



# **eControl Model 100 & Model 150**

## **SERIES X**

### **Installation Instructions**

CAUTION: THIS UNIT IS HEAVY EQUIPMENT AND ADEQUATE MANPOWER MUST BE USED IN MOVING THE RANGE TO AVOID DAMAGE TO THE UNIT OR THE FLOOR.

REMEMBER, when replacing a part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require.

PLEASE READ THESE INSTRUCTIONS BEFORE USING THIS APPLIANCE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.



**UKCA (UNITED KINGDOM CONFORMITY ASSESSED)**

The eControl System is manufactured by:

UK Innovations Group Ltd, i-Worx Unit 9, Innovation Way, Wootton, Bedfordshire, MK43 9SP, United Kingdom

**eCONTROL SYSTEM FOR HEAT STORAGE RANGE COOKERS**

**UK PATENT PENDING APPLICATION No. 21 13047.1**

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# 1. Installation instructions

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## **WARNING!**

Please read the Warning, Cautionary notes at the start of this section. If the information contained within these instructions is not followed, property damage or personal injury may occur.

DO NOT store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Installation and service must be performed by a qualified installer or service agency.

***WARNING! This appliance must be installed with an appropriate device that will allow permanent disconnection of the Live and Neutral conductors. During Installation or disconnection prior to any electrical work, the appliance must be permanently disconnected from the Supply (Live) and Neutral Conductors.***

CAUTION: THIS UNIT IS HEAVY, PROPER EQUIPMENT AND ADEQUATE MANPOWER MUST BE USED IN MOVING THE RANGE TO AVOID DAMAGE TO THE UNIT OR THE FLOOR.

- REMEMBER, when replacing a part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require.
- DO NOT use reconditioned or copy parts that have not been clearly authorised by eControl Cookers.

**PLEASE READ THESE INSTRUCTIONS BEFORE USING THIS APPLIANCE AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.**

## Installation requirements

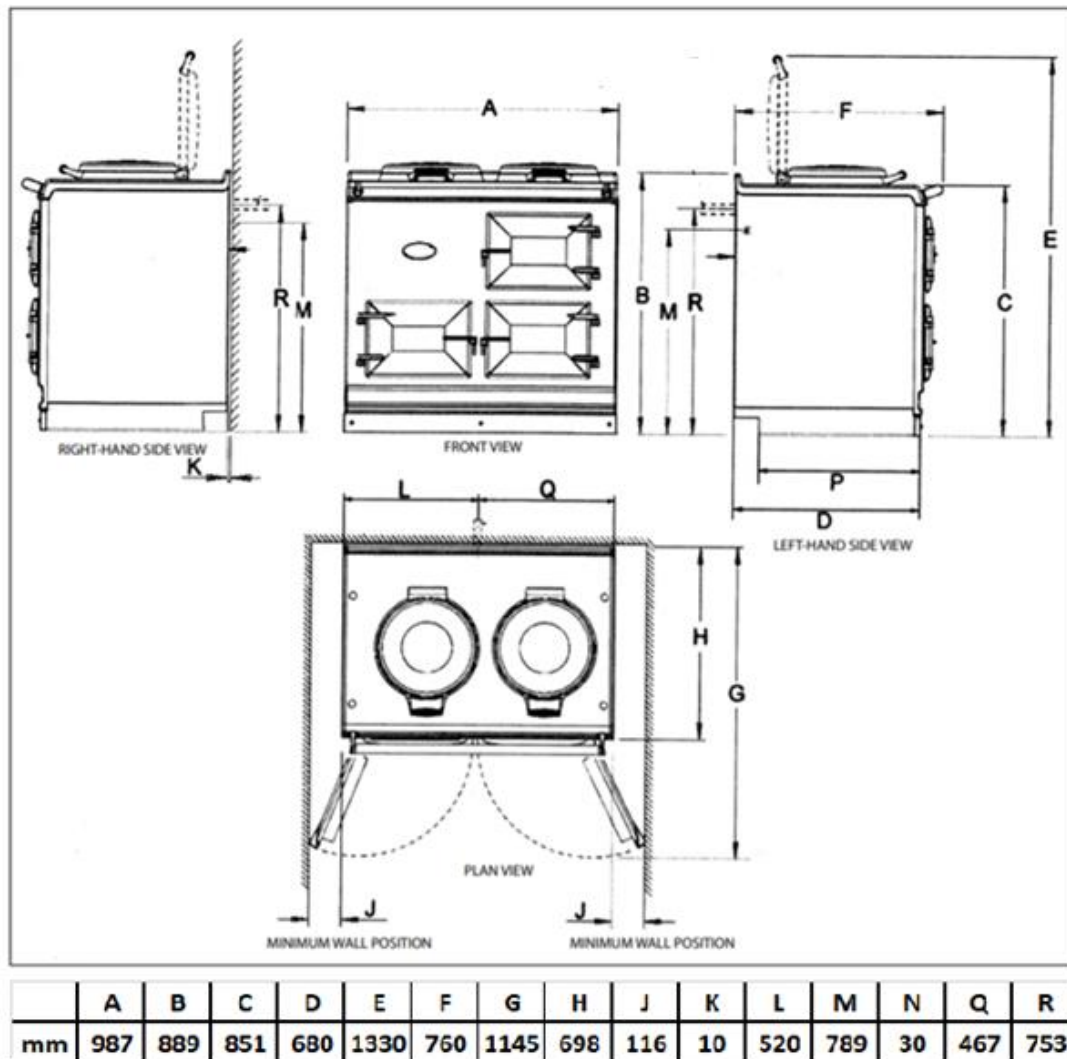
### Consumer protection

As a responsible manufacturer, we take care to make sure that our products are designed and constructed to meet the required safety standards when properly installed and used.

- **WARNING - ELECTRIC SHOCK HAZARD**
- It is the customers responsibility to contact a qualified electrical installer to make sure the electrical installation is adequate and in conformance with the regulations.
- Take special care when cutting holes in walls or floor. Electrical wires may be behind the wall or floor covering and could cause an electrical shock if you touch them.
- Locate any electrical circuits that could be affected by the installation of this product and disconnect power circuit.
- **WARNING: THIS APPLIANCE MUST BE EARTHED.**
- **DO NOT** use an extension lead with this appliance.
- The appliance is designed for the voltage stated on the data plate.
- Recommended but not mandatory to fit an individual
- Residual Current Device (RCD) to the cooker supply circuit.

Hand this Manual to the User for retention and instruct in the safe operation of the appliance.

