

# E2102 Forced Convection Oven Ranges E2112 Forced Convection Oven



**Caution: Read the instructions  
before using this appliance.**

## INSTALLATION and SERVICING INSTRUCTIONS

### IMPORTANT

The installer must ensure that the installation of the appliance is in conformity with these instructions and National Regulations in force at the time of installation. Particular attention **MUST** be paid to –

**BS7671 IEE Wiring Regulations  
Electricity at Work Regulations  
Health And Safety At Work Act  
Fire Precautions Act**

This appliance has been UKCA/CE marked based on compliance with the relevant Electrical and Electromagnetic Compatibility (EMC) Regulations/Directives for the voltages stated on the data plate.

### WARNING -THIS APPLIANCE MUST BE EARTHED

On completion of the installation these instructions should be left with the Engineer-in-Charge for reference during servicing. Further to this, The Users Instructions should be handed over to the User, having had a demonstration of the operation and cleaning of the appliance.

**IT IS MOST IMPORTANT THAT THESE INSTRUCTIONS BE CONSULTED BEFORE INSTALLING AND COMMISSIONING THIS APPLIANCE. FAILURE TO COMPLY WITH THE SPECIFIED PROCEDURES MAY RESULT IN DAMAGE OR THE NEED FOR A SERVICE CALL.**

### PREVENTATIVE MAINTENANCE CONTRACT

In order to obtain maximum performance from this unit we would recommend that a Maintenance Contract be arranged with SERVICELINE. Visits may then be made at agreed intervals to carry out adjustments and repairs. A quotation will be given upon request to the contact numbers below.



### WEEE Directive Registration No. WEE/DC0059TT/PRO

At end of unit life, dispose of appliance and any replacement parts in a safe manner, via a licenced waste handler. units are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

### Falcon Foodservice Equipment

Wallace View, Hillfoots Road, Stirling, FK9 5PY, Scotland

### Service Contact

Phone: 01438 363 000

Email: [servicesupport@service-line.co.uk](mailto:servicesupport@service-line.co.uk)

**T100508 Ref. 13**

# IMPORTANT INFORMATION

## ELECTRICAL SAFETY AND ADVICE REGARDING SUPPLEMENTARY ELECTRICAL PROTECTION

Commercial kitchens and foodservice areas are environments where electrical appliances may be located close to liquids, or operate in and around damp conditions or where restricted movement for installation and service is evident.

The installation and periodic inspection of the appliance should only be undertaken by a qualified, skilled and competent electrician; and connected to the correct power supply suitable for the load as stipulated by the appliance data label.

The electrical installation and connections should meet the necessary requirements to the local electrical wiring regulations and any electrical safety guidelines.

### **We recommend:-**

- Supplementary electrical protection with the use of a residual current device (RCD)
- Fixed wiring appliances incorporate a locally situated switch disconnector to connect to, which is easily accessible for switching off and safe isolation purposes. The switch disconnector must meet the specification requirements of IEC 60947.

### **Your attention is drawn to:-**

#### **BS 7671:2018–Guidance Note 8 - 8.13 : Other locations of increased risk**

It is recognized that there may be locations of increased risk of electric shock other than those specifically addressed in Part 7 of BS 7671. Examples of such locations could include laundries where there are washing and drying machines in close proximity and water is present, and commercial kitchens with stainless steel units, where once again, water is present.

Where because of the perception of additional risks being likely, the installation designer decides that an installation or location warrants further protective measures, the options available include:

- Automatic Disconnection of Supply (ADS) by means of a residual current device having a residual operating current not exceeding 30mA;
- Supplementary protective equipotential bonding; and
- Reduction of maximum fault clearance time.

The provision of RCDs and supplementary bonding must be specified by the host organization's appointed installation designer or electrical contractor and installed by a suitably qualified and competent electrician so as to comply with Regulations 419.2 and 544.2

# Warranty Policy Shortlist

Warranty does not cover :-

Correcting faults caused by incorrect installation of a product.

Where an engineer cannot gain access to a site or a product.

Repeat commission visits.

Replacement of any parts where damage has been caused by misuse.

Engineer waiting time will be chargeable.

Routine maintenance and cleaning.

Gas conversions i.e. Natural to Propane gas.

Descaling of water products and cleaning of water sensors where softeners/conditioners are not fitted, or are fitted and not maintained.

Blocked drains.

Independent steam generation systems.

Gas, water and electrical supply external to unit.

Light bulbs.

Re-installing vacuum in kettle jackets.

Replacement of grill burner ceramics when damage has been clearly caused by misuse.

Where an engineer finds no fault with a product that has been reported faulty.

Re-setting or adjustment of thermostats when unit is operating to specification.

Cleaning and unblocking of fryer filter systems due to customer misuse.

Lubrication and adjustment of door catches.

Cleaning and Maintenance

- Cleaning of burner jets

- Poor combustion caused by lack of cleaning

- Lubrication of moving parts

- Lubrication of gas cocks

- Cleaning/adjustment of pilots

- Correction of gas pressure to appliance.

