User, installation, and servicing instructions

CONVECTION OVENS

FE2M, FE3D, FE3D 3 program, FE4D, FE4M

Read these instructions before use.

DATE PURCHASED:

MODEL NUMBER:

SERIAL NUMBER:

DEALER:

SERVICE PROVIDER:

T101063

Rev No 8
Published: 11/09/24

Dear Customer

Thank you for choosing Falcon Foodservice Equipment.

This manual can be downloaded from *www.falconfoodservice.com* or scan here:

IMPORTANT: Please keep this manual for future reference.

Original Instructions

Falcon Foodservice Equipment

HEAD OFFICE

Wallace View, Hillfoots Road,

Stirling. FK9 5PY. Scotland.

Tel: 01786 455200

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.

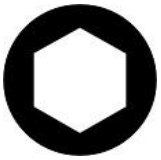
WEEE Directive Registration No. WEEE/DC0059TT/PRO

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

SCREWDRIVER

SPANNER



ALLEN KEY

WARNING

- **This appliance may be discoloured due to testing.**
- **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.**
- **To prevent shocks, this appliance must be earthed.**
- **This unit is fitted with an equipotential connection at the rear on the base.**
- **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.**
- **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.**
- **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 or supply cord during transit. If damage has occurred, do not use this appliance.**
- **Ensure the supply cord is routed free from the appliance to avoid damage.**
- **Any model with steam injection to be connected to potable water supply (temporarily or permanently) shall be installed in accordance with national regulations.**

A. SAFETY GUIDANCE

A.1 GENERAL SAFETY

A.1.1 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.

A.1.2 These appliances have been UKCA/CE-marked based on compliance with the Gas Appliance Regulations/Product Safety and Metrology Regulations, Electrical and Electromagnetic Compatibility (EMC) Regulations/Directives for the Countries, Gas Types and Pressures as stated on the data plate.

A.1.3 This equipment is for professional use only and must be used by qualified persons.

A.1.4 Never leave this appliance unsupervised when in use and always turn products off at the end of service.

A.1.5 The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.

A.1.6 Check that no damage has occurred to the appliance or supply cord during transit. If damage has occurred, do not use this appliance.

A.1.7 Ensure the supply cord is routed free from the appliance to avoid damage.

A.1.8 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.

A.1.9 Training and Competence: To help ensure the safe use of this appliance there is a requirement for you to provide whatever information, instruction, training and supervision as is necessary to ensure, so far as is reasonably practicable, the health and safety of all users.

A.1.10 For further help and information on training and competence we refer you to the Health & Safety Executive website; www.hse.gov.uk document ref: health and safety training INDG345. International customers should default to the health and safety guidelines provided by your government body.

A.1.11 Risk Assessment: As part of managing the health and safety of your business you must control any risks identified in your commercial kitchen. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm. This is known as risk assessment. It is important to consider the environment around the product as well as the product itself. For example, oil or food spills will present a significant risk to users so the need to immediately clean up such spills must be reflected in staff training.

A.1.12 Record the training that you provide and support it by providing safe system of work (SSOW) documents that set out procedures to be followed for potentially hazardous tasks.

A.1.13 For further help and information on risk assessments we would refer you to you the Health and Safety Executive website; www.hse.gov.uk document ref: risk assessment INDG163. International customers should default to the health and safety guidelines provided by your government body.

A.2 INSTALLATION SAFETY 

A.2.1 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.

A.2.2 The installer must instruct the responsible person(s) of the correct operation and maintenance of the appliance.

A.2.3 2.2.4 Put a documented system in place for periodic inspections, testing and maintenance of electrical appliances. Check that the fixed electrical installation has been inspected and tested by a competent electrical contractor (e.g. NICEIC-approved or ECA member) as prescribed in BS7671, within the last 5 years.

A.3 ELECTRICAL SAFETY 

A.3.1 To prevent shocks, this appliance must be earthed.

A.3.2 This unit is fitted with an equipotential connection at the rear on the base.

A.3.3 Before attempting any maintenance, isolate the appliance at the mains switch and take steps to ensure that it is not inadvertently switched on.

A.3.4 We recommend, Supplementary electrical protection with the use of a residual current device (RCD).

A.3.5 We recommend 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.

A.4 FIRE SAFETY 

Appliances can present various hazards in the catering environment if not correctly used, operated, and maintained. Hazards including fire, burns from hot pans, contact with hot surfaces, fumes from boiling cleaning chemicals, eye injuries from splashes and slips from oil spillages.

Operator Competency and Training

A.4.1 Ensure you are trained in the safe and proper use of the appliance and know how to turn it off and switch the power off at the mains.

A4.2 Ensure you are familiar with the kitchen fire safety procedures and the location and proper use of correct fire safety equipment.

Fire Safety Equipment

A.4.3 Provide an appropriate BS compliant fire blanket, and an adequate number of fire extinguishers that comply with BS EN 3 (parts 1-6) and carry a BAFE or LPCB approval mark. At least one must be appropriate for use on electrical fires.

Fire Suppression System

A.4.4 We recommend kitchen equipment and extraction systems are protected with a fire suppression system. Check your insurance as this may also be a condition of your policy.

A.4.5 Protect cooking and extraction equipment (including any associated extraction ductwork and hoods inside the building) by having an extinguishing system installed, in line with (or the equivalent of) LPS 1223. The system should include a local alarm, automatic activation by a detection system and manual activation – located a safe distance away from the cooking equipment, preferably by a fire escape route door.

Operational Safety

A.4.6 Do not leave the appliance unattended when powered on or when it is in use.

A.4.7 Always switch the appliance off and remove items from the glass-ceran surface when not in use.

Cleaning

A.4.8 Ensure appliances are regularly cleaned serviced and maintained by a qualified and competent service provider, and there is access around the appliance to do so.

A.4.9 Ensure that the appliance, surrounding work area and extraction system are regularly cleaned, (at least weekly) to avoid the build-up of fats oils and greases that could present a fire risk. A deep clean should be undertaken at least every 6 months by a specialist contractor.

Electrical Isolation Points

A.4.10 Ensure any separate electric switches provided for cooking equipment and/or extractor fans are accessible and clearly labelled.

Care and Maintenance of Thermal and Operational Safety Devices

A.4.11 The appliance is fitted with a thermal safety device. This will stop oven operation if it becomes overheated due to a fault. This appliance will always fail safe so long as there is no damage to the thermal safety device.

2.5 MAINTENANCE SAFETY

A.5.1 Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer or end user.

A.5.2 Before any maintenance or cleaning is undertaken, isolate appliance from mains power supply at isolator switch.

A.5.3 Suitable protective clothing (PPE) must be worn when maintaining or cleaning this appliance.

A.5.4 The appliance must be allowed to cool to a safe temperature before maintenance or cleaning is undertaken.

A.5.5 The appliance must not be cleaned with a jet of water or be steam cleaned. Do not use acid or halogen-based (e.g. chlorine) descaling liquids, flammable liquids, cleaning aids or cleaning powders.

A.5.6 Failure due to lack of proper cleaning is not covered by warranty.

A.5.7 Take care when cleaning not to dislodge or damage thermostat sensor mounted on the side of the oven.

A.5.8 If the thermostat or capillary are damaged then do not turn the appliance on and contact Falcon or you approved service provider to undertake the necessary repairs.

A.5.9 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.

A.5.10 During Servicing of the appliance, where applicable, please ensure the oven door seal is checked. If the integrity of the seal is compromised, it must be replaced.

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- **Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted by the installer.**
- **Check that no damage has occurred to the appliance or supply cord during transit. If damage has occurred, do not use this appliance.**
- **Ensure the supply cord is routed free from the appliance to avoid damage.**
- **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.**
- **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.**

PREVENTATIVE MAINTENANCE CONTRACT

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Training and competence

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Risk assessment

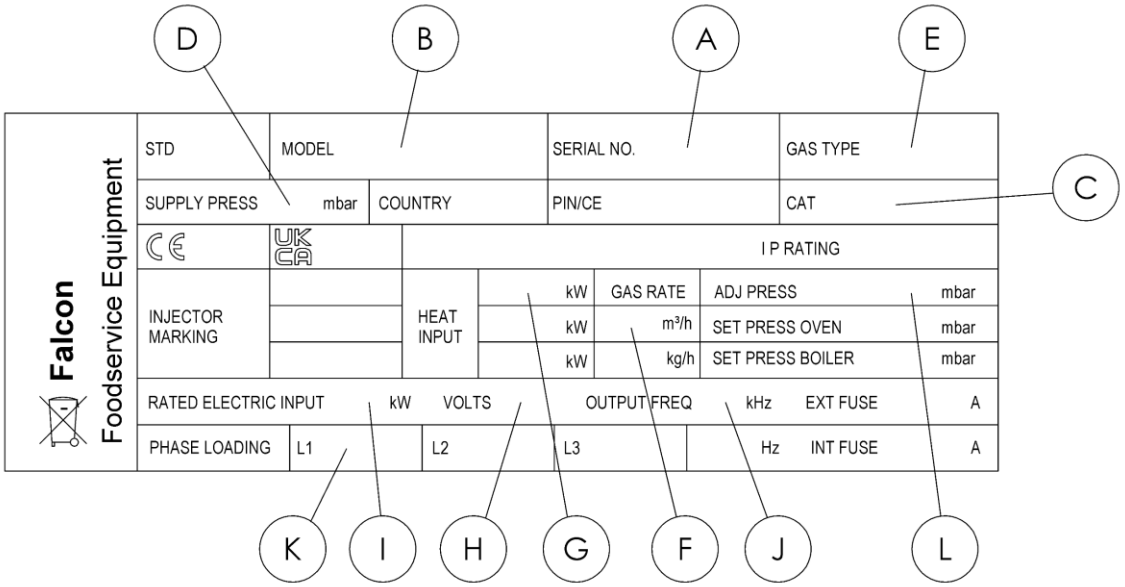
As part of managing the health and safety of your business you must control any risks identified in your commercial kitchen. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm. This is known as risk assessment. It is important to consider the environment around the product as well as the product itself. For example oil or food spills will present a significant risk so users so the need to immediately clean up such spills must be reflected in staff training.

For further help and information on risk assessments we would refer you to you the Health and Safety Executive website; www.hse.gov.uk document ref: risk assessment INDG163. International customers should default to the health and safety guidelines provided by your government body.

CONTENTS

1.0 APPLIANCE INFORMATION

The data plate shows model information including relevant UKCA/CE-mark certification reference based on compliance with the Product Safety and Metrology Regulations/GAR, and/or Electrical Safety (LVD) and Electromagnetic Compatibility (EMC) Regulations/Directives for the Countries as stated.



