Induction Boiling Tops (Jan 23 onwards)

E3901i / E3902i E3903i / E3904i

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

WARNING

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

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 & NEED FOR A SERVICE CALL.

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

PREVENTATIVE MAINTENANCE CONTRACT

To obtain maximum performance from this unit regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing in accordance with SFG20 Maintenance Schedules and as a minimum, after 2,500 hours of use, or annually, whichever comes first and that a maintenance contract be arranged with an appointed service contact. Visits may then be made at agreed intervals to carry out adjustments and repairs.

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 licensed 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.

Phone: 01786 455200

T101079 Ref. 4

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). If an RCD is installed, it must be a type B or B+ with minimum 30mA fault current.
- 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

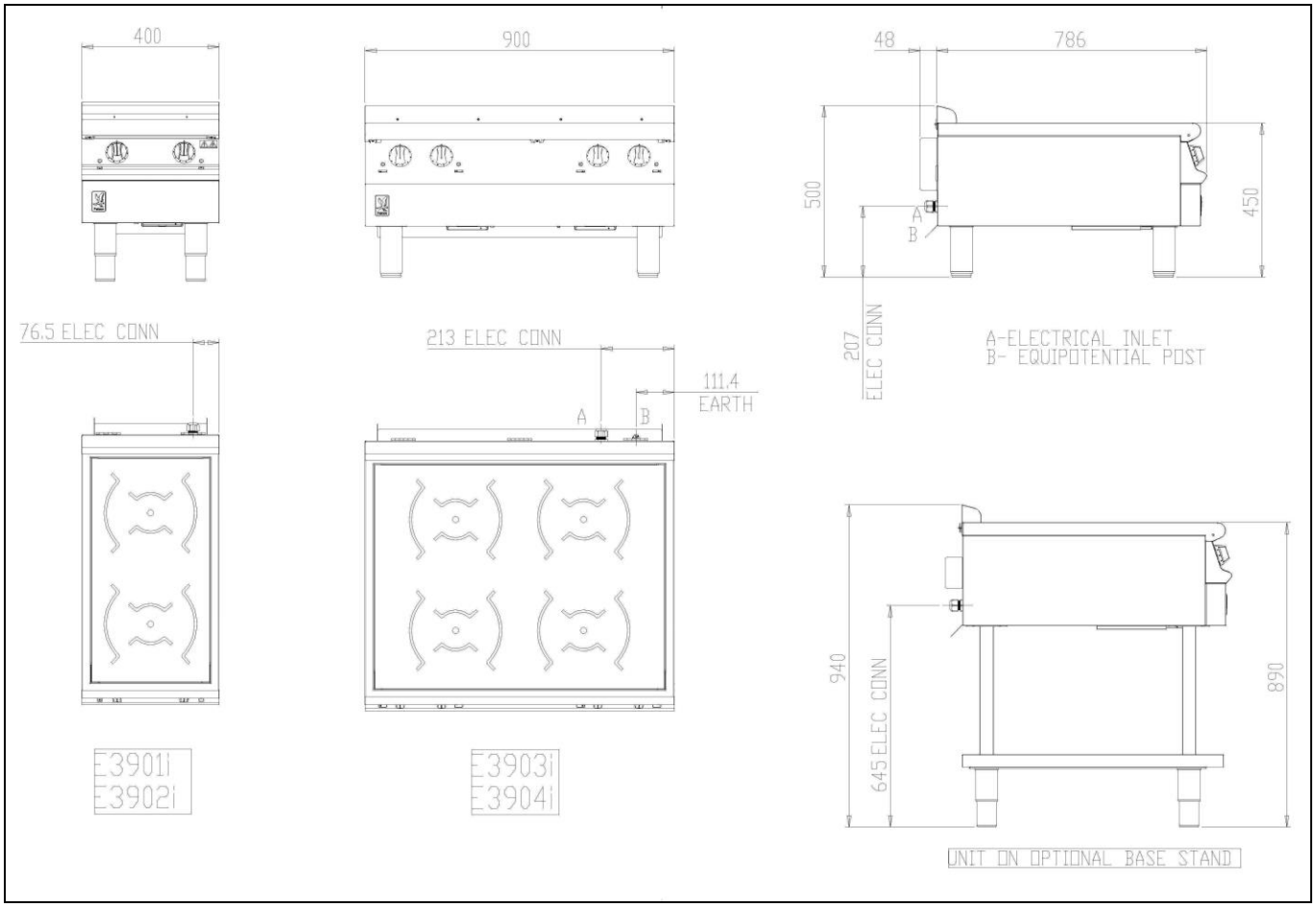
SECTION 1 – INSTALLATION

TO PREVENT SHOCKS, ALL APPLIANCES MUST BE EARTHED.