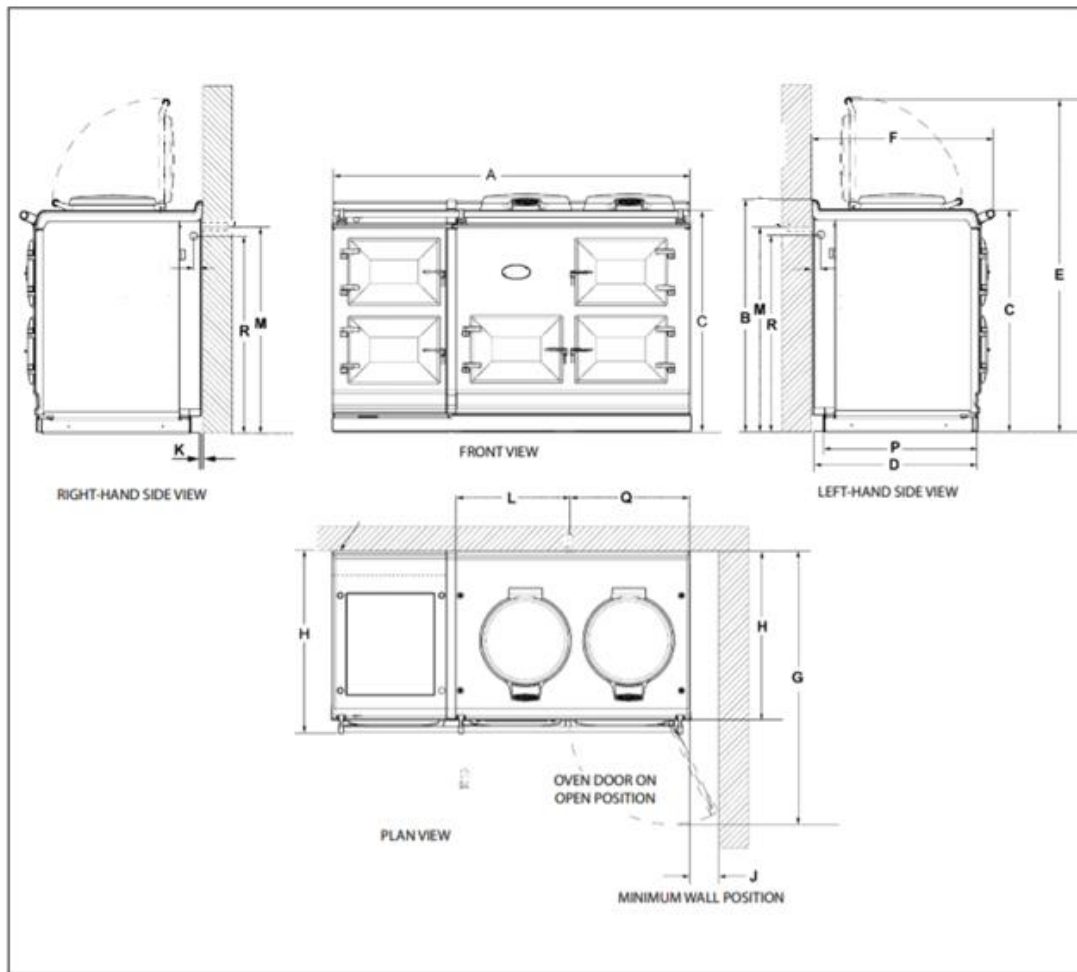
## Appliance dimensions – eControl 100



### Cooker Dimensions

When surveying for a cooker installation the actual clearance required for the 'body' of the appliance should be increased by 10mm beyond the figures quoted above. This allows safe margin to take into account the natural dimensional variations found in major castings. In particular the width across the appliance recess could be critical.

## Appliance dimensions - eControl 150



	A	B	C	D	E	F	G	H	J	K	L	M	N	Q	R
mm	1487	889	851	680	1330	760	1145	698	116	10	520	789	30	467	753

## Clearances

The complete cooker is floor-mounted and the space in which the appliance is to be fitted must have the following minimum dimensions:-

A minimum clearance of 60mm is required above the raised insulating cover handle.

Side Clearances: A 3mm gap is required each side between the cooker top plate and adjoining work surfaces that may be fitted, this is to allow for the safe removal of the top plate should this be required at a later date.

- Where cookers are fitted against side walls a 116mm clearance is required on the right and left hand side for oven doors access.
- If the appliance is to be installed in a brick recess, then the minimum clearance should be increased by at least 10mm, to allow for the walls not being square.
- In addition, a minimum clearance of 1000mm must be available at the front of the cooker to enable the cooker to be serviced.

### **Cooker Base or Hearth**

It is essential that the base or hearth on which the cooker stands should be level and be capable of supporting the total weight of the appliance. The base of the built-in plinth must be level

### **Tiling**

When the cooker is to stand in a recess or against a wall which is to be tiled, in no circumstances should the tiles overlap the cooker top plate, access to remove the top plate must be allowed for servicing at a later date.

A gap of at least 10mm must be observed between the rear of the top plate, and the wall behind the appliance.

SINCE THIS APPLIANCE CAN BE USED CONTINUOUSLY, PLEASE TAKE NOTE OF THESE IMPORTANT INSTRUCTIONS:

### **Combustible Walls**

Houses constructed of combustible materials (such as all-timber or stud wall partitions and batoned plasterboarded walls) require special wall heat protection features.

Non-combustible walls behind a cooker must be of at least 25mm thick insulation board (Monolux or equivalent), up to hotplate level.

In addition, oven vent piping must be insulated with the high temperature film glass sleeving, supplied, and a 25mm gap.

SPECIAL NOTE: Ensure electric cabling or plastic services do not pass within or on the outside of the wall, behind or directly above the cooker.

This type of material can age prematurely when exposed to continuous higher ambient temperature.

## **Power supply – eControl 100 & 150**

- **WARNING: THIS APPLIANCE MUST BE EARTHED.**
- **THIS APPLIANCE IS DESIGNED FOR THE VOLTAGE STATED ON THE RATING PLATE, WHICH IS SITUATED BEHIND THE PLINTH COVER.**

A 1PH 32 amp 230V fused electrical supply is required adjacent to the appliance. External wiring to the unit must be installed using the mains cable provided, in accordance with the current wiring regulations and any local regulations which apply. If cable is shortened, new ferrules must be fitted to the stripped conductors.

If the system is upgraded with an eControl INSTAHEAT Hob 1PH 40 amp 230V fused electrical supply is required adjacent to the appliance. External wiring to the unit must be installed using the mains cable provided, in accordance with the current wiring regulations and any local regulations which apply. If cable is shortened, new ferrules must be fitted to the stripped conductors.

The method of connection to the mains electricity supply must facilitate complete electrical isolation of the appliance, by a multi-pole switch, having a contact separation of at least 3mm on all poles.

The isolator should not be positioned immediately above the cooker, but must be fitted within 2 metres of the appliance.

The isolator may be separate from the connection point.

## **Room Vented**

It is recommended that this model is fitted in conjunction with a cooker hood. The oven venting outlet is located on the top of the appliance between the two hotplates and is designed for venting the moisture from the ovens. The cooker hood should be positioned not less than the minimum height as recommended by the manufacturer, from the top of the appliance.

## **Externally Vented**

With a 'fan-enabled' kit the existing fan flex should be connected to the terminal block at the rear panel of the control box. An adjustable 12 – 18v transformer knob can be adjusted depending upon the length of pipework and draw required. Connect into the existing 28mm copper pipe assembly.



