

## Thermostat Information

The immersion heater is supplied with a 2 rod thermostats, approximately factory set to 65°C, with adjustable temperature.

To maintain safety and operation, any replacement thermostat must be of the same type.

## Electrical Information

This unit should be connected by a suitably qualified electrician in accordance with the latest I.E.E. regulations.

**⚠ This device must be earthed**

## Wiring (240v only)

1. Earth connection (green & yellow) should be made firmly to the earth post (marked "E") using the terminals a achments provided.
2. The Live Supply (brown) from the mains supply cable to the thermostat terminal marked "L".
3. The neutral connection (blue) from the mains supply to the thermostat terminal marked "N".

## Immersion Replacement Information

1. Check your mains power voltage matches the voltage rang indicated on the label of the plac terminal cover.
2. The immersion heater screws into a (2 1/4" BSP) thread boss.
3. The immersion heater must be fixed to the cylinder using the O ring provided. Please ensure that the unit is not overghtened into the tank boss.

If the heater is switched on when the water level is not fully covering the heang element there may be serious damage incurred to the heater, property or persons.

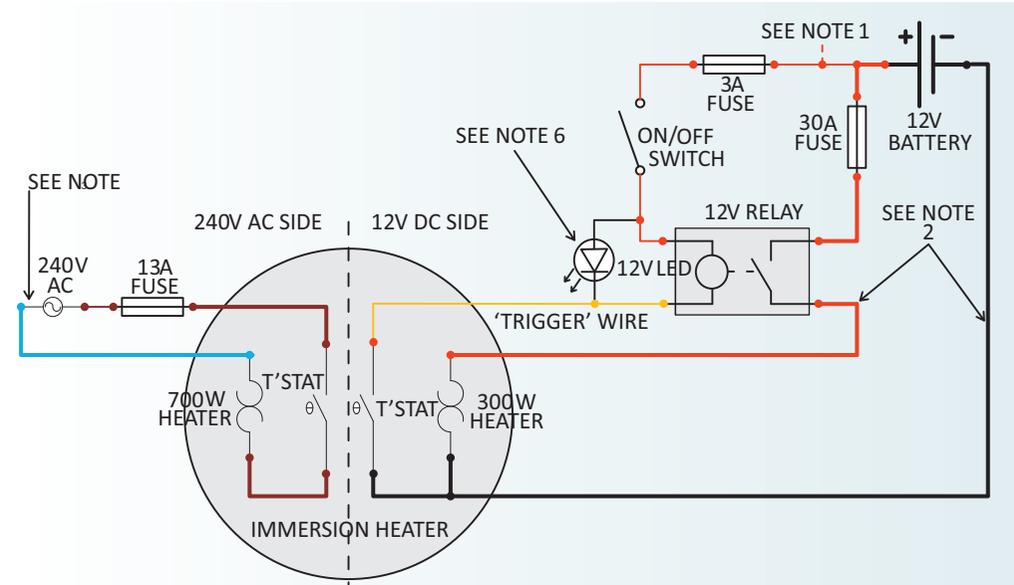
The appliance is not to be used by children or persons with reduced capabilities, or lack of experience and knowledge, unless they have been given supervision or instrucion concerning use of the appliance by a person responsible for their safety.

**⚠ The immersion must not be switched on without water within the calorifier. Due to the possibility of burning out the elements and fire.**

**⚠ Do not remove this cover whilst connected to 12/240 volt hook up or generator that is switched on.**

**⚠ If there is a risk of freezing when the calorifier is not in use, the calorifier must be drained as part of normal winterisation/pre storage maintenance activities.**

## Immersion & 12v/240v Wiring Diagram



### NOTES:

1. THIS 12V FEED CAN EITHER BE TAKEN DIRECTLY TO THE BATTERY '+' (AS SHOWN HERE) OR CAN BE TAKEN TO THE VEHICLES ALTERNATOR 'TRIGGER WIRE'. IF POWERED FROM THE ALTERNATOR TRIGGER WIRE, THE HEATER WILL ONLY OPERATE WHEN THE ENGINE IS RUNNING. IF TAKEN DIRECTLY TO THE BATTERY THEN THE HEATER CAN BE OPERATED WITH THE ENGINE OFF.
2. ENSURE THE CORRECT GAUGE WIRE IS USED AND DE-RATED ACCORDINGLY. A 300W HEATER AT 12V WILL DRAW ~25A; THEREFORE A 30A FUSE IS REQUIRED. THE WIRING NEEDS TO BE RATED HIGHER THAN THE FUSE RATING ONCE DE-RATED. 11 AWG (4 mm<sup>2</sup>) WIRE IS RECOMMENDED.
3. THIS END WOULD BE IN THE FORM OF A NORMAL 3-PIN MAINS PLUG FITTED WITH A 13A FUSE.
4. THE 240V AC THERMOSTAT IS WIRED DIFFERENTLY TO THE 12V THERMOSTAT. THIS IS BECAUSE BOTH THERMOSTATS ARE RATED FOR 20A MAX. - AT 240V THE CURRENT REQUIRED FOR THE 700W HEATER IS ~3A; THEREFORE THE THERMOSTAT CAN SAFELY BE WIRED IN SERIES WITH THE HEATER AS SHOWN.- AT 12V THE CURRENT REQUIRED FOR THE 300W HEATER IS ~25A; THEREFORE THE THERMOSTAT CANNOT BE WIRED IN SERIES AND A RELAY IS NEEDED AS SHOWN.
5. THE THERMOSTAT **MUST BE USED FOR SAFETY**.
6. MAKE SURE A 12V LED/INDICATOR IS USED. THESE HAVE RESISTORS BUILT IN AND DO NOT REQUIRE AN EXTERNAL RESISTOR.
7. WHEN SELECTING THE CORRECT RELAY, A 12V COIL IS NEEDED AND THE CONTACTS MUST HAVE A HIGHER RATING THAN THE FUSE THAT IS PROTECTING IT (GREATER THAN 30A).