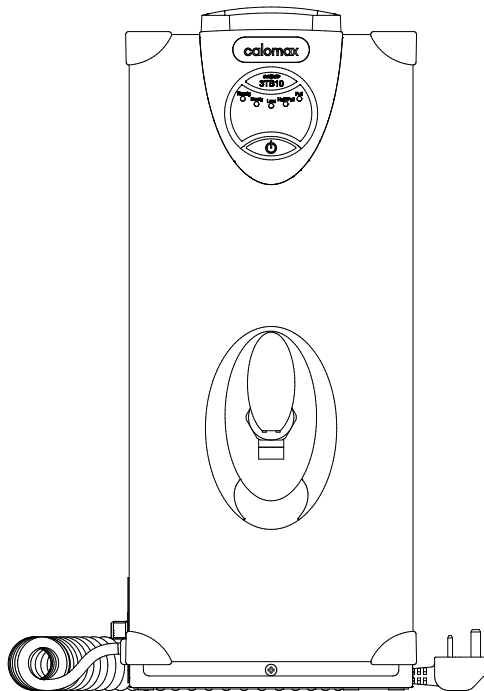


# calomax

## INSTALLATION, OPERATION AND SERVICING INSTRUCTIONS FOR THE ECLIPSE HS3C10 WATER BOILER



Issue 2  
18/06/25  
DCR :1171



Please read these  
instructions carefully  
before operating your  
boiler for the first time



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## INTRODUCTION

Thank you for purchasing a HS3C10 water boiler. All our products are designed to give years of simple, reliable operation. To ensure this, it is important that the installation and subsequent servicing and maintenance is carried out by a suitably qualified person in accordance with these instructions.

For assistance in finding a suitable engineer in your area, visit our website [www.calomax.co.uk](http://www.calomax.co.uk), contact our service department on 0113 249 6681 or email: [service@calomax.co.uk](mailto:service@calomax.co.uk)

## APPROVALS



This product conforms to the CE and UKCA marking directive through compliance with the following standards:

- The Low Voltage Directive 73/23/EEC
- The Electromagnetic Compatibility Directive 89/336/EEC

Compliance with these standards has been confirmed through testing by an independent NAMAS approved body.

Any water fittings or water-using appliance connected to the mains water supply must comply with the Water Fittings Regulations (or Byelaws in Scotland). This ensures the appliance does not waste or contaminate the drinking water supply. This unit is exempt from these regulations as it is not connected to a mains water supply. However, it has been manufactured using the same methods and materials as a standard water boiler that has been submitted to the Water Regulation Advisory Scheme (WRAS) and proven to conform to these regulations.



The tap handle moulding incorporates an antimicrobial additive and has been independently tested to prove the effectiveness of the surface hygiene.

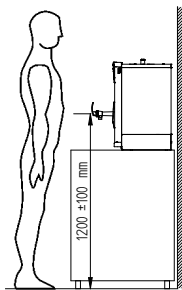
## CONSTRUCTION

All metallic components of the machine in direct contact with drinking water are manufactured from high quality 316 and 304 grade stainless steel or non-ferrous materials providing maximum resistance to corrosion.

## INSTALLATION AND MAINTENANCE

### LOCATION

The boiler must be installed in a location where access is restricted to operators who are suitably trained, or where untrained operators of the machine can be supervised by trained personnel.