## 2. Parts List

Included with the eControl Kit;

### General Parts list

- eControl User Manual
- eControl Installation Manual
- 1 x Control Box (pre-assembled & pre-tested)
- 2 x Hob support trays (inc insulation, hob chairs, thermostat tray and heat shield)
- 2 x Machined hobs
- 2 x Hob gaskets
- 2 x P section hob seal
- 1 x Hob support bar
- 1 x LHS hob element
- 1 x RHS hob element
- 1 x Top oven RHS high level heating cassette
- 1 x Top oven RHS low level heating cassette
- 1 x Bottom oven RHS low level heating cassette
- 1 x Perforated baffle sheet
- 5000mm x 200mm aluminium tape

### Insulation Kit

- Bottom Pad (600mm x 500mm x 100mm, foiled both sides)
- Bottom oven RHS low level pad (600mm x 500mm x 50mm c/w cut outs)
- Top oven RHS low level pad (Pre-cut various)
- Oven roll (1600mm x 600mm x 50mm, foil backed roll)
- Rear Pad (400mm x 600mm)
- Packer for front plate channel (1600mm x 50mm x 50mm)
- 12.5mm blanket for oven sides
- Tunnel packing (1600mm x 25mm x 70mm)

### Fixings Kit

Oven 2 Grub screws;

- 1/2" BSW Slotted Grub x 2" - 3 Off
- M12 X 50mm Hex Sock End x 50mm - 3 Off

Oven thermostat brackets;

- Thermostat bracket top oven RHS - 1 Off
- Thermostat bracket bottom oven RHS - 1 Off
- M5 X 10mm Machine Screw - 4 Off

Oven Vent;

- 28mm Id Vent Spigot - 1 Off
- M6 x 25mm Machine Screw - 2 Off

Hinge block fixings;

- 1/4" BSW X 2" Hex Socket End - 4 Off

- 1/4" BSW Full Nut - 8 Off
- M6 x 50mm Hex socket end – 4 off
- M6 full nut – 4 off
- M6 Washer - 4 Off

Hob support bar fixings;

- M8 X 40mm Hex Socket End - 2 Off
- M8 Full Nut - 4 Off
- 5/16" BSW Hex Socket end – 2 off
- 5/16" full nut – 4 off
- M8 Washer – 2 off

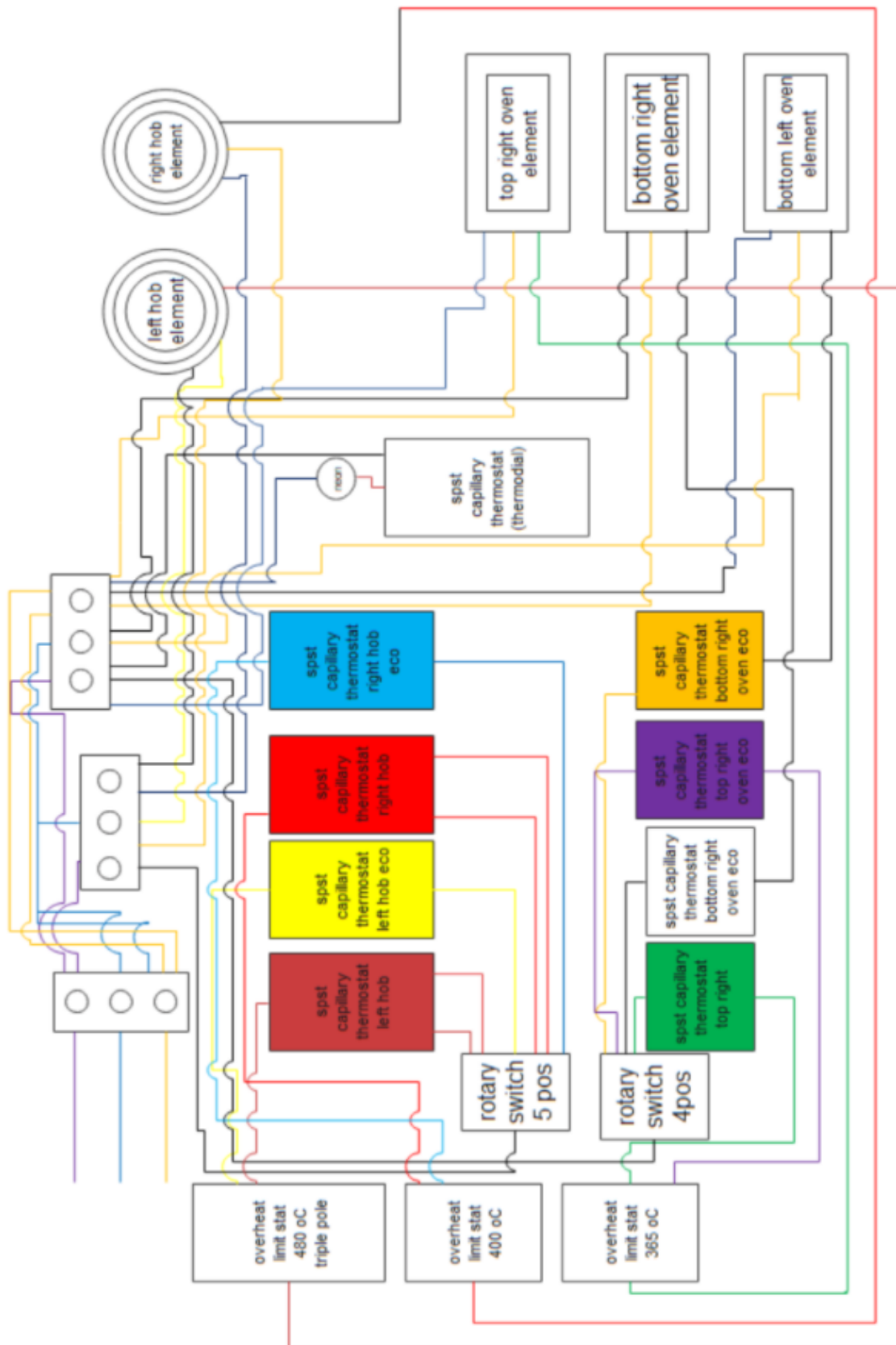
Miscellaneous;

- M5 Machine Tap - 1 Off
- 4.2mm HSS drill bit - 1 Off

**Model 150 ONLY**

- Oven 4 hot cupboard element assembly – 1 Off
- 
- Thermostat Shield oven 4 - 1 Off
- M5 x 10mm machine screw – 5 Off
- Earth lead c/w 2 x earth ring – 1 Off
- 3 way element male plug connector – 1 Off
- Tapped block M8 and M6 for central towel rail block – 1 Off
- M6 x 40mm countersunk screw c/w M6 nuts – 1 Off

### 3. Wiring diagram - AGA eControl 100 & 150



## 4. Assembly Procedure

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### **\*PLEASE TAKE NOTE OF THE FOLLOWING TERMINOLOGY**

- **TOP RIGHT HAND SIDE OVEN**
- **BOTTOM RIGHT HAND SIDE OVEN – OVEN 2**
- **BOTTOM LEFT HAND SIDE OVEN – OVEN 3 (3 OVEN MODELS ONLY – eCONTROL 100/3)**
- **HOT CUPBOARD – OVEN 4 (4 OVEN MODELS ONLY – eCONTROL 150)**

### **Pre-Assembly**

- Using a hole saw to cut a 25mm hole in the top left-hand corner of the top panel of the top oven RHS. Drill a further 2 x 4.2mm holes with the drill bit provided and tap 2 x M5 holes with the machine tap provided. Attach the 28mm ID spigot for top oven venting. Later attach the desired 28mm copper pipe assembly and use a self-tapping screw to fix in place.
- Top oven RHS control, ECO and overheat thermostat bracket assembly  
Drill 2 x 4.2mm holes in the rear panel of the top RHS, tap 2 x M5 holes with the machine tap provided and fix the thermostat shield in place. Template the thermostat bracket in place in the middle of the so that the top of the bracket is approx. 17mm underneath the cast knuckle at the top of the oven (see diagram below). Ensure that the bracket terminates below the corresponding oven teeth and that the bracket will not foul on cookware.  
Drill a corresponding hole (10mm OD) in the left hand panel of the oven to allow entry of the overheat thermostat horizontally.
- Bottom oven RHS control thermostat bracket assembly  
Drill 2 x 4.2mm holes in the rear panel of the top RHS, tap 2 x M5 holes with the machine tap provided and fix the OVEN 2 thermostat support in place.  
Template the thermostat bracket in place in the middle of the oven so that the bottom of the bracket is 17mm from the top of the oven (see below).  
Drill a corresponding hole (10mm OD) in the left hand panel of the oven to allow entry of the overheat thermostat horizontally.