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

1.1 MODEL NUMBER, NETT WEIGHT and DIMENSIONS

Model	Width (mm)	Depth (mm)	Height (mm)	Weight (kg)
E3901i	400	834	500	37
E3902i	400	834	500	37
E3903i	900	834	500	68
E3904i	900	834	500	68



1.2 SITING

The appliance should be installed in a well-lit position on a firm, level, non-combustible floor. The unit is provided with rear stand-off plates to ensure a minimum 50mm gap between appliance and rear wall. These must NEVER be bent, twisted or deformed, the 50mm gap must never be covered, blocked or reduced. Ideally, the gap between appliance and rear wall be 100-150mm to minimise the strain on the main cable.

CAUTION:
NOTHING SHALL BE PLACED UNDER THE APPLIANCE.

WHERE UNIT IS TO BE POSITIONED IN CLOSE PROXIMITY TO A WALL, PARTITION, KITCHEN FURNITURE, DECORATIVE FINISHES, ETC., IT IS RECOMMENDED THAT THESE BE CONSTRUCTED OF A NON-COMBUSTIBLE MATERIAL.
CLOSE ATTENTION SHOULD BE PAID TO FIRE REGULATIONS.

THE INDUCTION UNIT MUST NOT BE INSTALLED ABOVE AN OVEN OR OTHER SOURCES OF HEAT.

1.3 ELECTRICAL SUPPLY

The unit is suitable for AC supplies only. The standard terminal arrangement is:
3 phase 3 wire connection (400V 3~)

WARNING - ENSURE THAT CAPACITOR IS PROPERLY DISCHARGE BEFORE INSTALLATION / MAINTENANCE

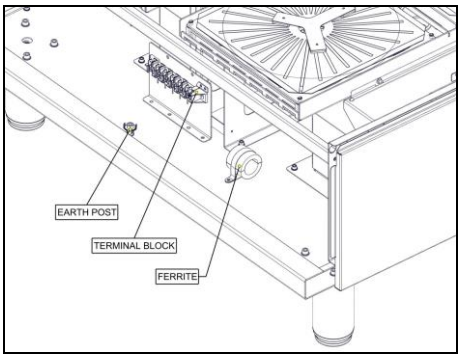
WARNING - THIS APPLIANCE MUST BE EARTHED

Phase 1	BROWN
Phase 2	BLACK
Phase 3	GREY
Earth	YELLOW/GREEN
Neutral	BLUE

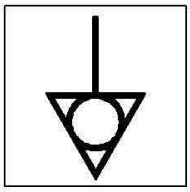
Note: This appliance doesn't have neutral connection, so we recommended four core cable without neutral wire. However, if five core cable in use then mains neutral wire need terminated at terminal block.

1.4 SUPPLY CONNECTION

a) Remove control panel to access the inlet terminal (see 3.1)
b) A suitably rated isolating switch with contact separation of at least 3mm in all poles must be installed and wiring executed in accordance with relevant regulations.
c) Ensure the capacitor is discharged with appropriate discharge equipment.
d) Mains cable entry is at unit rear, and feed through the ferrite ring.
e) Connect the mains wires with terminal as described above.



Note: Mains cable must be fed through ferrite ring supplied before connecting to mains terminal block.



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.

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

1.5 ELECTRICAL RATINGS

Electrical loading is also stated on appliance data plate.

MODEL	VOLTAGE	POWER	L1	L2	L3
E3901i	**400V 3~**	**7kW**	**11.00A**	**11.00A**	**11.00A**
E3902i	**400V 3~**	**10kW**	**15.75A**	**15.75A**	**15.75A**
E3903i	**400V 3~**	**14kW**	**22.00A**	**22.00A**	**22.00A**
E3904i	**400V 3~**	**20kW**	**31.50A**	**31.50A**	**31.50A**

After installation, the engineer should check satisfactory operation and demonstrate method of use to kitchen staff. Location of mains isolating switch should be identified for use in the event of an emergency or during cleaning.

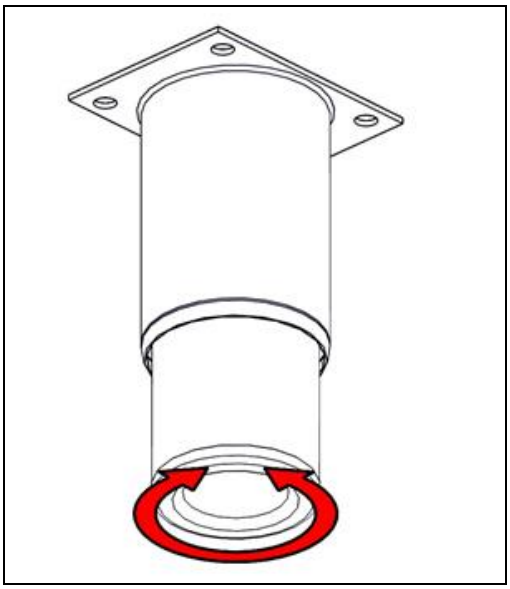
SECTION 2 - ASSEMBLY and COMMISSIONING

NOTE:
USERS MUST BE MADE AWARE THAT INDIVIDUALS FITTED WITH A PACEMAKER SHOULD CONSULT THEIR DOCTOR IF IN CLOSE PROXIMITY TO THIS UNIT. THIS INDUCTION UNIT EMANATES A 20KHZ OUTPUT THAT MAY EFFECT OLDER TYPES OF PACEMAKER.