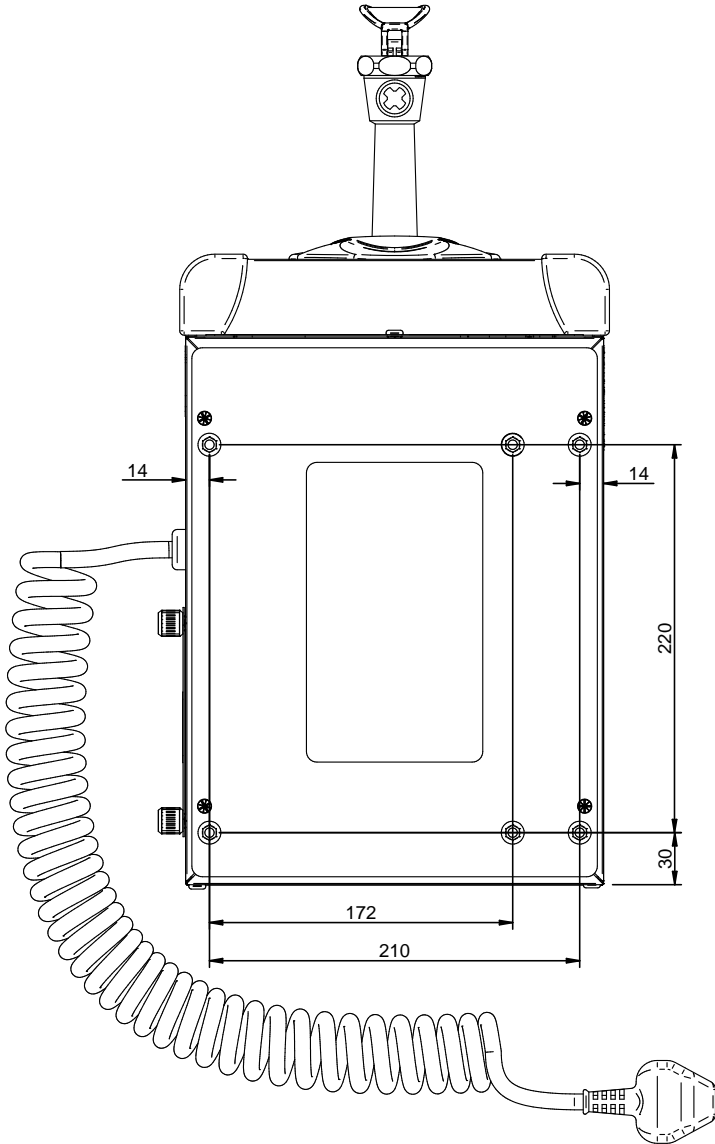


To comply with recommendations from the Health and Safety Executive it is important that due consideration be given to safe operation of the controls of the boiler. The boiler should therefore be mounted in such a manner that the operator can stand directly facing the machine with the controls at a recommended height from the floor to the draw-off tap handle of 1200mm +/- 100mm. Consideration should also be given to the servicing requirements of the machine.

The maximum and minimum ambient operating conditions must be between 35°C and 5°C. The appliance is not suitable for installation where a water jet could be used. Install the boiler on a surface suitable for the working weight of the boiler. Allow clearance for ventilation and for the easy removal of the front panel and drain access plate. Calomax recommend a minimum clearance of 50mm on all sides of the boiler. A suitably qualified engineer must install this unit. Plumbing and electrical installation work may be involved.

# MOUNTING THE UNIT

The unit has 6 x M6 mounting points on the underside of the boiler. At least 4 of these should be used to bolt the unit to the trolley using suitable M6 bolts (M6 bolts are NOT provided by Calomax). The bolts should be long enough to protrude from the mounting surface by at least 20mm.



## ELECTRICAL CONNECTIONS

The boiler should be connected to a 240V ac 13A electrical supply, capable of carrying a load of 3kW. The installation of a residual current device (RCD) having a rated residual operating current not exceeding 30 mA is advisable.

If an Arc Fault Detection Device (AFDD) is in circuit, we advise using a 'C-curve' variant and ensuring the firmware is kept up to date.

## USER INSTRUCTIONS



During normal operation some external parts will become very hot, particularly the lid and the tap body. Care must be taken to avoid a burn or scald injury.

This equipment is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should **NOT** be allowed to play with or use this appliance.

In the event of the power supply lead to the boiler becoming damaged, the appliance must be removed from service. A replacement genuine part is available from Calomax Ltd, and must be fitted by a suitably qualified engineer.

## COMMISSIONING

Before turning the boiler on you must fill the unit with at least 4 litres of clean drinking water to fully cover the element. Lift the handle on top of the boiler to gain access to fill the unit. Care must be taken to avoid splashing water over the unit whilst filling. Once the element is fully covered you can switch the unit on by connecting the unit to an electrical supply and pressing the power switch on the front facia. See table on the next page for further commissioning information.

