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Certified System Quality ISO 9001

PART NO. 0400 - Mechanical Thermatic® Switch Combo Instructions (12 & 24 VOLT)

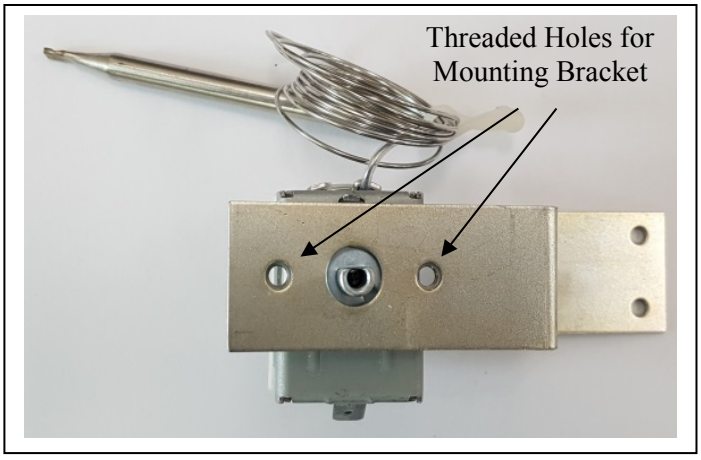
BEFORE BEGINNING INSTALLATION, READ THESE INSTRUCTIONS FULLY.

Note: Note: Switch terminals marked as “C” & “CL” can be used for either ignition or the relay coil (Pin 86). The earth terminal on the switch (not shown in wiring diagrams) is not required for automobile applications.

INSTALLATION OF THERMAL SWITCH

1. When the engine is cold, remove the top radiator hose from the radiator.

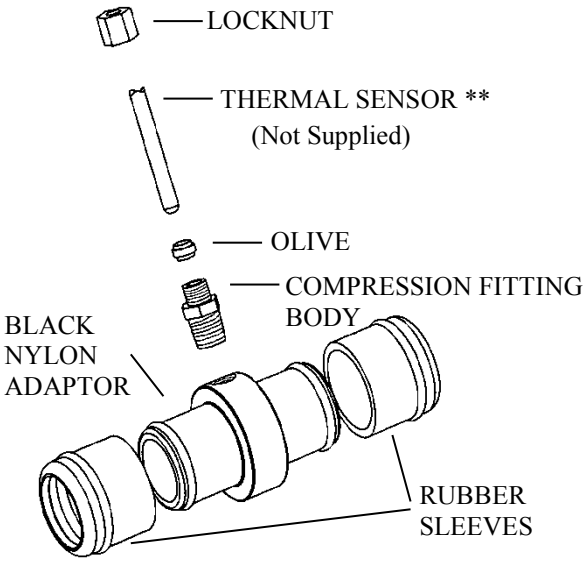
2. Mount the Thermal Switch to the bracket using the two small screws provided. Do not remove the two large screws holding the thermals to the switch. **IF THEY ARE REMOVED THE WARRANTY WILL BECOME VOID.**



3. Mount the switch onto a panel near the radiator so that the stainless-steel bulb will easily reach into the top radiator hose. Ensure that the adjustment shaft is accessible. Fix the bracket in place with the two large self-tapping screws provided.

4. Remove lock nut and 6mm olive of compression fitting supplied.

5. Fit the brass compression fitting body into the threaded black nylon adaptor and tighten. Slide the sensor through the lock nut then the 6mm olive. Insert sensor through compression fitting until it bottoms out or at least 15 mm will be located in coolant flow. Tighten lock nut. **It is important that whilst tightening the lock nut, the compression fitting body is held stationary to avoid over tightening.**



Top Radiator Hose Measurements to Sleeve inside diameter (ID)

- **30** to **35** mm (ID) – use adaptor without sleeves.
- **36** to **42** mm (ID) – use 2 sleeves included in the kit
- **42+**mm (ID) – contact Davies, Craig Pty. Ltd.

6. Remove top radiator hose and confirm that the inside diameter of your top radiator hose is between 30 to 42mm prior to cutting hose.