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

2.1 ASSEMBLY

a) Unpack, position appliance and level using feet adjusters as shown below.



b) Ensure fan intake filter is fitted and secured in position below control panel.

c) Connect to an electrical supply (see 1.3 & 1.4)

2.2 STARTING UP

a) Switch all four cooking zones on to position 10.
b) Ensure all four LEDs light and begin to flash.
c) Place a suitable pan (filled with water) upon a cooking zone. (Pan bases should be constructed of a ferrous material and cannot be less than 120mm (12cm) in diameter.)
d) Ensure that corresponding LED stops flashing and remains lit.
e) Lift pan from cooking zone: LED should again begin to flash.
f) This indicates that *"Pan Detection"* feature is working.
g) Repeat on all four cooking zones.
h) Leave pots to heat until water boils and switch controls to maintain simmer.
i) Switch control Off.

2.3 INSTRUCTION TO USER

After installation and commissioning is completed, please hand User Instructions to user and ensure that the person(s) responsible understand the instructions regarding correct operation and cleaning of the appliance. Particular emphasis should be given to:

- Suitable pan type,
- Cleaning of air filter regularly,
- Keeping cooking zones free from all objects, particularly metal utensils, at all times.

The user must also be made aware of potential to heat jewellery and disrupt electronic equipment placed over the Induction zones magnetic field.

NOTE:
DO NOT OBSTRUCT AIR VENTS, FAILURE TO PROVIDE ADEQUATE VENTILATION WILL CAUSE THE APPLIANCE TO OVERHEAT, TO REDUCE POWER, OR TO SHUTDOWN.

SECTION 3 – SERVICING, MAINTENANCE AND CONVERSION

SERVICE INFORMATION

This unit carries an extensive mainland UK warranty. The warranty is in addition to and does not change your statutory or legal rights.

The warranty policy can be found on our website which details the conditions of the warranty and the exclusions.

https://www.falconfoodservice.com/info-centre/policy

Service calls to equipment under warranty will be carried out in accordance with the conditions of sale.

Warranty calls can be made between 8:30 am and 5:00 pm weekdays only.

To ensure your warranty enquiry is handled as efficiently as possible, ensure you have the following appliance information prior to calling us:

1. Model number – found on data plate
2. Serial number – found on data plate
3. Brief description of the issue

To contact Falcon for a warranty issue dial (UK only) 01786 455 200 and select Warranty Issues from the menu.

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WARNING - ENSURE THAT CAPACITOR IS PROPERLY DISCHARGE BEFORE INSTALLATION / MAINTENANCE

WARNING - CAPACITOR MUST BE DISCHARGED IMMEDIATELY AFTER ANY INSULATION RESISTANCE TESTING, AS CAPACITOR MAY BECOME CHARGED DURING THE TEST DUE TO HIGH VOLTAGE.

MAINTENANCE CHECK

Regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing after 2,500 hours of use, or annually, whichever comes first.

Any maintenance schedule should be carried out in accordance with SFG20 Maintenance Schedule. Should any issues with the integrity of the components be identified these should be replaced. If the appliance is not considered safe the unit should be removed from service and the responsible person advised why the unit is not safe to use and what remedial action is needed. Contents of the maintenance schedule should be agreed with the maintenance provider.

Tools required:

A. 8mm spanner or socket

B. 10mm spanner or socket

C. Pozidriv screwdriver *(#2)*

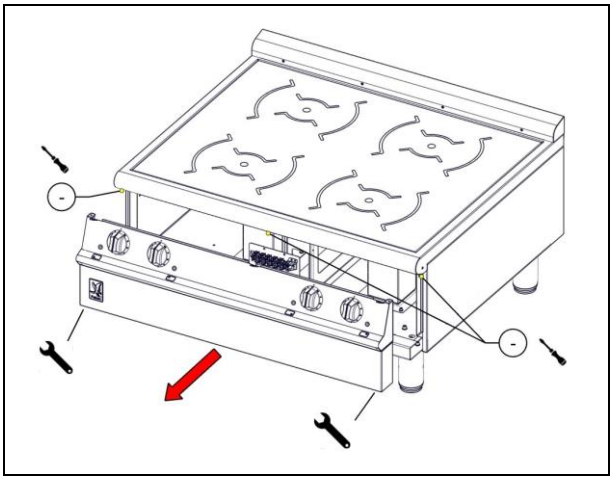
D. 5mm slotted screwdriver

3.1 CONTROL PANEL

a) Remove Control Panel by removing two screws (E3901i& E3902i), three screws (E3903i& E3904i) from under front of the glass-ceramic top.

