

## PREMIUM THERMATIC SWITCH - PART # 0455

**WARNING:** THIS PREMIUM THERMATIC SWITCH IS FOR 12V USAGE ONLY! - Changing the 12V relays to 24V relays will allow 24V applications.

### INSTALLATION OF THERMAL SWITCH

1. The Switch should be mounted inside the cabin area, using the Hook & Loop - Velcro provided. Please keep unit away from high heat sources.

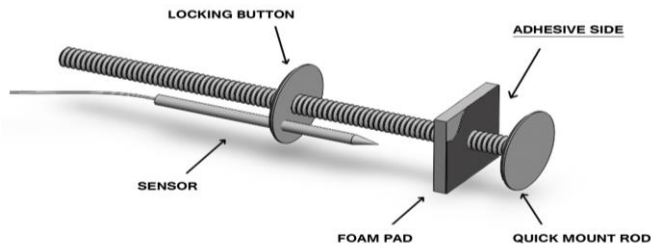
#### Kit Contents:

Controller x 1 – Mount Kit x 1 – Scotch Lock x 2 – Ring Terminal (Yellow) x 3 – Mount Pad x 1 – Connector (Yellow) x 2 – 12V Relay x 2 – wire loom x 2

2. Select the temperature sensor mounting location before installing the fan (if applicable). Temperature Sensor Probe 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 optimum performance, install the Temperature Sensor in the radiator fin section as close to the hot coolant inlet as possible. Select a position that will not interfere with the fan. The Temperature Sensor probe **MUST NOT** extend through the radiator core as this will affect the Switch's operation.

\* **Note:** using the P/N 0409 (**Not provided**) you can install the sensor probe into the top radiator hose.



4. Take the Locking button and foam pad and then remove backing paper from foam pad. Slide foam pad onto the quick mount rod so the pad adheres to the under face of the head of the quick mount rod.

5. Gently separate the radiator fins in area where you propose to mount/insert the temperature sensor probe, using the quick mount rod or similar so as not to damage the tubes. Insert the quick mount rod through the separated fins along with the Sensor probe (as illustrated). Push the locking button and Sensor onto the quick mount rod. Align and insert into the separated fins, pushing locking button onto the quick mount rod to sit flush with the face of the radiator. Cut off excess quick mount rod.

**WIRING DIAGRAM:** Please refer to the wiring diagram overleaf for installation of this Thermatic Switch.

**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 12-17VDC (for 12V applications).

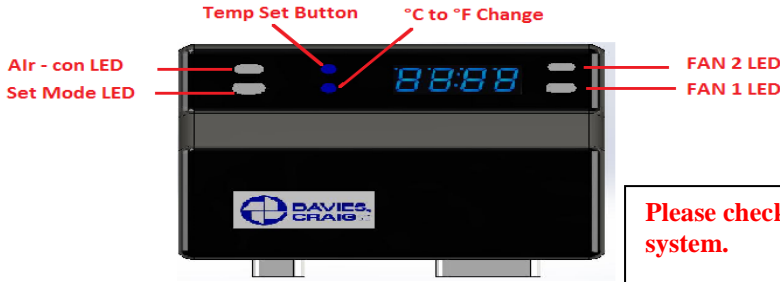
### SETTING THE ADJUSTABLE THERMATIC SWITCH

1. Press the Temp set button once, which will show the current set temperature, then begin by holding down the Temperature Set Button till the LED display reaches the maximum 110° C then release Temperature Set Button. If the button is not touched for 5 seconds this set temperature will be stored and the LED will display the ambient (air) temperature.
2. Start the engine and allow the engine temperature to rise to around  $\frac{3}{4}$  on the vehicle's temp gauge which should be higher than the normal operating engine temperature. The operator needs to decide the engine temperature at which the #1 fan will commence operation. (*Note: the air temperature around the Sensor positioned in the top of the radiator fins will be around 15C lower than the engine's coolant temp.*)
3. Then, hold down the Temp Set Button until the LED reaches the temperature the operator wishes Fan 1 to start. Once this temperature is reached, lift your finger off the Temp Set Button which will automatically set/target the selected temperature (*after 5 seconds*) that Fan 1 will start. Fan 2 (if applicable) will start operation 10 seconds after Fan 1 starts.
4. The fan/s will operate until the coolant temperature falls by 5 C below the Targeted/Set temperature.
5. Conduct a road test, monitoring engine temperature. If necessary, adjust the set/target temperature to suit your requirements.