7. The parts supplied (adaptor and sleeves) are suitable, cut your radiator hose to remove around 17mm in length at an appropriate location. Preferably select a location in a straight section of the hose.

8. Top up the radiator with the appropriate coolant.

9. For wiring purposes, please refer to the appropriate wiring diagram provided. NOTE: Check that the fan(s) rotate in the correct direction. If the fan(s) rotate in the wrong direction, swap the two wires connected to the motor leads (reversing the polarity).

10. Ensure that all electrical connections are permanent and properly insulated and that all wiring is fitted so as to avoid sharp edges and hot parts of the engine.

WARNING: Do not use the vehicle's engine management system or wiring connected to the engine management system as an ignition source as it may cause failure of the engine management system and/or the electrical system. The ignition source must be a steady positive supply of 12-24VDC.

SETTING THE ADJUSTABLE THERMAL SWITCH

1. Install control knob on the shaft.

2. Turn on the ignition and ensure the adjustment knob is rotated fully clockwise. The fan(s) will only run if the engine temperature is above 100°C.

Note: the knob rotation is for when the switch is oriented so that the capillary tube is in a vertical position.

3. Run the engine until the engine temperature is about halfway between "normal highway operating temperature" and "too hot". This will indicate a coolant temperature between 5°C and 10°C higher than normal.

4. Immediately turn the adjustment shaft very slowly anti-clockwise, just until the fan(s) switch on, and no more.

5. Allow the fan(s) to run long enough to reduce the temperature by approximately the thickness of the temperature gauge needle before the Thermal Switch turns the fan(s) off. On a cool day it should run between 30 and 60 seconds at a time, on a hot day somewhat longer.

NOTE: If the fan(s) run for more than a few minutes at a time, turn the adjustment clockwise slightly to increase the cut-in temperature. The fan(s) must be set to cut-in above normal operating temperature otherwise they will run more frequently and for longer periods than necessary, and you may not achieve all the benefits of electric fan cooling.
The fan/s will operate until the coolant temperature falls by approx. 10°+ C below the Targeted/Set temperature.

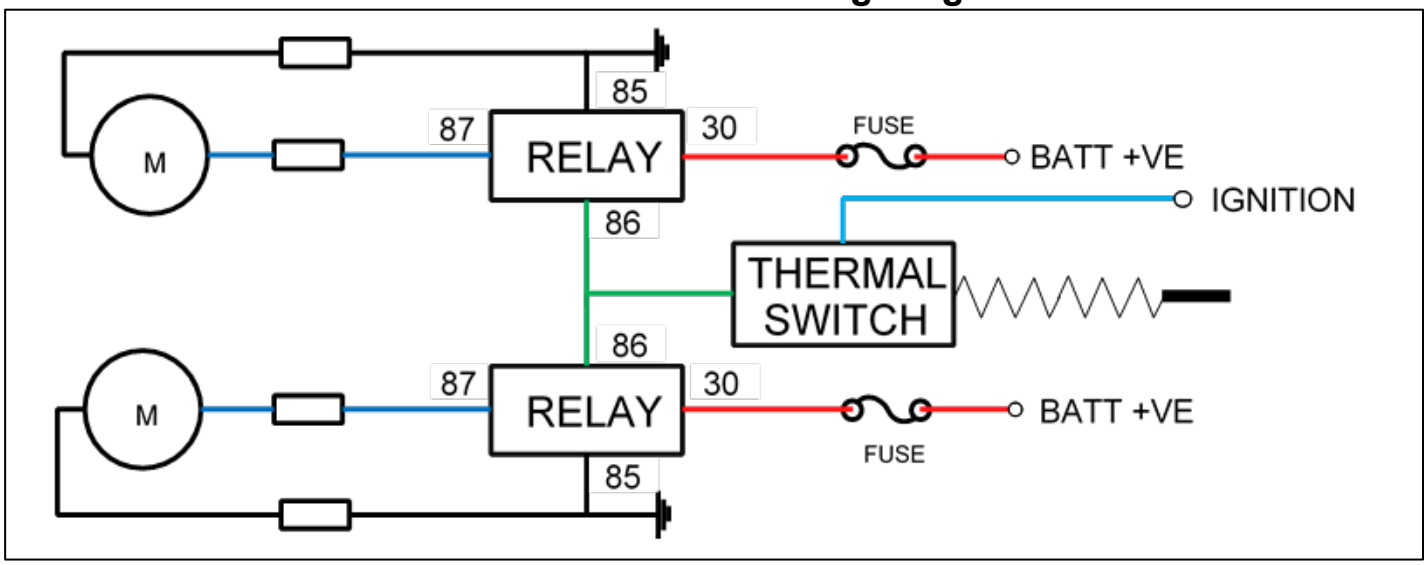
NOTE: Remember that coolant under pressure in a radiator boils at about 118°C.

