

F900 SERIES

User, installation and servicing instructions

INDUCTION RANGE

i91104, i91105, i91104C & i91105C

Read these instructions before use

DATE PURCHASED:	
MODEL NUMBER:	
SERIAL NUMBER:	
DEALER:	
SERVICE PROVIDER:	

T100953

REV 5

Published: 01/09/2017

Dear Customer,

Thank you for choosing Falcon Foodservice Equipment.

This manual can be downloaded from <u>www.falconfoodservice.com</u> or scan here.



IMPORTANT: Please keep this manual for future reference.

Falcon Foodservice Equipment HEAD OFFICE

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



WEEE Directive Registration No. WEE/DC0059TT/PRO

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

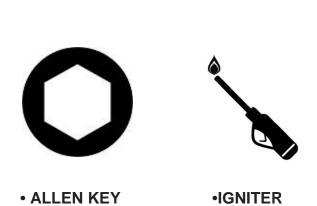
SYMBOLS



WARNING

VIEWPORT

• FLAME



• SPARK IGNITION



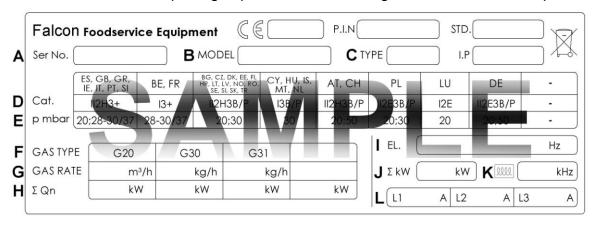
- These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the technical instructions for adapting the appliance to the conditions for use in that country.
- Installation must meet national or local regulations. Attention must be paid to: safety (installation & use) regulations, health and safety at work act, local and national building regulations, fire precautions act.
- All apparatus connected to a potable water network and including water drain device has to be provided with an air break before its discharge to the drainage system. Type AA.
- To prevent shocks, all appliances must be earthed.
- This equipment is for professional use only and must be used by qualified persons.
- The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.
- Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer.
- Take care when moving an appliance fitted with castors.
- The appliance must be serviced regularly by a qualified person. Service intervals should be agreed with the service provider.
- "Check that no damage has occurred to the appliance, power cable and plug top during transit.
- If damage has occurred do not use the appliance.
- Installation, periodic testing, repair and fixed wiring connections should only be undertaken by a competent electrician
- Ensure that the mains power cable is routed free from the appliance to avoid damage.
- We recommend supplementary electrical protection with the use of a residual current device (RCD).
- The appliance has been designed and approved to use Falcon kick plates; non Falcon kick plates could potentially adversely affect the performance of the appliance by restricting the air to the appliance.

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1.0 APPLIANCE INFORMATION

This appliance has been CE-marked on the basis of compliance with the relevant EU directives for the heat inputs, gas pressures and voltages stated on the data plate.



- A Serial No •
- B Model No •
- C Flue Type •
- D Gas Category •
- E Gas Pressure •
- F Gas Type •
- G Gas Rate •
- H Total Heat Input •
- I Electrical Rating •
- J Total Electrical Power •
- K Magnetic Field Frequency •
- L Electrical Phase Loading •

2.0 OPERATION



IF GLASS-CERAMIC TOP IS CRACKED OR BROKEN IMMEDIATELY DISCONNECT APPLIANCE FROM POWER SUPPLY AND CONTACT YOUR SERVICE AGENT.

THE AIR INTAKE FILTER MUST BE IN POSITION DURING OPERATION IT SHOULD BE CLEANED REGULARLY AND DO NOT OBSTRUCT AIR FILTER ENTRY BELOW.

USERS MUST BE MADE AWARE THAT INDIVIDUALS FITTED WITH A PACEMAKER SHOULD CONSULT THEIR DOCTOR IF IN A CLOSE PROXIMITY TO THIS UNIT. THIS INDUCTION UNIT EMANATES AN 18 KHz TO 20 KHz OUTPUT THAT MAY AFFECT OLDER TYPES OF PACEMAKER.

USE OF THE CORRECT TYPE OF PAN IS ESSENTIAL FOR CORRECT OPERATION.

DO NOT PLACE ANY METAL OBJECTS, SUCH AS KITCHEN UTENSILS, CUTLERY, ALUMINIUM FOIL, OR PLASTIC VESSELS, ON THE GLASS-CERAMIC TOP.

THE USER MUST ALSO BE AWARE OF POTENTIAL TO HEAT JEWELLERY AND DISRUPT ELECTRONIC EQUIPMENT PLACED OVER THE INDUCTION ZONES MAGNETIC FIELD.

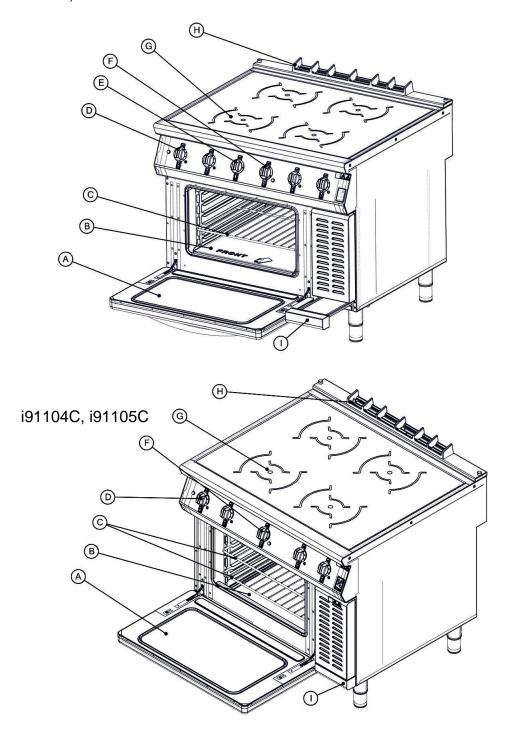
DO NOT PLACE CREDIT CARDS, ETC, ON THE GLASS-CERAMIC TOP AS DATA COULD BE WIPED OFF.

NEVER LEAVE THE INDUCTION HOB UNSUPERVISED WHEN IN USE. THE GLASS-CERAMIC TOP MUST NOT BE USED FOR STORAGE.

DAMAGED PANS CAN REDUCE THE APPLIANCE EFFICIENCY.