Light	Light State	What This Means
Red “Empty” LED	Flashing	Water level is below the safety level sensor and needs to be filled for further operation
	Solid	Water level is inbetween the safety level sensor and the low level and needs to be filled
Blue “Low” LED	Solid	Water level is above the low level sensor but below the half full level sensor
Blue “Half Full” LED	Solid	Water level is above the half full level sensor but below the full level sensor
Blue “Full” LED	Solid	Water level is above the full level sensor and is now at maximum capacity
Green “Ready” LED	Flashing	Element is energised and is heating up the water to operating temperature
	Solid	Water is up to the normal operating temperature and ready to be dispensed

## GENERAL OPERATION

Hold a cup below the tap or place larger vessels on the table top. Care must be taken to avoid injury through splashing or over-filling.

To begin filling, pull the handle forward or push it backward – boiling water begins to flow. If the tap is opened fully, it can be locked open (for filling large vessels). In this state the boiler must never be left unattended.

To stop filling, release the handle so it returns to the closed position.

Staff should make sure the water level is adequately topped up with clean drinking water to avoid running out of boiling water.

## SCALE

The production of scale is a natural phenomenon and commonly occurs in hot water systems. The nature of the scale produced and its rate of formation varies widely throughout the country.

To ensure continuous, reliable operation, the boiler should be regularly de-scaled by a suitably qualified engineer.

The HS3C10 boiler benefits from an integral scale inhibitor; **this is not** a scale eliminator and its effects will differ according to the water quality in your area. To ensure trouble free operation, periodically check for scale inside the boiling chamber. De-scaling may be required within the first 12 months. This is not covered under the product's warranty as it is not a fault.

## DRAINING



Draining of the unit must only be carried out by authorised competent persons. Very hot surfaces are present. It is recommended to allow the unit to cool down before draining. Ensure the boiler is switched off and unplugged.

To access the drain valve, you must remove the thumb tight screws from the left-hand side panel and carefully unfold the silicone tube from inside the base. **DO NOT PULL THE SILICONE TUBE FROM THE COPPER ELBOW.** Remove the silicone end bung from the tube end and place the tube into a sink drain or container vessel. Turn the drain valve anti-clockwise to start the flow of water.



Care must be taken when draining the unit if the unit has not been left to cool down. The silicone tube and accompanying drain valve will become very hot.

Remember to turn the drain valve fully clockwise when finished to close the drain valve. Push the silicone end bung back into the silicone tube and place the silicone tube back inside the base unit. Replace the drain access cover.



## CLEANING



Avoid using any abrasive materials. Wiping the outer casing with a damp cloth should be sufficient. Some stainless steel cleaning products may not be suitable for plastic and must not come in contact with the plastic fascia parts. Always disconnect the electrical supply before cleaning.

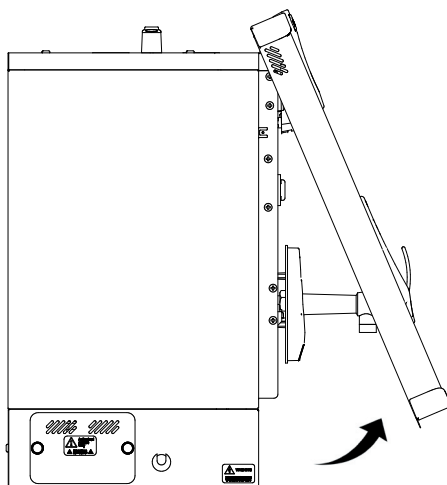
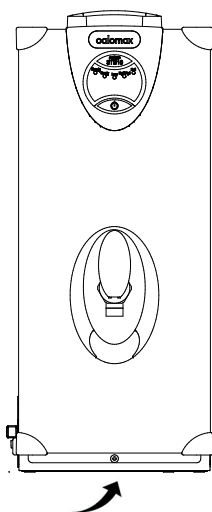
**NEVER USE A SPRAY JET OR ANY OTHER METHOD WHICH COULD CAUSE WATER TO ENTER THE ELECTRICAL CHAMBER.**

## ACCESS INSTRUCTIONS



Access to the service area must only be undertaken by authorised competent persons with knowledge and practical experience of the appliance, in particular as far as safety and hygiene are concerned. Power to the boiler must be disconnected before removing the front panel. Take care for hot surfaces when working inside the boiler.

