Technical Memorandum

Issued by: Nick Wells **Date: 15th September 2022**
Reference TM02- version 1
PROJECT: AMBASSADORS THEATRE MEP REFURBISHMENT WORKS

TITLE: CONVERSION OF CAST IRON RADIATORS TO ELECTRIC HEATING

The existing cast iron radiators will be removed from site and modified in a workshop.

The radiators will be flushed and chemically cleaned.

Once the electric element has been installed into the bottom connection (left or right to suit), the radiator will be 95% filled with a water/glycol mix (10% by volume) which also contains a corrosion inhibitor. The 5% of volume will be air to allow for expansion. A safety valve and vent will be fitted to the top of the radiator.

Ref	Location	Overall Size (HxL)	Electrical Duty
R1	Stalls Stage Right	36″ x 36″	2kW
R2	Stalls Stage Right	36″ x 36″	2kW
R3	Circle Stage Right	18″ x 36″	1.2kW
R4	Circle Stage Left	24″ x 21 ‟	1.2kW
R5	Stage Right (Stage)	36″ x 36″	2kW
R18	Stalls Rear Lobby	36″ x 36″	2kW

Electric Cast Iron Radiators

Electric heating elements are available in 1.2 kW, 1.5kW and 2kW options, in a range of finishes including anthracite, satin gold, white, satin steel and chrome.

Electrical Elements For Cast Iron Radiators

These electric elements can be fitted to traditional reclaimed radiators or new reproduction radiators to convert the radiators to electric heating.

The electric element is fitted with a thermostat which will control the temperature of the room, and it also has a frost setting. To further enhance this, you can also incorporate a timer.

How To Fit An Electric Element On Your Radiator

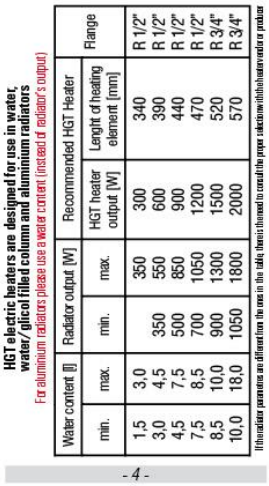
Please see the manufactures instructions below of how to fit an electrical element to a cast iron radiator. The manufacturer's fitting instructions are also included with the heating element.

We recommend that a safety valve is fitted when installing the heating element.

- 1 -

- 2 -

- 3 -



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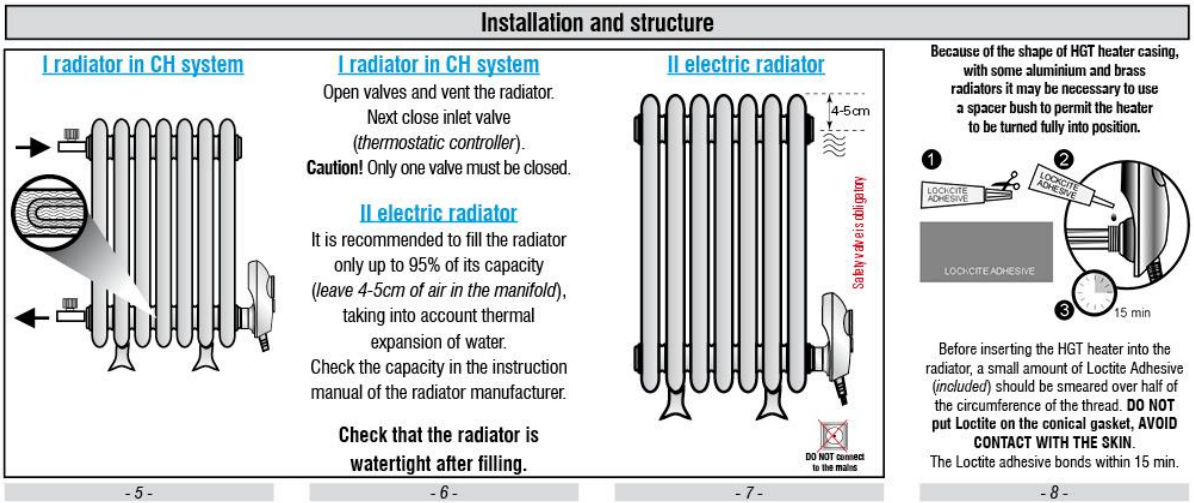