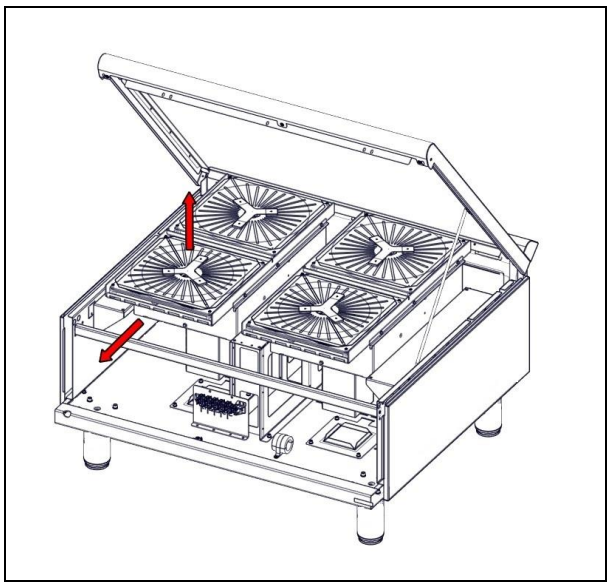
b) Release two bolts from under front panel.

c) Replace in reverse order.



3.2 REMOVING THE GENERATOR

E3903i / E3904i (E3901i / E3902i SIMILAR PROCESS)



a) Remove the control panel see 3.1.

b) Remove the hob see 3.4.

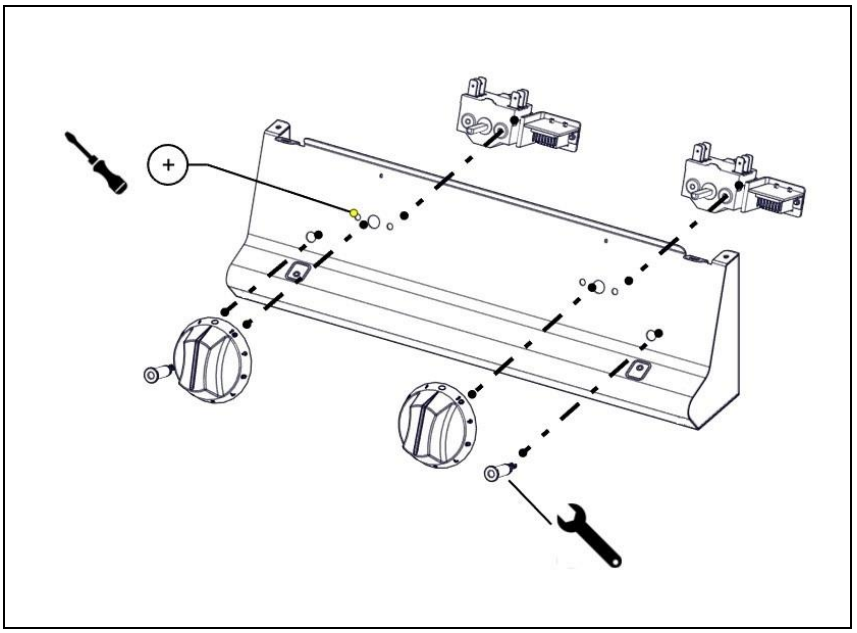
c) Disconnect the power and RJ45 cables from the generator.

d) Lift the generator out vertically whilst pulling forward.

e) Air duct tubes need to be removed and refitted to new generators.

f) Replace in reverse order.

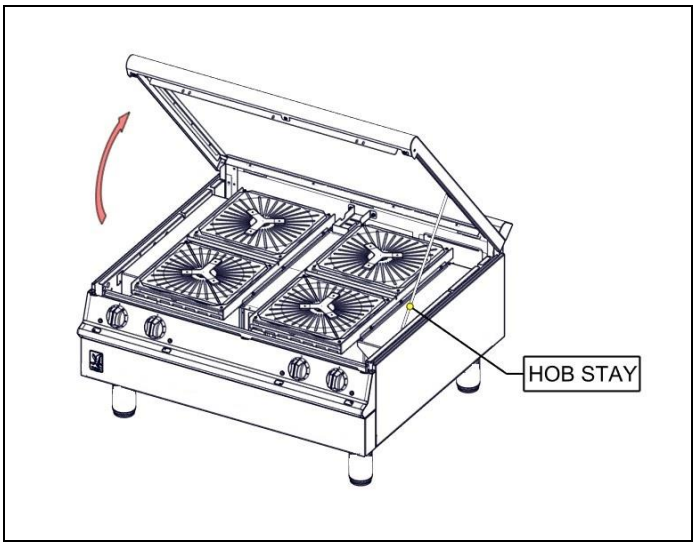
3.3 REPLACING CONTROL SWITCH/LED INDICATORS



a) Remove control panel, see 3.1
b) Control switch:- Identify wires that relate to switch and L.E.D attached to generator unit and disconnect.
c) Unscrew and remove as shown above.
d) Re-assemble in reverse order.