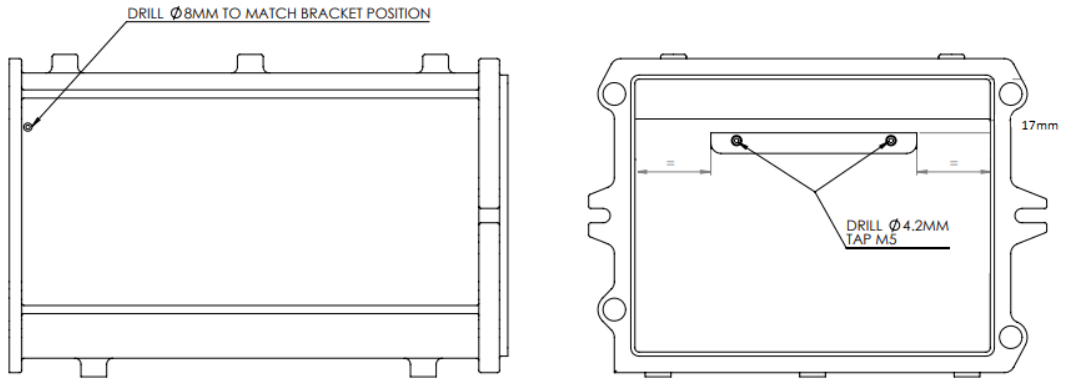
### **Model 150 ONLY (OVEN 4)**

- Using the hot cupboard drilling template mark the element holes position and drill a 14mm hole. It is recommended to use a HSS Step drill bit to cut this correctly
- Using the hotcupboard drilling template mark the 4 x element guard positions and drill 4 x pilot holes with the 4.2mm pilot drill bit provided and tap with the M5 tap provided.
- Template the thermostat bracket in place in the middle of the oven and drill 2 x pilot holes for self tapping screws provided so that the bottom of the bracket is 17mm from the top of the oven (see below).
- Drill a corresponding hole in the right hand panel of the oven to allow entry of the overheat thermostat horizontally
- Drill a pilot hole and tap the hot cupboard chassis to receive a crimped ring terminal for earth lead.

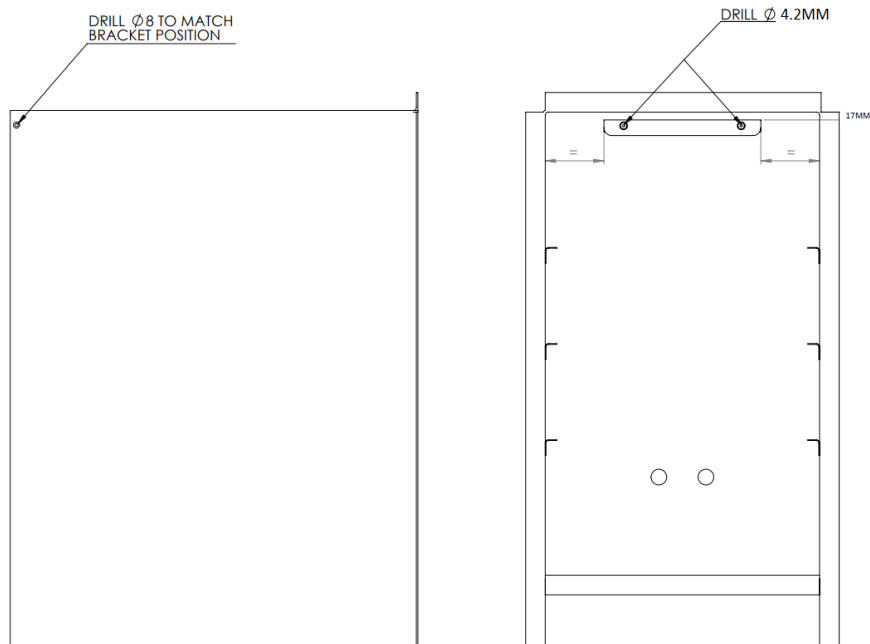
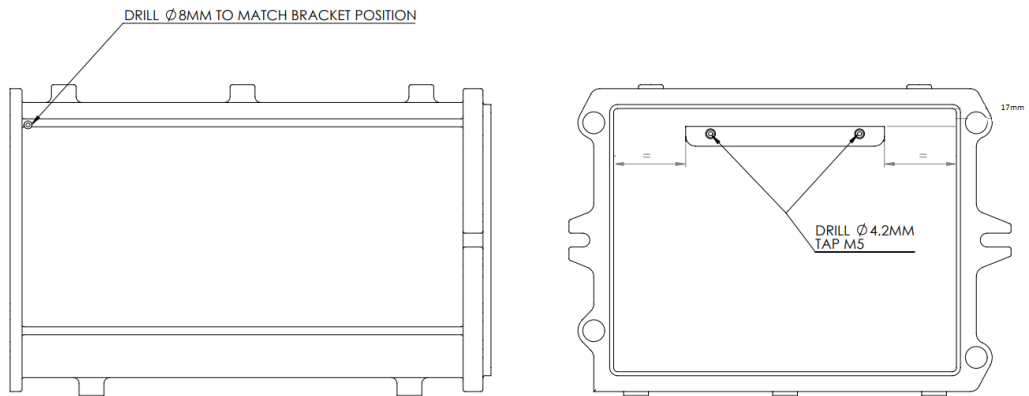
**\*A 'purpose-built,' eControl Hotcupboard is available to purchase for easy installation and insulating**