2.1 COMPONENT PARTS

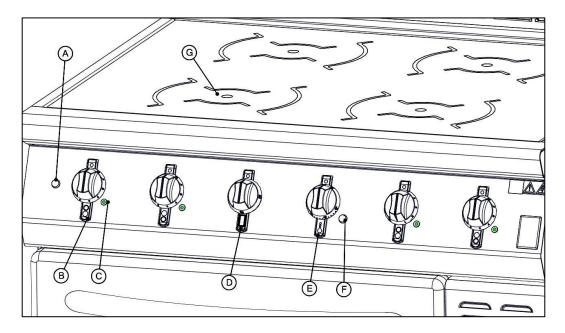
i91104, i91105



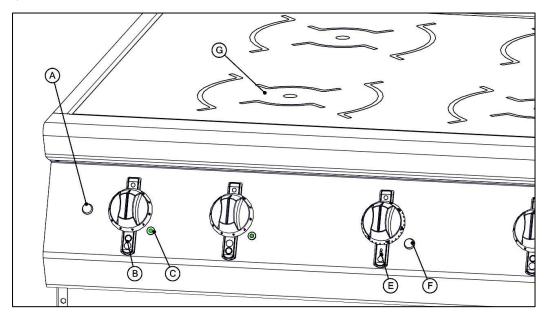
A-	Door	F-	Oven temperature control
B-	Drip tray	G-	Glass hob
C-	Shelf	H-	Flue capper
D-	Hob zone Control	I-	Filter
E-	Oven zone Control		

2.2 CONTROLS

i91104, i91105



i91104C, i91105C

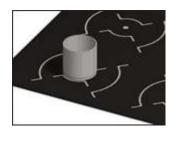


Α-	Power neon (Red)	E-	Oven temperature indicator
B-	Hot zone indicator	F-	Oven heat neon (Amber)
C-	Zone indicator (Green)	G-	Heat zone
D-	Oven indicator		

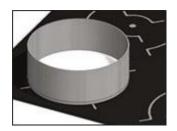
2.3 USING THE INDUCTION HOB

2.3.1 Ensure you use the correct size of pot.

<Ø120 Ø120 – Ø270

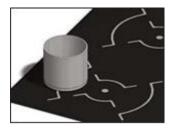




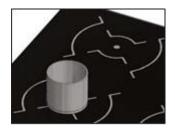




2.3.2 Ensure the pots are central in the cooking zone





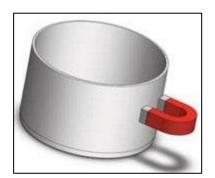




2.3.3 Ensure you use the correct type of pot









2.3.4 Ensure you use a clean flat bottom pan













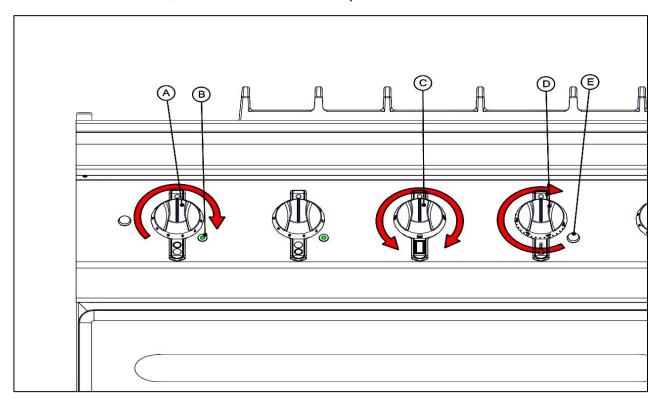




2.3.5 To turn on hob cooking zone turn required control (A.) The green L.E.D (B) will light. If you remove the pot from the cooking zone the L.E.D will flash at 1 second intervals to indicate that the cooking zone is still active.

2.4 **USING THE OVEN (191104/5 MODEL)**

- 2.4.1 To use oven switch oven zone control to required setting (C).
- 2.4.2 Use temperature control knob to adjust temperature (D), (E) heat demand neon will light when heat is demanded
- 2.4.3 Caution: Opening the oven door will result in the escape of hot air. Care should be taken to avoid being burnt by such action.
- 2.4.4 To switch off, turn control knobs to off position.



2.5 USING THE OVEN (I91104/5C MODEL)

- 2.5.1 To use oven, turn temperature control knob clockwise to desired temperature. Ensure heat demand (amber) light illuminates.
- 2.5.2 When oven has reached temperature, the heat demand (amber) light will extinguish. The light will then illuminate and extinguish at regular intervals as the oven cycles.
- 2.5.3 For best results when single shelf cooking, use shelves 3, 2 or 4. Trays may be placed onto shelves, or alternatively, if using a 2/1 tray, placed directly into shelf hangers.

- 2.5.4 For best results when 2 shelf cooking, use shelves 2 and 4. Trays may be placed onto shelves, or alternatively, if using a 2/1 tray, placed directly into shelf hangers. Shelves 1 and 3 may also be used, however, when using shelf 1, trays should be placed directly into shelf hanger and not placed onto the shelf.
- 2.5.5 Caution: Opening the oven door will result in the escape of hot air. Care should be taken to avoid being burnt by such action.
- 2.5.6 To switch off, turn temperature control knob anti-clockwise to off position.

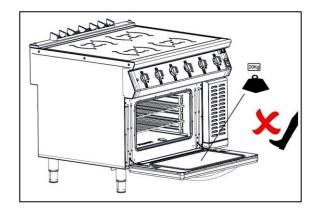
3.0 CLEANING AND MAINTENANCE

3.1 HOB

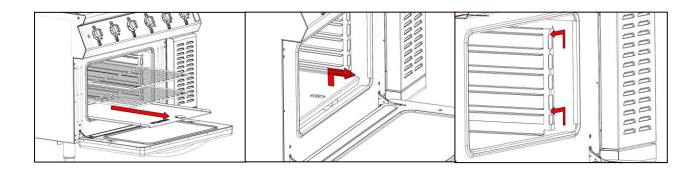
- 3.1.1 Turn off and let cool down.
- 3.1.2 Clean the glass hob with hot soapy water

3.2 OVEN





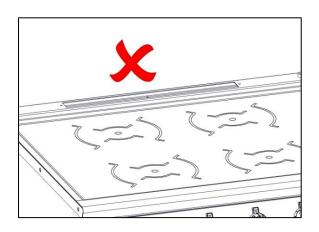
- 3.2.1 Turn off and let cool down.
- 3.2.2 Remove base tray, base plate and shelf hangers.

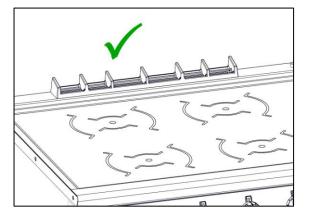


- 3.2.3 Clean oven using soap and water.
- 3.2.4 Clean shelves and base tray using soap and water.

3.3 FLUE CAPPER

3.3.1 The flue capper can be removed for cleaning but must be replaced for use.







CLEAN THE AIR INTAKE FILTER REGULARLY. FAILURE TO CLEAN THE FILTER REGULARLY MAY CAUSE PROBLEMS WHICH WILL NOT BE COVERED BY WARRANTY. THE AIR INTAKE FILTER MUST BE IN PLACE DURING OPERATION.

DO NOT ATTEMPT TO REPAIR OR REPLACE ANY PART OTHER THAN THE AIR INTAKE FILTER. REFER TO THE ERROR CODE LIST TO DEBUG THE PROBLEM.