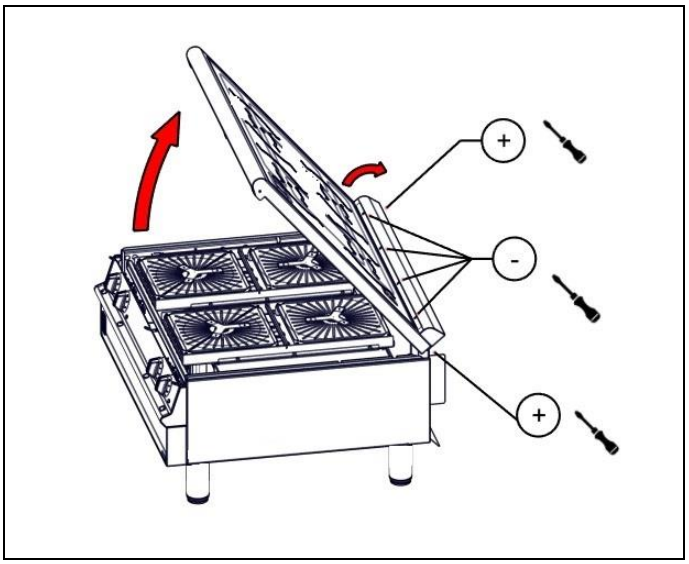
3.4 HOB ASSEMBLY

To access generator:



a) Remove two screws (E3901i& E3902i), three screws (E3903i & E3904i) from under front of the glass-ceramic top.
b) Tilt hob up and lift out hob stay. Fit hob stay cranked end into slot provided on hob as shown above.
c) Ensure it is secure before work is carried out.

To replace the ceramic-glass hob assembly:



a) Remove control panel as detailed in Section 3.1.

b) Remove 2 fixings (E3901i/2i) 4 fixing (E3903i/4i) from the front and two fixings from the back of hob rear upstand.

c) Lift hob to an angle of approx. 30° then rotate rear upstand to release it from the hob frame. The hob frame c/w glass can now be removed.

d) Carefully lift the hob frame c/w glass and lay on a flat surface.
If replacing hob in the event of glass damage, ensure any glass debris is cleared away from induction coils and from inside of unit.

e) Replace in reverse order.

Note: It is recommended that two persons carry out the procedure.

SECTION 4 SPARE PARTS

Description	Spare No.
3.5kW Induction Generator (I9042/I9084)	734070023
5kW Induction Generator (I9043/I9085)	734070024
Control Switch	734070025
Hob control Knob	734060003
LED Indicator	734070028
0.1UF Capacitor	734070026
RJ45 Connection Cable	734070027
Air Filter Twin Zone	734070005

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.

SECTION 5: 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.

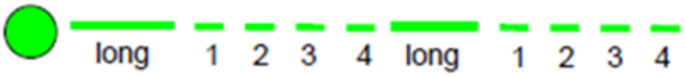
If unit fails to operate or show any operational indicators, Follow details in Error Code Table before calling a service engineer. The symptoms may indicate a failed induction generator.

ERROR CODES

DO NOT remove or attempt to repair or replace ANY part or parts of this appliance other than the air intake filter.

If an error occurs within the unit, the control panel green LEDs will flash to indicate an error code. An error code can be detected according to the duration and frequency of the LEDs blinking. LEDs blink one time long and then short regular flashes, number of short flashes represent the Error code.

For example (error code 4):



The error code list that follows will help identify the faulty component.

In the *"corrective action"* list, you should follow the action listed, **before contacting a Service Engineer.**

Troubleshooting Without Error Code

Symptom	Possible Cause	Corrective Action
Pan does not heat up on glass-top. LED is not illuminating/flashing	No power supply.	Check incoming power supply (Example, power cable plugged into the wall socket). Check kitchen main fuse box.
	Unit is turned off.	Turn control knob to an ON-position.
	Defective unit.	Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service engineer. (1)
Pan does not heat up.	Pan is too small.	Use a suitable pan with bottom diameter larger than 12cm[5”].
	Pan is not placed in the centre of the hob; pan is not detected by sensor. (2)	Move the pan to the centre of the hob.
	Unsuitable pan.	Select only induction-ready cookware.
	Defective unit.	Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service engineer. (1)
Poor heating, LED ring is ON	Air-cooling system is obstructed.	Verify that air vents are not obstructed. Ensure the fresh air filter is clean.
	Unsuitable pan.	Select various induction-ready cookware for induction cooking. Then compare the results.
	Ambient temperature is too high. The cooling system is not able to keep the appliance in normal operating conditions.	Verify that no hot air is taken in by the fan. Reduce the ambient temperature. The intake air temperature must be lower than 40°C [104°F].
	One phase is missing.	Check incoming power supply (Example, power cable plugged into the wall socket). Check kitchen main fuse box.