- Renewing of electric cable ends.

- Replacement of fuses

- Corrosion caused by use of chemical cleaners.

# SECTION 1 – INSTALLATION



**UNLESS OTHERWISE STATED, PARTS WHICH HAVE BEEN PROTECTED BY THE MANUFACTURER ARE NOT TO BE ADJUSTED BY THE INSTALLER**

## 1.1 MODEL NUMBER, NETT WEIGHTS and DIMENSIONS

MODEL	WIDTH mm	DEPT mm	HEIGHT mm	WEIGHT kg
E2102 Range 3& 4 Hotplate	900	770	870	553
E2112 Oven on Stand	900	770	1445	454
E2112/2 2 Tier Oven	900	770	1465	756
E2112 Oven with Worktop	900	770	870	425

### Optional Extras

A splashplate/plateshelf is available for fitting to the E2102 Open Top Range. A 'lift-off' fry plate is available for use in conjunction with round hotplates.

## 1.2 SITING

All models other than E2112 oven on stand or legs must be installed on a non-combustible floor. All units must be situated on a reasonably level surface. Although the feet are adjustable and facilitate levelling, adjustment is limited. Installation must be executed in accordance with local and/or national regulations as listed on cover of this manual. A competent installer must be employed.

### Installing Clearances

A clearance of at least 150mm must be allowed from rear of unit to any combustible wall. 75mm clearance from any side wall is required to facilitate removal of outer side panels during maintenance.

Where the unit requires to be positioned in close proximity to a wall, partition, kitchen furniture, decorative finish, etc. it is recommended these be constructed of a non-combustible material. If this is not possible then these should be clad in a suitable non-combustible heat insulating material. Close attention should be paid to fire prevention regulations.

A minimum vertical clearance of 900mm must be allowed between the top edge of flue outlet and any overlying surface.

If appliance is to be installed in a suite, either centrally or adjacent to a wall with a 'boxed in' void at rear, it is important that void be adequately ventilated to ensure a supply of air to motor cooling fan at oven rear.

### 1.3 ELECTRICAL SUPPLY

The units are suitable for AC supplies only. The standard terminal arrangement is for 3 phase/4 wire connection but by linking the 3 line terminals, units may be connected to a single phase supply.

. A suitably rated isolating switch with contact separation of at least 3mm must be installed and wiring executed in accordance with relevant regulations listed on front cover of this manual.

### 1.4 SUPPLY CONNECTION

#### Range

Cable entry is at RH rear of appliance, at base of terminal box and is suitable for 25mm diameter conduit. A single supply will suffice for the unit, i.e. hotplates and oven are linked internally.

#### Oven Only

A 32mm conduit bush cable entry is located at RH rear of appliance. The terminals are located on electrics support panel, behind control panel.

Withdraw panel fully against stop (remove 3 screws), insert cables between cable clamps at rear base of support panel. Connect to mains terminal. Tighten clamps to ensure there is no strain on terminals. Cable length should be just sufficient to enable control panel to be withdrawn fully against stop with no strain on cable.

A suitably rated isolating switch with contact separation of 3mm in all poles must be installed and wiring executed in accordance with relevant regulations listed on front cover of this manual.



#### Warning

**THIS APPLIANCE MUST BE EARTHED (an earth terminal is provided for both range and oven).**

This appliance is also provided with a terminal for connection of an external equipotential conductor. This terminal is in effective electrical contact with all fixed exposed metal parts of the appliance, and shall allow the connection of a conductor having a normal cross-sectional area of up to 10mm<sup>2</sup>. It is located on the rear panel and is identified by the following symbol and must only be used for bonding purposes.



### 1.5 ELECTRICAL RATINGS

Electrical loadings are listed below.

Model	L1	L2	L3
E2102 3H/P Range	26.5A	26A	26A
E2102 4H/P Range	28A	26A	26A
E2112 Convection Oven	12.5A	12A	12A

## **Note**

The fast plates embody a temperature limiting device which automatically switches off part of the element circuit if plate is overheated due to being left switched on without a pot on it.

## **1.6 CONTROLS**

### **1.6.1 Oven**

Indicator lamps

Red (mains) / amber (thermostat)

Thermostat

Safety Thermostat

Light 40W E14 heat resistant

Light push-button S/W

Timer (operates buzzer, audible time signal only, does not switch off oven).

Buzzer

Power switch (supplies power to controls via door switch).

Door switch (controls fan and thermostat functions, doors open - fan and heat off/doors shut - fan and heat on).

Contactors

Fan motor 120W, rotation A/C looking on front.

2 amp fuse (1 off) motor protection

### **1.6.2 Hotplates**

6 heat switches

Indicator lights, red - mains/amber controls

Important

After completion of installation, check unit operates satisfactorily and demonstrate method of operation to user. Indicate location and purpose of isolating switch and stress need to isolate appliance during cleaning or in event of an emergency. Ensure that the person retains the User's Instruction manual.

