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## **ELECTRONIC THERMAL SWITCH INSTALLATION INSTRUCTIONS**

## BEFORE BEGINNING INSTALLATION, READ THESE INSTRUCTIONS FULLY. WARNING: THIS ELECTRONIC THERMAL SWITCH IS FOR <u>12V</u> USAGE ONLY!

#### INSTALLATION OF THERMAL SWITCH

1. The control box should be mounted next to the radiator using the self tapping screws provided. It must be mounted so as to allow access to the temperature adjusting screw and must be kept away from high heat sources, such as exhaust manifolds and pipes.



- 2. Select the temperature sensor mounting location before installing the fan. Sensor installation requires access to both sides of the radiator. Remove the radiator and/or condenser, if necessary, to allow access to both sides.
- **3.** For best temperature sensing, install the sensor near the coolant inlet in the finned section in the top of the radiator. Select a location that will not interfere with the fan. The sensor may not extend completely through the core of the radiator. This will not affect operation.

DO NOT INSTALL THE SENSOR IN THE RADIATOR HOSE, SERIOUS DAMAGE WILL RESULT!



- **4.** Remove Quick Mount rod, button and foam pad from parts bag. Remove paper backing from foam pad. Slide the pad onto the Quick Mount rod, adhesive side first.
- 5. Separate the fins in area of sensor installation using the Quick Mount rod or similar so as to not damage the tubes. Insert the Quick Mount rod through the separated fins. Push button and sensor onto Quick Mount, align and insert into the separated fins, pull tight and cut off excess rod.

WIRING DIAGRAMS: Please refer to the wiring diagrams overleaf if installing an Electronic Thermal Switch. The wiring diagrams found in the Davies, Craig range of

# Thermatic Fan Kits are for use with the Mechanical Thermal Switch only.

**WARNING:** Do not use the vehicle's engine management 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 12-14VDC.

#### SETTING THE ADJUSTABLE THERMAL SWITCH

- 1. Turn on the ignition and turn the adjustment screw of the Thermal Switch fully clockwise. Start the engine and allow it to warm up. The fan(s) should run.
- **2.** 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).
- **3.** 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.
- 4. Turn the adjustment fully anti-clockwise.
- **5.** 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 and 10 degrees C higher than normal.
- 6. Immediately turn the adjustment shaft very slowly clockwise, just until the fan(s) switch on, and no more.
- **7.** 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 anti-clockwise slightly to increase the cutin 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.

**WARRANTY:** We hereby guarantee that for a period of twelve months 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.

Effective of 03/09/03

DAVIES, CRAIG PTY. LTD. THERMATIC FAN WIRING DIAGRAMS (FOR USE WITH THE ELECTRONIC THERMAL SWITCH ONLY!) WIRING DIAGRAMS 1-4 ARE FOR USE WITH A DAVIES, CRAIG THERMATIC FAN KIT ONLY WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM ONE FAN, THERMATIC ONLY **BLUE CONNECTOR** BI ACK 1 YELLOW 3 IGNITION MOTOR GREEN FUSE ORANGE 2 SELF TAPPER SCOTCHLOCK 3 RED **RING TERMINAL** 4

**FUSE HOLDER & FUSE** BLUE RED RELAY BATTERY (+ve) **PURCHASE: 1 KIT, 1 ELECTRONIC** 85 THERMAL SWITCH BLAC 2 WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM 2 ONE FAN, CONDENSER ARCON CLUTCH GREEN AND / OR THERMATIC **BLUE CONNECTOR** 1



THERMAL SWITCH WARNING: ENSURE IGNITION SOURCE IS NOT CONNECTED TO THE ENGINE MANAGEMENT SYSTEM BLACK BLUE CONNECTOR 1 87 RELAY 30 FUSE MOTOR MOTOR 2 SELF TAPPER BATTERY GREE 3 SCOTCHLOCK **RING TERMINAL** 4 BLACK BLUE 5 **FUSE HOLDER & FUSE** GREEN <u>DW 3</u> IGNITION 86 RED BLUE RED

12111

BATTERY (+ve)

### **3** TWIN FANS, THERMATIC ONLY

PURCHASE: 2 KITS, 1 ELECTRONIC

THERMAL SWITCH

SELF TAPPER

SCOTCHLOCK **RING TERMINAL** 

**FUSE HOLDER & FUSE** 

**PURCHASE: 1 KIT, 1 ELECTRONIC** 

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

BLACH

RELAY

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#### 4. TWIN FAN, THERMATIC TWIN FAN CONDENSER

- **BLUE CONNECTOR** 1
- 2 SELF TAPPER
- SCOTCHLOCK 3
- **RING TERMINAL**
- **FUSE HOLDER & FUSE** 5

PURCHASE: 2 KITS, 1 ELECTRONIC THERMAL SWITCH

### IF YOU ARE USING THE THERMAL SWITCH WITHOUT A DAVIES, CRAIG THERMATIC FAN KIT, FOLLOW THE DIAGRAM BELOW.