	Defective unit.	Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service engineer. (1)
Appliance does not react to control knob positions	Unit is turned off.	Turn control knob to an ON-position.
	Defective control knob.	Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service engineer. (1)
Overheated unit symbol is ON, fan is working	Air-cooling system is obstructed. Internal fan is dirty.	Verify that air vents are not obstructed. Ensure the fresh air filter is clean. Contact an authorized service engineer
Overheated unit symbol is ON, fan does not work	Defective fan or fan control	Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service engineer. (1)
Overheated unit symbol is ON	Overheated induction coil; cooking area is too hot. Overheated pan. Pan is empty.	Switch the appliance off. Safely remove pan. Wait until the appliance has cooled down before turning it ON.
Small metallic objects (e.g. spoon) are heated up in the cook zone.	Pan detection function is defective	Only if possible and safe, disconnect the appliance from the power supply. Contact an authorized service engineer. (1)

(1) If the plug is not safely accessible, the device must be switched off at the main circuit breaker.

(2) The appliance switches off immediately.

Troubleshooting — Error Code

Blink Code	Problem	Corrective Action
	Normal Operation	**Normal Operation**
1	Unsuitable induction cooking pan. Internal wiring/coil connection malfunction. (2)	Check pan material. Contact an authorized service engineer.
2	Unsuitable induction cooking pan. Coil overcurrent. (2)	Check pan material. Contact an authorized service engineer.
3	Air-cooling system obstructed. Fan malfunction. Heat sink overheated. (2)	Let appliance cool down. Verify that air vents are not obstructed. Check and clean air filter. Contact an authorized service engineer.
4	Overheated cook zone. Overheated pan detected. Sensor failure. Overheated or defective sensor. (2) Warning from overheated pan / cooking empty sensor or coil connection failed. (2)	Let appliance and/or pan cool down. Check pan material. Verify that air vents are not obstructed. Check and clean air filter. Check food in the pan or empty pan. Contact an authorized service engineer.
5	Potentiometer defective.	Contact an authorized service engineer.
6	Ambient temperature too high (the cooling system is not able to keep the induction appliance in normal operating conditions). Internal component overheated. (2)	Let appliance cool down. Verify that air vents are not obstructed. Check and clean air filter. Verified that no hot air is taken in by the fan. Reduce the ambient temperature. The intake air temperature must be lower than 40°C [104°F]. Contact an authorized service engineer.
7	Generator component failure. (2)	Contact an authorized service engineer.
8	Sensor error from heat sink/CPU. Board overheated. Ambient temperature beyond normal operating range. (2)	Verify that air vents are not obstructed. Check air filter. Reduce ambient temperature. Contact an authorized service engineer.

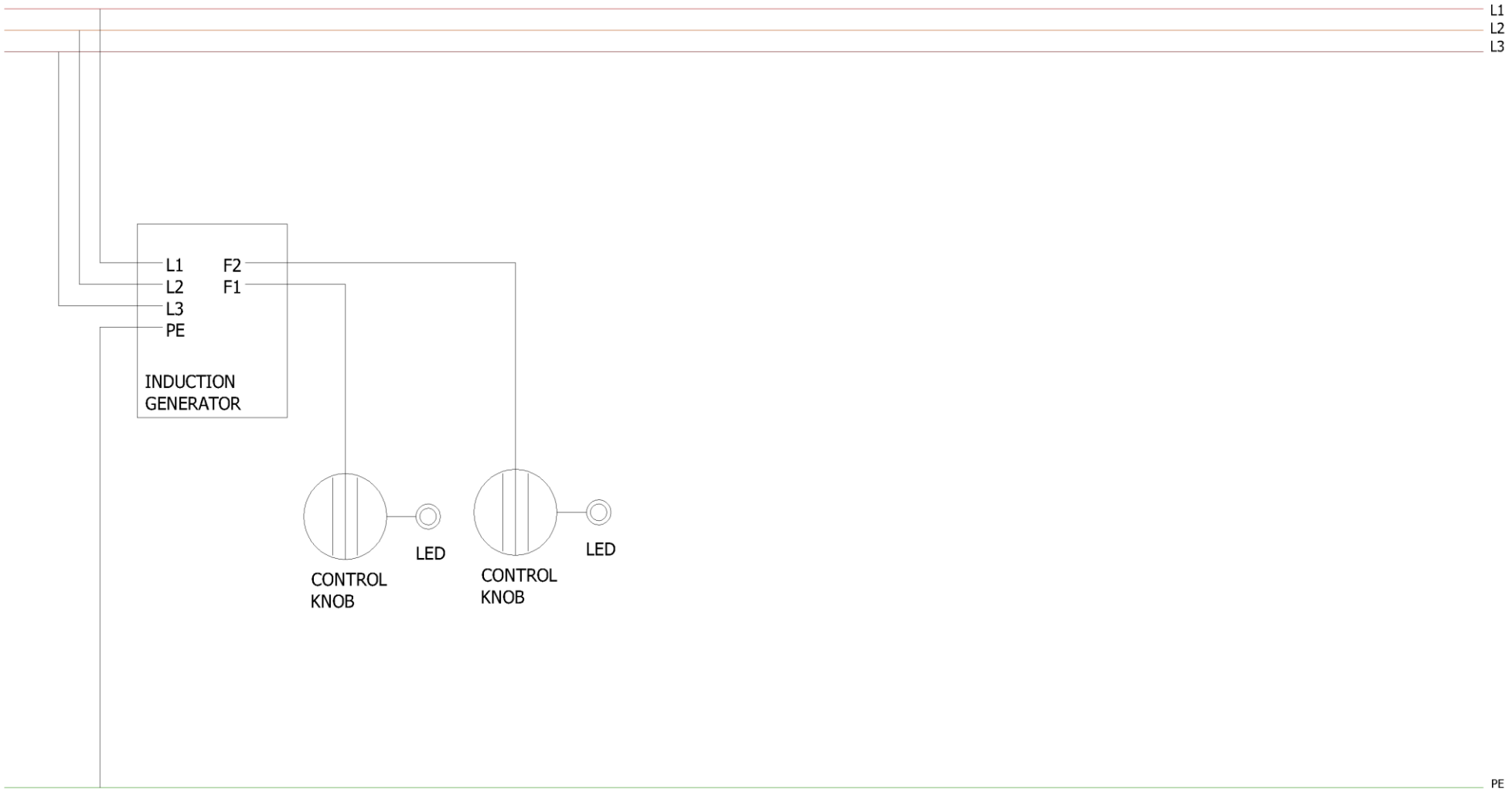
9	N/A	N/A
10	Communication problem of the RJ/Ethernet interface	Contact an authorized service engineer.

