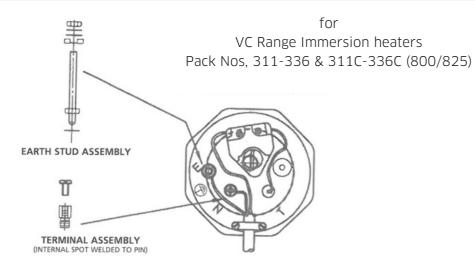
# Backer Electric Company Limited Wiring Instructions





This heater is designed to take Backermatic. Cotherm TSDR & Sunvic VKL 3000 Series thermostats.

- 1. Connect the heater to the supply with a flexible cord or either of the folowing types: 1,5mm<sup>2</sup> 85°C rubber-insulated, 85°C RS 3-sheathed, complying with table 8 of BS6141:1991 or 2,5mm 90°C PVC - Insulated, 85°C PVC - Sheathed complying with table 15 of BS6141:1991.
- 2. Insert thermostat into pocket and connect to lead attached to terminal marked 'T'.
- 3. Wire the supply leads through a double pole switch to the heater as follows:
  - 3.1 Green or Green and Yellow to Earth terminal marked 'E'.
  - 3.2 Blue (Black) to Neutral terminal marked 'N' with the loose components as shown above. NB Support terminal with pilers.
  - 3.3 Brown (Red) to Free terminal on Thermostat.
  - 3.4 Fasten flexible cord in the cable clamp within the cover with the loose components as shown above.
- 4. An efficient earth must be provided to the terminal marked 'E'.

Ensure ALL terminal screws are thoroughly tightened before re-fitting cover.

## Warning: THIS APPLIANCE MUST BE EARTHED

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The immersion heater is only to be installed in a system where the heating element is always below water level. The installer must check that there is water in the tank before the immersion heater is switched on.

#### **OPERATING CONDITIONS**

This heater is intended for use only in a domestic hot water system with an indirect or direct copper cylinder conforming to BS 699, BS 1566, BS 3198 or similar specification and operating at maximum temperature of, or below 85 degrees centigrade.

No warranty is given or implied for uses other than as part of a domestic hot water system.

### **FITTING TO TANK**

The heater is to be fitted to the tank using the washer supplied (or a 'Water Council' approved non-asbestos washer of at least 1.5mm in thickness) and tightened to a minimum torque of 30Nm. To ensure a 'leakfree' joint, it is important that both flange faces are clean and free from all traces of old washer.

#### WATER HARDNESS

To obtain maximum heater service life it is important to select the correct type of Immersion heater for local water conditions.

The 'Standard' range of Immersion heaters, where the sheath is of 'COPPER' material, are designed to operate in 'soft' to 'neutral' water or where water softening equipment is used.

The 'Backerloy' or 'Anti-Corrosive' range of Immersion heaters, where the sheath is of 'STAINLESS' type material, are designed to operate in 'neutral' to 'hard' water where the build-up of limescale is likely to occur.

#### **POWER SHOWERS OR SHOWER PUMPS**

Where a second hot water outlet is fitted to the storage cylinder (hot water tank) to supply a shower pump or power shower, the guarantee/warranty does NOT cover defects arising from the operation of the heater when not totally Immersed in water.

#### LIMITATIONS

The appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge. Children should not be allowed near the appliance. The quarantee/warranty does NOT cover defects arising from accidental damage, misuse, wear and tear, inappropriate selection to suit the local water conditions, incorrect connection or incorrect supply voltage.

#### **'CE' MARKING**

The 'CE' marking of this product indicates conformance to the following EEC regulations: Electro Magnetic Compatibility Regulaions (EMC), Elecrical Equipment (Safety) Regulations/Low Voltage Directive (LVD) and CE Marking Regulations.

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