FAILURE TO COMPLY WITH ALL THE INSTRUCTIONS OR TAMPERING WITH THE PRODUCT MAY INVALIDATE THE MANUFACTURERS WARRANTY.

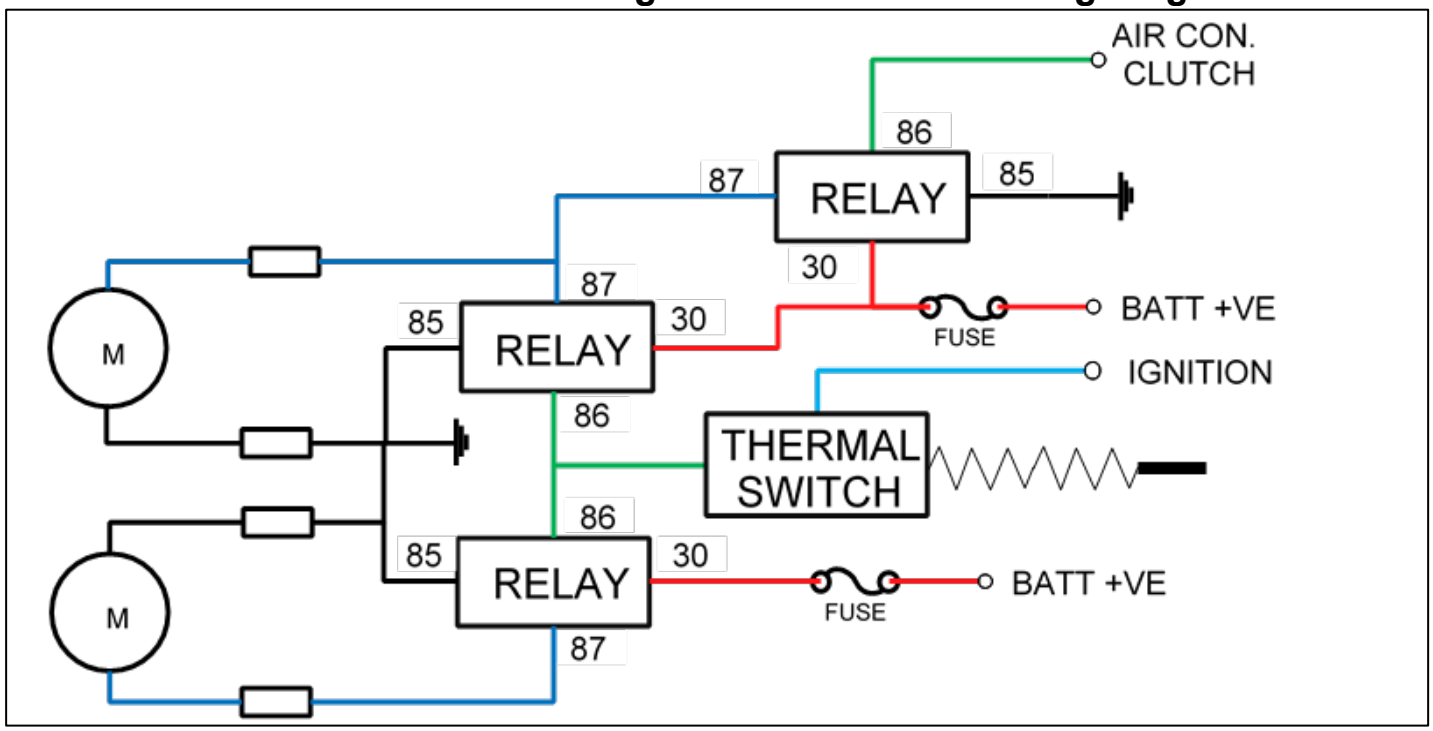
If in any doubt about any of these instructions, consult your retailer or DAVIES, CRAIG direct on +61 (3) 9369 1234.