(1) If the plug is not safely accessible, the device must be switched off at the main circuit breaker.

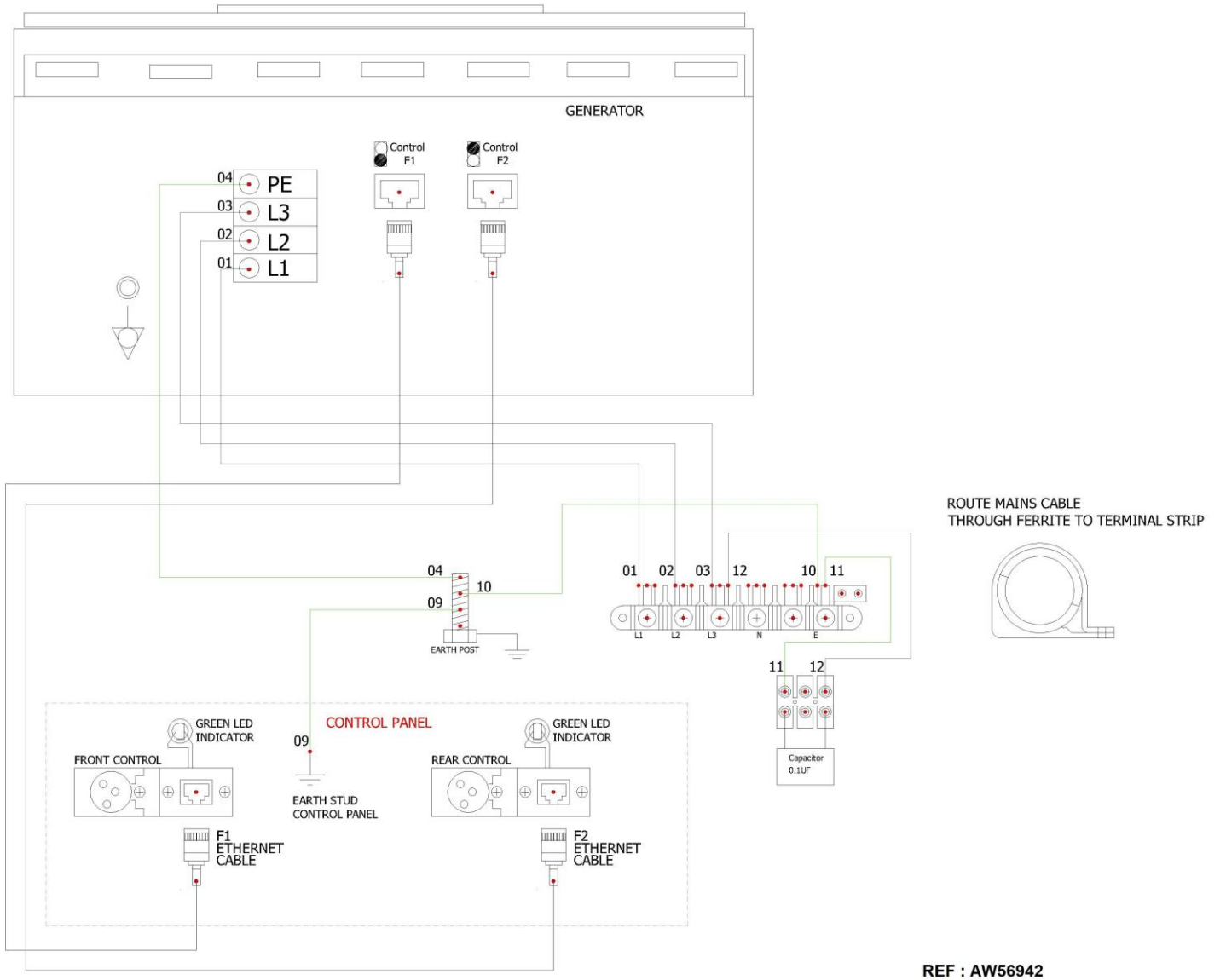
(2) The appliance switches off immediately.