Access to the internals of the machine is gained by the removal of the front panel. Remove the screw underneath the front panel and pull the bottom of the panel out and over the tap moulding to remove.



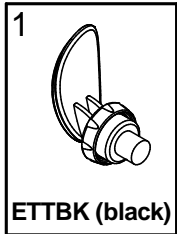
## BASIC TROUBLE SHOOTING

Symptoms	Possible Cause	Remedy
No boiling water available	Broken tap top assembly	Replace tap top (or component)
	Element failed or tripped	Replace element or reset
	Faulty Printed Circuit Board	Replace Circuit Board
9 Light Pulse	Excessive internal scale. (See 'De-Scale' page 14)	De-scale the boiler (Particularly thermistor)
	Faulty wiring to thermistor / faulty thermistor	Repair / replace as required
	Temperature controller needs adjusting	Reduce operating temperature
	Element failed to earth	Replace element
	Faulty Printed Circuit Board	Replace Printed Circuit Board
	Faulty Triac Printed Circuit Board	Replace Triac Printed Circuit Board

The HS3C10 has an inbuilt thermal cutout device to protect the element in a boil dry situation. Should the cutout be activated, contact an approved Calomax service provider for advice.

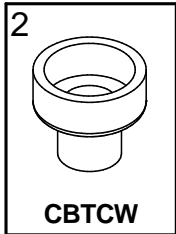
# SPARE PARTS

Spare parts are usually available ex-stock.  
Please quote Model & Serial Number.



