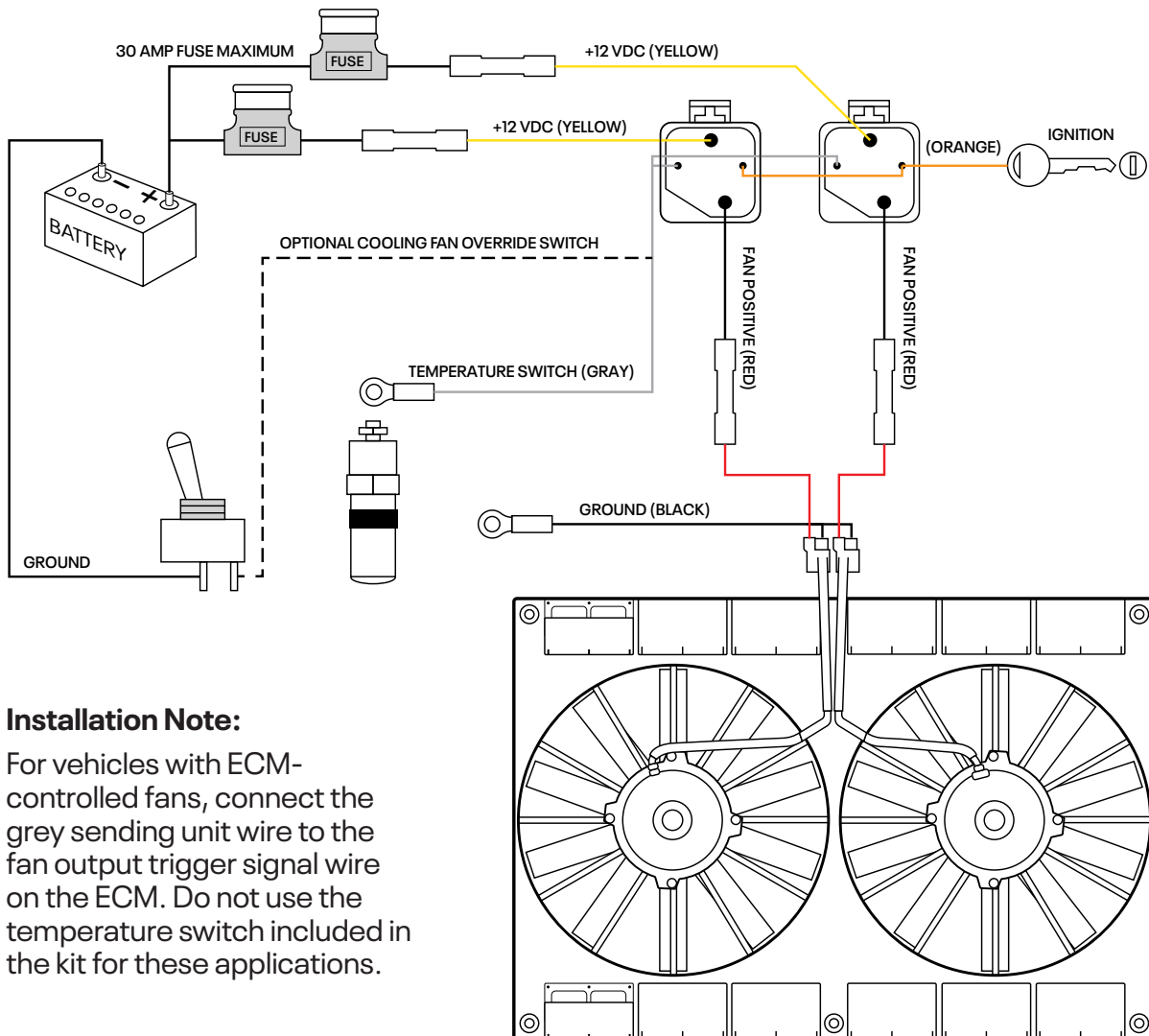
(For applications where combined fan amperage is 40 amps or less.)



Multiple Fan Wiring Diagram

Dual Fan with Dual Relay

(Required for applications where the combined fan amperage exceeds 40 amps.)



Installation Note:

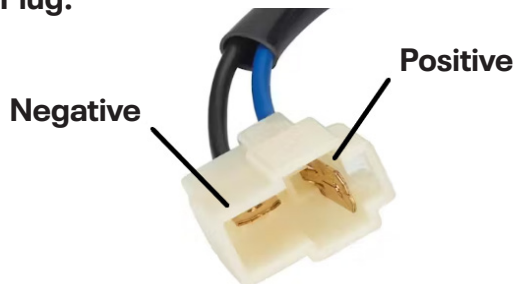
For vehicles with ECM-controlled fans, connect the grey sending unit wire to the fan output trigger signal wire on the ECM. Do not use the temperature switch included in the kit for these applications.

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Common Speedway Motors - Fan Plug:



**The blue wire is positive and black is negative.
(Color may vary by manufacturer.)**

Installing the Thermostat Switch:

The Speedway Electric Fan Relay Wiring Kits include thermal switches to control fan operation.

The sensors in the standard kits have a 3/8" pipe thread while the LS version has a 12mm x 1.5 thread and is designed to mount in the cylinder head, but any water-jacket location is suitable. A 1/2" thread adapter is also included with the Non-LS versions of the relay kits. If a different size is needed, additional adapters are available from us or at most auto parts or hardware stores.

IMPORTANT: DO NOT use Teflon tape on the sensor, as it can interfere with electrical contact and cause inaccurate temperature readings. The thermal switches included with these kits will work for the majority of applications.

If a vehicle is experiencing overheating, there can be multiple underlying causes. The first step is to identify what is causing the engine to overheat. The chart below outlines common problems, their causes, and recommended solutions for overheating issues.

Problem	Cause(s)	Solution(s)
Engine overheats at idle or low speeds	Poor airflow through radiator	Install an electric fan or duct air into engine compartment
	Poor engine ventilation	Install a fan and ensure the engine compartment can vent hot air
	Radiator capacity insufficient	Clean or replace the radiator core with an appropriately sized unit
	Idle circuit too lean	Enrich the idle circuit
	Engine timing too advanced	Retard the timing
Engine overheats continuously	Radiator insufficient	Install a radiator of adequate size
	Defective or stuck thermostat	Replace with a new thermostat

Need Help with This Product?

Talk to one of our Tech Support Agents:

Mon-Fri, 8am - 5pm (CST)

U.S.: 800.979.0122

Canada: 855.313.9180

International: 1.402.323.3200