

SPAL USA and Pro Series Cooling Fans Thermostatically Controlled Relay Kit

Included Parts: Relay & Harness, 185 Degree Thermal Switch, Fuse Holder, Fan Pigtail Harness, Fuse, Terminals

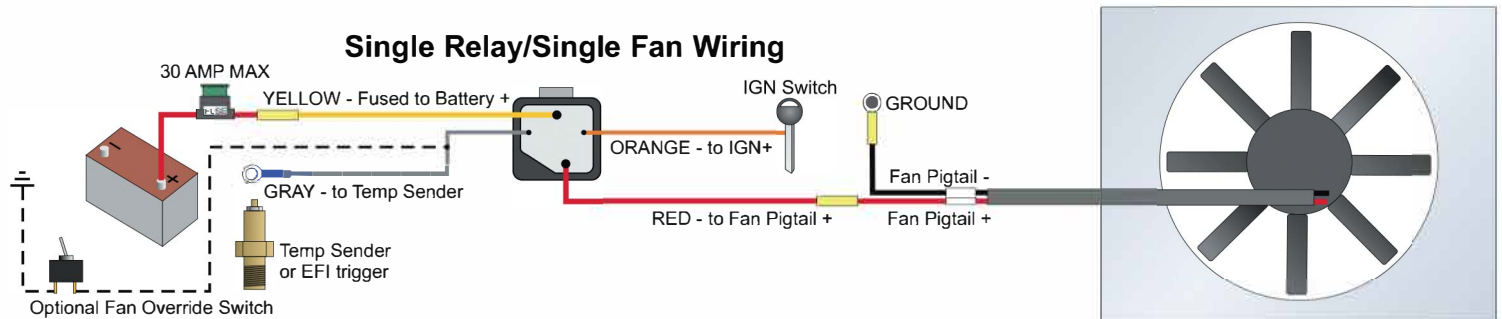
These instructions will show you how to properly install the relay and harness for our Performance Cooling Fans. Our Fan Relay Kit can be directly installed on any vehicle with simple connections.

Instructions:

The relay should be mounted in a secure location away from extreme heat or outside elements. Connections to the vehicle should be done per the notes and diagrams. For single fan applications, use the provided 30 amp fuse. For Dual fans use the provided 40 amp fuse. For combinations of fans exceeding 40 amps, please use an additional fan control Relay Kit.

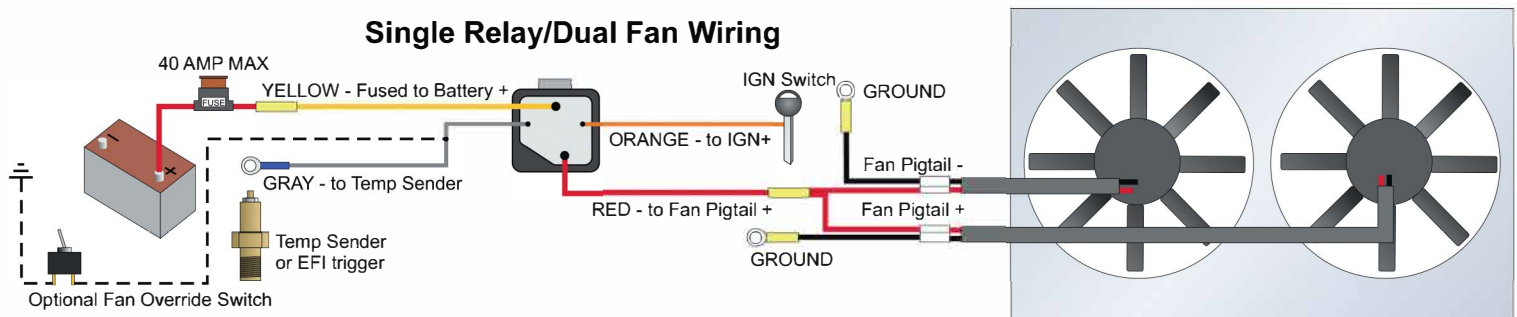
Fan Pigtail Connections:

Red: Connect to Red harness wire using supplied yellow wire connectors.
Black: Connect to ground using attached ring terminal.



