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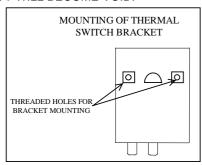


# THERMAL SWITCH INSTALLATION INSTRUCTIONS

# BEFORE BEGINNING INSTALLATION, READ THESE INSTRUCTIONS FULLY.

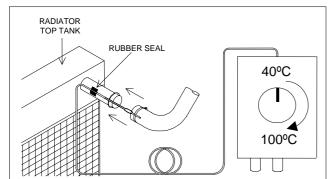
### **INSTALLATION OF THERMAL SWITCH**

- 1. When the engine is cold remove the top radiator hose at the radiator end.
- 2. Mount the Thermal Switch to the bracket using the two small screws provided. Do not remove the two large screws holding the thermal switch together. IF THEY ARE REMOVED THE WARRANTY WILL BECOME VOID!



- **3.** Mount the bracket 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. Lay the rubber seal along the radiator ferrule and place a section of the stainless steel capillary of the Thermal Switch down the groove in the rubber seal. Keep the capillary loosely coiled and avoid sharp bends. Do not pass the bulb further down the hose than is necessary as the constant movement of the engine in relation to the radiator may cause fatigue of the capillary. The seal and tube may be held in place with insulation tape.

Fit the hose and clamp so that the clamp is over the centre of the



rubber seal and the clamp screw is in the opposite side of the tube to the capillary and seal. A good silastic type sealant may be used if there is a persistent leak.

- **5.** Top up the radiator with the appropriate coolant.
- For wiring purposes, please refer to appropriate wiring diagram overleaf.

**WARNING:** Do not use the vehicle's engine managment system or wiring connected to the management system as an ignition source as it may cause failure of the 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 to shaft.
- 2. Turn on the ignition and rotate the adjustment knob anticlockwise until it stops. The fan(s) will run if the engine temperature is above 40°C - If the fan(s) do not cut-in, partially warm the engine to bring the engine temperature into the range of the Thermal Switch.
- 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).
- **4.** 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.
- 5. Turn the adjustment knob fully clockwise.
- 6. 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 to 10°C higher than normal.
- Immediately turn the adjustment shaft very slowly anticlockwise, just until the fan(s) switch on, and no more.
- **8.** Allow the fans 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.

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

# FAILURE TO COMPLY WITH ALL THE INSTRUCTIONS MAY INVALIDATE THE MANUFACTURERS WARRANTY.

If in any doubt about any of these instructions consult your retailer or DAVIES, CRAIG direct on (03) 9369-1234.

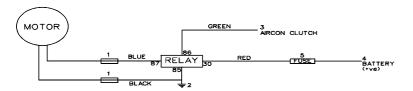
**WIRING DIAGRAMS:** These refer to wiring and connectors present in the Davies, Craig range of Thermatic Fan Kits.

WARRANTY: We hereby guarantee that for a period of two years or 1500 hours (whichever is the lesser) from the date hereof we shall carry out any repairs that are reasonably necessary to correct any fault in the operation of your Thermal Switch provided that such a fault is directly attributable to a defect in workmanship or materials used in the manufacture of the Thermal Switch. Labour and consequential damages are not included in this warranty.

Effective 07/06/06 P/No. 0960

# DAVIES, CRAIG PTY. LTD.

## THERMATIC FAN WIRING DIAGRAMS

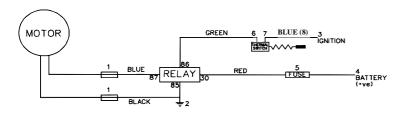


## 1 ONE FAN, CONDENSER ONLY

- 1 BLUE CONNECTOR (FROM FAN KIT)
- 2 SELF TAPPER (FROM FAN KIT)
- 3 SCOTCHLOCK (FROM FAN KIT)
- 4 RING TERMINAL (FROM FAN KIT)
- 5 FUSE HOLDER & FUSE (FROM FAN KIT LOOM)