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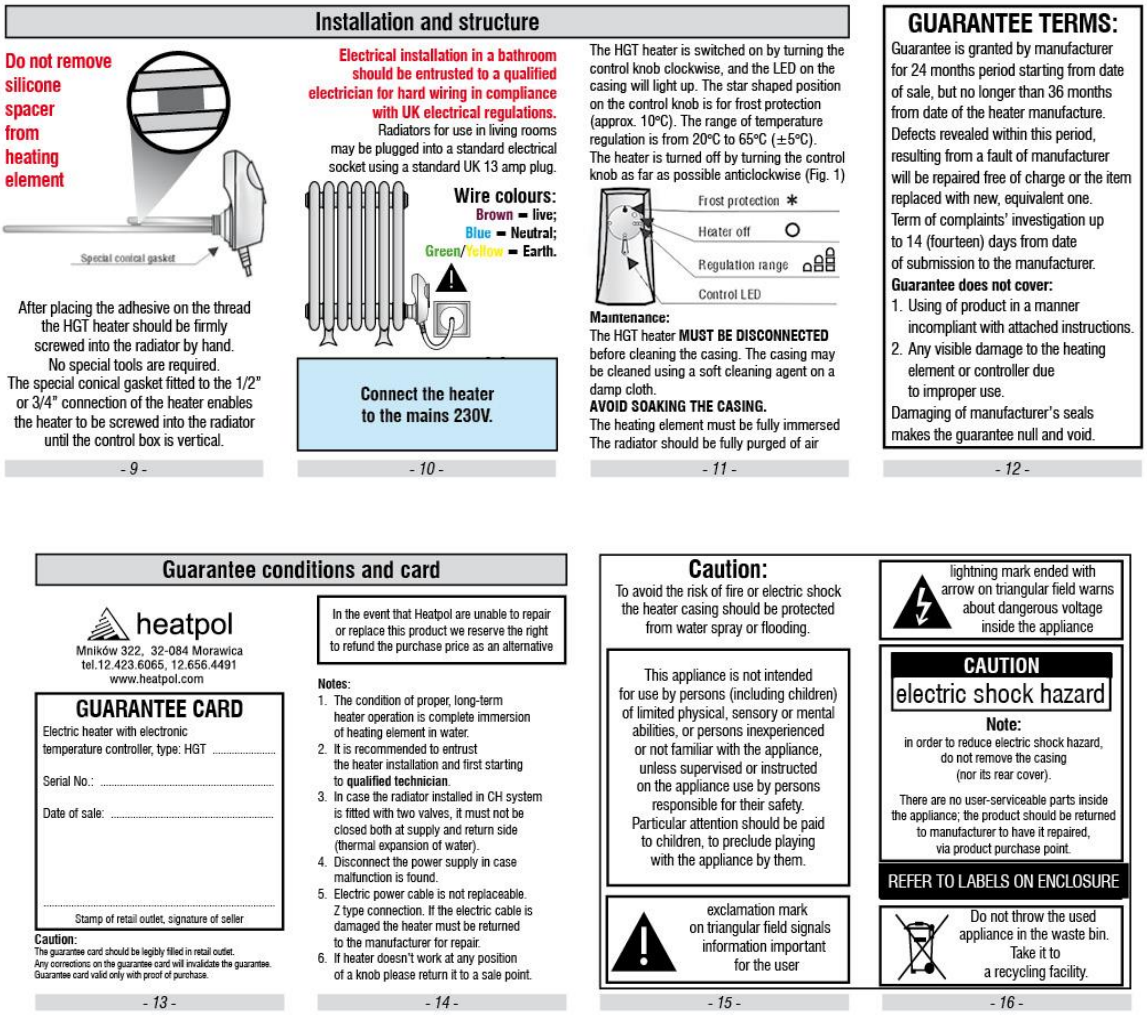


The radiator must be filled as below. Please note, this process must be completed by a professional.

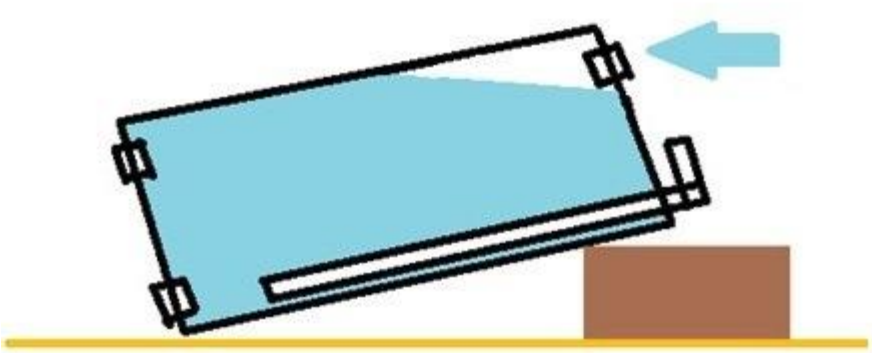
• Begin by unscrewing the two end caps at the top of the radiator – this will reveal a large hole at either end of the radiator.

• Fill the radiator up with the water and glycol mix. Note, the heating element must be fully submerged.

• Start filling slowly from the one end so there are no air locks in the radiator.

• When the radiator is filled, screw the radiator end cap back on the left-hand side and raise the radiator at an angle. Carry on filling the radiator slowly to make sure there are no airlocks.

• You must leave a 5% gap at the top of the radiator to allow for expansion.



• Screw the radiator bush back on the right-hand side.

The radiator is now ready for connection to your electrical supply.