## **SECTION 2 – ASSEMBLY**

### **2.1 RANGE**

- a) Unpack unit and open doors. Remove all packing material.
- b) Place unit in desired location. if necessary, adjust levelling bolts, access to these at front is gained upon removal of bottom grille, below oven doors. The rear bolts are accessible via openings in outer back panel. Do not raise unit more than is absolutely necessary to effect levelling.
- c) Check hotplates are level and free from rocking and that hotplate drip trays are correctly located (one overlaps its neighbour).

### **2.2 OVEN (on 150mm Legs)**

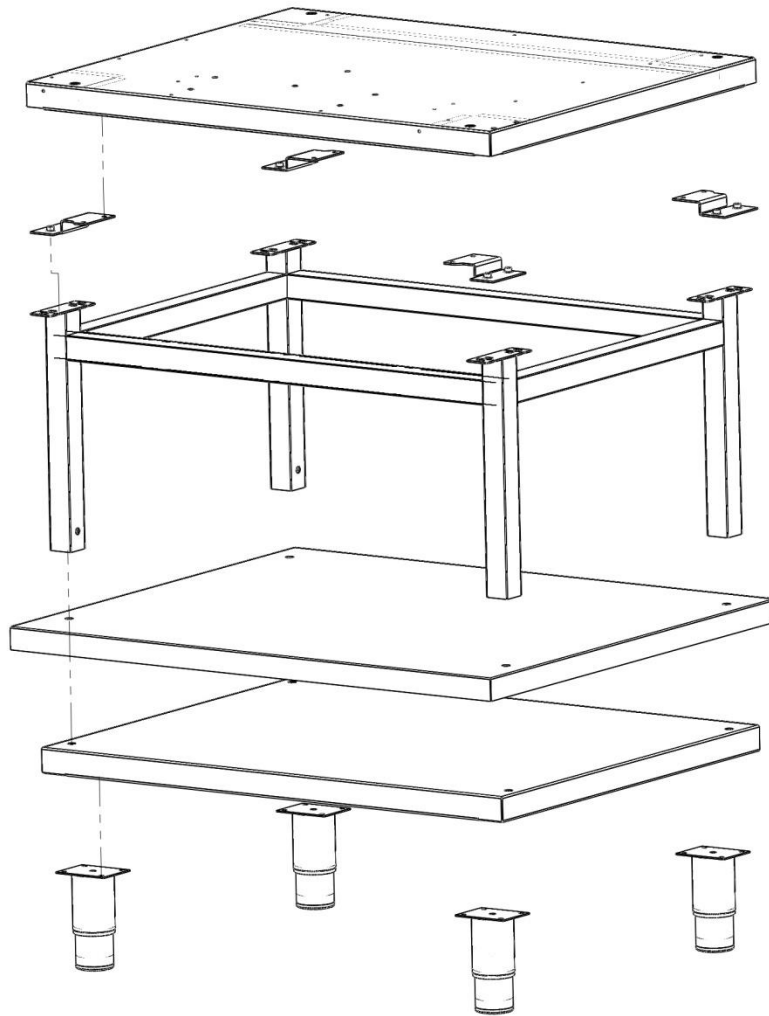
Installation procedure is as Section 2.1 but omit (c). For levelling (b), it is not necessary in this case to remove bottom grille as levelling is now effected by turning lower parts of the feet.

### **2.3 OVEN (on Stand)**

- a) Lift oven on to stand. Carefully align front edge of oven base with edge of stand. From below, secure oven to stand using M6 x 35mm fixings and plain washers (2 off at front). Use M5 x 16mm fixings and plain washers (2 off each) at rear.
- b) Manoeuvre oven and stand into required location. Level assembly by turning adjustable feet in stand.

### **Note**

In addition to the above, feet may be secured to floor if required, using holes provided.