A - Serial No

B - Model No

C - Gas Category

D - Gas Supply Pressure

E - Gas Type

F - Gas Rate

G - Total Heat Input (Gas)

H - Electrical Supply Voltage

I - Total Electrical Power

J - Magnetic Field Frequency (e.g. induction units or digital communication)

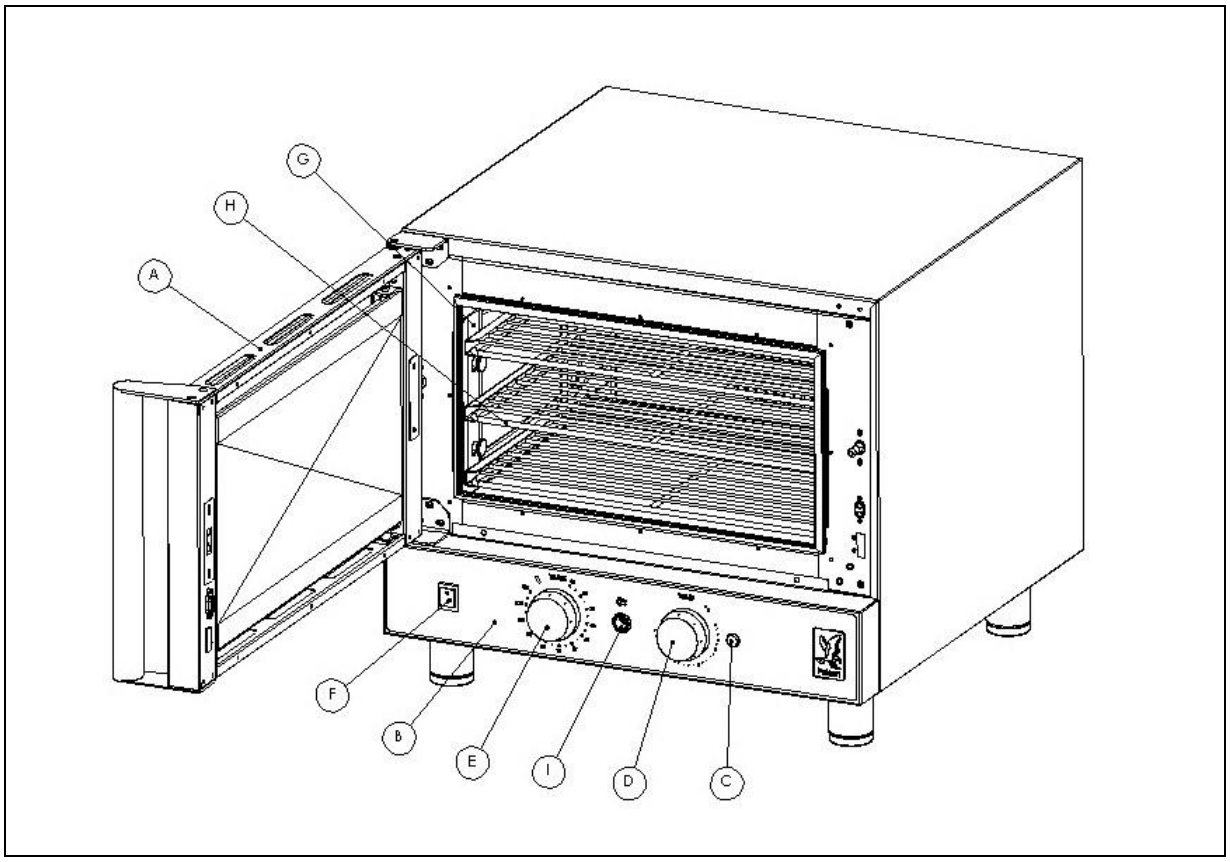
K - Electrical Phase Loading

L – Gas Burner Adjustment Pressure

2.0 OPERATION

2.1 COMPONENT PARTS & CONTROLS

2.1.1 FE2M



A - Door

B - Control Panel

C - Oven heat neon (Amber)

D - Oven temperature control

E - Oven timer control

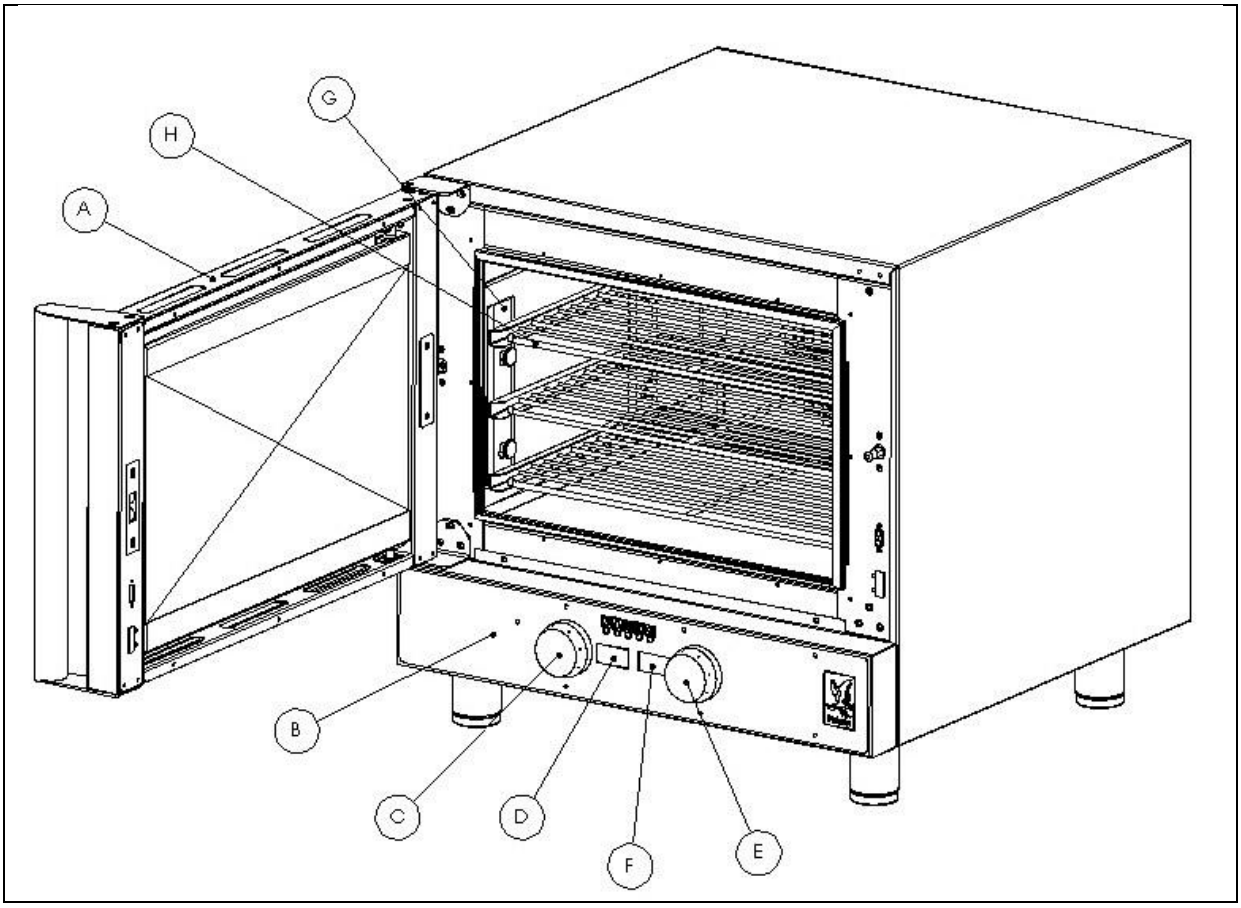
F - On/Off switch (Green)

G - Oven shelf support

H - Oven shelf

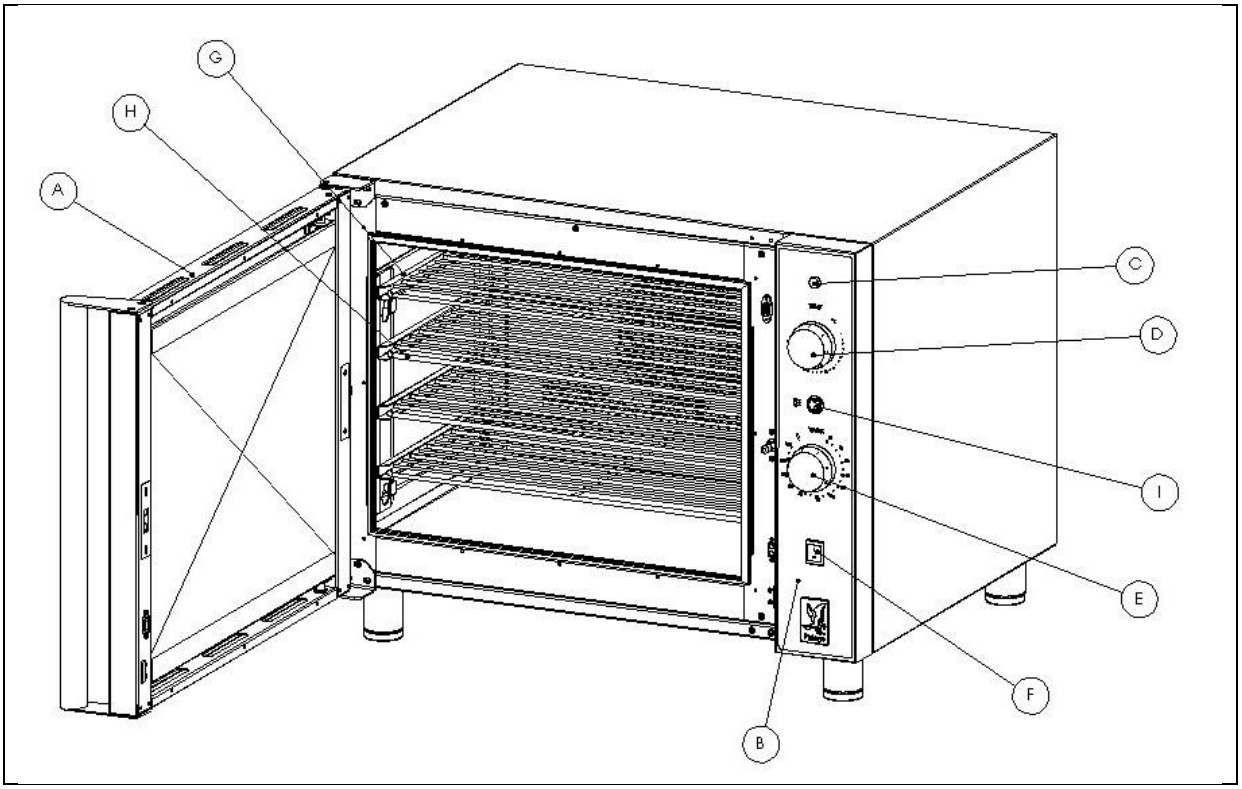
I - Oven Light Switch

2.1.2 FE3D



A -	Door	E -	Oven timer control
B -	Control Panel	F -	Oven timer display
C -	Oven temperature control	G -	Oven shelf support
D -	Oven temperature display	H -	Oven shelf

2.1.3 FE4M



A - Door

B - Control Panel

C - Oven heat neon (Amber)

D - Oven temperature control

E - Oven timer control

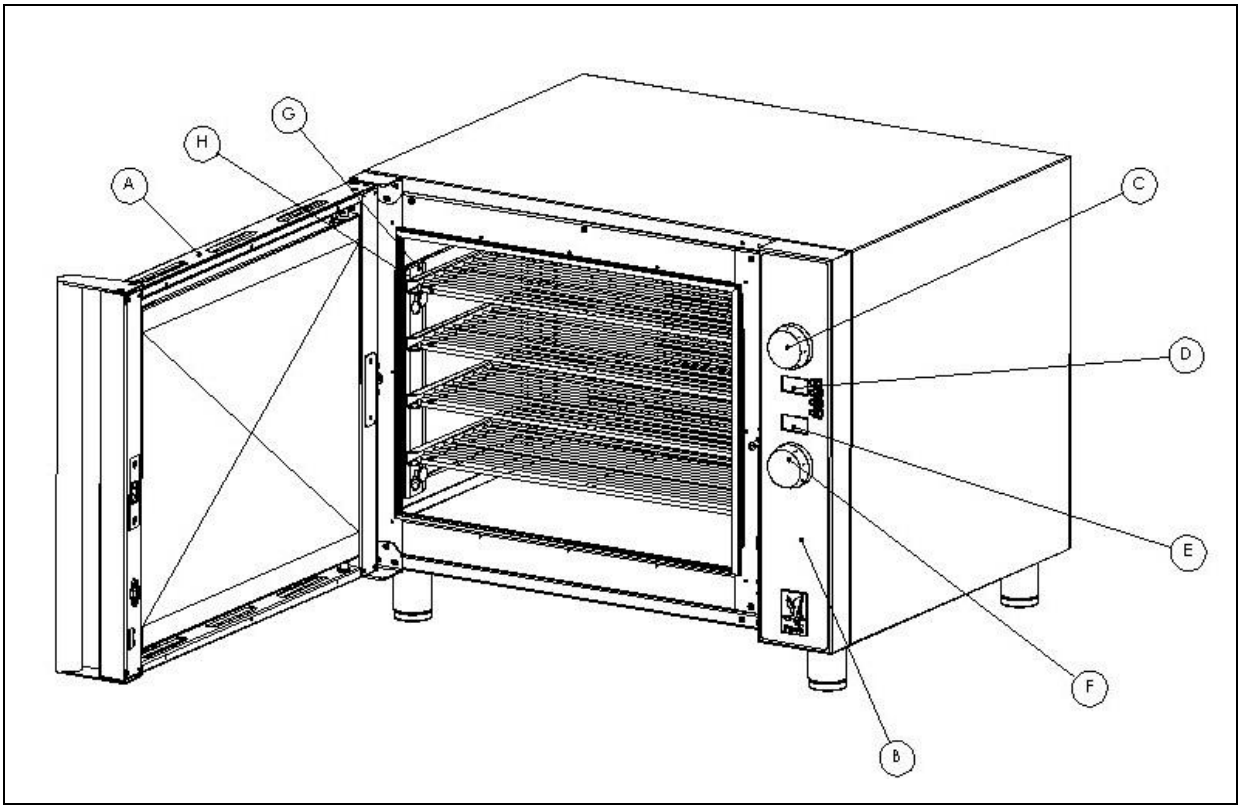
F - On/Off switch (Green)