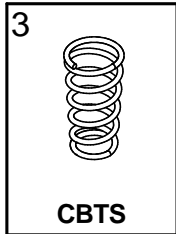
**ETTBK (black)**

TAP TOP  
ASSEMBLY



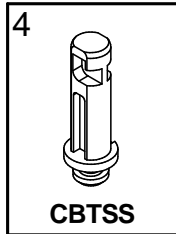
**CBTCW**

TAP CUP WASHER



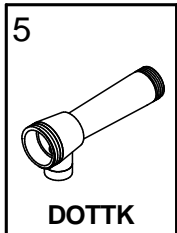
**CBTS**

TAP SPRING



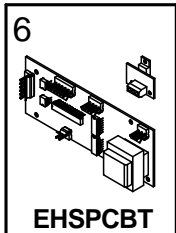
**CBTSS**

TAP SLOTTED  
STEM



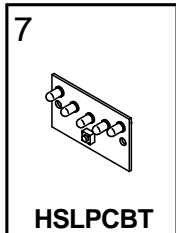
**DOTTK**

DRAW OFF TAP  
BODY



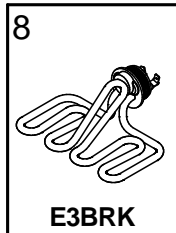
**EHSPCBT**

ECLIPSE HS P.C.B  
TESTED



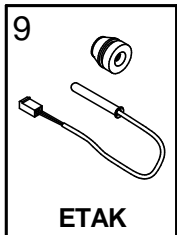
**HSLPCBT**

HS LIGHT P.C.B  
TESTED



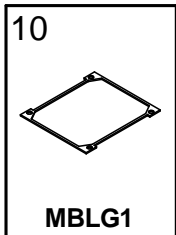
**E3BRK**

ELEMENT 3kW  
RESET KIT



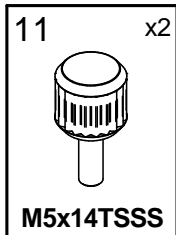
**ETAK**

ECLIPSE  
THERMISTOR  
ASSEMBLY KIT



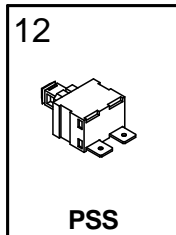
**MBLG1**

BODY LID GASKET



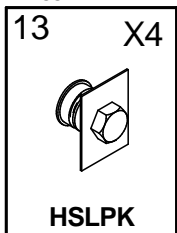
**M5x14TSSS**

M5x14 STAINLESS  
STEEL  
THUMBSCREW



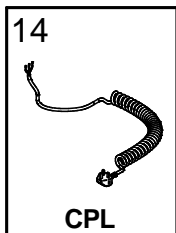
**PSS**

POWER SWITCH



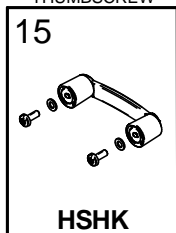
**HSLPK**

HS3C10 LEVEL  
PROBE KIT



**CPL**

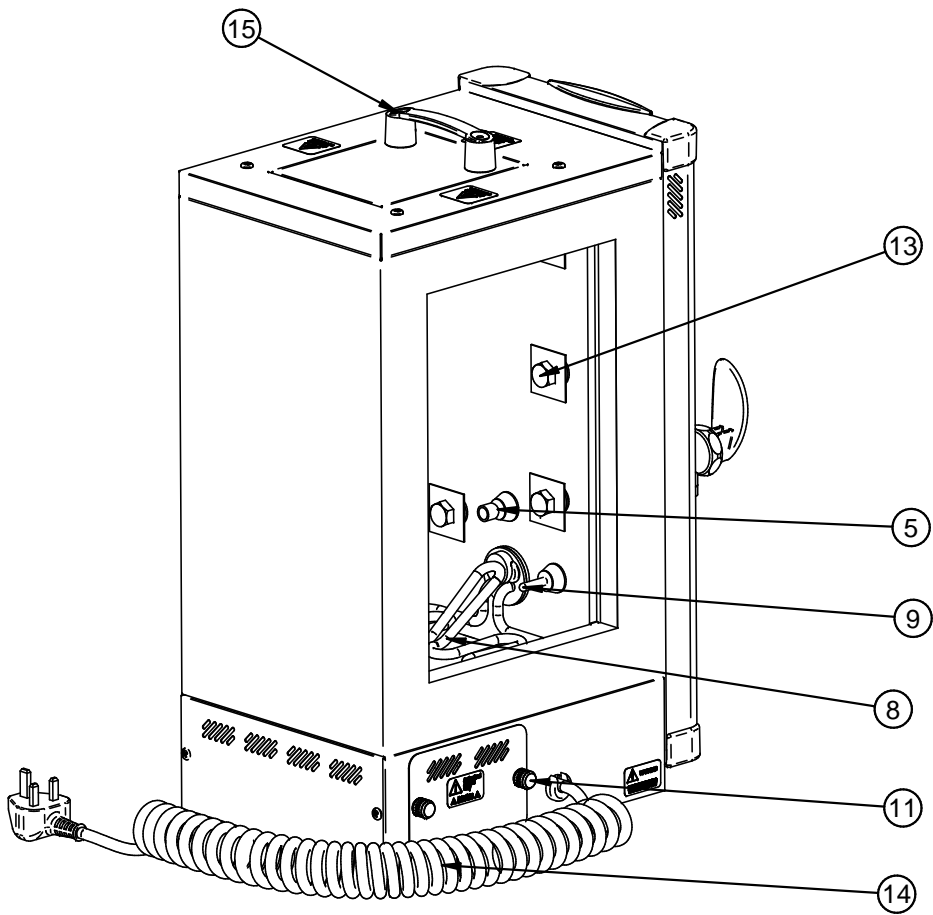
COILED PLUG AND  
LEAD



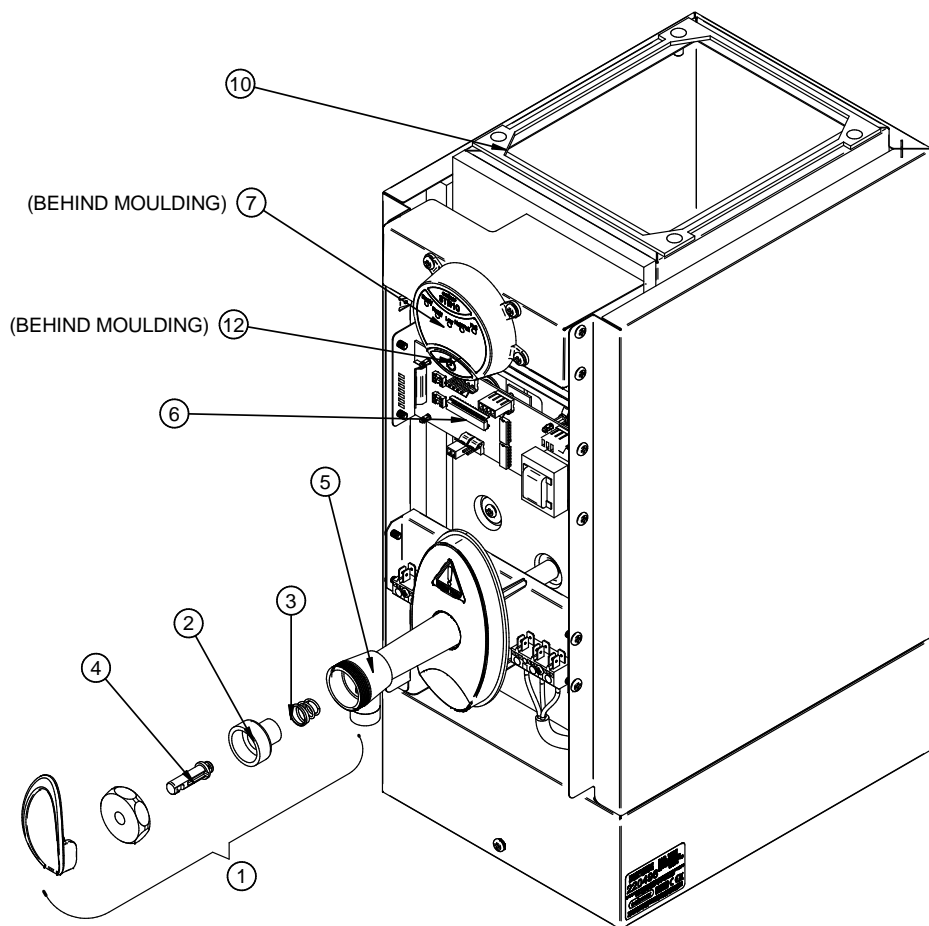
**HSHK**

HS3C10 HANDLE  
KIT

EXPLODED PARTS VIEW FOR ECLIPSE HS3C10



## EXPLODED PARTS VIEW FOR ECLIPSE HS3C10



If parts required are not present  
please contact Calomax Limited

# SERVICE INSTRUCTIONS

## DE-SCALE

### **ENSURE THE UNIT IS SWITCHED OFF AND UNPLUGGED.**

To gain access to the internals of the water tank, remove the front panel and then the 4 screws on top of the boiler, and lift the lid clear of the body.