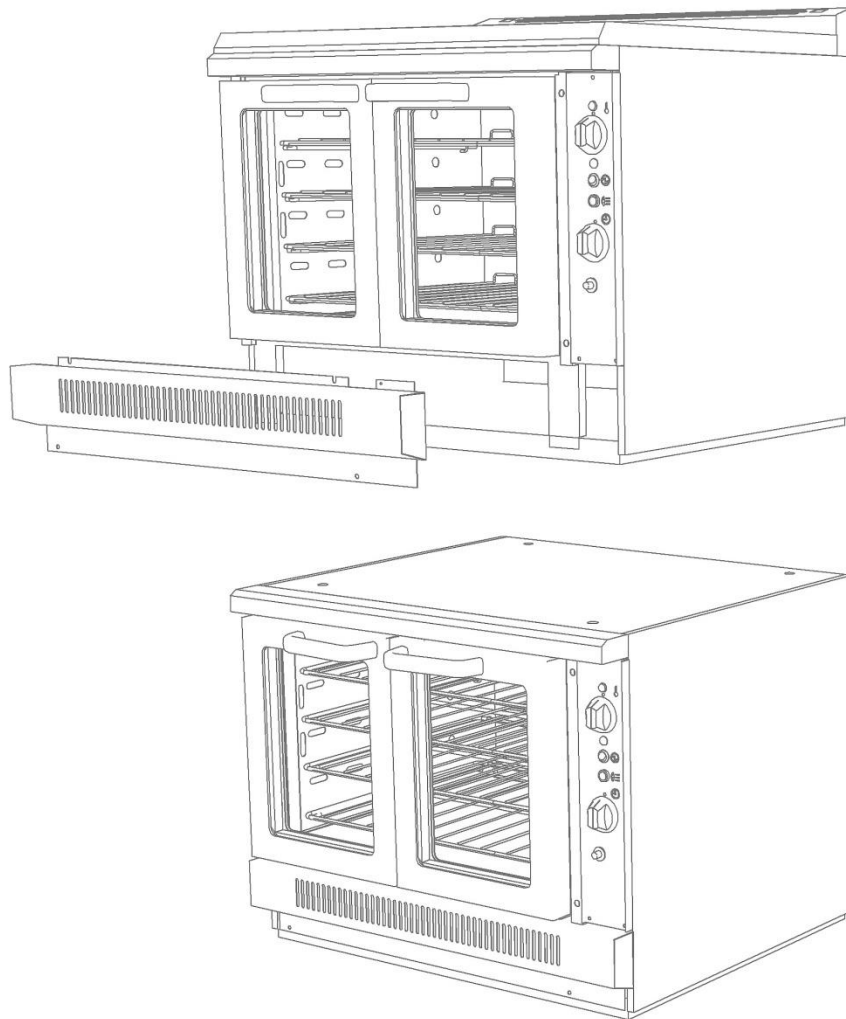
**Figure 1**

#### **2.4 TWO TIER MODEL (see Figure 2)**

The ovens are marked as TOP and BOTTOM before leaving factory. Top unit is identified by the addition of a worktop. Proceed as follows:-

- a) Place lower oven in approximately final location.
- b) Remove bottom grille from upper oven. To effect removal, undo two screws in grille below oven doors. Remove bottom LH screw in black control panel and two fixings at bottom of grille.
- c) Lift top unit upon lower oven, taking care not to damage upturned flange at rear of lower oven. Align rear edge of base of top oven carefully against back flange.
- d) Secure top unit to lower oven using M6 x 50mm fixings provided (two at front corners of base and two at rear, through rectangular openings in lower corners of outer back panel).
- e) Manoeuvre unit into final position and carefully level by adjusting the bolts in base of lower oven. Do not adjust more than is necessary to achieve a true level.

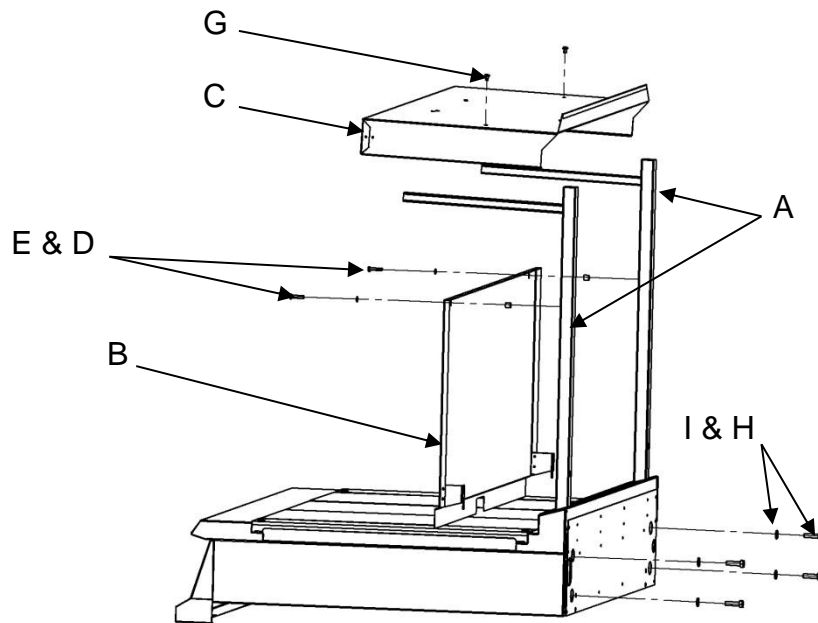




**Figure 2**

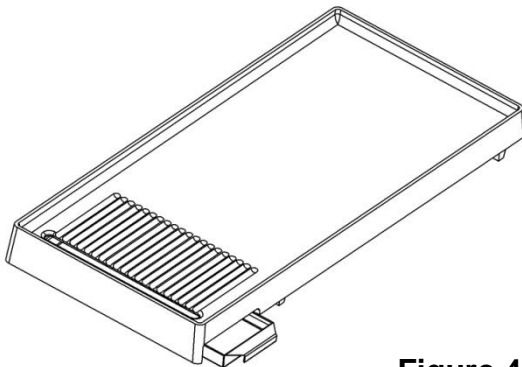
## **2.5 ASSEMBLY OF SPLASHPLATE and PLATESHELF**

- a) Insert plate shelf standards (A) into large square holes in hob rear and press fully home.
- b) Position splash plate (B) in position with brackets resting upon and locating over rear hob upstand.
- c) Push splash plate back against standards with a spacer (F) held behind each slot at splash plate top.
- d) Insert screw (D) and washer (E) through either slot and spacer. Secure within tapped hole of each standard.
- e) Position plate shelf (C) upon horizontal arms of standards. Push it to rear and secure to either arm using fixings provided.
- f) From rear, secure standards to unit using M8 bolts and washers - 4 off (H & J).