G - Oven shelf support

H - Oven shelf

I - Oven Light switch

2.1.4 FE4D



A -	Door	E -	Oven timer display
B -	Control Panel	F -	Oven timer control
C -	Oven temperature control	G -	Oven shelf support
D -	Oven temperature display	H -	Oven shelf

2.2 USING THE APPLIANCE – FE2M & FE4M

2.2.1 Plug the appliance into a 13A socket. Switch on the mains supply.

2.2.2 Set timer control to MAN position, press the ON/OFF switch to the ON position. The fan will rotate.

2.2.3 Turn temperature control knob to the desired temperature.

2.2.4 The amber neon will illuminate while oven is heating.

2.2.5 The neon light will go out when set temperature is reached, and will turn ON/OFF as temperature is maintained.

2.2.6 An oven light switch is provided to illuminate the cooking chamber. Press and hold to illuminate.

2.2.7 If the door is opened while oven is turned ON, the fan and heating element will be turned OFF and will turn ON when door is closed.

2.2.8 The oven supplied with a mechanical timer. Turn the control to the required cook time. When the set time has lapsed a buzzer will sound and the heat will turn OFF. Switch off rocker switch, or turn the timer to MAN to return to manual mode.

2.2.9 The timer will continue to count down if the door is opened.

2.3 USING THE APPLIANCE – FE3D & FE4D

2.3.1 Plug the appliance into a 13A socket and switch on the mains supply.

2.3.2 "**PRE**" is displayed, flashing. Press the timer knob within 5 seconds to begin a 160°C pre-heat cycle. "**Rdy**" will flash when pre-heat temperature is attained.

2.3.3 Otherwise, after 5 seconds, manual operation, "**MAN**" is displayed. If required, rotate temperature control clockwise to display pre-set program operation, "**PRG**". Press the temperature control knob to select. In "**MAN**" mode, rotate to desired temperature between 50°C and 260°C. Press to store. In "**PRG**" mode, rotate control to select program required, (for FE3D see 2.3.10), press timer control to select and begin program.

2.3.4 Rotate the timer control knob to the desired cook time, rotate right to increase, (maximum "**120**"mins), rotate left to decrease to "**0**", or infinity "**INF**" (always on). Press to select and begin cooking.

2.3.5 During a cook cycle, the oven chamber light can be activated. Press and hold the temperature control knob for 3 seconds, then release as light switches on. The light will switch off after 10 seconds. Repeat as necessary.

2.3.6 During a cook cycle, depending on model, steam can be introduced into the oven. Press and hold the temperature control knob for 5 seconds, release when "**STM**" is displayed. A 5 second steam injection will begin. Repeat as necessary.

2.3.7 During a cook cycle, if the door is opened the fan and heating element will switch off, and timer will pause. When the door is closed, the timer will resume counting down from the elapsed time. The oven light will illuminate for 10 seconds.

2.3.8 Press and release the timer control knob to end timer or to stop alarm at cycle end.

2.3.9 When finished, press and hold the timer control knob to return to standby, "**Sby**" is displayed.

PRESET PROGRAMS

2.3.10 **FE3D** The appliance has 6 pre-set programs.

P1 –	Temperature	200°C	Time = 2 minutes
P2 –	Temperature	200°C	Time = 3 minutes
P3 –	Temperature	200°C	Time = 7 minutes
P4 –	Temperature	200°C	Time = 12 minutes
P5 –	Temperature	200°C	Time = 22 minutes
P6 –	Temperature	160°C	Time = 11 minutes

2.3.11 **FE4D** The appliance has 5 pre-set programs & 5 user-defined program options.

P1:
Meat portions

Stage 1	
Temperature	220°C
Convection Only	8 mins
Stage 2	
Convection with Steam	5 sec burst
Stage 3	
Convection Only	3 mins
Stage 4	
Convection with Steam	5 sec burst
Stage 5	
Convection Only	4 mins

P2:
Baked Potatoes

Stage 1	
Temperature	220°C
Convection Only	30 mins
Stage 2	
Convection with Steam	5 sec burst
Stage 3	
Convection Only	15 mins

P3:
Scones

Stage 1 only	
Temperature	200°C
Convection Only	15 mins

P4:
Danish Pastries / Croissants - Cook from frozen

Stage 1	
Temperature	160°C
Convection Only	5 mins
Stage 2	
Convection with Steam	5 sec burst
Stage 3	
Convection Only	5 mins
Temperature	170°C

P5:
Bakes and Pies

Stage 1	
Temperature	185°C
Convection	8 mins
Stage 2	
Temperature	200°C
Convection	5 mins

2.3.12 To select a pre-set program **P1** – **P5,**

- From standby, press timer control, ignore preheat option, "**MAN**" appears.
- Rotate temperature control clockwise and press to select "**PRG**"
- Rotate temperature control; until desired program number is displayed, e.g., "**P1**"
- Press timer control to select **and** begin program.

2.3.13 User-defined programs **P6** – **P10,** are set-up as follows -

- From "**MAN**", rotate the temperature control clockwise, "**PRG**" appears. Press to select.
- Rotate temperature control to desired program number, i.e., "**P6**", press to select.
- Preheat option "**PRE**" is displayed, rotate and press the timer control to select "**Yes**" or "**No**".

- If "**Yes**" is selected, rotate and press timer control to select pre-heat time.Rotate and press temperature control to select pre-heat temperature.
- If steam function is available, "**STM**" appears, rotate timer control to select "**Yes**" or "**No**".
- If "**Yes**" is selected, rotate and press timer control to select the number of 5-second steam pulses required during the cook cycle (0-10 maximum).
- Then select time when each pulse is initiated, for example "**P1**". Rotate and press timer control to select time of steam pulse during cook cycle, i.e., "**15**" for 15 minutes after start of cook cycle. Repeat for all pulses.
- Once complete, "**GO>**" flashes, press timer control to store and begin program. Press and hold timer control to stop and return to standby.
- Repeat for all required programs.

2.4 USING THE APPLIANCE – FE3D 3 PROGRAM VERSION

2.4.1 Plug the appliance into a 13A socket and switch on the mains supply.

2.4.2 After power on, **P1** and **Go>** will be displayed.

P1	**P2**	**P3**
Temp: 175°C	Temp: 180°C	Temp: 160°C
Time: 23 mins	Time: 16 mins	Time: 13 mins

2.4.3 Turn the "PROGRAM" control to select the desired program "**P1**", "**P2**" or "**P3**".

2.4.4 Press "SELECT" control to select and begin program.

2.4.5 The oven will begin heating - "**HTG**" will display; on reaching temperature, "**RDY**" will display.

2.4.6 Open oven door, load food products and close door. Display will change to "**Go>**".

2.4.7 Press "SELECT" control to start the cook program.

2.4.8 During a cook cycle, the oven chamber light can be activated. Press and hold "PROGRAM" control for 3 seconds, then release as light switches on. The light will switch off after 10 seconds.

2.4.9 During a cook cycle, if the door is opened, the fan and heating element will switch off, and timer will pause. After 30 seconds an alarm will sound & "**DOR OPN**" will display. When the door is closed, the timer will resume count-down from the elapsed time & oven light will illuminate for 10 seconds.

2.4.10 At the end of the cook program "**End**" will be displayed and the buzzer will sound.

2.4.11 Press and release "SELECT" control, or open oven door, to acknowledge program end and cancel the buzzer.

2.4.12 The user can then select another cooking program, see 2.4.3 above.

2.4.13 When finished with the oven, press and hold "SELECT" control to return to standby, "**Sby**" is displayed.

2.5 USING THE APPLIANCE – LOADING

TO AVOID SCALDING, DO NOT USE LOADED CONTAINERS WITH LIQUIDS OR FOOD THAT BECOMES FLUID AFTER COOKING ABOVE A HEIGHT FOR WHICH THE CONTENTS CAN EASILY BE VIEWED

The FE-series ovens are supplied with wire racks to fit within the shelf supports.

The various models are designed to take the following tray sizes:

Model	Wire rack Quantity	Wire rack width	1/1 Gastronorm	2/3 Gastronorm	Shelf Positions	½ sheet
FE2M	3	460 mm	N/A	On wire racks	3	Directly in shelf hanger runners
FE3D	3	460 mm	N/A	On wire racks	3	Directly in shelf hanger runners
FE4M	4	525 mm	Directly in shelf hanger runners	On wire racks	4	On wire racks
FE4D	4	525 mm	Directly in shelf hanger runners	On wire racks	4	On wire racks

Once oven has been pre-heated to the desired temperature load oven quickly to minimise heat loss.
The temperature and amount of food loaded will affect the optimum temperature setting and cook times.
Overloading will affect cooking performance.

NOTE: The convection ovens are fitted with a thermal safety device. This will stop the heating of the appliance if it becomes overheated. This appliance will always fail safe.

If the thermal safety device has activated, it may be re-set (see section 7.13). If it re-activates, contact a suitably qualified service engineer. The reason for overheating must be identified & resolved before returning the appliance to service.

3.0 CLEANING AND MAINTENANCE

BEFORE ATTEMPTING ANY MAINTENANCE, ISOLATE THE APPLIANCE AT THE MAIN SWITCH AND TAKE STEPS TO ENSURE THAT IT IS NOT INADVERTENTLY SWITCHED ON.

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.

When removing heavy items to aid cleaning or maintenance particular care should be taken. A manual handling risk assessment is the best way to determine the level of risk to anyone using or maintaining this equipment. To help with such an evaluation we have included the weights of individual components that may present significant risk.

For further help and information on manual handling and associated risk assessment please refer to the Health and Safety Executive website; www.hse.gov.uk document ref: manual handling at work INDG143. International customers should default to the health and safety guidelines provided by your government body.

Other useful references for health and safety issues:

- www.hse.gov.uk
- Essentials of health and safety at work ISBN978
- Noise at work INDG362
- Safe systems of work
- Other notes added to the body of the instructions

3.1 CLEANING

BEFORE ANY CLEANING IS UNDERTAKEN, ISOLATE THE APPLIANCE FROM MAINS POWER SUPPLY AT ISOLATOR SWITCH.

SUITABLE PROTECTIVE CLOTHING MUST BE WORN WHEN CLEANING THIS APPLIANCE.

THE APPLIANCE MUST NOT BE STEAM CLEANED OR CLEANED WITH A WATER JET. DO NOT USE ACID OR HALOGEN-BASED (E.G. CHLORINE) DESCALING LIQUIDS, FLAMMABLE LIQUIDS, CLEANING AIDS OR CLEANING POWDERS.
FAILURE DUE TO LACK OF PROPER CLEANING IS NOT COVERED BY WARRANTY.

NOTE: All surfaces are easier to clean if spillages are removed before becoming burnt on, and the appliance is cleaned daily.
It should be noted that certain scouring pads including nylon types can easily mark stainless steel. Care should be exercised during cleaning process. When rubbing stainless steel with a cloth, always rub in the direction of the grain.
NOTE: Do not use any abrasive or corrosive chemicals or detergents on any of the surfaces.