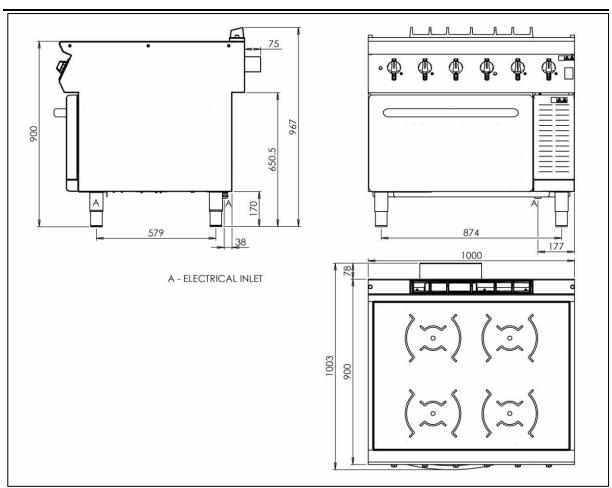
4 SPECIFICATION

These appliances are suitable for AC supplies only.

Three phase & neutral 5 wire connection

MODEL	VOLTAGE	POWER	L1	L2	L3
i91104	400V 3N~	20.2KW	30.8A	30.4A	30.4A
i91105	400V 3N~	26.2KW	38.6A	38.0A	38.0A
i91104C	400V 3N~	20.5KW	29.6A	29.7A	29.7A
I91105C	400V 3N~	26.5KW	38.3A	38.4A	38.4A

5 DIMENSIONS / CONNECTION LOCATION



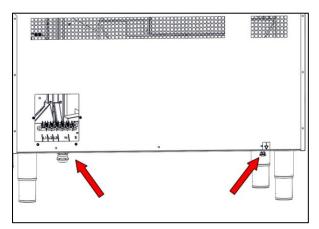
6.1 SITING / CLEARANCES



CAUTION: IF SUITING THE NECESSARY CLEARANCES TO ANY COMBUSTIBLE WALL MUST BE THE LARGEST FIGURE GIVEN FOR INDIVIDUAL APPLIANCES INSTRUCTIONS.

6.2 ELECTRICAL SUPPLY AND CONNECTION

- 6.2.1 Remove rear access panel to access the inlet terminal (see 6.2.2)
- 6.2.2 Cable entry at unit rear. A suitable rated isolating switch with contact separation of at least 3mm in all poles must be installed and wiring executed in accordance with relevant regulations.



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 conductor having a nominal cross-section area of up to 10mm². It is located at the rear of the unit and identified by the following label and must only be used for bonding purposes.



The electrical connections color code is shown in the table below.

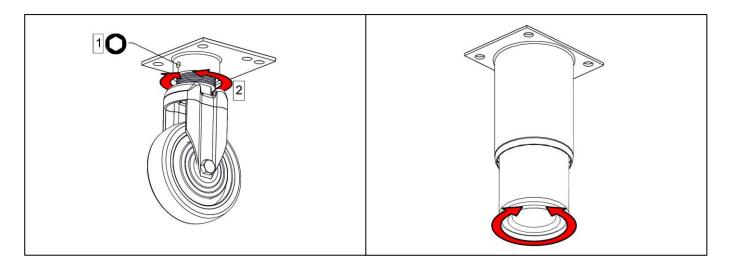
PHASE I	PHASE II	PHASE III	NEUTRAL	EARTH
Brown	Black	Grey	Blue	Green/Yellow



MAINS INPUT CONNECTION CABLE IS NOT SUPPLIED; SUITABLE CABLE WILL CONFORM TO CODE DESIGNATION IEC 60245-57.

6.3 ASSEMBLY

6.3.1 Unpack, position appliance and level using feet or castor adjusters as shown below.



- 6.3.2 Ensure fan intake filter is fitted and secured in position below control panel.
- 6.3.3 Connect to an electrical supply (see 6.2)

6.4 COMMISSIONING

- 6.4.1 Switch all cooking zones on to position 10 (A).
- 6.4.2 Ensure all L.E.Ds light and begin to flash (B).
- 6.4.3 Place a pan suitable for induction cooker tops, filled with water, upon a cooking zone. The pan minimum diameter cannot be less than 120mm.
- 6.4.4 Ensure that corresponding L.E.D stops flashing and remains lit. This indicates that "Pan detection" feature is working.
- 6.4.5 Repeat on all different cooking zones.
- 6.4.6 Leave pots to heat until water boils and switch controls to maintain simmer.
- 6.4.7 Switch control off.
- 6.4.8 Set oven control to each setting (C).
- 6.4.9 Use temperature control (D) to adjust temperature for each setting.

6.5 INSTRUCTION TO USER

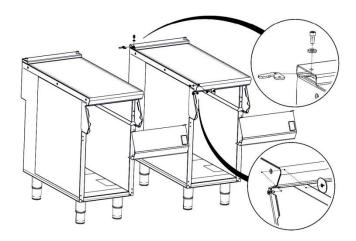
After installation and commissioning is completed, please hand the user instructions to the user and ensure that the person/s responsible understand the instructions regarding correct operation and cleaning of the appliance.



PLEASE FILL OUT THE INFORMATION TABLE ON THE FRONT COVER AFTER COMMISSIONING.

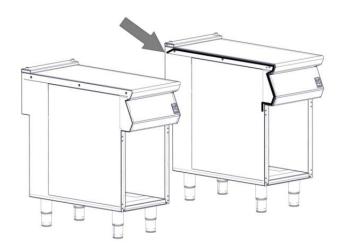
6.6 SUITING

- 6.6.1 Before leveling and suiting units ensure the units are fully built, including all accessories and castings.
- 6.6.2 Undo the 4 fixing screws on the control panel and remove.
- 6.6.3 Remove the hob rear infill and replace with rear suiting plate and fixings.
- 6.6.4 Remove the front side panel countersunk screw and suiting plate.

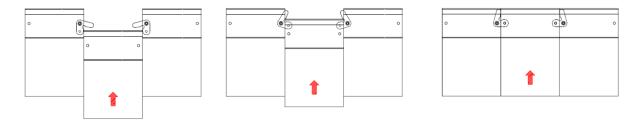


NOTE: The DLS system "Patent No. GB 2540131" is designed to give a quick and easy suiting solution. If you require an improved seal between appliances we recommend you use, a food grade, high temperature silicon sealant. This can be supplied by Falcon part no – 523400021

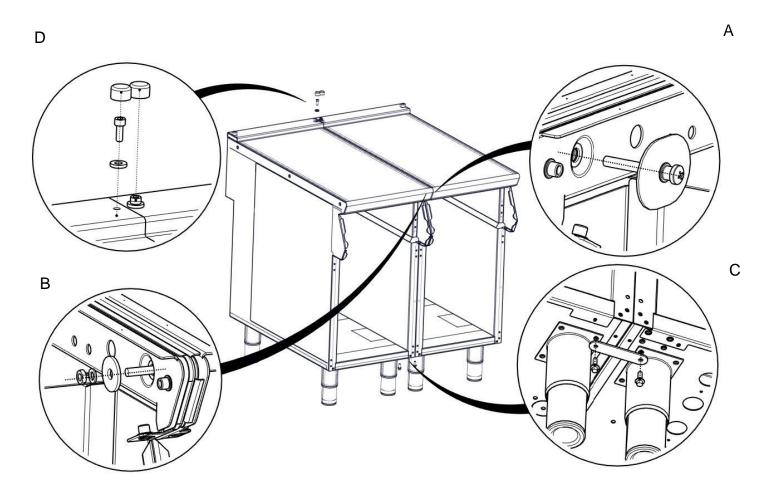
6.6.5 Run a bead of silicon 5mm from profile edge as highlighted below.