**Figure 3**

## 2.6 LIFT OFF FRYPLATE



**Figure 4**

If a lift-off fry plate is supplied, this is placed over the circular fast boiling plates with fat drain slot at front.  
The drainage tray slides in from either side at front, below drain slot during operation.

## 2.7 COMMISSIONING THE APPLIANCE

### 2.7.1 Oven

- Check oven linings are properly located and ensure that grid shelves slide in and out easily. Check all packing material has been removed.
- Switch on at mains supply. RED indicator light should illuminate.
- With doors open, click POWER switch on, close doors and check that fan starts.
- Set thermostat to 180°C and allow oven to heat to working temperature. AMBER light should extinguish while the keeps running.
- Check that fan stops, elements go off and amber light goes out WHEN DOORS ARE OPEN.

- f) Check fan stops, elements go off and amber light goes out when power switch is set to OFF with DOORS CLOSED.
- g) Check timer audible time-lapse signal only (does not interrupt power to elements).
- h) Press oven lamp button, check lamp operates.

### **2.7.1 Hotplates**

- a) Switch on at mains supply. RED indicator light will illuminate.
- b) Switch on all plates and check that amber indicators illuminate and that plates heat up.

## SECTION 3 – SERVICING



**BEFORE ATTEMPTING ANY MAINTENANCE TASK, ISOLATE THE APPLIANCE AT THE MAIN SWITCH AND TAKE STEPS TO ENSURE THAT IT CANNOT BE INADVERTENTLY SWITCHED ON.**

When ordering spare parts, please quote model number; serial number and voltage stated on data plate. This is located on a swinging plate at RH rear.

### 3.1 OVEN CONTROL PANEL

Access to various electrical controls, terminals, etc. can be gained upon withdrawal of this panel. **FIRST, SWITCH OFF ELECTRICITY AT THE MAINS**, then remove fixings that secure panel and draw it forward.

The various controls are removed and replaced as follows:-

#### 3.1.1 Oven Indicator Lamps

Pull off connectors at rear and remove nut that secures lamp to panel. Withdraw lamp from front.

Replace in reverse order.

#### 3.1.2 Oven Light Button

Open oven control panel as detailed in Section 3.2.1.

Remove push-on connectors at rear.

Undo rear fixing nut and remove.

Replace in reverse order.

#### 3.1.3 Oven Thermostat

Pull off connections at rear and control knob. Remove nut that secures thermostat to panel.

Open oven doors and remove grid shelves.

Remove fixings at bottom of oven back panel. Ease panel base forward slightly and pull it down to release top location. This will enable panel to be withdrawn from oven.

Ease RH panel rear slightly toward centre and push it back to release front location.

Remove panel from oven to reveal thermostat phial. (top phial). Remove cover and probe bracket that which holds capillary tube to inside wall of control compartment.

Withdraw thermostat and feed capillary tube and phial through hole in oven wall.

Replace in reverse order. Take care to replace insulating sleeving on capillary tube and to coil excess tubing out of the way of live parts.

#### **Note**

Re-calibration of thermostat requires use of a special tool and therefore must be adjusted by qualified personnel.

### **3.1.4 Safety Thermostat**

Remove oven control panel as per 3.1

Disconnect two wires.

Remove cover and nut securing safety thermostat.

Remove fixings at bottom of oven back panel. Ease panel base forward slightly and pull it down to release top location. This will enable panel to be withdrawn from oven.

Ease RH panel rear slightly toward centre and push it back to release front location.

Remove panel from oven to reveal thermostat phial. (top phial ). Remove cover and probe bracket that which holds capillary tube to inside wall of control compartment.

Withdraw thermostat and feed capillary tube and phial through hole in oven wall.

Replace in reverse order. Take care to replace insulating sleeving on capillary tube and to coil excess tubing out of the way of live parts.

#### **Note**

No calibration is required

### **3.1.5 Oven Power Switch**

Pull off connections at rear. Compress plastic securing tabs inward to enable switch to be withdrawn from front.

To replace, simply push switch into hole, ensuring it is the correct way up. Locating tabs automatically spring into position.

### **3.1.6 Oven Timer**

Remove connections at rear and pull off control knob. Undo nut that secures timer to panel.

Replace in reverse order.