3.1.1 Switch off appliance and cool down.

3.1.2 Remove shelves and both oven shelf supports.

3.1.3 Soak these in a sink filled with hot soapy water.

3.1.4 Clean oven chamber with a mild cleaning detergent & sponge, microfibre cloth.

3.1.5 Use a scouring pad to scrub components being soaked in sink.

3.1.6 Rinse parts thoroughly after scrubbing and dry.

3.1.7 Replace shelf supports and shelves within oven cavity.

3.1.8 Clean door glass surfaces with a mild cleaning detergent & sponge or microfibre cloth. Wipe dry.

3.1.9 To access between glass surfaces, open the door, carefully lift inner glass panel using finger tab located on the inner glass frame, and pull gently to open. Clean and wipe dry as in 3.1.8 above. To close, gently lift & push inner panel back towards door frame, & lower on to locating pins. Please refer to **falconfoodservice.com/info-centre/falcon-tv/cleaning guides/cleaning-guides-ovens-and-hobs** for a detailed instructional guide & video.

4.0 SPECIFICATION

4.1 APPLIANCE WEIGHT TABLE

APPLIANCE	UNIT WEIGHT (kg)	PACKED WEIGHT (kg)
FE2M	41kg	50kg
FE3D	48kg	57kg
FE4D	53kg	68kg
FE4M	55kg	70kg

4.2 TECHNICAL DATA TABLE

FE2M	CURRENT			POWER
PHASE	MIN (A) @ 230V	MAX (A) @ 230V	ACTUAL (A) @ 230V	(kW) @ 230V
L1	7.8	9.1	8.7	2

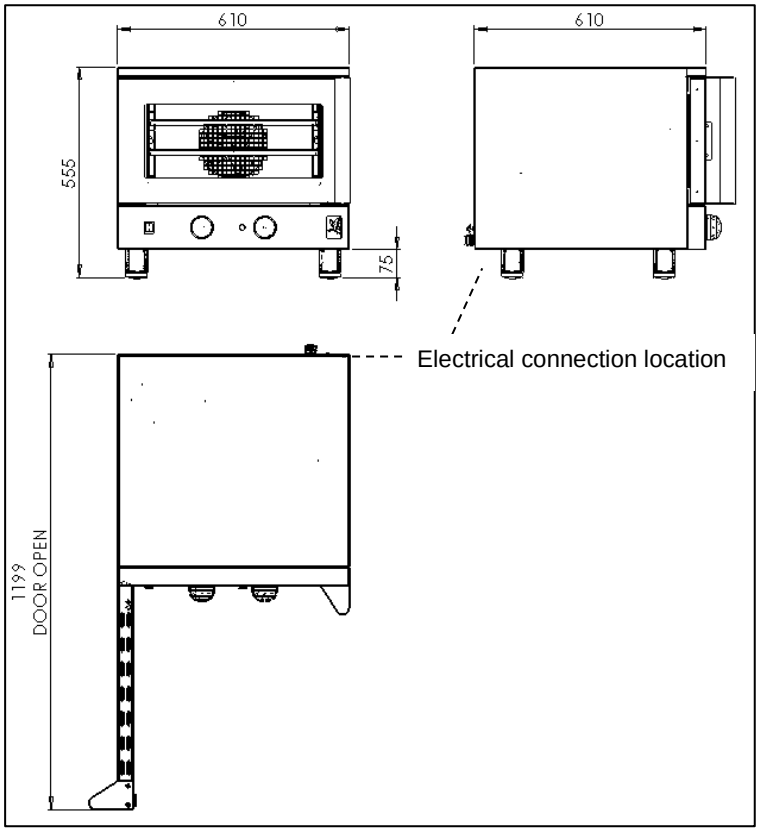
FE3D	CURRENT			POWER
PHASE	MIN (A) @ 230V	MAX (A) @ 230V	ACTUAL (A) @ 230V	(kW) @ 230V
L1	11	12.8	12.2	2.8

FE4D/FE4M	CURRENT			POWER
PHASE	MIN (A) @ 230V	MAX (A) @ 230V	ACTUAL (A) @ 230V	(kW) @ 230V
L1	10.4	12.1	11.5	2.65

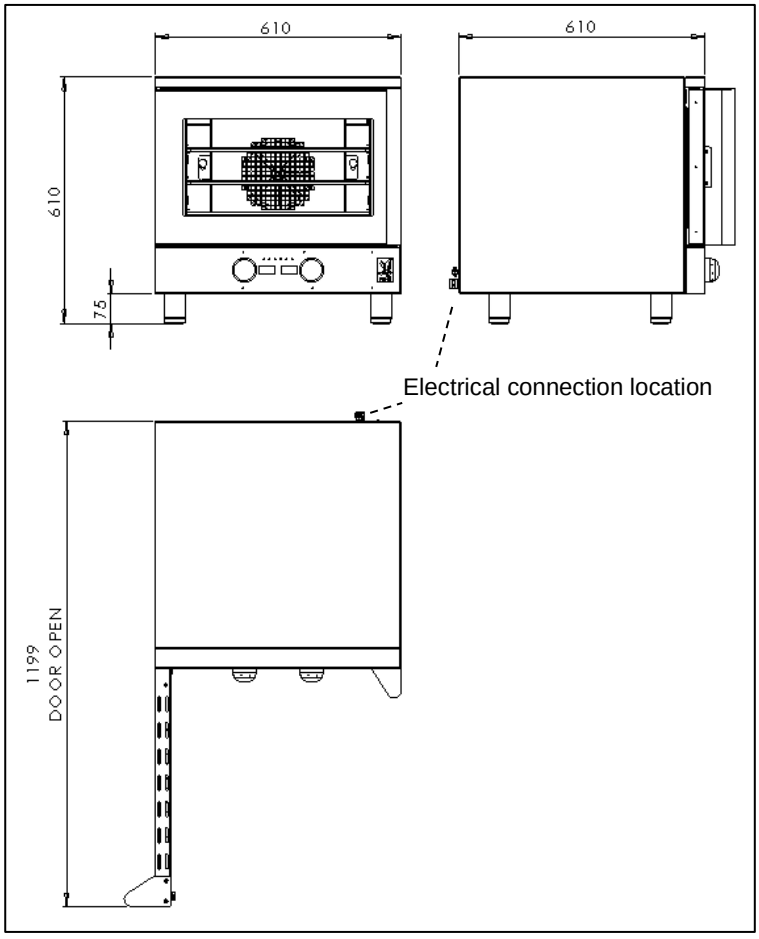
IF ANY CURRENT IS OUT WITH THESE TOLERANCES, THE CAUSE MUST BE INVESTIGATED AND RECTIFIED.

5.0 DIMENSIONS / CONNECTION LOCATIONS

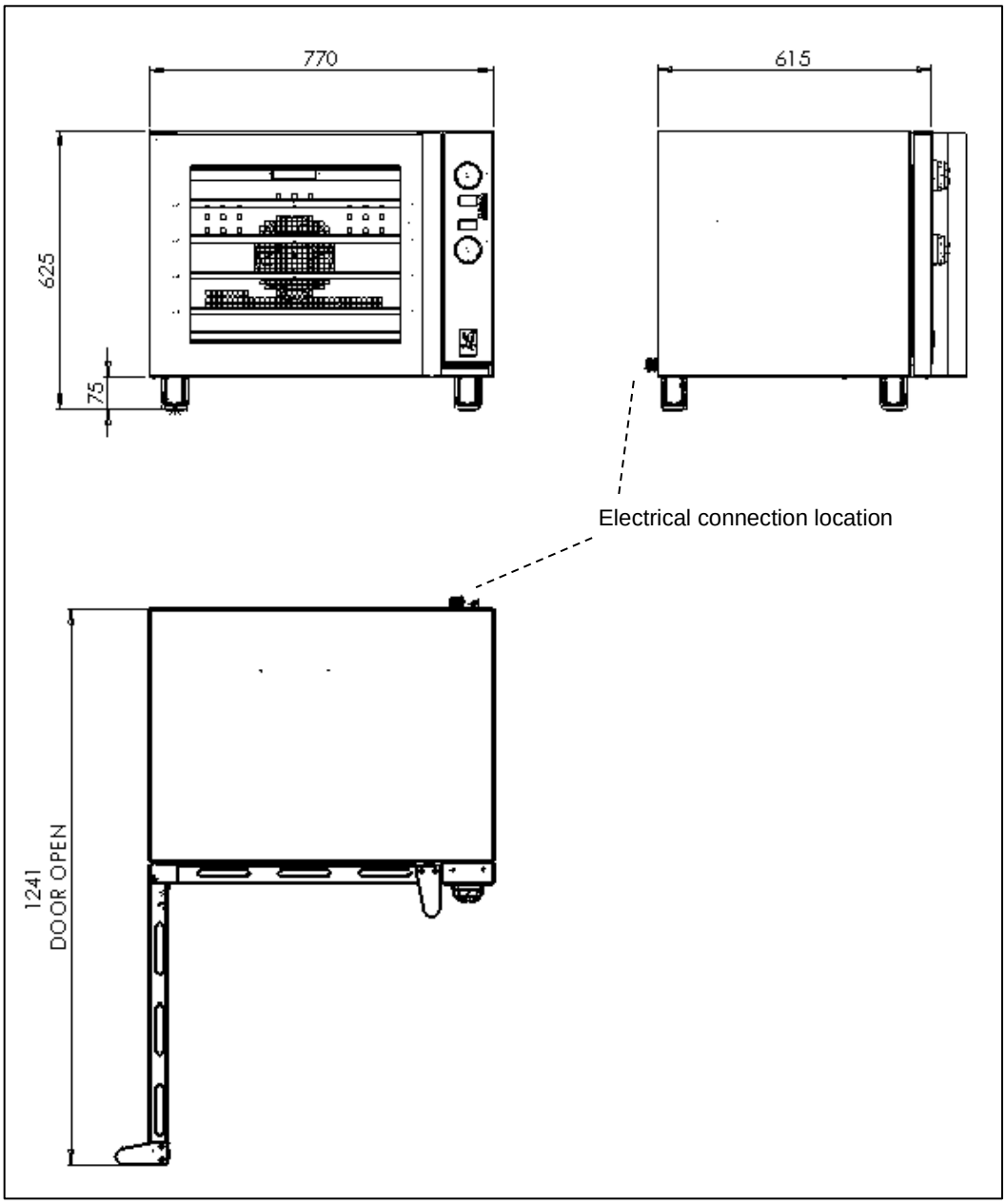
FE2M



FE3D



FE4D & FE4M


770
615
625
75
Electrical connection location
1241
DOOR OPEN

6.0 TRANSPORT & INSTALLATION

6.1 TRANSPORT & POSITIONING.

General warnings for transport:

6.1.1 Observe the maximum load and stacking limits.

6.1.2 Follow the indications shown on the packaging, any instructions on the equipment, including those on the points where forklift trucks cannot be used.

6.1.3 Danger of crushing during transportation due to the weight of the appliance.

6.1.4 Hands and fingers may be crushed.

6.1.5 Wear suitable protective clothing when transporting.

6.1.6 Danger of overturning during transporting

6.1.7 Danger of crushing due to the appliance overturning on persons.

6.1.8 Take care over the centre of gravity of the appliance.

6.1.9 Take great care to ensure that the appliance does not overturn during transportation, lifting and after installation.

6.1.10 Take care over the width and height of accesses during transportation.

6.1.11 Take care not to damage the appliance due to narrow doorways: doorways less than 80cm wide, remove any handles etc.

6.1.12 Check that all the parts of the appliance are intact and have not been damaged during transportation. If damaged due to transportation, inform the specialised reseller/ haulier immediately.

6.1.13 To position the appliance, it is recommended to use the mount offered by the manufacturer, should you want to do things differently, it is necessary to take account of the weight of the appliance.

6.1.14 Before permanently fixing the appliance in position, the Water, and Electrical Connections must be made. (See relative sections).

6.1.15 Once the appliance is installed, the electrical power cable must be protected, and never stretched or tugged.

6.1.16 Remove all packaging materials and peel away the protective plastic film from all external surfaces of the appliance.

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

6.1.17 Please ensure that any plastic coatings are removed prior to use.

6.1.18 Discolouration of heated parts is caused by factory testing to ensure a satisfactory unit. It does not affect quality or performance.