SECTION 6 CIRCUIT/ WIRING DIAGRAM

E3901i / E3902i CIRCUIT DIAGRAM



E3901i / E3902i WIRING DIAGRAM



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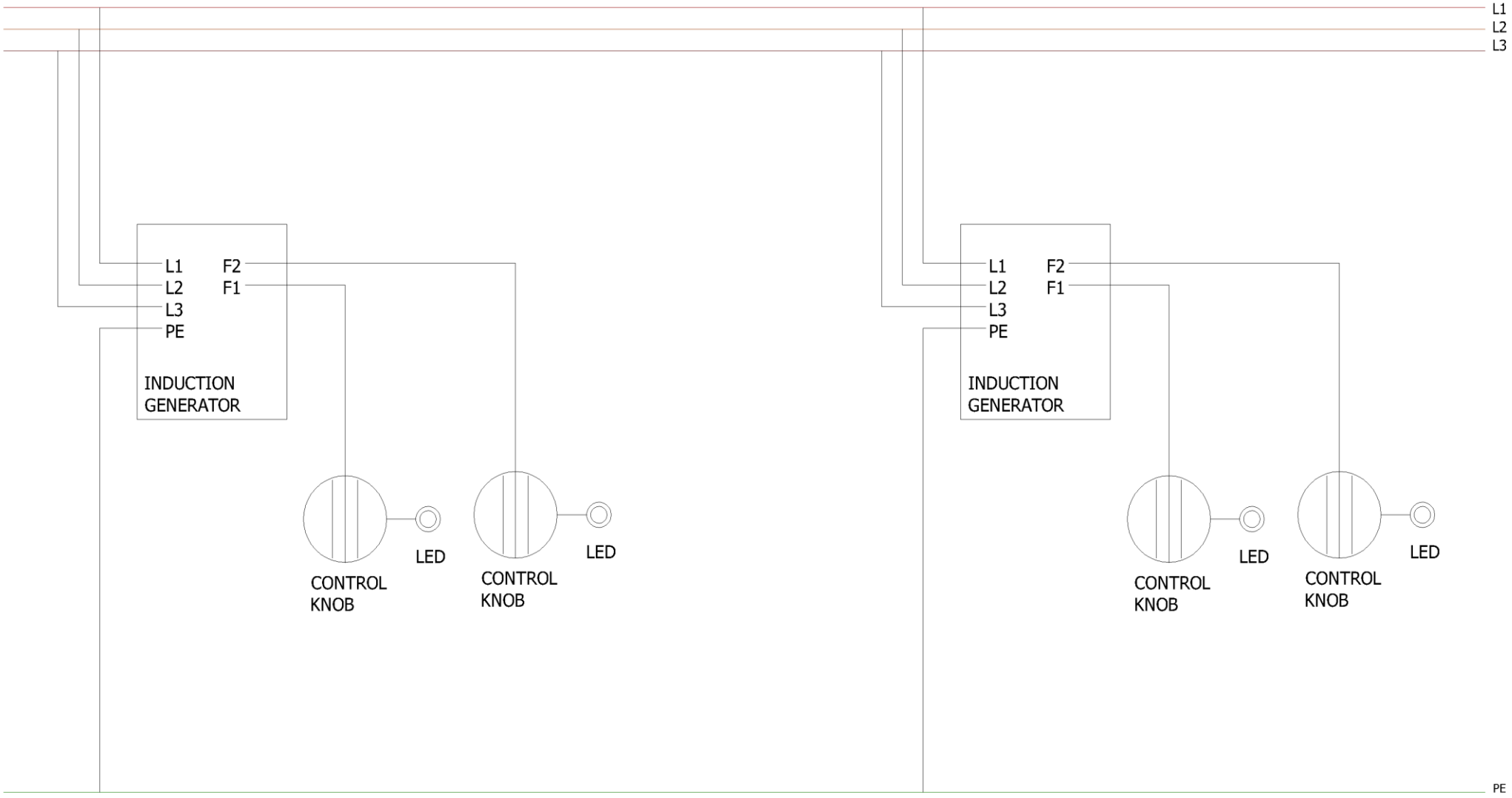
E3901i/2i & i9042/43 WIRING DIAGRAM

E3903i / E3904i CIRCUIT DIAGRAM



E3903i / E3904i WIRING DIAGRAM