### **3.1.7 Oven Contactor, Buzzer and Capacitor**

These items are mounted on electrics support, attached to control panel. These become accessible when control panel is drawn forward.

To remove, disconnect wires from faulty component and remove fixings that secure part to panel.

Note connection positions for correct replacement.

### **3.1.8 Oven Fuse**

This is mounted on electrics support panel. Refer to Section 3.1.6.

When replacing, it is essential to use a fuse of correct type and rating.

Motor protection - 1 fuse (2 amp)

Note

When replacing connections, refer to wiring diagram contained in this manual from which it can be seen that all wires are numbered.

## **3.2 OVEN DOOR SWITCH**

To gain access, proceed as follows:-

a) Withdraw control panel.

b) Remove upper hinge cover, located immediately above oven doors. This is achieved by removing 4 x M5 pozi screws - 2 in upper hinges and 2 concealed within square cut-outs in lower surface of hinge cover. Withdraw cover forward.

- c) Remove trip-lever by undoing fixings. This also releases return spring, take care not to lose it.
- d) Remove two screws that secure microswitch bracket and withdraw switch by moving it down and then forward. Note location of wires (these are numbered) and pull off connections.
- e) Remove microswitch from bracket.
- f) Replace all parts in reverse order.

### **Note**

The holes in trip-lever bracket are slotted to enable switch operation to be adjusted in relation to degree of door opening. Adjust this so that fan goes off when centre edge of the door is opened approximately 100mm. Apply a few drops of oil to trip lever bearing occasionally.

## **3.3 OVEN LAMP**

To replace bulb, proceed as follows :-

- a) From inside oven, pull or gently prise off glass, complete with plated bezel.
- b) Unscrew bulb, taking care it does not fall behind oven back panel.
- c) Fit new bulb and replace glass by pushing it until spring clips are located. The correct type of bulb must be used, i.e. E14 240V, heat-resistant type.

## **3.4 OVEN FAN UNIT**

This is removed from inside oven compartment as follows :-

- a) Remove oven grid shelves and any other loose fitments.
- b) Undo 2 screws at bottom of oven back panel and withdraw base of panel slightly forward and downward to remove panel.
- c) Remove 12 x M6 hex head screws around periphery of fan back panel insert.
- d) Remove 8 x M6 nuts from studs around inner periphery.
- e) Using two handles, pull fan assembly forward on to base of oven.
- f) Remove wires from fan motor terminals, noting location of numbered wires, with assembly clear of oven.
- g) Dismantle inner fan from shaft by removing centre fixing screw and pulling fan off.
- h) Remove motor by undoing 4 slotted screws.
- j) Fit replacement motor in reverse order.

## **3.5 OVEN INNER LININGS - TO REMOVE**

### **3.5.1 Oven Back Panel**

Remove fixings in base. Withdraw bottom of panel slightly forward and down to unlatch from top location.

### **3.5.2 Inner Side Panels**

Swing inward at rear, toward oven centre. Push back to disengage from front locating pins.

### **3.5.3 Bottom Plate**

Lift out oven bottom plate.

### **3.6 OVEN ELEMENTS - TO REMOVE**

- a) Remove bottom grille by undoing 2 screws below oven doors. Remove bottom LH screw in control panel and 2 screws in bottom of grille.
- b) Remove oven linings as detailed in Section 3.5.
- c) Remove screws that secure radiation baffle to heat exchanger and remove baffle.
- d) Remove convection guides at rear of heat exchanger, noting their positions.
- e) Remove clamps at rear and sides and 1 fixing at front that secures heat exchanger.
- f) Remove clamp that secures faulty element.
- g) Lift up heat exchanger at front from below and support it securely to allow element removal.
- h) Disconnect flexible tails from terminal block.
- j) Undo fixing nuts to remove element.
- k) Replace in reverse order, referring to wiring diagram and ensuring insulation rope is correctly located in channel.

### **3.7 HOTPLATE CONTROL PANEL - TO REMOVE**

Remove thermostat control knob. Remove fixing at control panel ends and open both oven doors. Pull control panel forward while slightly easing bottom edge upward. Support control panel on doors.

### **3.8 HOTPLATE CONTROL SWITCHES and INDICATOR LAMPS**

If any of these prove to be faulty they must be replaced. Adopt the following procedures and refer to the appropriate wiring diagram in this manual.

#### **3.8.1 Control Switches**

Release and withdraw control panel as detailed in Section 3.1.  
Remove switch connections, noting wire arrangement.  
Pull off control knob.  
Undo fixing screws to release switch.  
Fit new switch, ensuring that serrated washers are fitted under fixing screws.

#### **3.8.2 Indicator Lamps - To Remove**

Remove control panel as detailed in Section 3.1.  
Disconnect wires from lamp.  
Remove nut that secures lamp to panel and withdraw lamp through control panel.  
Replace in reverse order.