6.2 SITING / CLEARANCES

Although this appliance can be sited next to a combustible wall, an oven vent is situated at the rear of the appliance. Consideration must be given to clearances from wall at the rear of the appliance and overlying surfaces and structures to allow steam generating from cooking process to be fully ventilated.

Clearance at rear must be at least 70mm to ensure the power supply cable is not damaged.
Similarly, for units with steam injection clearance will be required for water supply fittings.

Clearance of 150mm must be given at both sides of the appliance when situated next to another appliance.

To reduce risk of liquid burns and spillages from using the oven it is recommended that the top shelf height should be below 1.60m from floor level. Fitting the appliance on a Falcon stand or a standard height work surface will ensure this recommendation is met.

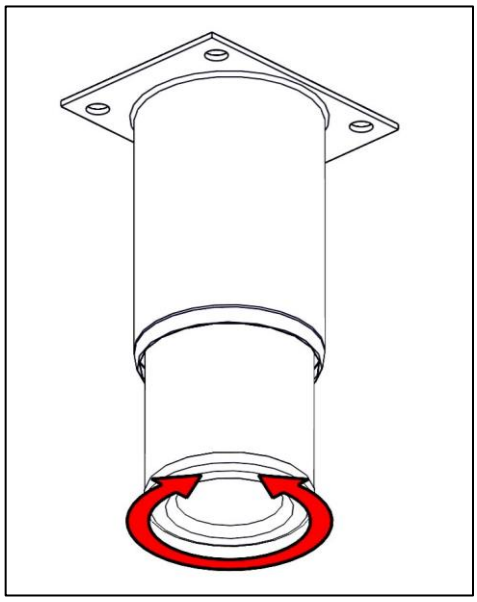
IF SUITING, THE NECESSARY CLEARANCES TO ANY COMBUSTIBLE WALL MUST BE THE LARGEST FIGURE GIVEN FOR INDIVIDUAL APPLIANCE INSTRUCTIONS.

Consideration must also be given to the practicalities of being able to fully open the door for loading and removing food on cooking trays and wire racks.

It must be easy to unplug the appliance for cleaning and maintenance purposes.

6.3 ASSEMBLY

6.3.1 Position the appliance and level using feet adjusters as shown below.



6.4 ELECTRIC SUPPLY & CONNECTION

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 type 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: -
18th IET Wiring Regulations 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.

THIS APPLIANCE MUST BE EARTHED

This appliance is 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 allows 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. It must only be used for equipotential bonding purposes.

The location of the electrical inlet is at the rear right hand lower corner as shown in section 7.19. This unit is suitable for AC supplies only. The standard terminal arrangement is single phase (230V~) for all variants.

Live 1 (Phase 1)	Brown
Neutral	Blue
Earth	Yellow/Green

Unit is supplied with a 13A moulded plug.

To replace the mains cable, remove rear access panel as shown in section 7.3 and disconnect the cable. Fit the replacement mains cable as shown in section 7.19 & attach to the terminal block.

6.5 CONNECTING TO WATER SUPPLY

For models with oven steam injection note the following requirements for connection to water supply.

This appliance must be fitted with a double check valve or other fluid category 3 or higher backflow prevention device when connected to potable water supply in line with national Water Regulations.

The ejected steam is absorbed by the food and appliance has no drain connection.

Water pressure for the water solenoid valve fitted within the appliance at the water inlet must not exceed 10bar (1000 kPa).

6.6 FE2M & FE4M COMMISSIONING

Refer to section 2.0 for operation. If safety thermostat is activated, refer to section 7.13 to reset it.

6.6.1 Turn on mains power supply ON.

6.6.2 Ensure green switch illuminates.

6.6.3 Toggle green switch to the ON position.

6.6.4 Turn temperature to 200°C.

6.6.5 Ensure amber neon illuminates.

6.6.6 Turn the timer to 10 minutes.

6.6.7 Let the appliance heat up. When amber neon switches off, check the temperature.

The oven is fitted with a mechanical ON/OFF thermostat. Ensure the average centre oven temperature within a full heating cycle (operating thermostat ON to OFF and back to ON as indicated) is 200°C +/- 10°C. During this the timer should have begun counting down

6.6.8 Switch appliance OFF.

6.7 FE3D & FE4D COMMISSIONING

Refer to section 2.0 for operation. If safety thermostat is activated, refer to section 7.13 to reset it.

Carry out the following operation:

6.7.1 Turn mains power supply on.

6.7.2 Time display flashes "**PRE"** for 5 seconds, then temperature display shows "**MAN**"

6.7.3 Press temperature control knob to select "**MAN**", rotate to "**200**" ºC and press to select.

6.7.4 Rotate the timer control knob to "**10**" on timer display and press to select and begin heating.

6.7.5 Ensure that the fan rotates and the heat LED illuminates  .

6.7.6 The timer begins to count down.

6.7.7 Press the temperature control knob for 3 seconds, & release, the oven LED illuminates for 10 seconds.

6.7.8 For FE3D only, confirm every 2 minutes that the fan reverses direction.

6.7.9 When the timer count down is complete, ensure the temperature is **200**ºC +/- 5ºC.

6.7.10 Switch appliance off.

If the appliance does not operate correctly, please refer to section 9.0 and rectify the problem.

6.8 FE3D - 3 PROGRAM VERSION COMMISSIONING

Refer to section 2.0 for operation. If safety thermostat is activated, refer to section 7.13 to reset it.

Carry out the following operation:

6.8.1 Turn mains power supply on.

6.8.2 Temperature display shows "**P1**" and time displays "**Go>**".

6.8.3 Turn the PROGRAM control knob clockwise to select "**P3"**.

6.8.4 Press SELECT control knob to start the program.

6.8.5 Ensure that the fan rotates, and the heat LED illuminates  .

6.8.6 The appliance will heat up to 160°C.

6.8.7 Confirm every 2 minutes that the fan reverses direction.

6.8.8 Confirm that when the oven temperature reaches **160**°C the timer displays "**Rdy**".

6.8.9 Open and close the oven door.

6.8.10 The oven chamber light should illuminate and "**Go>**" should be displayed on the time display.

6.8.11 Press the SELECT control knob to start the cook program.

6.8.12 Check that the timer displays **13** minutes and begins to count down.

6.8.13 When the timer count down is complete, "**End**" should be displayed, and the buzzer should sound.

6.8.14 Switch appliance off.

If the appliance does not operate correctly, please refer to section 9.0 and rectify the problem.

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

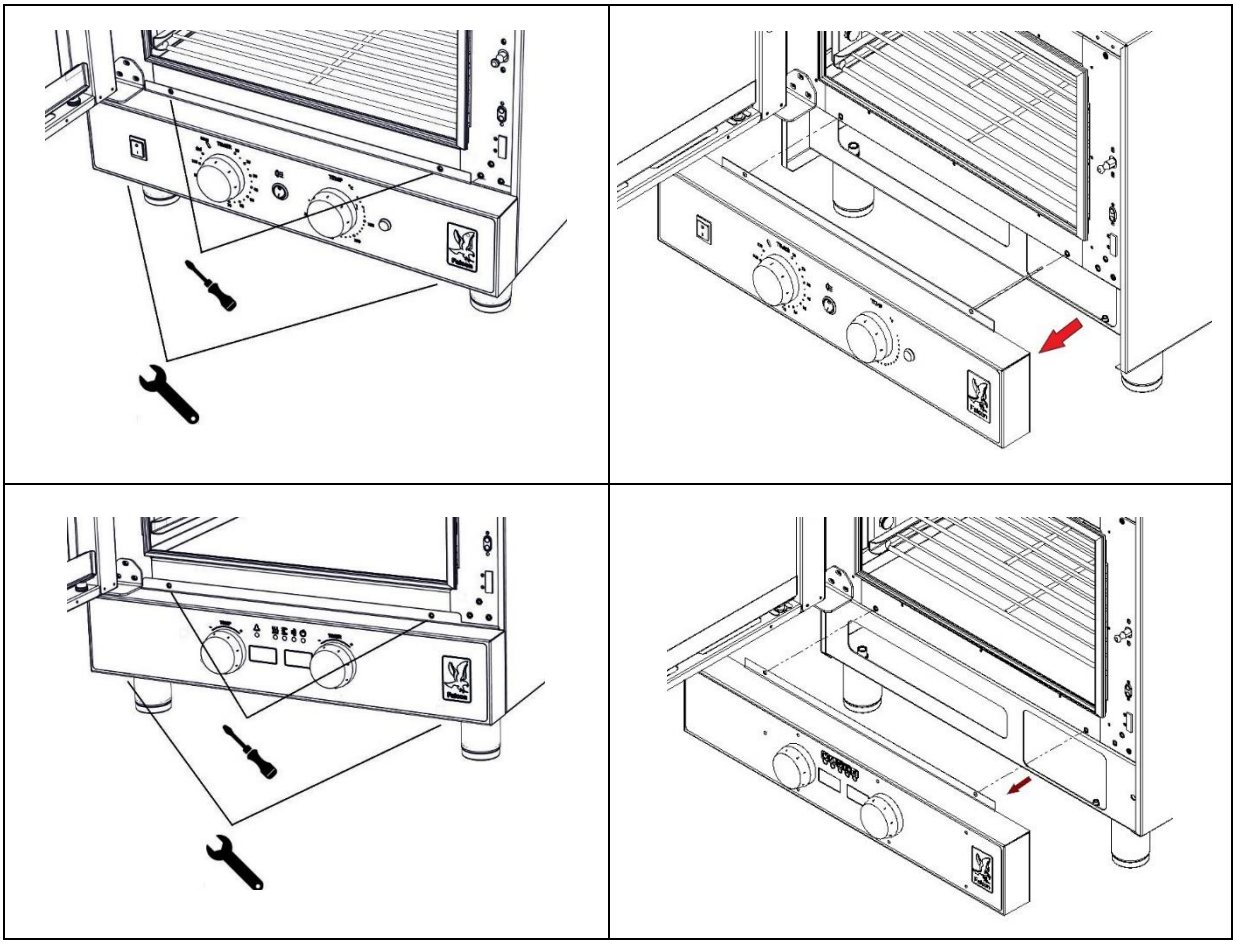
7.0 SERVICING

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

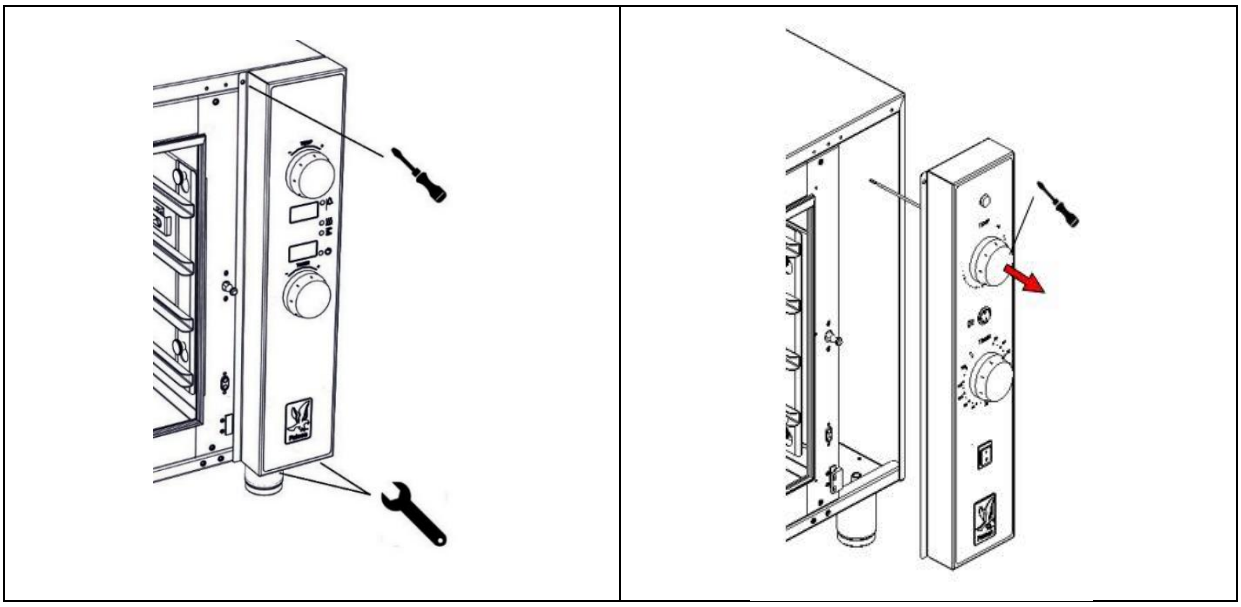
ANY REPLACEMENT SUPPLY CABLE MUST BE 1.5MM², CORD CODE DESIGNATION 245 IEC 57 (CENELEC H05 RN-F).