# Pre-Assembly Illustrations

TOP OVEN



BOTTOM OVEN



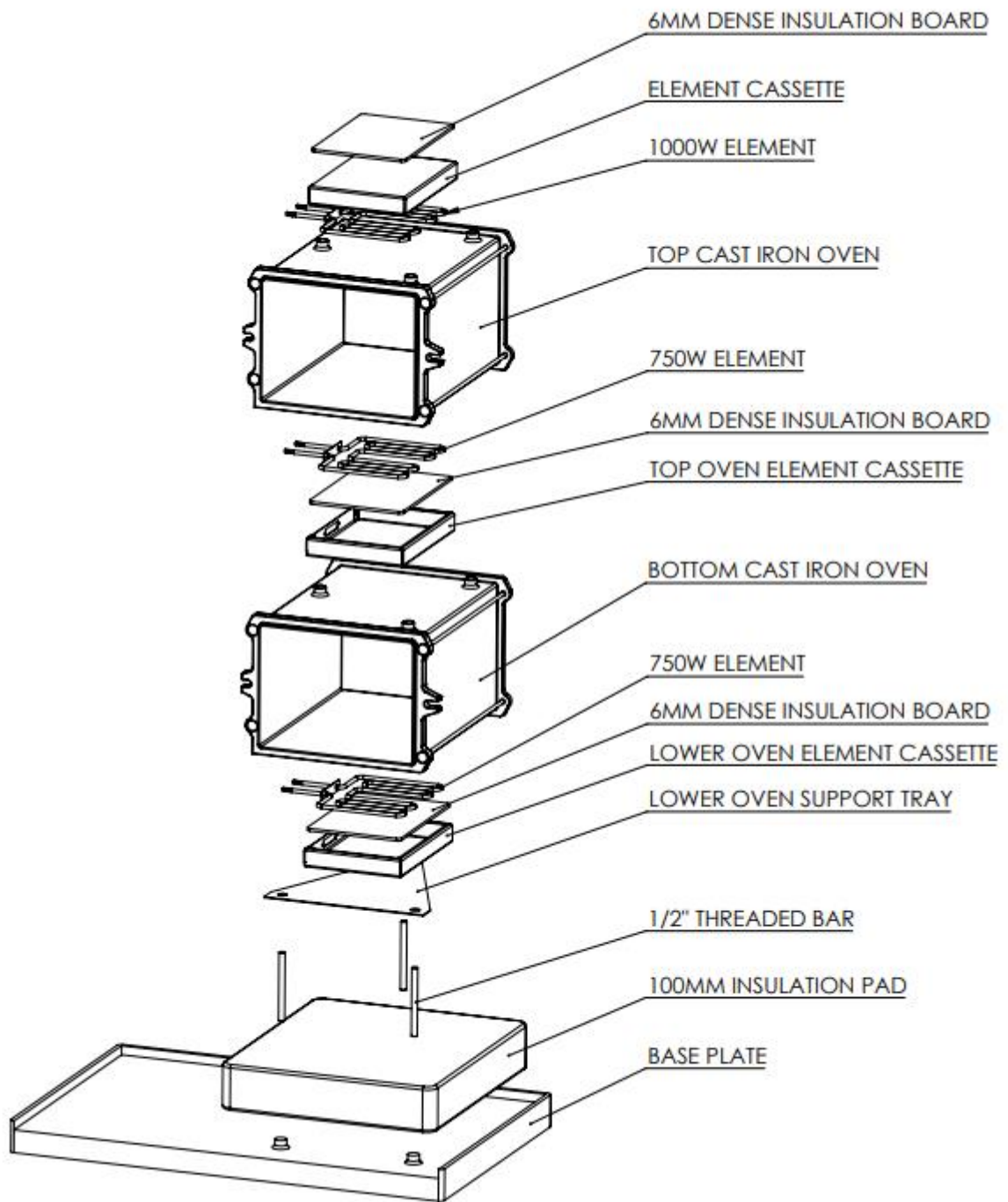
### **Ovens stage 1**

- Fit cooker base plate to a pre levelled plinth
- Screw 3 x ½" BSW oven support rods into the base plate beneath bottom oven RHS.
- Fit 100mm foil back insulation pad over the oven support rods
- Fit lower oven heating element cassette
- Pull element tails through the insulation ensuring wires and terminals are clear of the heated area
- Fit the pre-cut 50mm insulation pad around the element cassette.
- Fit bottom oven RHS
- Fix bottom oven RHS to front plate
- You will be left with a protrusion of approx. 50mm to the rear and sides of the oven.
- Leave element tails exposed to the left hand side

### **Ovens stage 2**

- Fit top oven RHS low level heating element cassette on top of bottom oven RHS
- Fit the pre-cut 50mm thick fibre blanket pads provided around top oven low level element cassette so that they are flush with external dimensions of bottom oven RHS.
- Pull element tails through the insulation ensuring wires and terminals are clear of the heated area
- Fit top oven RHS in place above bottom oven RHS.
- Level oven and fix to front plate.
- Leave element tails exposed to the left hand side.
- Fit top oven high level element cassette (1000w oven element)

[Ovens Stage 1 & 2 - Illustration]

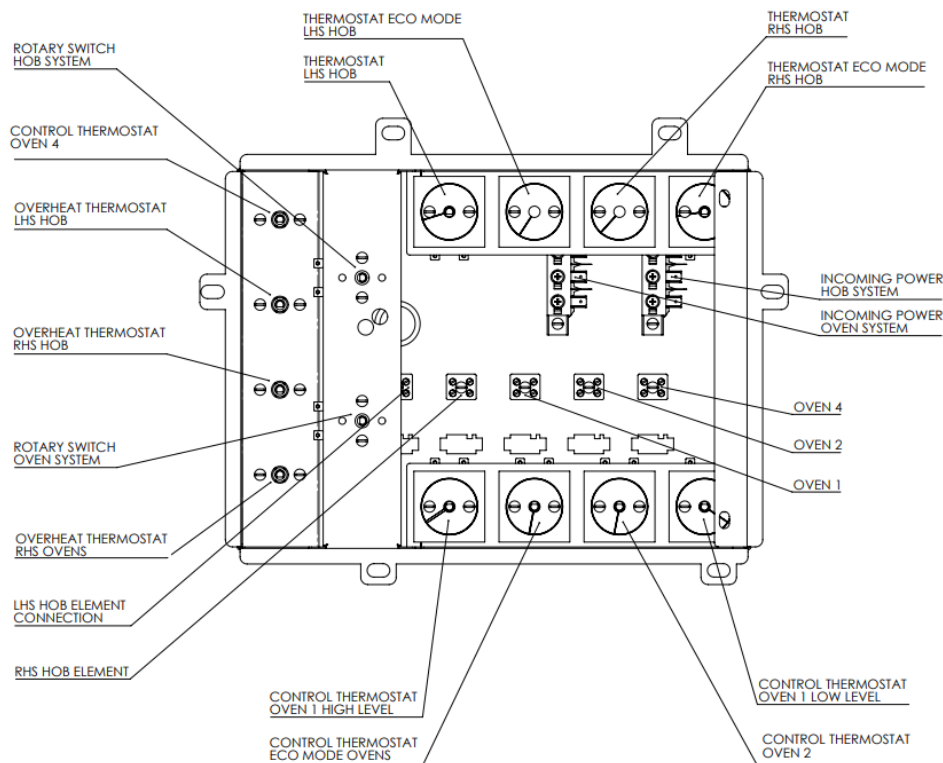


## Oven insulation

- Use the 200mm wide aluminium tape to temporarily secure the rear side insulation panel to the back panels of the RHS ovens.
- Wrap the 50mm foil backed insulation **over** the top of OVEN 1 right to left
- Slice the insulation blanket at OVEN 1 element tail height and **pull through the insulation blanket**
- Use the 200mm wide aluminium tape to fix the main blanket and rear blanket to the base blanket
- Use the 200mm wide aluminium tape to seal the rear side to rear insulation panel
- Cut the extended length of aluminium tape and fold extended lengths in adjacent directions
- Use off cuts to add additional materials at any gaps between fully sealed oven system and front plate
- Seal with aluminium tape as required
- DO NOT SEAL THE ELEMENT TAILS BEHIND THE INSULATION BLANKET, ALWAYS CUT BLANKET AND PULL THROUGH.

## Control Box

- The eControl box has been fully assembled and tested pre shipping and does not require adjustment
- Fit the control box to the rear of the appliance front plate
- Uncoil the 6mm rubberized cooker flex and leave in position for connection to mains supply when the cooker has been fully assembled
- The eControl box comes with labelled 3 way connector plugs and sockets to facilitate easy connection of all oven elements
- See Fig below for identification of the control components