6.6.5 Slide suited units into position.



- 6.6.6 (A) Right hand unit: Screw the M5 x 40 screw (supplied in the kit) into one of the suiting plates as shown and then insert through the front fixing holes of both units.
- 6.6.7 (B) Left hand unit: Slide the penny and lock washer on to the screw and secure using the M5 nut.
- 6.6.8 (C) Remove the front bolts from feet, insert base tie plate and secure the bolts back into position.
- 6.6.9 (D) Replace fixings on the rear hob and tighten screw caps into position.

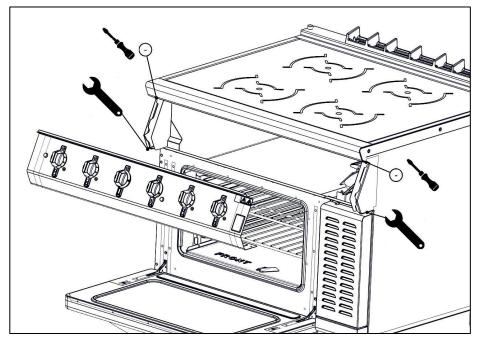


6.6.10 Replace control panel.

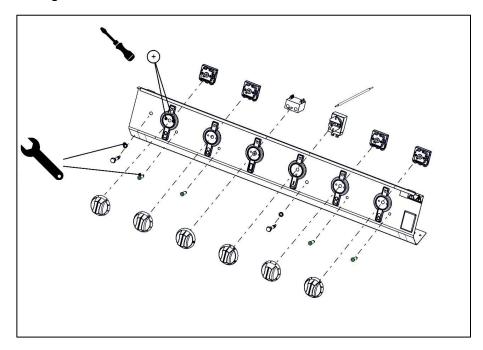
7 SERVICING

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

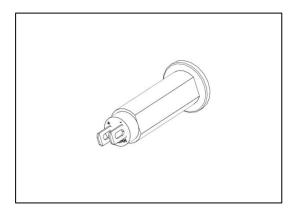
7.1 CONTROL PANEL



- 7.1.1 Remove control panel and controls as shown.
- 7.1.2 Control switch: Identify wires that relate to switch and LED attached to the generator unit and disconnect.
- 7.1.3 Ensure replacement switch selector is set at same position as original switch setting.



- 7.1.4 Unscrew and remove as shown.
- 7.1.5 Re-assemble in reverse order.
- 7.1.6 LED's are polarity driven with the Green cable negative and the purple cable positive. The Green cable connects to the spade above LED body flat side.

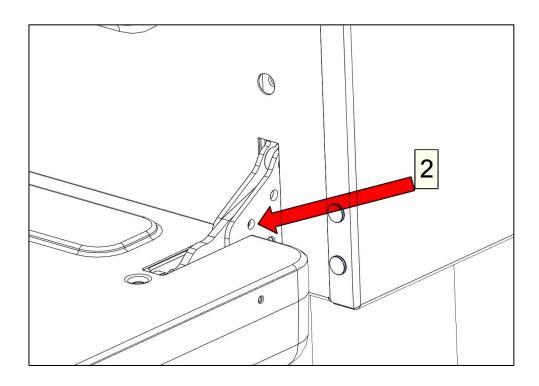


7.2 OVEN DOOR REMOVAL

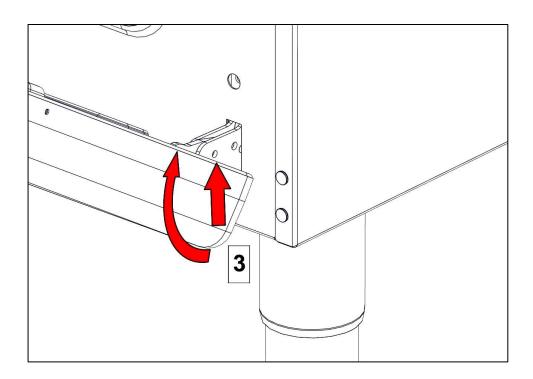


THE HINGE SPRING SHOULD BE UNDER TENSION AND NO ATTEMPT SHOULD BRE MADE TO REMOVE THE PINS WHEN DOOR IS OFF

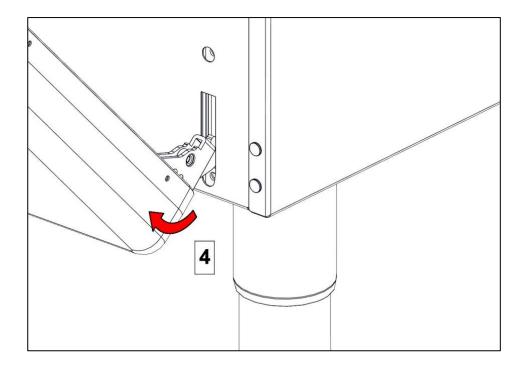
7.2.1 Turn off and cool down.



7.2.2 Open the door fully and push an Ø4mm pin into the hole on each hinge.



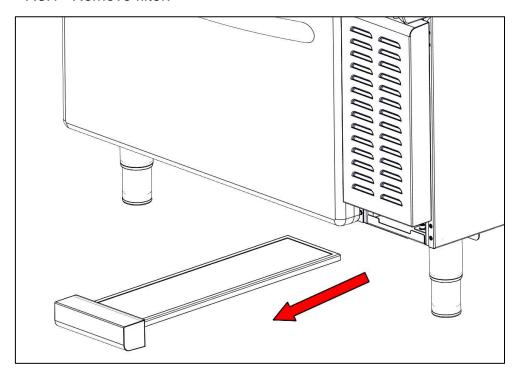
7.2.3 Holding the door with both hands half way down each side, rotate and lift up until the hinge hits the top of the hinge aperture.



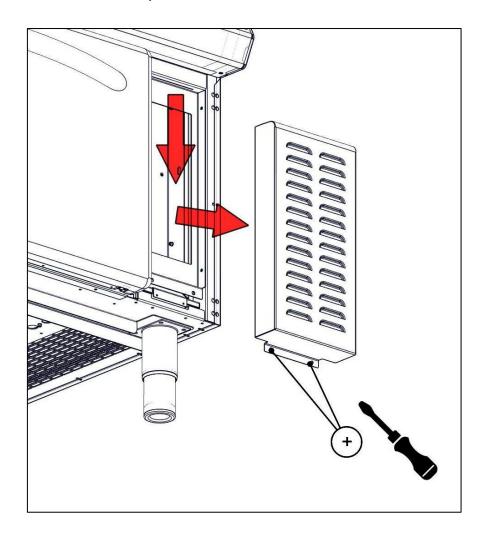
7.2.4 Rotate hinge out of hinge aperture and lift door away.