For internal connection, outer sheathing must be stripped 140mm from cable end. The Live and Neutral conductors must be trimmed so that earth conductor is longer by 50mm. Pass inlet cable through rear panel cord grip and ensure cable is routed without leaving excessive free length inside unit.

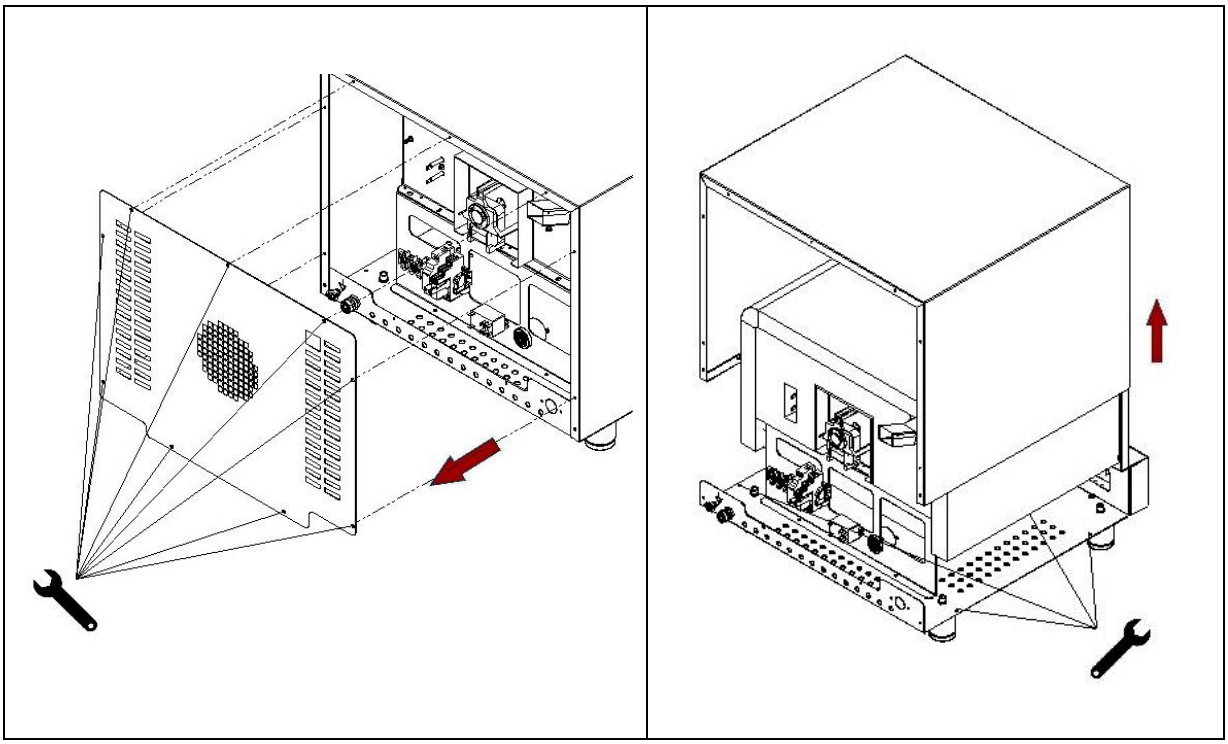
7.1 FE2M & FE3D CONTROL PANEL REMOVAL



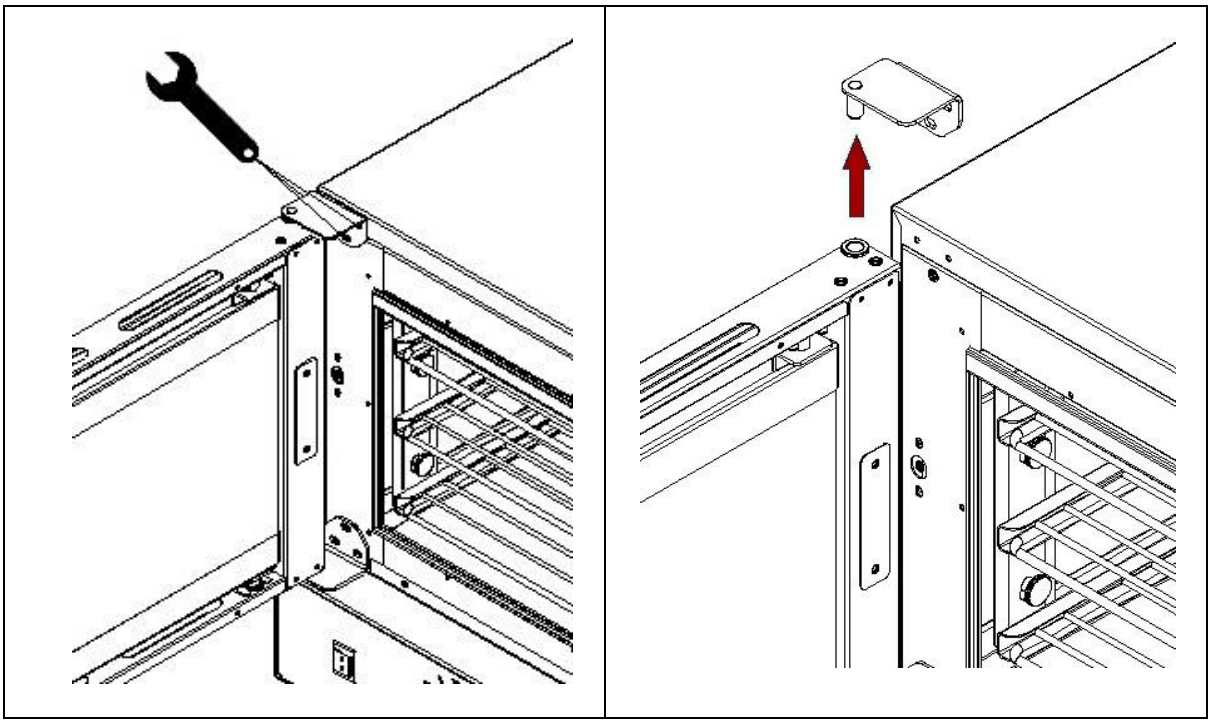
7.2 FE4M AND FE4D CONTROL PANEL REMOVAL



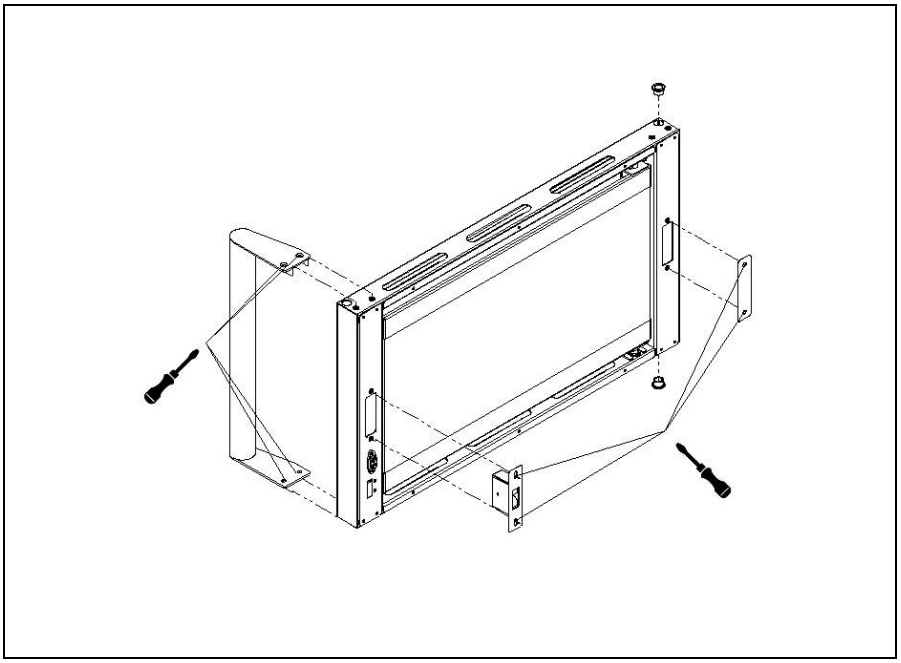
7.3 BACK PANEL AND OUTER WRAP REMOVAL



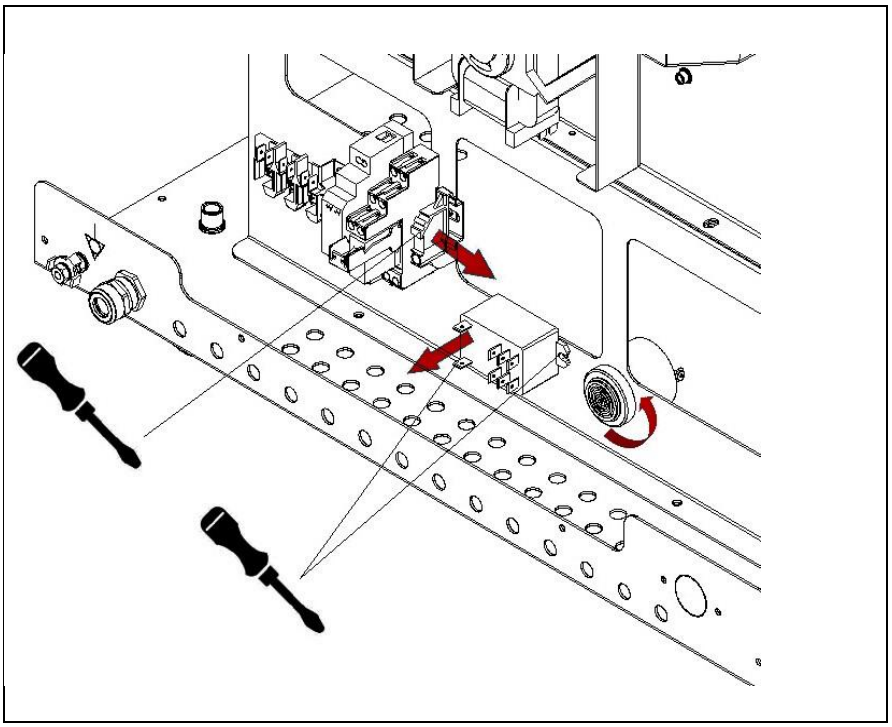
7.4 DOOR REMOVAL



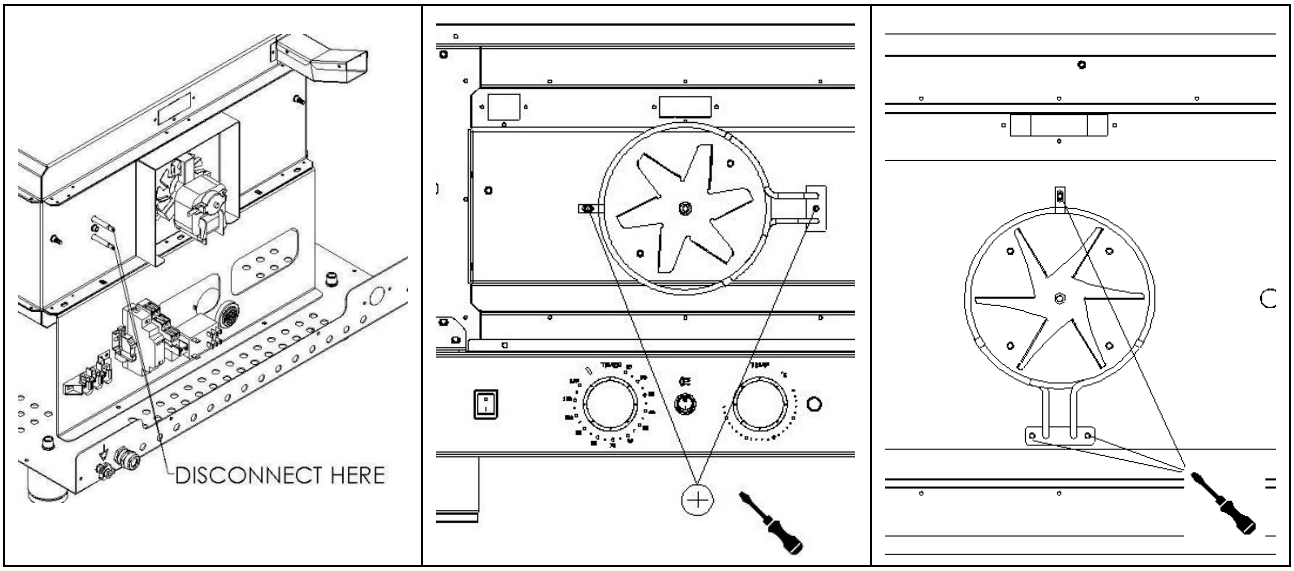
7.5 DOOR HANDLE REMOVAL



7.6 CONTACTOR / RELAY / BUZZER REMOVAL

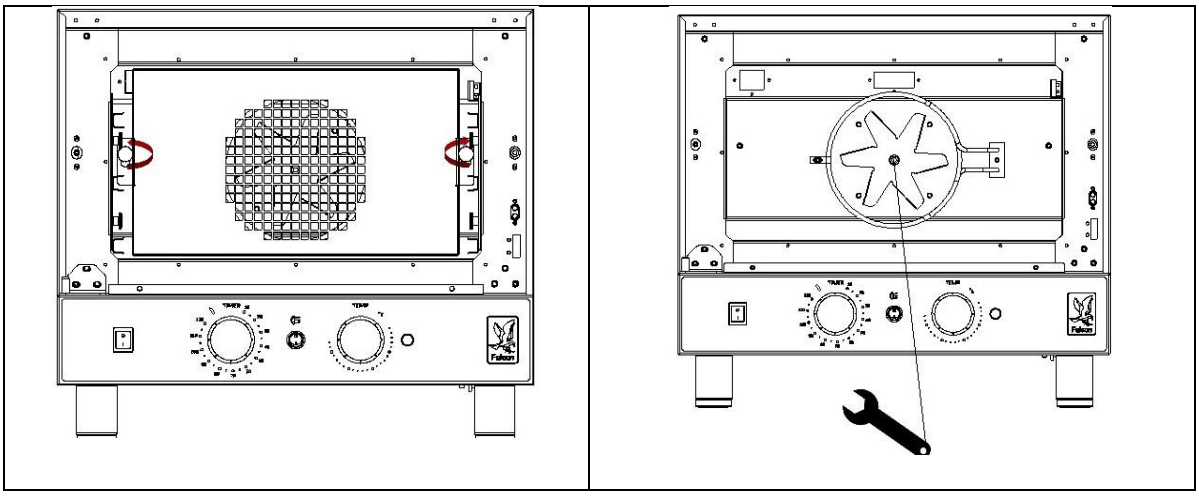


7.7 HEATING ELEMENTS REMOVAL



Note: The element can be removed from inside the cavity, without removing rear panel (image 1 above). Remove element screws (images 2 & 3), carefully withdraw element and disconnect wires.