WARRANTY: We hereby guarantee that for a period of 2 years from the date hereof we shall replace your Electronic Thermal Switch, if it is faulty, provided that such a fault is directly attributable to a defect in workmanship or materials used in the manufacture of the Electronic Thermal Switch. Labour and consequential costs are excluded.
Register Warranty at: www.daviescraig.com.au

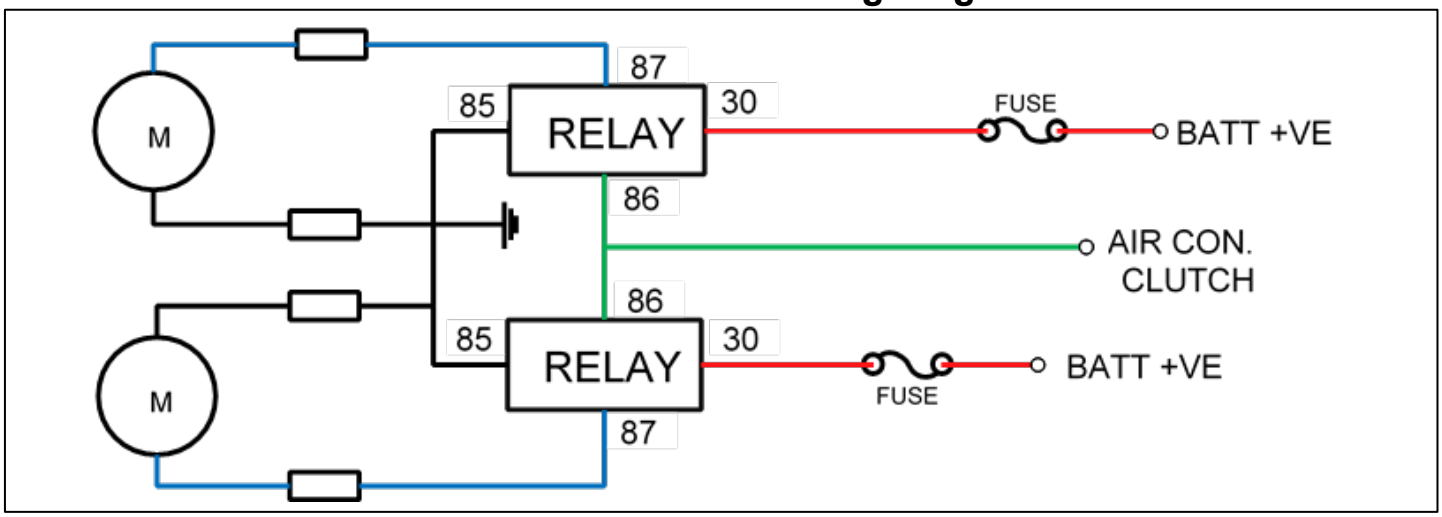
Twin Thermatic Fan Wiring Diagram



Twin Thermatic Fan & Single Condenser Fan Wiring Diagram



Twin Condenser Fan Wiring Diagram



Note: Terminals marked “C” & “CL” can be used for either ignition or the relay Pin 86