**Note:** Whenever the body lid has been removed from the boiler a new lid gasket may be required to ensure a steam-tight joint. Damage to the unit caused by a poor lid seal is not covered by the warranty.

Scale deposits should be removed from all internal surfaces, particularly the heating element, thermistor and level sensors by gently tapping or scraping. If the deposits are soft, use a nylon pad and flush out. Abrasive cleaning materials containing scouring powders and detergents must not be used, as such materials can cause taste problems.

The integral scale-inhibitor in every Calomax boiler allows for a manual / chemical-free descale. Caustic chemical de-scalants should not be used.

**IMPORTANT** Before re-commissioning the boiler it is important that all scale and moisture is removed from the level sensors and insulating gaskets, to avoid a false signal being transmitted. Failure to remove this scale and/or moisture will cause the sensor to indicate to the PCB that water is covering the element, whether or not water is present. In this situation the PCB will energise the element causing failure. If in doubt, protect the element by hand filling with water to the level of the draw-off tap before switching on the electrical supply to the boiler.

For further assistance, contact our Calomax service department on 0113 249 6681 or email [service@calomax.co.uk](mailto:service@calomax.co.uk) or find a local service engineer at [www.calomax.co.uk](http://www.calomax.co.uk)

## **ROUTINE MAINTENANCE / ANNUAL INSPECTION**

Calomax boilers are designed to produce boiling water 24/7 and regularly maintained and serviced / de-scaled, we would expect them to last 10 years.