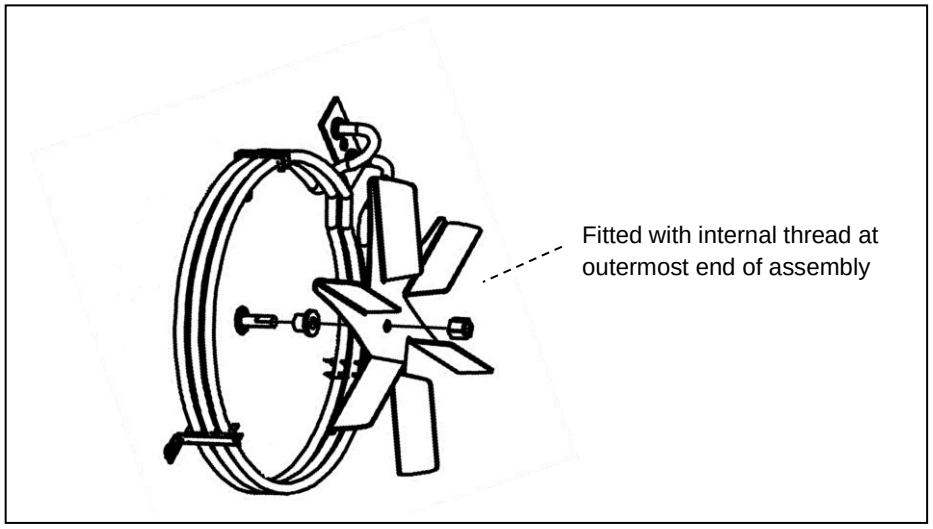
7.8 OVEN BAFFLE AND FAN IMPELLOR REMOVAL



Note: The fan impellor fixing nut has reverse thread.
Turn clockwise to unscrew. Turn anti-clockwise to tighten.

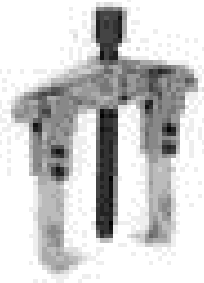
FE2M, FE4M and FE4D – unidirectional fan

Note: The impellor spacer on the fan motor shaft at the rear of the impellor must be fitted with the wide flange against the impellor rear surface.
The fixing nut is internally threaded at one end only. The smooth section of internal surface acts as a spacer to ensure impellor stability. To be fitted with the threaded section outermost.

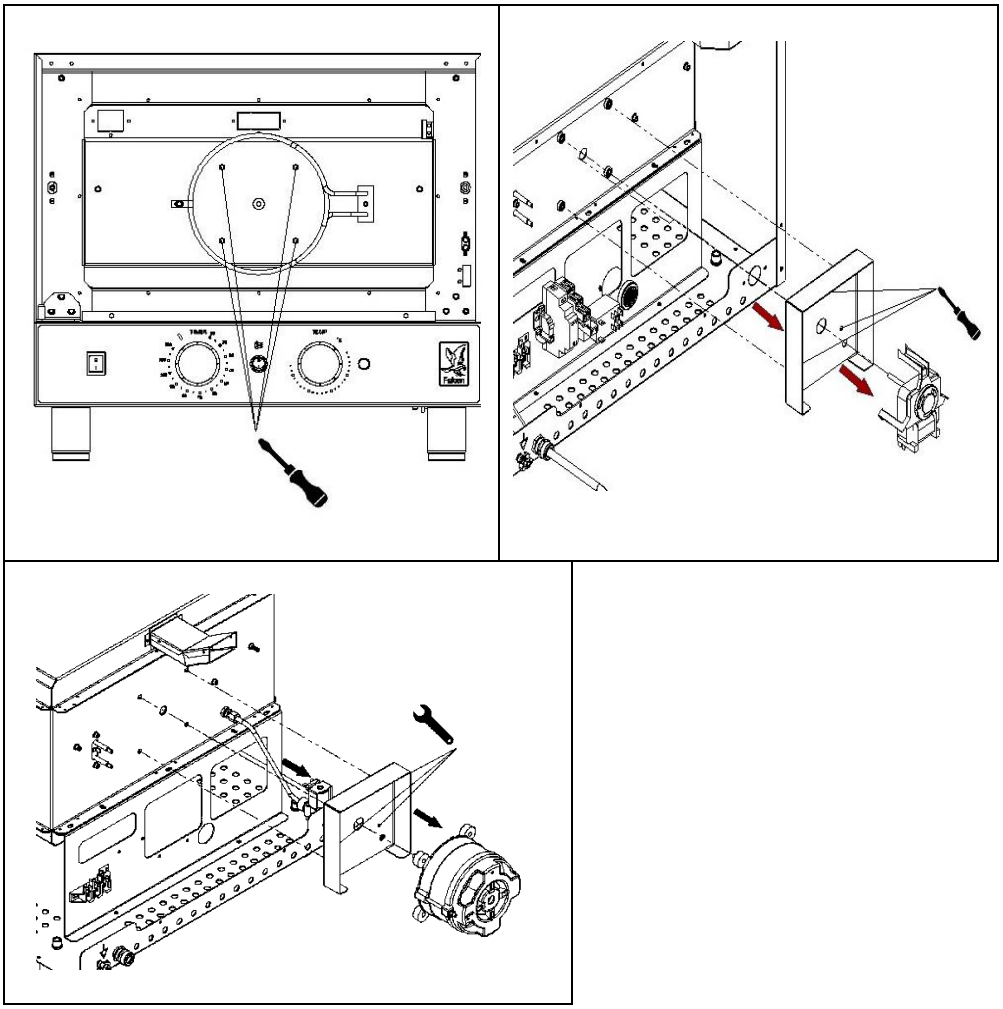


FE3D – bidirectional fan

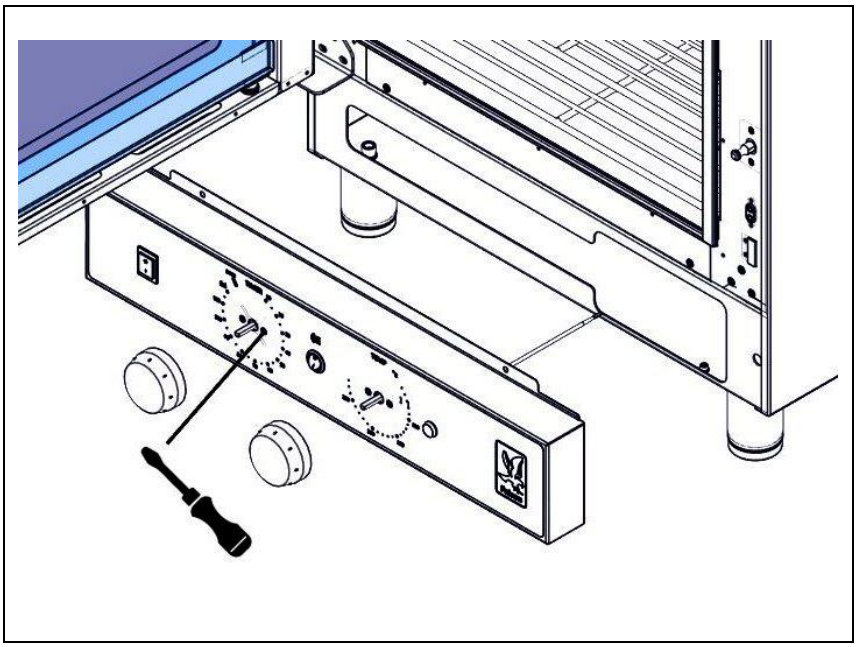
The impellor shaft for the bi-directional fan is tapered to ensure tight fitting when in normal operation.
A 100mm (4”) hub \ bearing puller is required to remove the impellor from the shaft. (generic image below).