## Oven thermostats

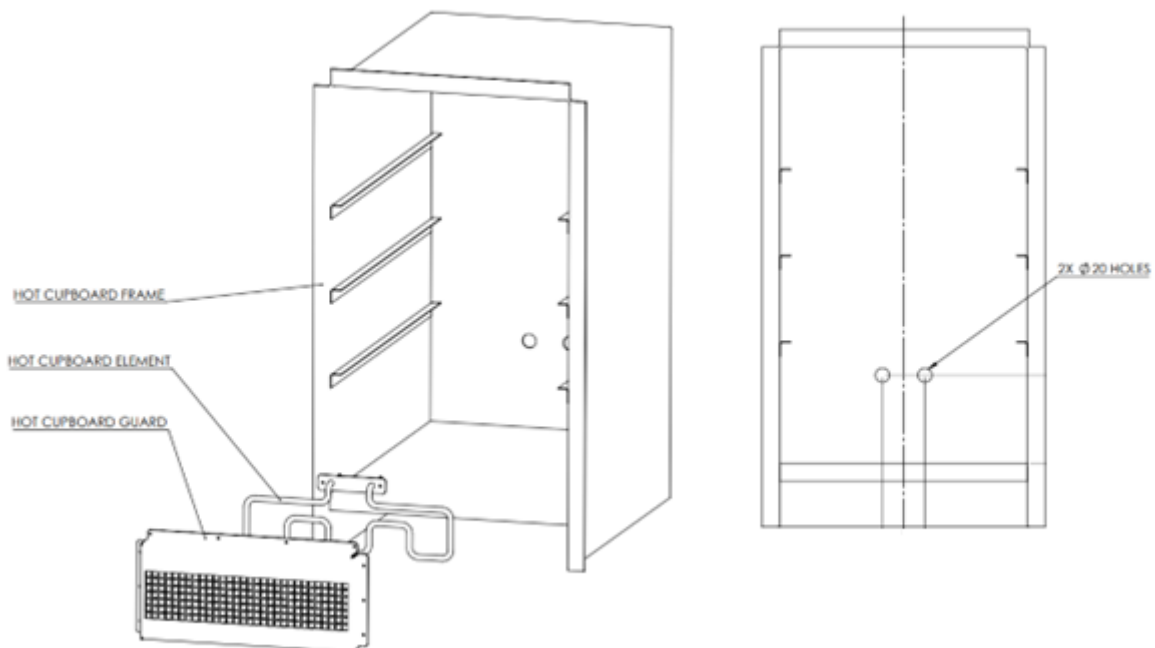
- Locate top oven RHS thermostat entry point by feeding a thin screwdriver from the inside of the oven out through the insulation blanket.
- Feed in the control thermostat, ECO mode thermostat and overheat thermostat into the top oven RHS and locate in the oven thermostat bracket. The over heat thermostat should be fitted to the top hole in the bracket (this is identified as having a different style bulb than the main control and eco thermostat)
- Locate bottom oven RHS thermostat entry point by feeding a thin screwdriver from the inside of the oven out through the insulation blanket.
- Feed in the 2 x control thermostats ECO mode thermostats into the bottom oven RHS and locate in the oven thermostat bracket.
- **NB. Once thermostats are positioned secure to the body of external insulation with aluminium tape to help prevent movement going forward.**

## Connections

- Connect the oven elements into the corresponding colour coded sockets at the control box rear

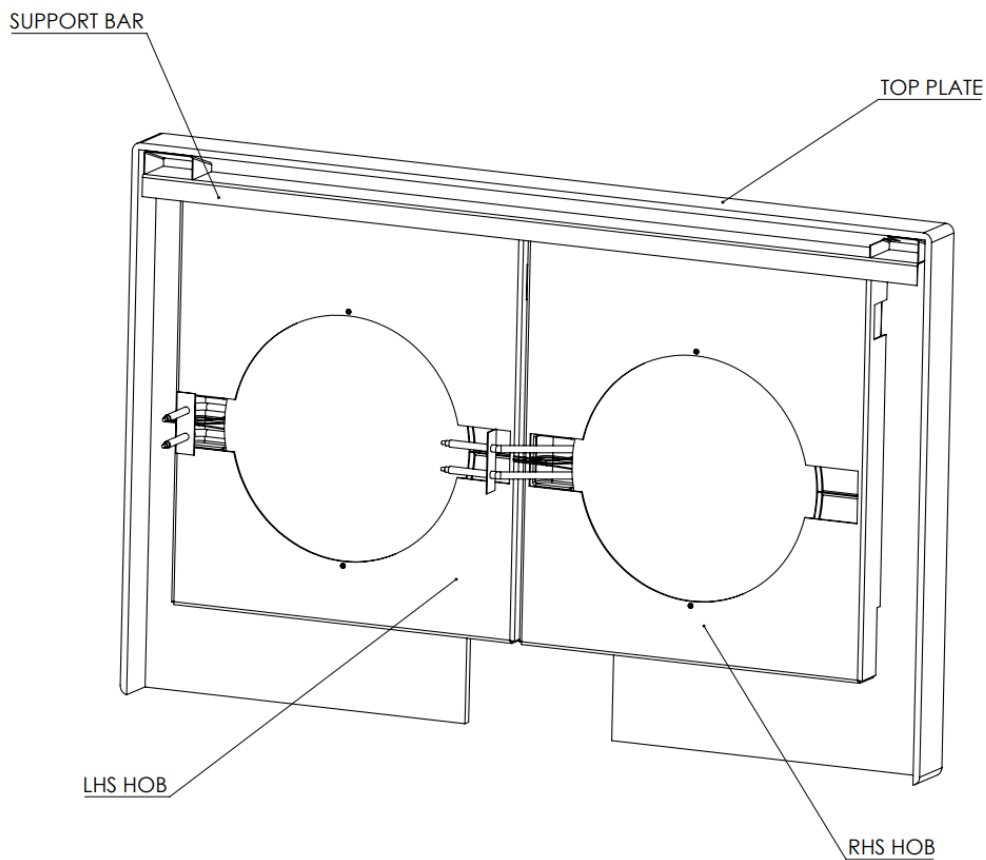
## Hot Cupboard (Model eControl 150 only)

- Fit the heating element, element guard and secure with the machine taps provided.
- Fill the cavity beneath the hot cupboard using rockwool insulation (not provided).
- Using the foil backed insulation panels provided insulate the left and rear panels and secure using the aluminium foil tape provided. Using the foil backed insulation panel insulate the right hand side.
- On existing hot cupboards seal oven duct void with aluminium tape.
- Use the foil backed insulation and wrap around left hand duct then fit final panel to the left hand side of duct. Seal throughout with aluminium tape. Fit blanket beneath the warming plate.
- Fit the wire to chassis using a machine screw as described in the pre-assembly [above](#).



## Top plate assembly

- Fit the towel rail brackets and towel rail to the underside of the top plate and secure using the nuts provided.
- Fit the hob tray support bar to the protruding towel rail bracket studs using the fixings provided and tighten with additional nut.  
NB. It is essential that nuts are tightened correctly
- Fit hinge blocks to the top plate using the grub screws provided and secure with one nut.
- With the rear lip of the appliance top plate leant against a protected floor fit the hob trays one at a time engaging into the channel of the support bar and studs from hinge blocks. Tighten underneath using the hinge block studs.  
NB. It is essential that nuts are tightened correctly
- **IMPORTANT:** Insulate the open channel between the hob support bar and the top plate front using the insulation provided

