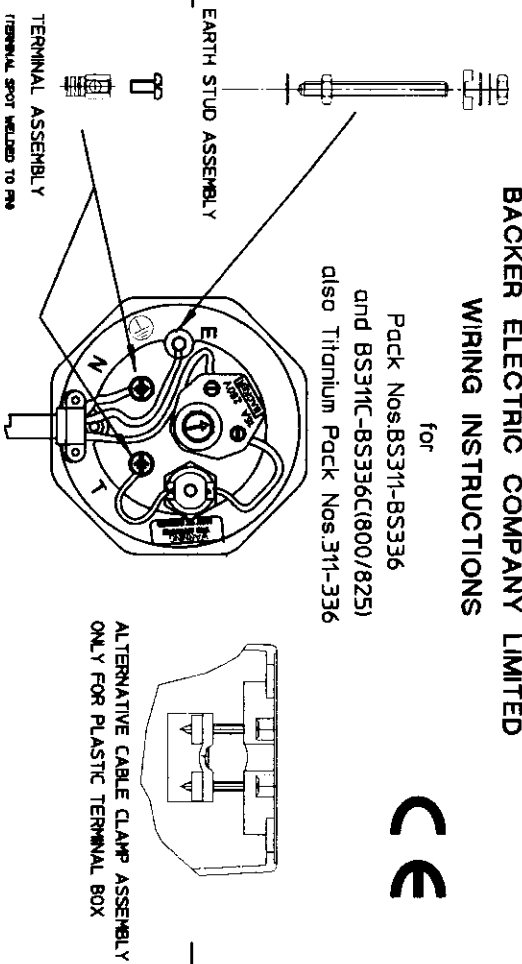


**BACKER ELECTRIC COMPANY LIMITED**  
**WIRING INSTRUCTIONS**



for  
Pack Nos:BS311-BS336  
and BS311C-BS336C(800/825)  
also Titanium Pack Nos:311-336



This heater is designed to take Backer BT-65° Range thermostats and is fitted with a manual reset cutout.

1. Connect the heater to the supply with flexible cord of either of the following 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<sup>2</sup> 90°C PVC-insulated, 85°C PVC-sheathed, complying with table 15 of BS6141:1991.
  2. Wire the supply leads through a double pole switch to the heater as follows:-
    - 2.1 Green or Green and Yellow to Earth terminal marked 'E'.
    - 2.2 Black or Blue to Neutral terminal marked 'N' with the loose components as shown above.
    - 2.3 Red or Brown to Free terminal on Thermostat.
    - 2.4 Fasten flexible cord in the cable clamp within the cover with the loose components as shown above.
  3. An efficient earth must be provided to the terminal marked 'E'.
- A DOUBLE POLE ISOLATING SWITCH HAVING CONTACT SEPARATION OF 30mm MIN MUST BE INCLUDED IN THE INSTALLATION**
- WARNING : THIS APPLIANCE MUST BE EARTHED**
- Ensure ALL terminal screws are thoroughly tightened before re-fitting cover.

IF HEATER FAILS TO OPERATE 'SWITCH OFF' SUPPLY &  
CONSULT A QUALIFIED ELECTRICIAN  
BACKER ELECTRIC COMPANY LIMITED, ROTHERHAM FC76000

**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 a 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-astebestow washer of at least 1.5mm in thickness) and tightened to a minimum torque of 30 Nm. 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 the 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 'Backerley' or 'Anti-Corrosive' or 'Titanium' ranges 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**

Any use other than that as listed above will invalidate the product guarantee unless the details of the operating environment are subject to a contractual agreement.

The guarantee / 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 Regulations (EMC), Electrical Equipment (Safety) Regulations / Low Voltage Directive (LVD) and the CE Marking Regulations.