7.3 ACCESSING THE GENERATOR AND ELECTRICS

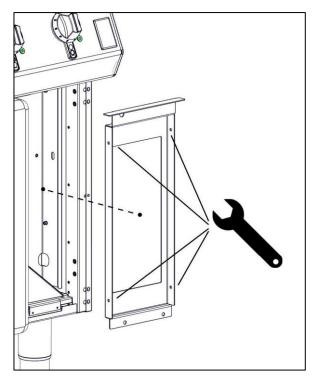
7.3.1 Remove filter.



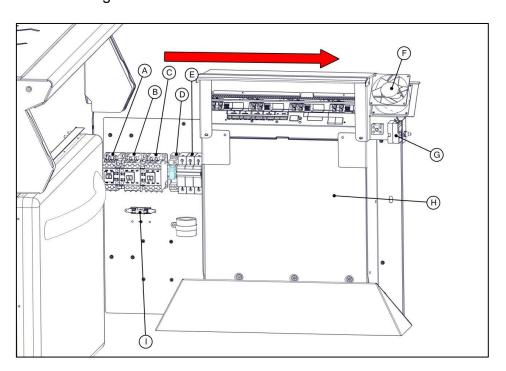
7.3.2 Remove front panel.



7.3.3 Remove cross support.

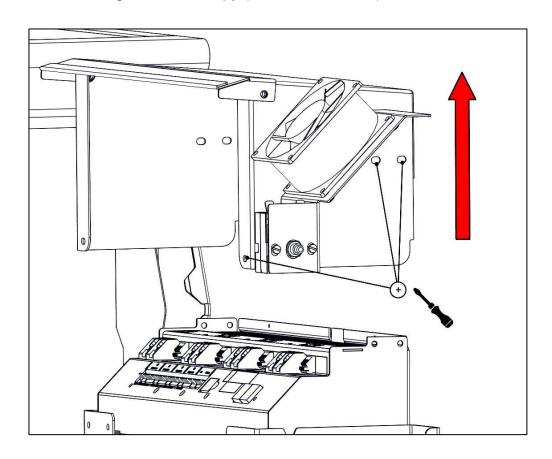


7.3.4 Pull generator and electrics out as shown.

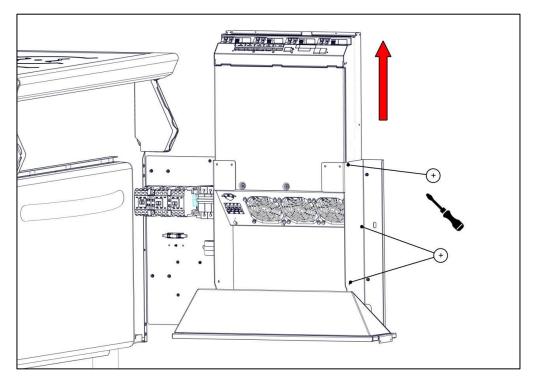


A-	Contactor for safety circuit	F-	Cooling fan
B-	Contactor for top element	G-	Safety thermostat
C-	Contactor for bottom element	H-	Induction generator
D-	Relay	I-	Fuse 2A
E-	MCB-40A 3P Type D		

7.3.5 Remove generator canopy (screws both sides) as shown.

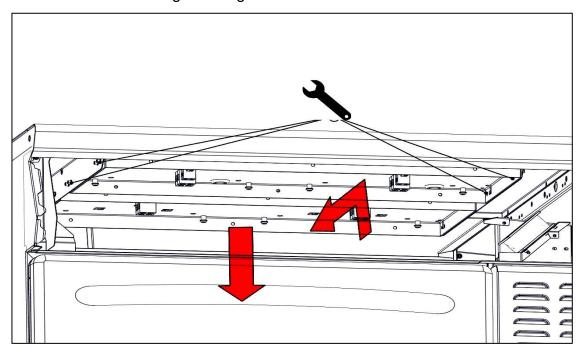


- 7.3.6 Disconnect generator wires.
- 7.3.7 Loosen top screws and remove lower screws (both sides) to remove generator.

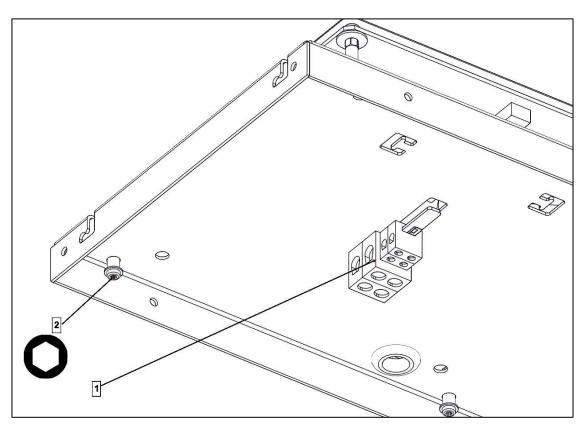


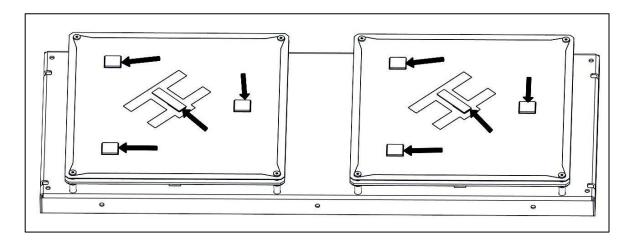
7.4 REMOVING COIL ASSEMBLY

- 7.4.1 Disconnect the wires to the coil.
- 7.4.2 Remove the fixings holding the coil carrier to the hob.



7.4.3 Remove the four fixings holding the coil to the carrier take care not to lose the springs.







WHEN REPLACING COILS, ENSURE THAT SPACERS ARE IN POSITION AND ONLY FITTED WITH A SINGLE, LAYERED SPACER AS INDICATED.



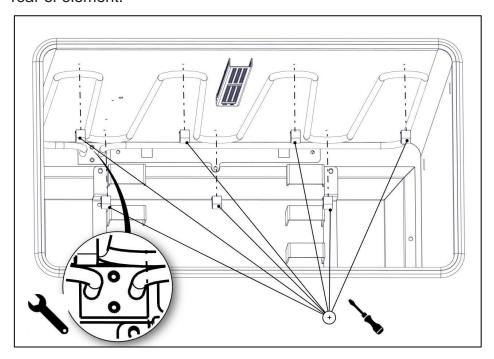
DO NOT USE THE UNIT IF THE CERAMIC TOP IS CHIPPED, CRACKED OR BROKEN. THE PANEL NEEDS TO BE REPLACED.