In hard water areas, the boiler may need to be de-scaled every 12 months, possibly even every 6 or 3 months. Boilers in soft water areas may never need to be descaled. You can find out how hard the water in your area is on the Calomax website under Support > Water Filter Advice.

Because our boilers last such a long time (20 years is not uncommon) it is important that they are inspected every 12 months, and the following routine checks carried out:

- 1. Check and de-scale where appropriate the tank, sensors and tap nozzles.**
- 2. Check the condition of the gaskets, washers and grommets; replace as appropriate.**
- 3. Check the condition of the wiring and the connections, including the plug and lead for counter-top boilers.**
- 4. Check the integrity of the element.**
- 5. Look for any leaks.**
- 6. Ensure that the tap bonnet is not over tightened.**

## GENERAL FUNCTION

The printed circuit board (PCB) controls the heating function of the boiler by monitoring the thermistor and level sensors. The PCB also controls the external light unit to indicate the current state of the boiler. The red LED on the circuit board indicates whether the PCB has energised the element.

Should an element fail and need to be replaced, it may be necessary to replace the lid gasket to ensure a reliable steam-tight seal. **Note: the element has a permanent 'Live' feed, and the 'Neutral' is switched.**

## PRINTED CIRCUIT BOARD REPLACEMENT

In the unlikely event of a PCB failing and a replacement being required, full instructions will be supplied. It is important to note however, that the Triac PCB must be securely mounted against the copper heat-sink to ensure reliable heat dissipation. Heat transfer compound is also supplied with all replacement circuit boards.