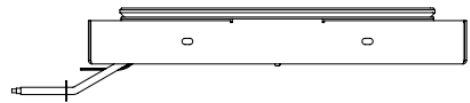
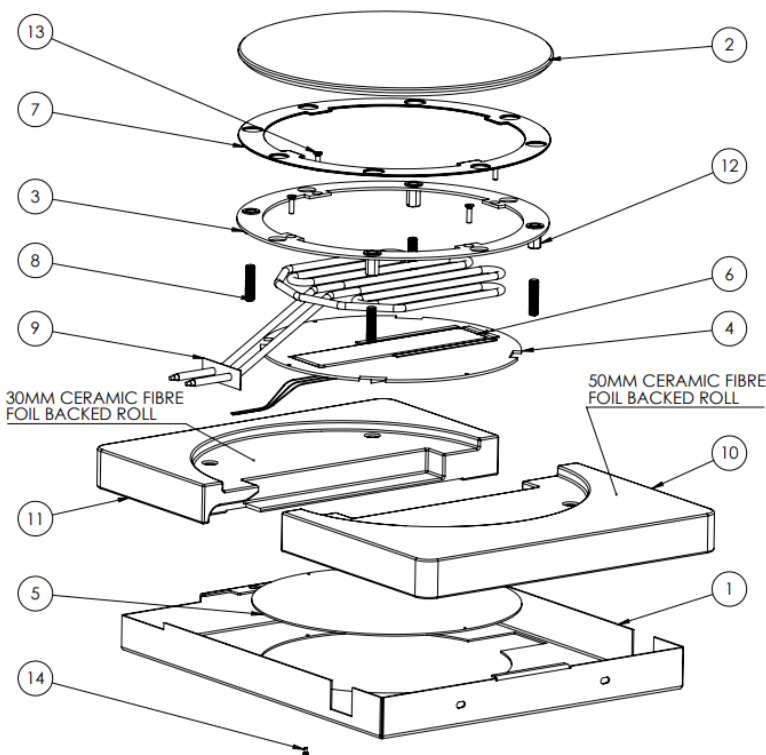


## Hob (Right hand side)

- With the top plate fitted onto the cooker cut a channel into the insulation covering the top of the top oven to allow free passage of the RHS hob element tails to be fed in from right to left.
- Offer the element into the space to ensure free passage and leave in-situ.
- Feed the RHS hob thermostats through the channel **above the RHS element earthing plate**
- Fit the 30mm semi circle insulation discs (part 11)
- Remove the suspended thermostat tray and compressed vermiculite shields from the hob element base.
- Before fitting the hob element base pull the hob element through the central cut-out.

- Before fitting the hob element base engage the thermostats with the entry holes in the suspended thermostat tray.
- Fit the hob element base into position whilst guiding the element tails and thermostats into position.
- Level the hob element base using the 4 x M10 grub screws. Ensure the grub screws make contact with the hob tray beneath and that it is not floating/suspended by the insulation material.
- Using a short spirit level adjust the M10 grubs to the desired finished hob height, level in all directions
- Fit the 8mm P section rope seal by raising the hob element base at each point and inserting the tail of the seal underneath
- Fit the 2mm hob gasket and hob plate until height is satisfactory
- Rotate the hob plate clockwise so the welded studs engage in the hob plate cut outs

**[Hob RHS – Illustration]**

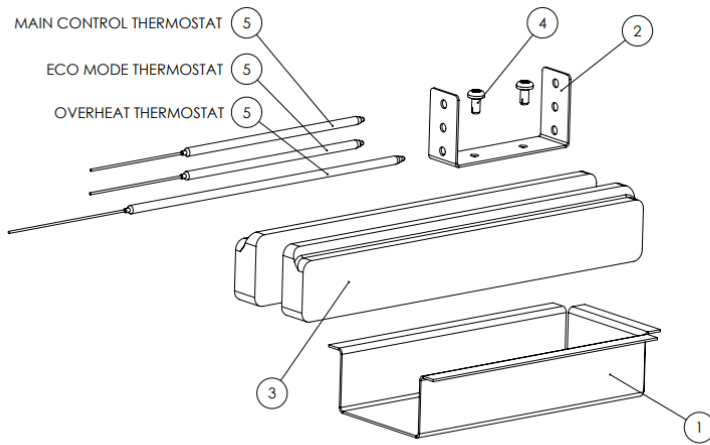


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L24 STOVE 09	HOB TRAY	1
2	L24 STOVE 10	HOB	1
3	L24 STOVE 11	HOB CHAIR	1
4	L24 STOVE 12	HOB ELEMENT BASE	1
5	L24 STOVE 15	HOB TRAY COVER	1
6	THERMOSTAT TRAY ASSEMBLY	THERMOSTAT TRAY	1
7	L24 STOVE 27	INSULATION GASKET	1
8	L24 STOVE 28	M10X40 THREADED BAR	4
9	HOB ELEMENT RHS	HOB ELEMENT	1
10	INSULATION PAD	FOR ILLUSTRATION ONLY	1
11	INSULATION PAD 2	FOR ILLUSTRATION ONLY	1
12	M10 HEX RIVET NUT	M12 FLAT HEAD HEX RIVET NUT	4
13	ISO 10642 - M5 x 20 - 20N		4
14	PHT 3x6x5.5-type I-D-N		2

**Thermostat tray assembly – Right hand hob**

- Feed the paired thermostats marked RHS HOBs through the hob tray cut out on the right hand side hob and insert into the brackets as shown below.
- **Thermostats should enter through the middle of the element tails above the element earthing plate to ensure they have free passage and are not unduly stressed.**

- The overheat thermostat should be in the lowest hole and feed through the hob support tray by approx. 20mm in order to house correctly (this can be identified as having a different style bulb than the main control and eco thermostat)  
NB. Do not force the phials or unduly bend the wire
- Plug the entry point to the left hand side with ceramic blanket material.

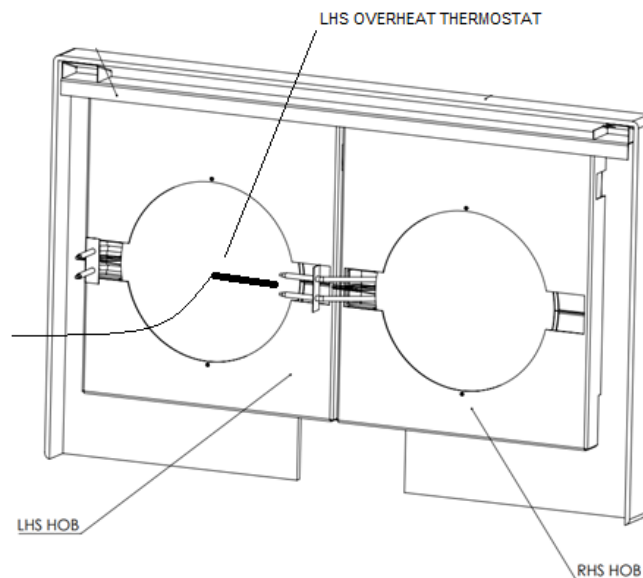


### Connections

- Use the connector plugs to connect all of the elements to the corresponding sockets before commencing assembly of the left hand side hob
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### Left hand hob overheat thermostat

- Attach the left-hand hob overheat thermostat to the underside of the left hand side hob tray access panel and secure in position using the pre-fitted U-clips. See diagram below;