Single Fan Connections:

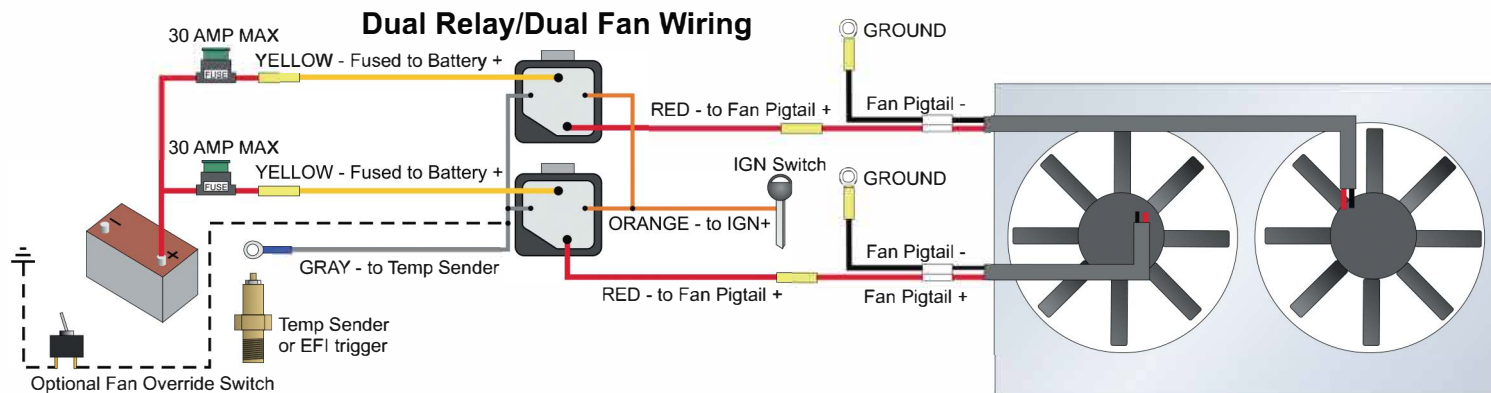
Red: Connect directly to the red wire on the fan pigtail harness (included).
Yellow: Connect directly to fuse holder (included).
Orange: Connect to a +12v ignition source when key is in the run position. Can be connected directly to a +12v source for continuous fan operation regardless of ignition switch (not recommended).
Gray: Connect directly to Thermal Switch (sending unit) using supplied blue ring terminal.
Fuse: Connect inline to Yellow wire and as close as possible to Battery, as shown.



Dual Fan Connections:

Red: Connect directly to the red wire on both fan pigtail harnesses (included).
Yellow: Connect directly to fuse holder (included).
Orange: Connect to a +12v ignition source when key is in the run position. Can be connected directly to a +12v source for continuous fan operation regardless of ignition switch (not recommended).
Gray: Connect directly to Thermal Switch (sending unit) using supplied blue ring terminal.
Fuse: Connect inline to Yellow wire and as close as possible to Battery, as shown.

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Dual Fan Connections:

- Red:** Connect directly to the red wire on each fan pigtail harness (included).
- Yellow:** Connect directly to each fuse holder (included).
- Orange:** Connect to a +12v ignition source when key is in the run position. Can be connected directly to a +12v source for continuous fan operation regardless of ignition switch (not recommended).
- Gray:** Connect directly to Thermal Switch (sending unit) using supplied blue ring terminal.
- Fuse:** Connect inline to Yellow wire and as close as possible to Battery, as shown.

Thermal Switch Installation:

The Thermal Switch is an OE-style, thermostatically controlled sender that switches the fans on at 185 degrees when wired properly. When the temperature drops to 165 degrees, the switch opens and the fan(s) will switch off. The sender has a 3/8" NPT thread and can be mounted directly into a water port on the cylinder head or the intake manifold. An adapter is included for applications with a 1/2" NPT port, other sizes can be found at most automotive parts stores. It is important to not use Teflon tape or other types of sealant on the threads as it could create a poor electrical connection that would cause incorrect temperature readings and improper fan operation.

Troubleshooting:

If you experience overheating, there are a number of reasons that can cause this. The first step in the process is to determine where the problem is, and to narrow it down to a specific location. Please contact Technical Support at (714) 974-1650 if you need additional assistance troubleshooting this relay kit.

| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| Engine overheats at low speeds or at idle | Poor air flow through the radiator | Install electric fan, be sure air flow is not restricted through radiator |
| | Poor ventilation in engine compartment | Make sure hot air can escape the engine compartment |
| | Radiator is insufficient or plugged up | Repair radiator or replace with proper size radiator |
| | Engine timing is too far advanced | Adjust timing to proper specs |
| | Carburetor idle circuit is too lean | Adjust idle circuit |
| Engine overheats regularly | Radiator/engine combination is insufficient | Replace with proper radiator |
| | Thermostat failure | Replace thermostat |