# Digital Controller 12 volt only

For optimum control of Electric Water Pumps. Suits Davies, Craig EWP®80, EWP®115, EBP® and Thermatic® Fans.

The updated Digital Controller now has two specific functions.

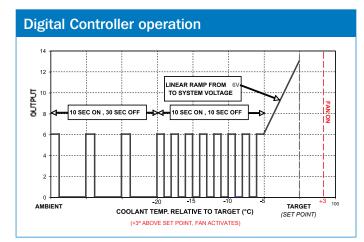
This unique Digital Controller will manage the operation of the EWP® by varying the speed of the pump in response to the coolant temperature and manage control of your electric engine fan. The Controller has a push-button on the facia panel that offers five target temperatures: 75°C, 80°C, 85°C, 90°C and 95°C  $(165^{\circ}, 175^{\circ}, 185^{\circ}, 195^{\circ} \text{ and } 205^{\circ}F).$ 

Generally, higher engine temperature will offer improved fuel efficiency and lower engine temperature more power. The Digital Controller will operate the engine's electric fan automatically once the engine has reached 3°C (5.4°F) above the targeted (set) temperature. Another significant benefit is that the Controller allows the EWP® to run on after ignition shutdown to eliminate heat soak.



Input voltage	12V DC to 15V DC
Output voltage	5V to 15V
Maximum current	12A
Operating temperatures	-20° to 60°C (-5° to 140°F)
Targeted (set) temperatures	75°C, 80°C, 85°C, 90°C and 95°C (165°, 175°, 185°, 195° and 205°F)
Fan cut-in temperature	3°C (5.4°F) above the targeted (set) temperature
Controller type	PCB with micro-processor
Sensor type	Thermister in housing
Time-out	2 minutes maximum or set -5°C (23°F)
Indicator LEDs	Temperature, power, EWP, test, fan
Weight	90 grams (3.2 oz)
Dimensions	101mm (I) x 95mm (w) x 35mm (d)

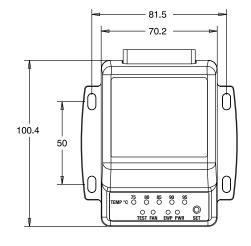


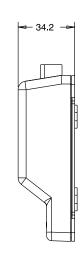


#### **Kit contents**

Part #	Description	Qty
8120	Digital Controller	1
8920	Instructions	1
8411	Wiring harness	1
0410	In-line adaptor	1
8510	Sleeve 3mm rubber adaptors	2
8512	Hose clamp	2
8414	Thermal sensor	1
	Assorted hardware	

#### **Dimensions**





## Thermal Switches

#### Davies, Craig offer two types of Thermal Switch:

- Part #0401 senses the coolant temperature after it passes through the engine block prior to entering the radiator.
- Part #0402 senses air temperature as it passes through the radiator.

#### **Roth units:**

- automatically activate the Thermatic® Fans at the set tempertature when cooling is required
- can be adjusted over a wide temperature range by simply turning a knob located on the control switch
- · can also be used to operate the Electric Water Pump when used as an auxiliary pump to the mechanical water pump.



### **Mechanical Thermal Switch (12V & 24V)**

The Mechanical Thermal Switch is adjustable from 40° to 100°C  $(104^{\circ} \text{ to } 212^{\circ}\text{F}).$ 

The thermal switch is mounted near the radiator and the stainless steel probe fitted inside the radiator hose.

The thermal switch is then connected to the ignition circuit for operation.

The thermal switch and relay kit enables a fan to operate both thermally and also when the air conditioning is running.

#0401	Mechanical Thermal Switch for more efficient Thermatic® Fan or EWP® control
#0404	Mechanical Thermal Switch & Relay



## **Electronic Thermal Switch (12V only)**

The Electronic Thermal Switch Kit has an adjustable temperature range of 40°C to 99°C (104° to 210° F).

The Electronic Thermal Switch, relay and wiring loom are assembled and pre-connected ready for installation.

This switch is operated thermally and also when the air conditioning is in operation.

The Electronic Thermal Switch has the advantage over the Mechanical Thermal Switch in that the probe is designed to be placed between the radiator fins and accurately senses the air temperature.

**Electronic Thermal Switch** for more efficient Thermatic® Fan or EWP® control.



## **Temperature Sensor Adaptor Kit**

No need to squeeze the probe of the Mechanical Thermal Switch between the radiator inlet and radiator hose.

This simple, economical Adaptor Kit allows easy fitting directly into the radiator hose.

Just fit the probe into the compression fitting, remove about 17mm (2/3") of radiator hose, fit the adaptor between each hose and secure the hose clamps.

The kit comes complete, as shown, for a watertight and effective probe installation. Extra rubber sleeves are supplied to enable fitment to radiator hose sizes from 32mm to 40mm ( $1\frac{1}{4}$ " to  $1\frac{1}{2}$ ") diameter.

Suits all temperature sensors with a 1/4" or 6mm outside diameter and temperature gauge senders with 1/4" BSPT thread.

**Note:** This is an accessory for use with #0401 and #0404 Thermal Switches.

Thermal Switch Temperature Sensor Adaptor Kit #0409