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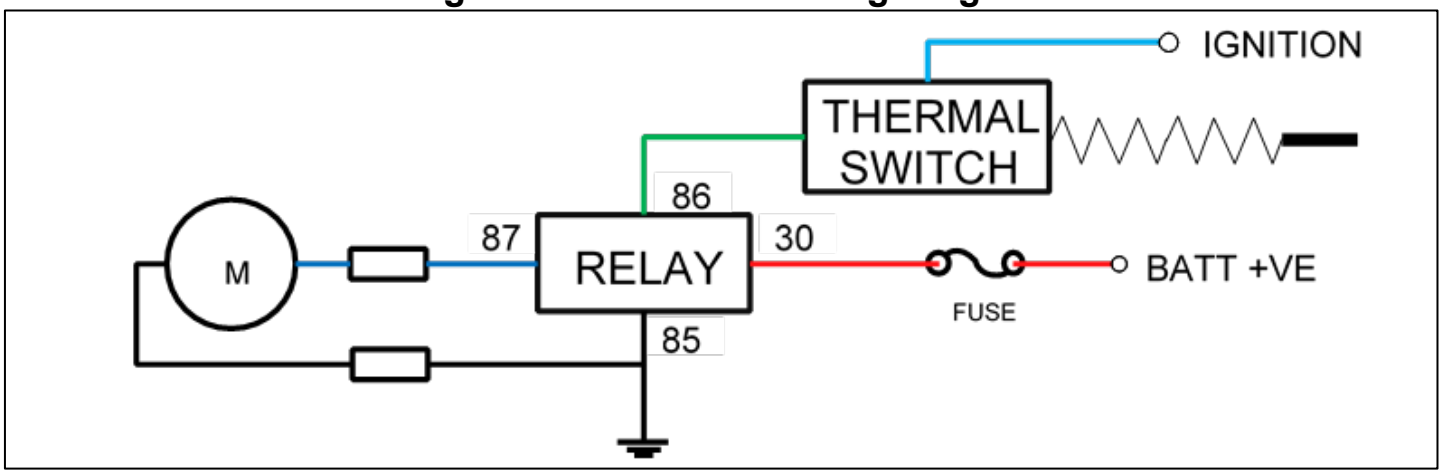
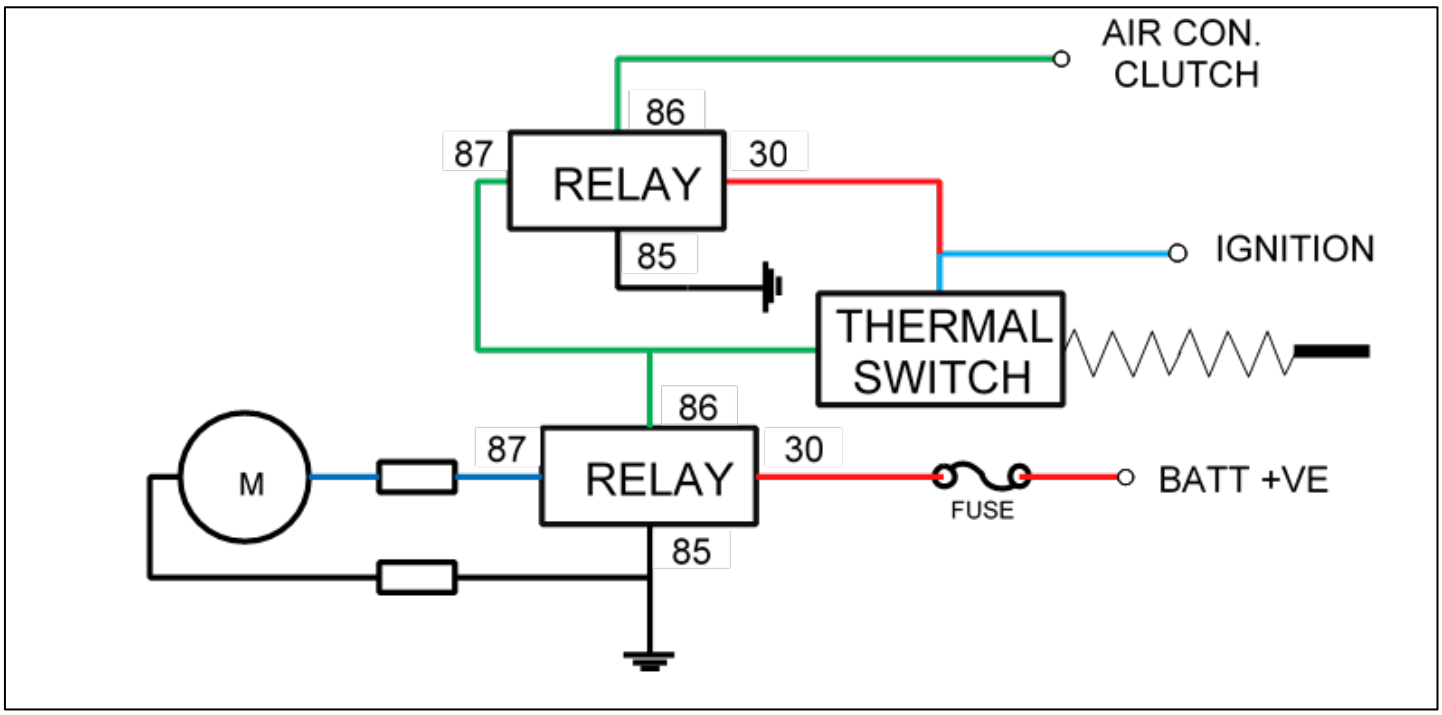
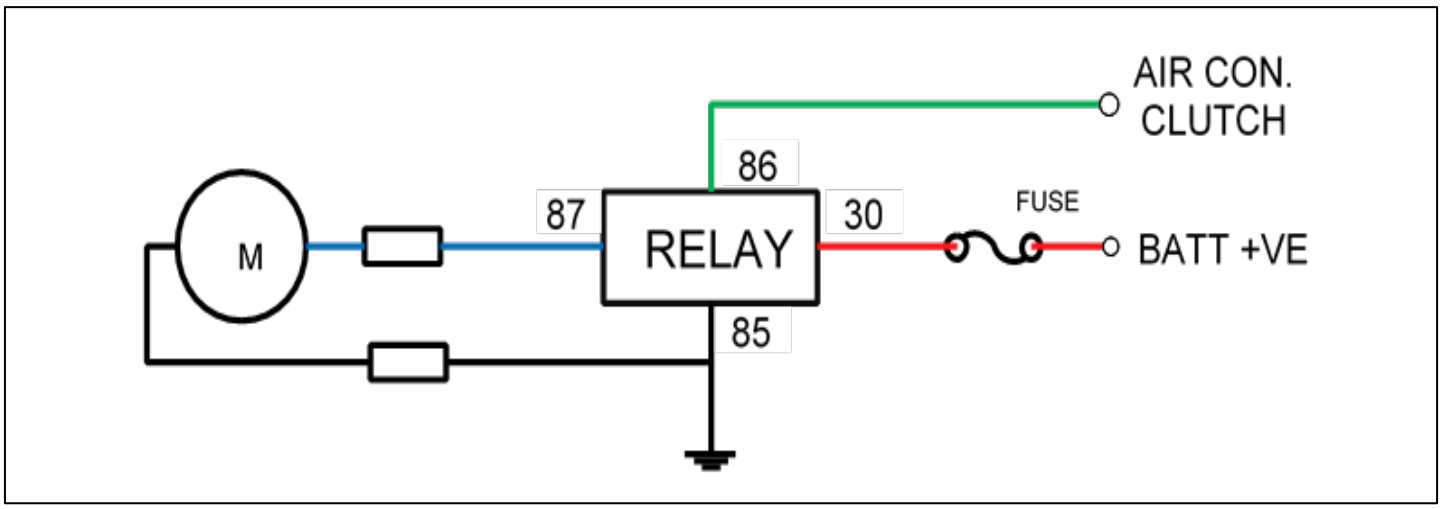
Single Thermatic Fan Wiring Diagram



Single Thermatic & Condenser Fan Wiring Diagram



Single Condenser Fan Wiring Diagram



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11-September-2019