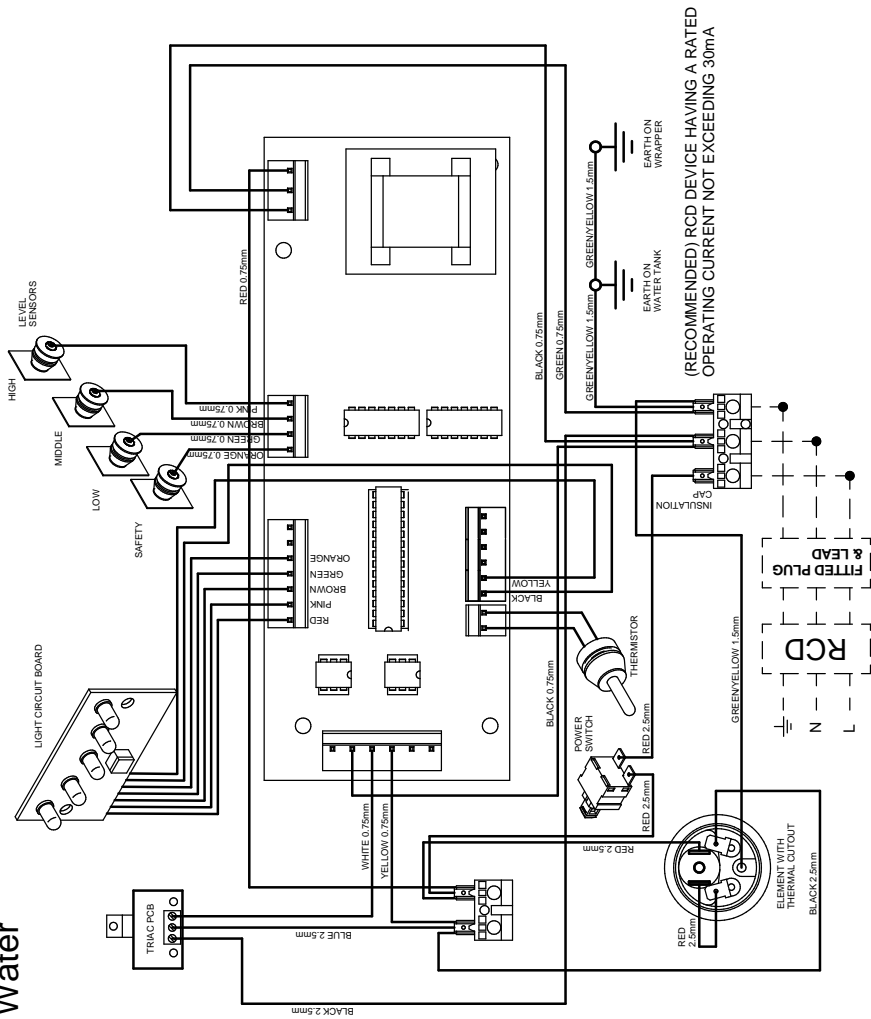
## ADJUSTING THE WATER TEMPERATURE SET POINT

The temperature potentiometer (Pot) is pre-set at Calomax and will only require adjustment in exceptional circumstances. Contact Calomax for advice.

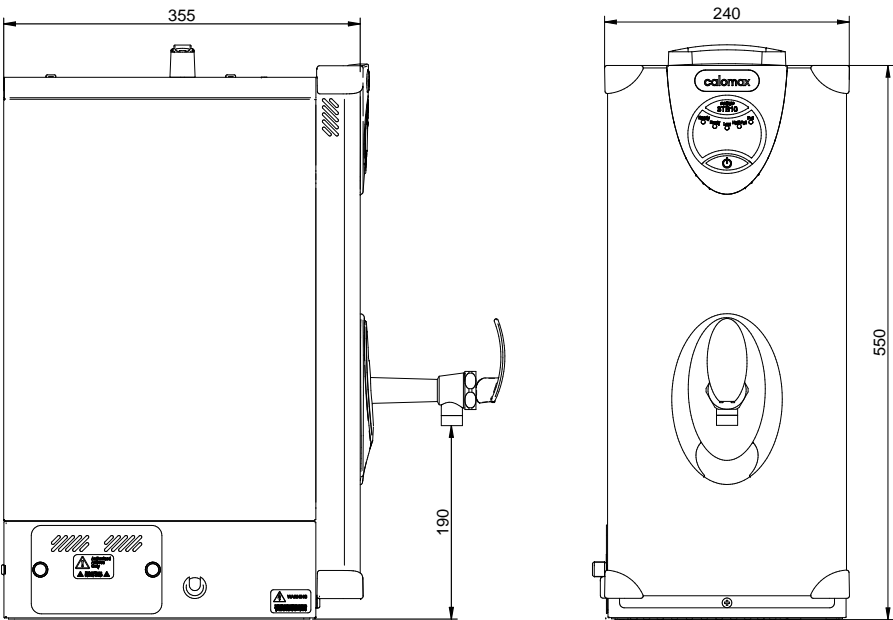
Water boils at different temperatures depending on barometric pressure. The temperature should not be tuned higher than 98°C, or over boiling may occur during low barometric pressure conditions.



# Wiring Schematic for Eclipse HS3C10 Water Boiler



# DIMENSIONS AND WEIGHTS



Model	HS3C10
Weight (Empty)	12.5KG
Weight (Full)	28.5KG

## **WARRANTY GUARANTEE (UK mainland customers only)**

Calomax have manufactured water boilers in the UK for over 70 years. We are proud of our products and the back-up service we provide.

Properly maintained and serviced, a Calomax boiler should last many years and we have no hesitation in providing a 2 year warranty.

Some factors are beyond our control and would invalidate the warranty offered. These include:

- Incorrect installation
- Incorrect voltage supply
- Accidental damage
- Limescale build-up

The last item can be a particular problem for water dispensing equipment in hard-water areas. All hot water equipment should be serviced and descaled by approved organisations on a regular basis to avoid a damaging build-up of limescale.

Please visit our website [www.calomax.co.uk](http://www.calomax.co.uk) for details of our Service Partner Network and the range of accessories available.

## **PRODUCT SPECIFICATION**

PLEASE FILL IN MODEL & SERIAL NUMBER FOR FUTURE REFERENCE

Model	HS3C10
Serial Number	
Draw - off capacity	10 Litres
Heat - up time (First fill to full capacity)	30 Minutes
Voltage	220 - 240 V ac 50-60 Hz
Power rating	3kW (MAX)

Note: All measurements are approximate

**PLEASE CONTACT OUR SERVICE DEPARTMENT FOR ASSISTANCE**











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