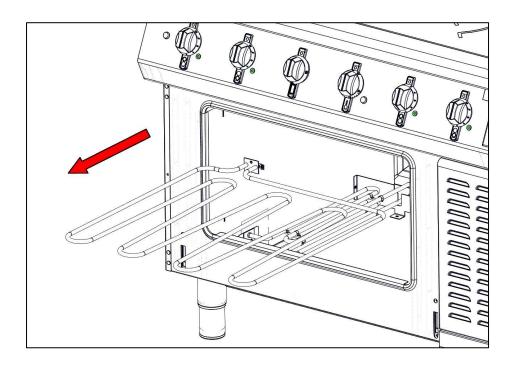
THE INDUCTION GENERATOR UNIT IS HEAVY AND IT MAY BE REQUIRED THAT TWO PEOPLE ARE INVOLVED WITH THE CHANGING PROCEDURE.

7.5 OVEN TOP ELEMENT REMOVAL (i91104, i91105)

7.5.1 Inside oven chamber, unscrew element fixing clips and loosen two screws at rear of element.

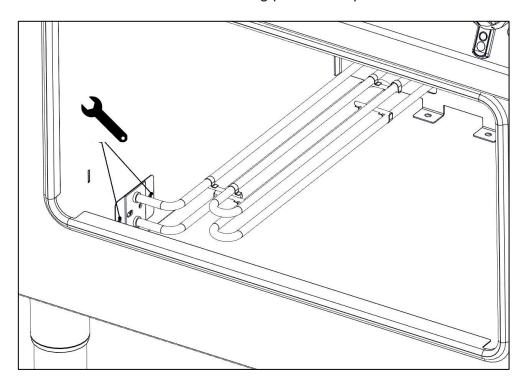


7.5.2 Disconnect from wiring and remove top element from oven.

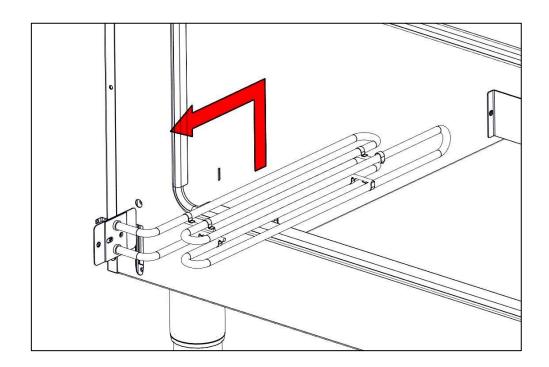


7.6 OVEN BOTTOM ELEMENT REMOVAL (i91104, i91105)

7.6.1 Remove screws from element fixing plate as required.

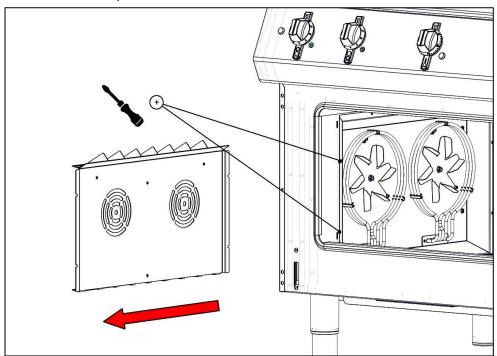


7.6.2 Disconnect wires and remove element from oven.

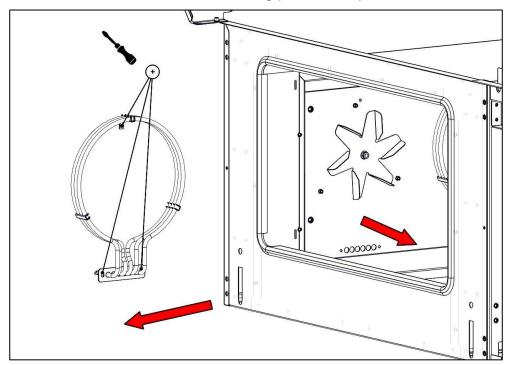


7.7 OVEN ELEMENT AND FAN REMOVAL (i91104C, i91105C)

7.7.1 Remove baffle panel.

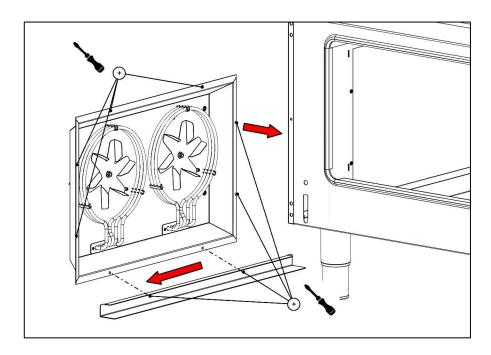


7.7.2 Remove screws from Element fixing plate as required.

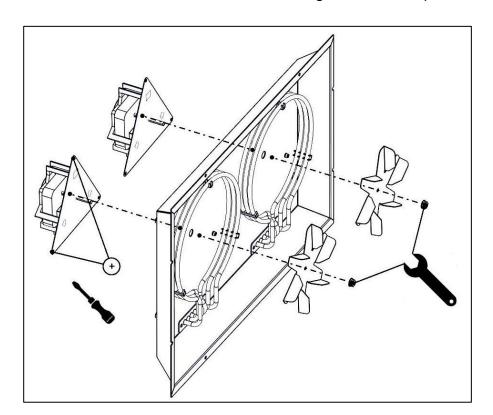


7.7.3 Disconnect wires and remove element from oven.

7.7.4 To remove fan, unscrew recess panel from oven wrap as shown.



7.7.5 Loosen nut on fan front and unscrew fixings on fan back plate to remove.



8.0 FAULT FINDING

Note: Most faults can be rectified by simply switching unit off for 10 seconds. After this time, turn power back on at mains supply. If fault continues to occur after such action then please refer to the table. This will provide a solution to rectify the condition.

8.1 ERROR CODE TABLE

If any fault becomes apparent during the tests, an error code may display on an LED as a series of flashes. These flashes correspond to the numbers in the left column of the following table.

For example, 6 short flashes followed by a long flash would indicate error code 06 – "internal temperature too high".