### **3.9 LARGE HOTPLATE ELEMENTS - To Remove**

Remove top fascia panel.  
Disconnect element tails, noting their respective positions for correct replacement. Also disconnect earth wire.  
Lift hotplate evenly all round, approximately 25mm, thus releasing locating pins. Lift up from rear, pivoting on front edge and prop plate up in this position.  
Withdraw flexible tails through insulating bushes.  
Lift hotplate assembly clear.  
Remove insulation box and clamping plates.  
Prise out faulty elements.

**Note**

When fitting a new element, ensure that it beds down snugly within hotplate grooves. Tighten clamping plate evenly and firmly from centre back and check earth connection.

Ensure no gaps are present in insulating beads and cover beads with heat resistant insulating sleeving

Ensure that earth wire is connected by securing it to hole in control box.

Replace in reverse order.

**3.10 FAST BOILING PLATES**

Proceed as detailed in Section 3.9 until assembly is clear of range. Remove lower box and disconnect beaded connections, noting their locations.

Undo nut that secures hotplate in position and remove hotplate.

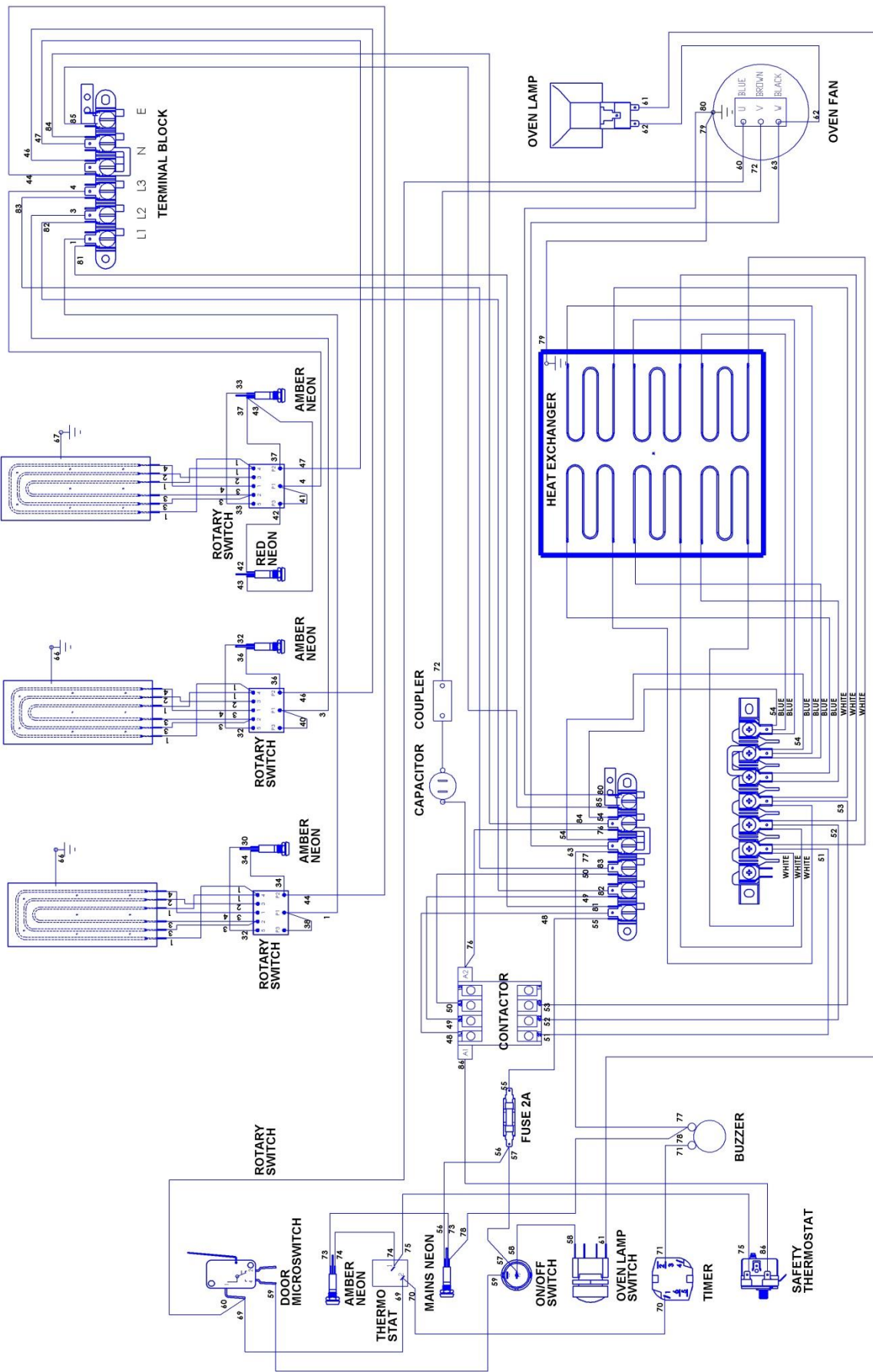
When re-fitting, ensure that all earth-bonding wires are properly re-connected.