**PURCHASE: 1 FAN KIT** 

#### WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM



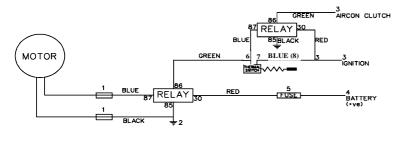
## 2 ONE FAN, THERMATIC ONLY

- 1 BLUE CONNECTOR (FROM FAN KIT)
- 2 SELF TAPPERN (FROM FAN KIT)
- 3 SCOTCHLOCK (FROM FAN KIT)
- 4 RING TERMINAL (FROM FAN KIT)
- 5 FUSE HOLDER & FUSE (FROM FAN KIT LOOM)
- 6 FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- COILED BLUE WIRE (FROM THERMAL SWITCH KIT)

PURCHASE: 1 FAN KIT, 1 THERMAL SWITCH

KIT P/NO: 0401

#### WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM



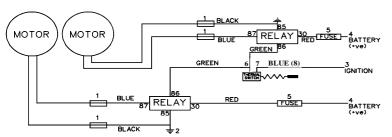
# 3 ONE FAN, CONDENSER AND / OR THERMATIC

- 1 BLUE CONNECTOR (FROM FAN KIT)
- 2 SELF TAPPER (FROM FAN & THERMAL SWITCH KIT)
- 3 SCOTCHLOCK (FROM FAN & THERMAL SWITCH KIT)
- 4 RING TERMINAL (FROM FAN KIT)
- 5 FUSE HOLDER & FUSE (FROM FAN KIT LOOM)
- 6 FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- COILED BLUE WIRE (FROM THERMAL SWITCH KIT)

PURCHASE: 1 FAN KIT. 1 THERMAL SWITCH KIT)

& RELAY KIT P/NO: 0404

#### WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM

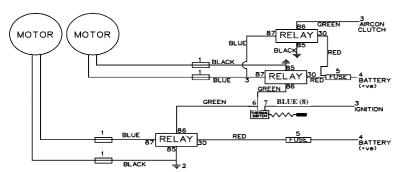


## 4 TWIN FANS, THERMATIC ONLY

- 1 BLUE CONNECTOR (FROM FAN KITS)
- 2 SELF TAPPER (FROM FAN KITS)
- 3 SCOTCHLOCK (FROM FAN KITS)
- 4 RING TERMINAL (FROM FAN KITS)
- 5 FUSE HOLDER & FUSE (FROM FAN KITS)
- FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
  FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- 8 COILED BLUE WIRE (FROM THERMAL SWITCH KIT)

PURCHASE: 1 FAN KIT, 1 THERMAL SWITCH KIT P/NO: 0401

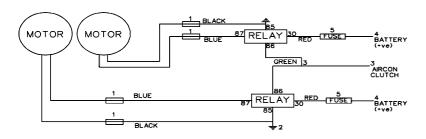
WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM



# 5 TWIN FAN, THERMATIC SINGLE FAN CONDENSER

- 1 BLUE CONNECTOR (FROM FAN KITS)
- 2 SELF TAPPER (FROM FAN & THERMAL SWITCH KIT)
- 3 SCOTCHLOCK (FROM FAN KITS)
- 4 RING TERMINAL (FROM FAN KITS)
- 5 FUSE HOLDER & FUSE (FROM FAN KITS)
- 6 FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- 7 FEMALE SPADE BLUE (FROM THERMAL SWITCH KIT)
- 8 COILED BLUE WIRE (FROM THERMAL SWITCH KIT)

PURCHASE: 2 FAN KITS, 1 THERMAL SWITCH & RELAY KIT P/NO: 0404



## 6 TWIN FANS, CONDENSER ONLY

- 1 BLUE CONNECTOR (FROM FAN KIT)
- 2 SELF TAPPER (FROM FAN KITS)
- 3 SCOTCHLOCK (FROM FAN KITS)
- 4 RING TERMINAL (FROM FAN KITS)
- 5 FUSE HOLDER & FUSE (FROM FAN KITS)

PURCHASE: 2 FAN KITS