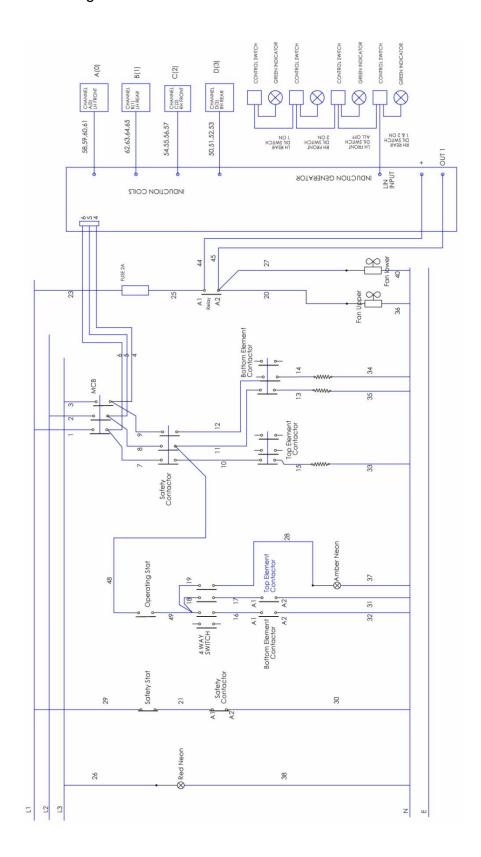
CODE	ERROR	CAUSE	ACTION
		Use of Unsuitable pan material	Use suitable pan.
01	Coil Pan Detection	Reset appliance	Switch appliance OFF for 10 seconds then ON.
U1	Error.	Defective coil	Check all electrical connections to the inductor coil
			Replace defective Coil
		Reset appliance	Switch appliance OFF for 10 seconds then ON.
02	No Inductor Coil Current.	Inductor Coil connection failure	Check all electrical connections to the inductor coil
			Replace defective Coil
	Generators Internal Heat Sink Too High.	Reset appliance	Switch appliance OFF for 10 seconds then ON.
		Air routes blocked.	Check below appliance & rear of Appliance for potential Air Flow Obstructions.
03		Air Filter blocked (Requires Cleaning).	Check Filter - Does it require cleaning / Replacing?
		Generator Fan(s) Malfunctioned. Due to electrical fault.	Replace Generator
		Generator Fan(s) blowing instead of sucking.	Replace Generator
		Generator Temperature sensor defective.	Replace Generator -

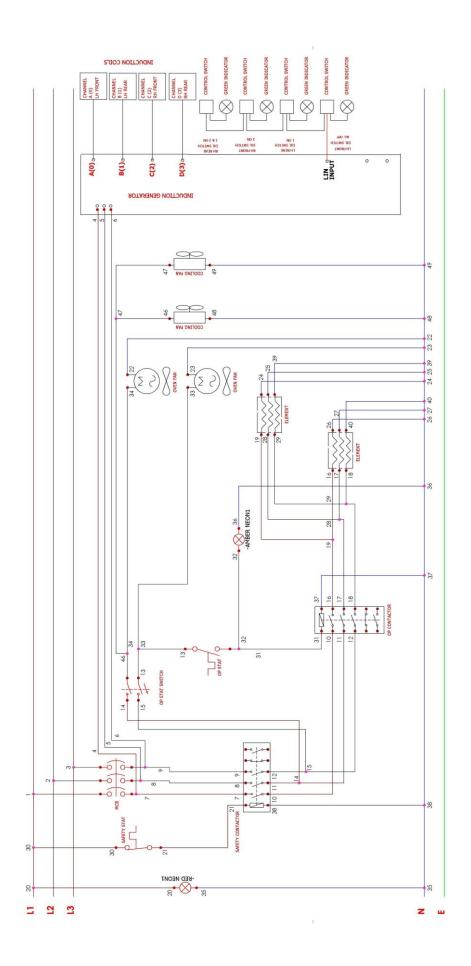
	Cooking Zone Temperature Too High Or Remains Constant During	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
		Pan empty / Too Hot	Test Disc may be overheated – allow for cooling.
04		Cooking Zone Self Protected due to Abnormal Heat Build up	Allow Cook Zone to cool for couple of Minutes
	Cooking.	(Constantly records a Ambient	Check all electrical connections to the inductor coil
			Replace defective Coil
		Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
05	Controls Failure	Controls faulty or incorrectly	Check all electrical connections to the controls & Generator
		Wired	Replace defective Controls Assembly
06	Generators Internal Temperature Too High.	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
		See Fault 3	See Fault 3
	Cooking Zone Temperature Sensor	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
07		Temperature sensor faulty /	Check all electrical connections to the inductor coil
		ivaliunctioned	Replace defective Coil
	Mains Supply Failure	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
			Is there a Phase(s) Down
08			Has supply been interrupted intermittently?
		Fault in mains supply	Has MCB Tripped?
			Has Supply Under / Over Voltage?
09	N/A	N/A	N/A
40	Communication Error	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
10		Failure on LIN or CAN-Bus	Check all communications connections

	Initialisation Error	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
11		Software Failure while initialising hardware	Wait. The generator will reset every 30 seconds.
		naidwaie	Replace Generator.
		Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
			Check Mains Supply
12	Current Reading Failure	Generator suspects Current being generated does not reflect what appliance controls are set	Check all electrical connections within appliance.
		for.	Replace Suspect Coil
			Replace Generator.
13	Mains Connection Error	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
		Mains voltage too high or too low	See Fault 8
14	Mains Connection Error	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
		Mains voltage too high or too low	See Fault 8
	Coil Electrical Circuit Self-Protected.	Reset Appliance	Switch Appliance OFF for 10 Seconds then On.
15			
		See Fault 4	See Fault 4
01	Oven will not operate	No power to unit	Check oven zone (element selector) switch is on, turn temperature up
O2	Oven will not operate	Safety stat tripped	Call engineer
О3	Oven slow to heat	Wrong element setting	Check element selector(oven zone) switch
04	Oven slow to heat	Faulty element	Call engineer