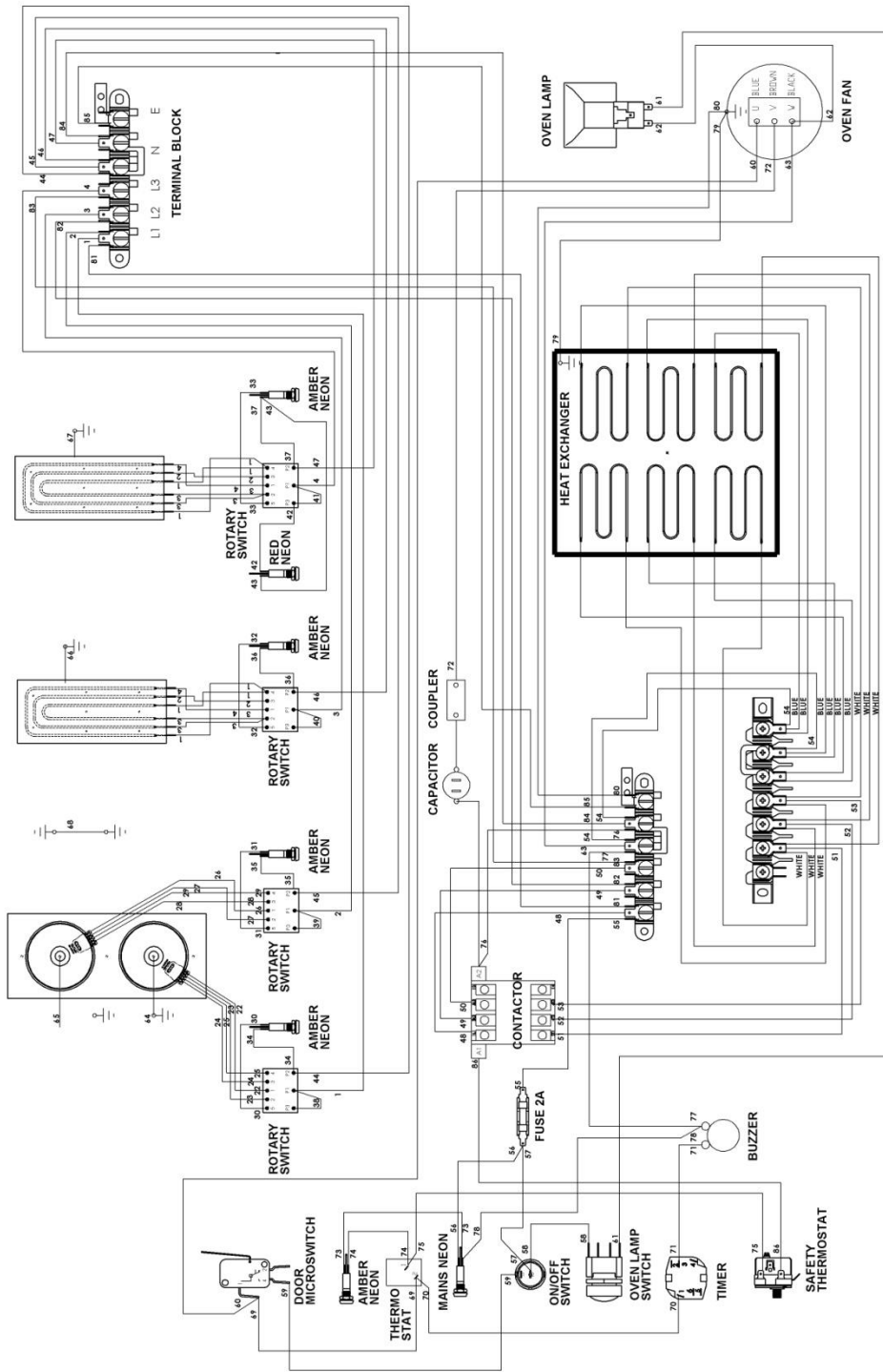
## 4.0 SPARES

531740330	Fan motor c/w impellor
531740340	Oven Lamp
531740410	Capacitor
531750540	Microswitch (Door)
535500002	Oven Control Knob
535500003	Timer Control Knob
535500035	Buzzer
535500036	Timer
535500037	Oven Light Switch
535500038	Power Switch
535500039	Oven Thermostat
730960010	Rectangular Hotplate Complete
730960020	Element Inner Hotplate
730960030	Element Intermediate Hotplate
730960040	Element Outer Hotplate
730960050	Round Hotplate
730960070	6 Position Switch
730962010	Neon Red
730962040	Neon Amber
731000002	Hotplate Control Knob
731000006	Mains Terminal Block 6 way
731740520	Oven Element
733630003	Safety Thermostat
734000075	Mains Terminal Block 7 Way
734240060	Fuse 2A
734310440	Contactora

# E2102 3 HOTPLATE CONVECTION OVEN RANGE



# E2102 4 HOTPLATE CONVECTION OVEN RANGE



# E2112 CONVECTION OVEN RANGE