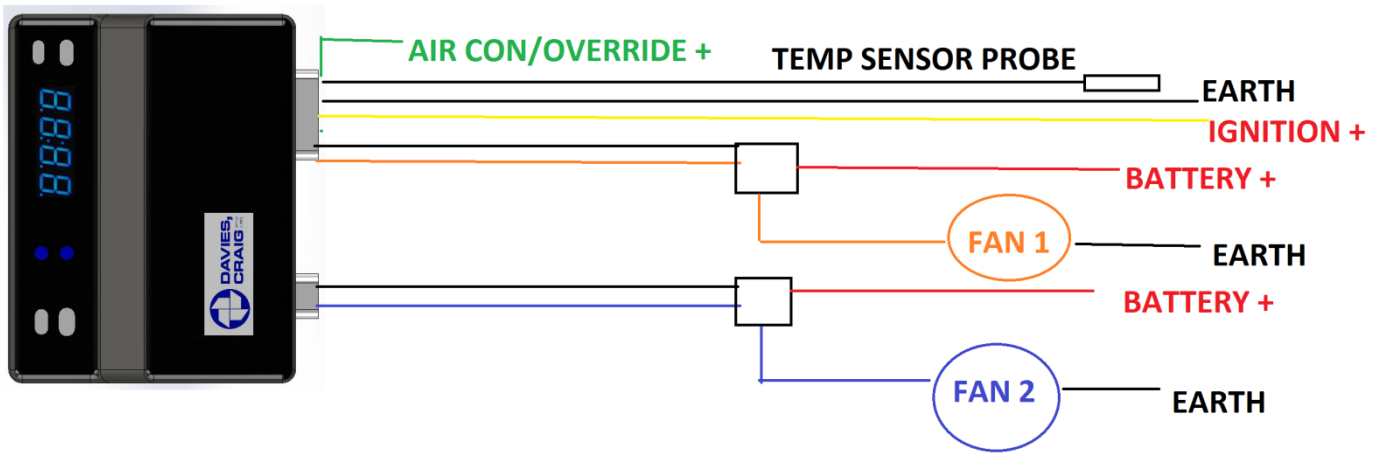
**NOTE:** Check that the fan(s) face the correct direction. On the hub of Davies, Craig fans there is a message "This side must face the front of the vehicle". Check that the fan(s) rotate in the correct direction, which is in the direction of the arrow on the hub. If the fans rotate in the wrong direction swap the two leads to the fan motor. Engine coolant under system pressure boils at 118C. If you are in any doubt about any of these instructions consult your retailer or DAVIES, CRAIG direct on +61 (3) 9369-1234 or [info@daviescraig.com.au](mailto:info@daviescraig.com.au) **FAILURE TO COMPLY WITH THESE INSTRUCTIONS OR TAMPERING WITH THE PRODUCT MAY INVALIDATE THE MANUFACTURER'S WARRANTY.**

**WARRANTY:** Davies Craig Pty Ltd hereby guarantees this product for a period of 2 years from the date of purchase. DCPL will replace your Premium Thermatic Switch, if a fault develops, providing such a fault is directly attributable to a defect in workmanship or materials used in the manufacture of the Premium Thermatic Switch. Labour and consequential costs are excluded.

These wiring instructions are for the (-) Earth systems only. For positive earth systems, all power wires must connect directly to battery positive to positive & negative to negative. Ignition wire must connect directly to battery positive via an ON/OFF switch (Not provided).



Please check the correct Fan rotation after connecting to the system.



### Diagnostic Chart

Function	Display	Diagnostic
Ambient temperature display mode		No LED indication lights will illuminate, should display the real time temperature at probe end.
Set temperature display mode		SET mode LED indication light must illuminate. Able to scroll up to the desired set/target temp setting. FAN 1 & FAN 2 LEDs may operate if Ambient Temp = or > Set/Target temp
Air Con / Override mode		When the Air con (Green) wire receives + 12V, Both FANs will activate. Possible to use as an Override switch. During the operation AC/FAN1/FAN2 LEDs will illuminate.
ERR 1		Error 1 <ul style="list-style-type: none"> <li>Open circuit in the temperature probe</li> </ul>
ERR 2		Error 2 <ul style="list-style-type: none"> <li>Short circuit in the temperature probe.</li> </ul>