### Hob Left hand side

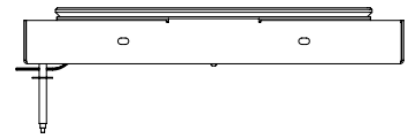
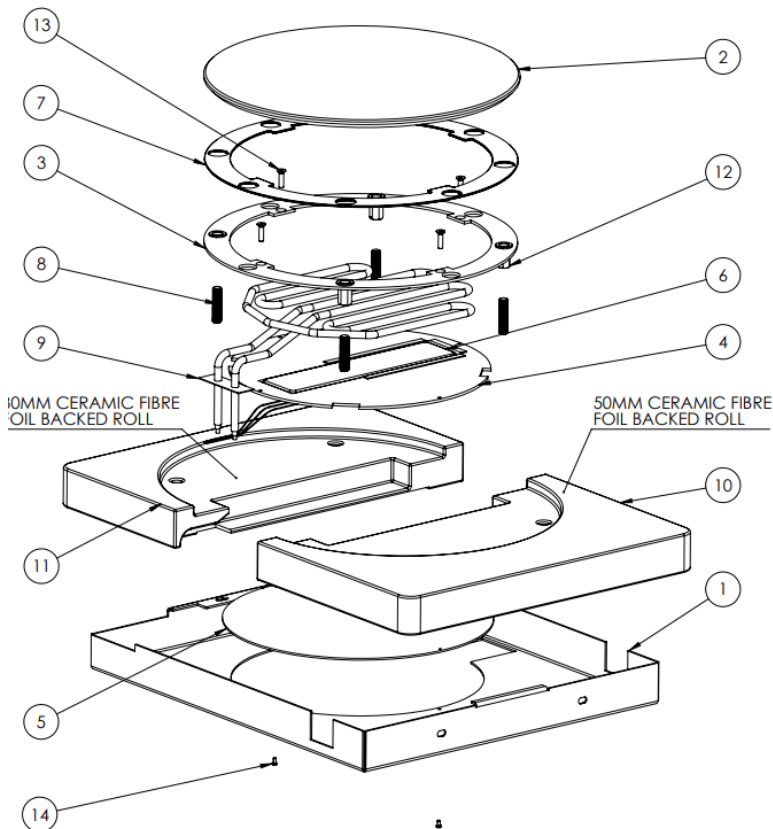
- Pull the paired thermostats marked LHS HOBS through the left hand side hob aperture.

- Connect the LHS hob element into its corresponding plug.
- Fit the circular hob tray cover.  
NB. At this stage all element connections and thermostats should be connected
- Repeat all stages of hob assembly as stated with HOB RHS.

### Thermostat tray assembly – Left hand hob

- Feed the paired control thermostats marked LHS HOB through the hob tray cut out on the left hand side hob and repeat the process above for hob assembly.

### [Hob LHS – Illustration]

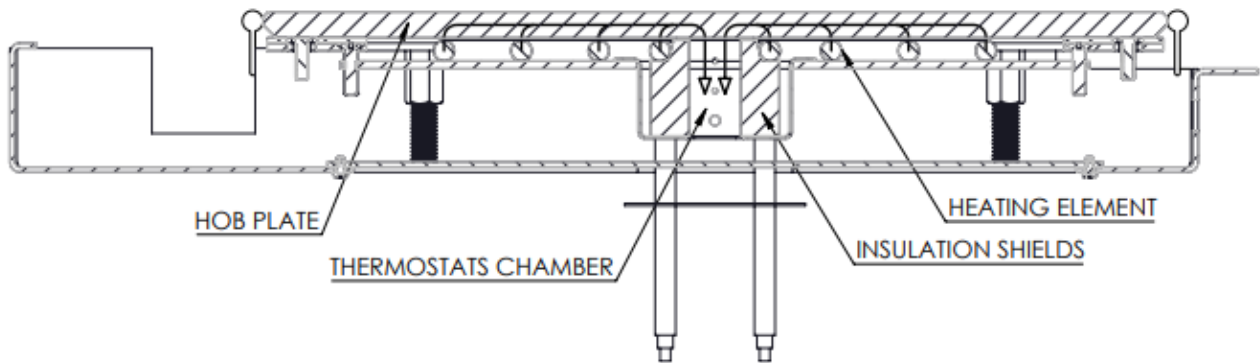


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	L24 STOVE 09	HOB TRAY	1
2	L24 STOVE 10	HOB	1
3	L24 STOVE 11	HOB CHAIR	1
4	L24 STOVE 12	HOB ELEMENT BASE	1
5	L24 STOVE 15	HOB TRAY COVER	1
6	THERMOSTAT TRAY ASSEMBLY	THERMOSTAT TRAY	1
7	L24 STOVE 27	INSULATION GASKET	1
8	L24 STOVE 28	M10X40 THREADED BAR	4
9	HOB ELEMENT LHS	HOB ELEMENT	1
10	INSULATION PAD	FOR ILLUSTRATION ONLY	1
11	INSULATION PAD 2	FOR ILLUSTRATION ONLY	1
12	M10 HEX RIVET NUT	M12 FLAT HEAD HEX RIVET NUT	4
13	ISO 10642 - M5 x 20 - 20N		4
14	PHT 3x6x5.5-type HD-N		2

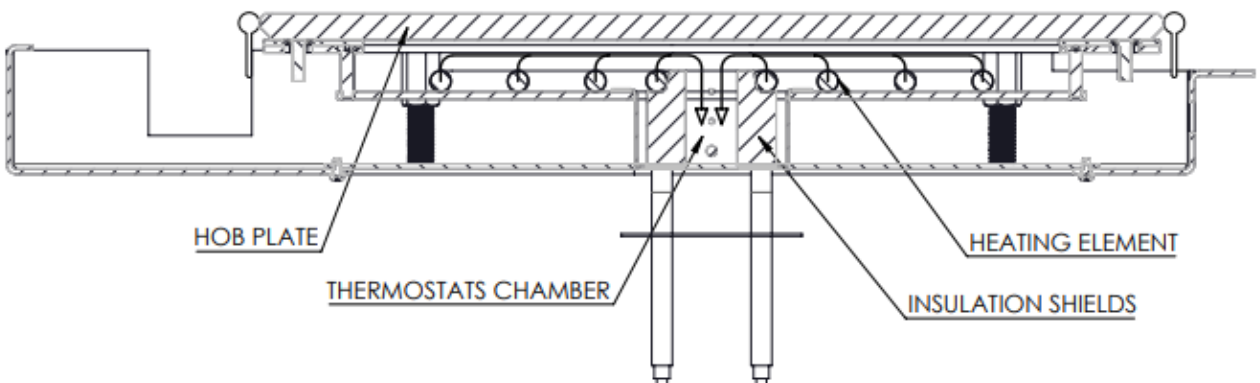
## HOB ASSEMBLY

**IMPORTANT:** The element height is pre-set but may require minor adjustments in some cases. Where required adjust the element height using the 4 x M4 x 20mm. Using a straight edge ensure the element height is the same as the ring gasket height. This ensures it is making contact (but not supporting) the hob plate. Refer to diagram below demonstrating correct vs incorrect installation:

### CORRECT ASSEMBLY



### INCORRECT ASSEMBLY



#### Note:

The compressed vermiculite heat shields are designed to protect the thermostats from the direct heat of the heating element.

Correct hob assembly: The element height is the same as the height of the ring gasket directly underneath the hob plate. This provides direct conduction of heat from the heating element into the hob plate and the transfer of heat from the hob plate into the thermostat chamber (flow of heat is represented by the arrows). This allows the thermostats to read and provide a representative hob surface temperature.

Incorrect hob assembly: The element height is set low. The direct heat of the element passes over the compressed vermiculite shields. The thermostats are unable to read and provide a representative hob surface temperature as they are affected by the direct heat of the heating element.

## Connections

- Connect the flexible 4mm cooker flex to power supply.

## Roasting Oven Baffle (Oven 1)

All eControl Cookers and kits come with a perforated oven baffle that should be fitted by the installer to the top oven. This is designed to balance the heat of the oven.

Please advise customers that although it can be removed where required it is advised to leave this in position for day to day cooking in order to balance the heat of the oven. It is not advised to leave the baffle on the floor of the oven for long periods of time as this will create an imbalance in the thermostatic cycle.

**PLEASE NOTE: DO NOT store cookware etc in the ovens and avoid using the cold plain shelf. Leaving the cold shelf or other cookware permanently on oven floors can smother the heating element and cause damage not covered by warranty – advise customer.**