9.0 CIRCUIT DIAGRAM

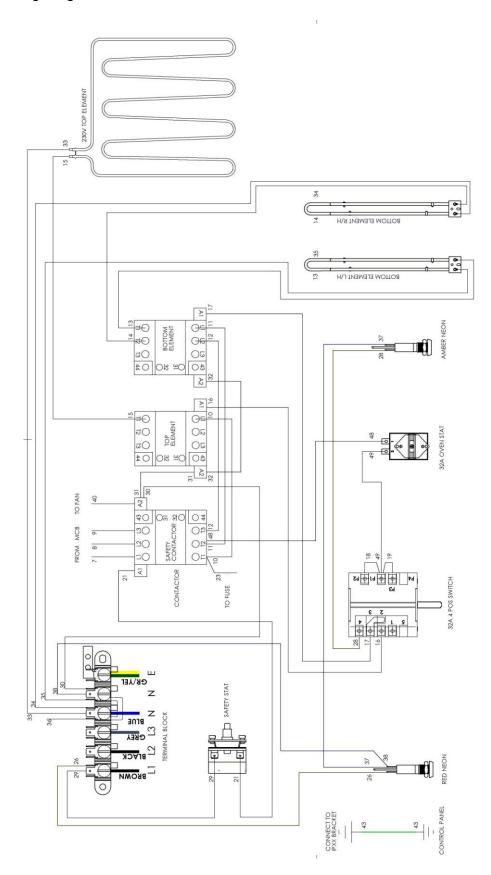
i91104/5 Circuit Diagram

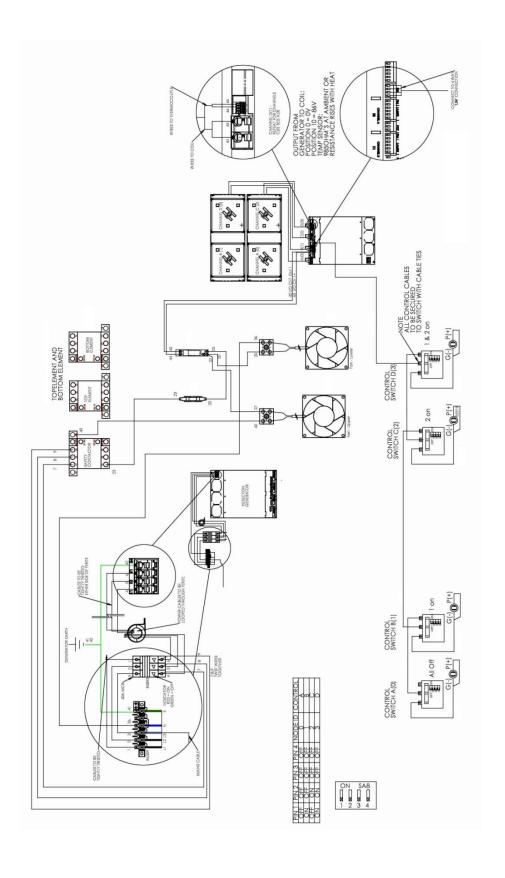


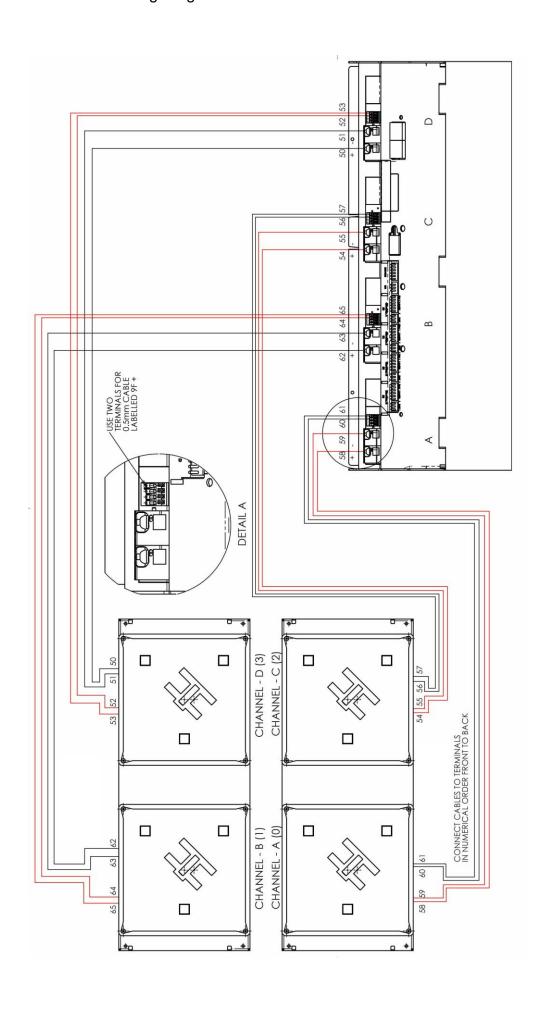


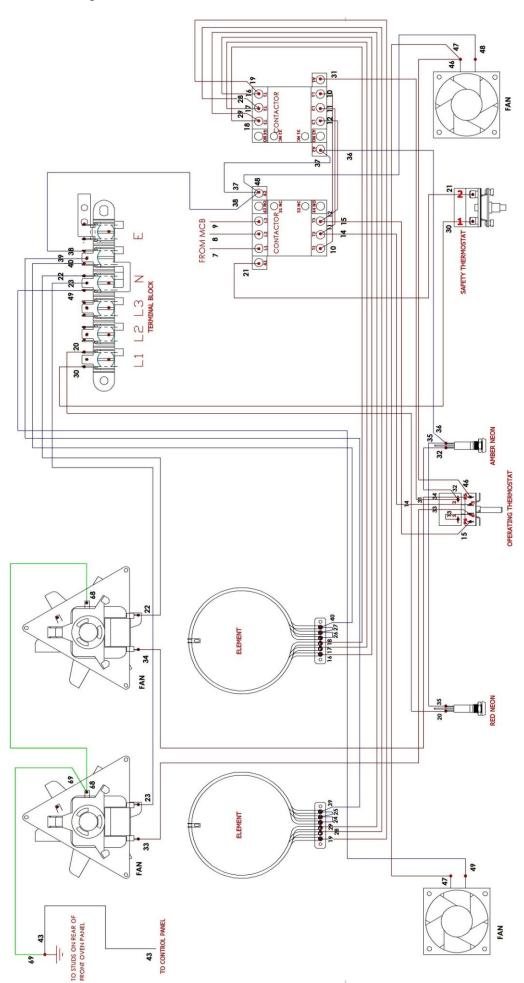
10.0 WIRING DIAGRAM

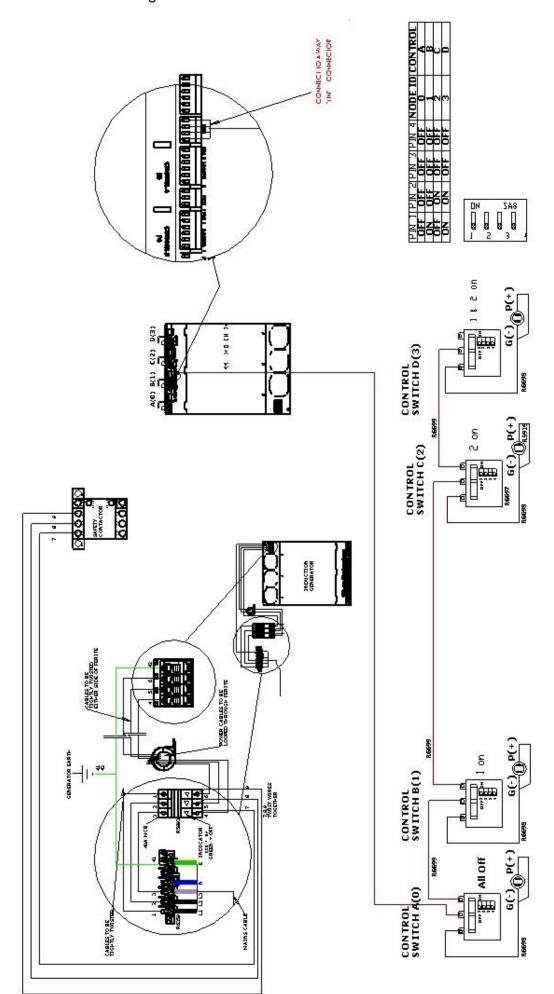
i91104/5 Wiring diagram











11.0 SPARE PARTS

733440003
730962060
733940000
733440002
730962080
733440001
733440000
733980000
733980001
535420010
535420006
733980002
734250016
730962010
730962040
733940002
733920000
734250006
734250009
734250001
734250012

When ordering spare parts please quote the following;

Model Number

Serial Number

This information will be found on the data plate attached to the appliance. (see1.0)

12.0 SERVICE INFORMATION

It is recommended to have a maintenance contract with a local service provider.

SERVICELINE CONTACT: (UK only)

Phone: +441438 363 000

Warranty Policy Shortlist

For our warranty policy please go to www.falconfoodservice.com