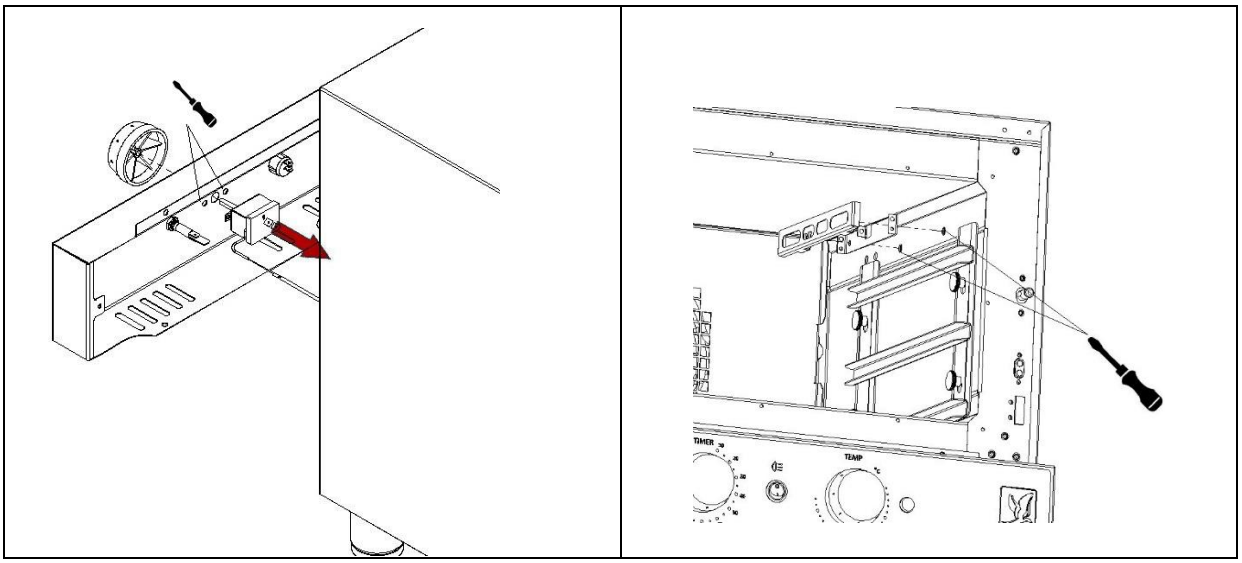
7.9 FAN MOTOR REMOVAL

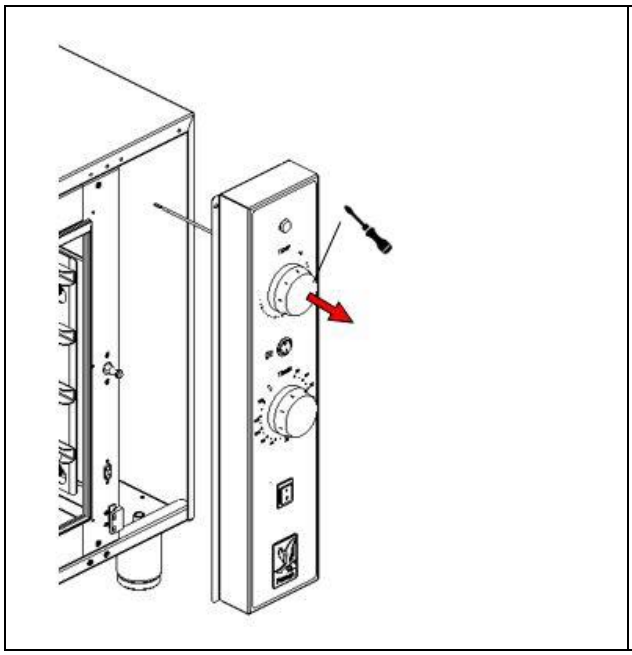


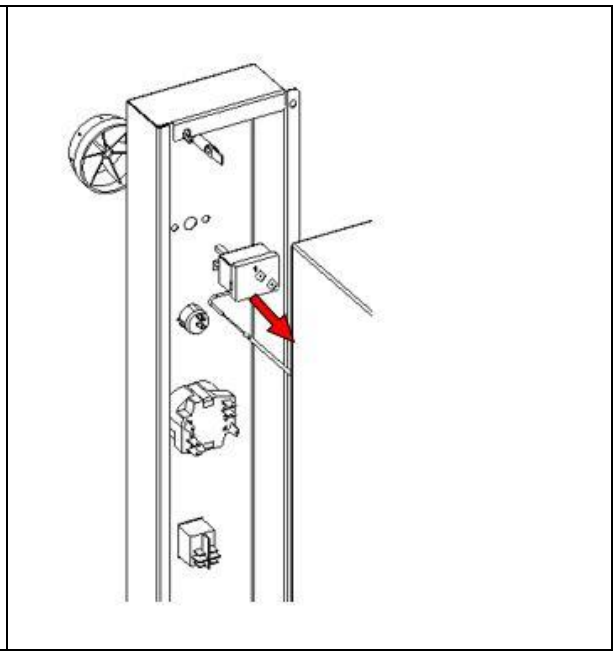
7.10 FE2M AND FE4M TIMER REMOVAL



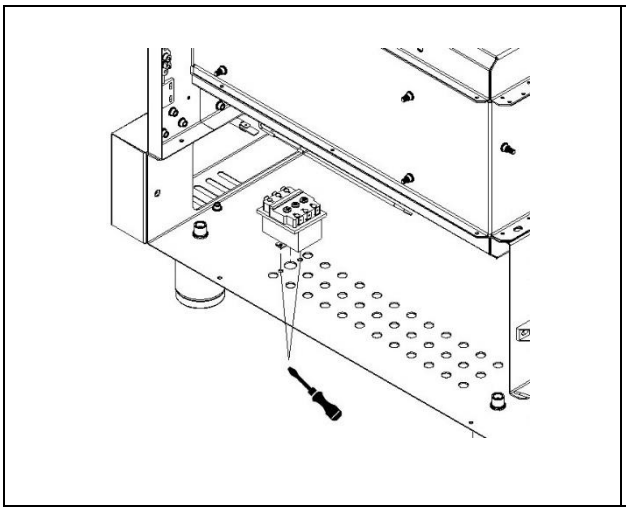
7.11 FE2M AND FE4M OPERATING THERMOSTAT REMOVAL

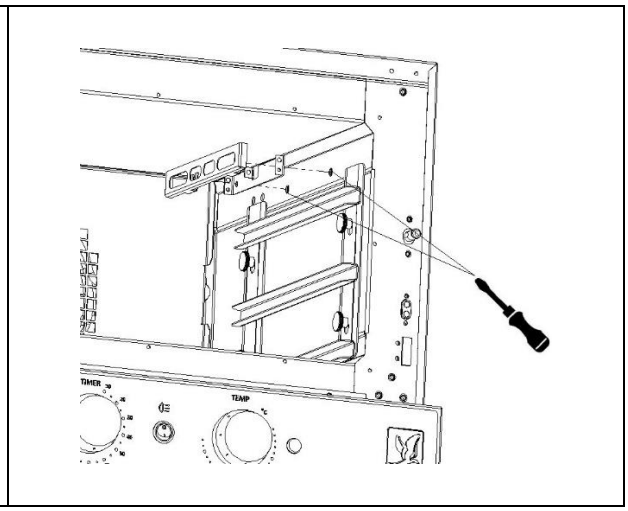




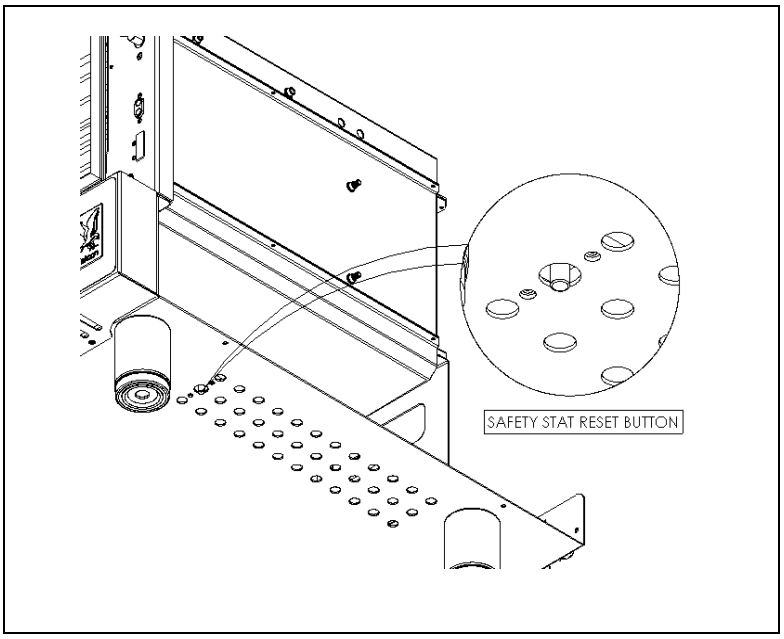


7.12 SAFETY THERMOSTAT REMOVAL

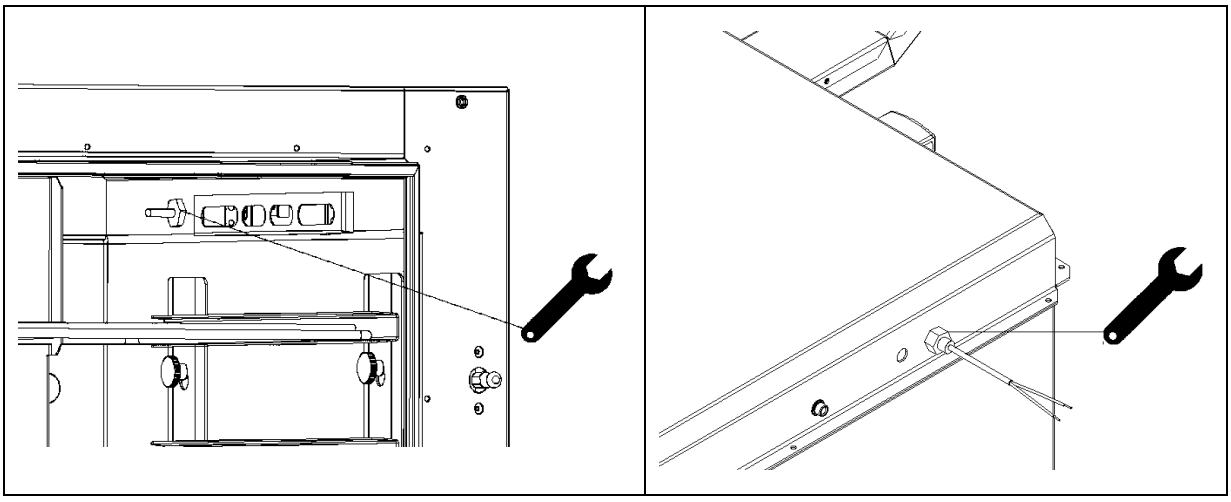




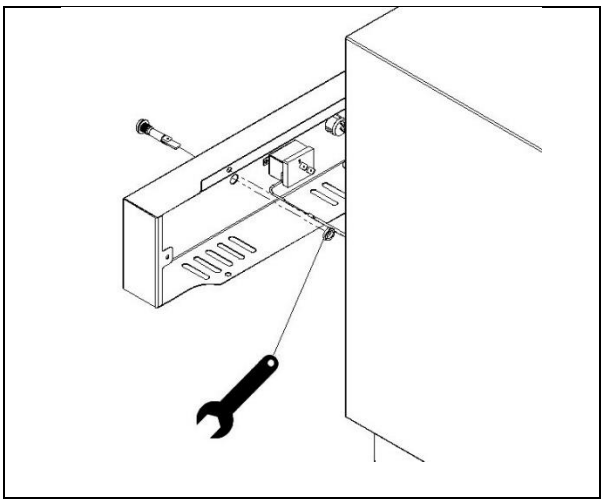
7.13 SAFETY THERMOSTAT RESET



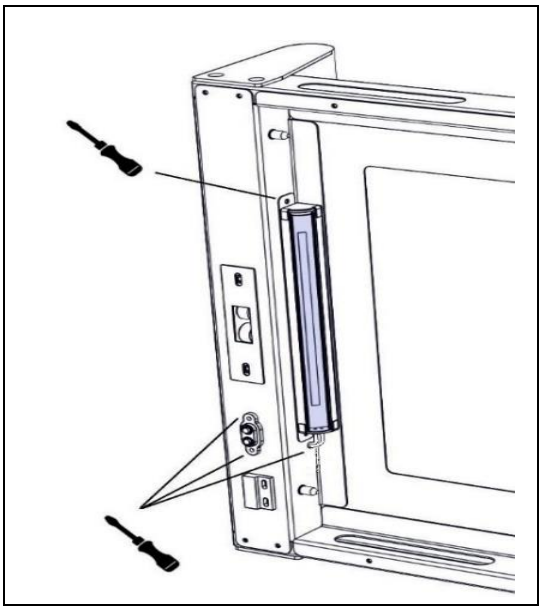
7.14 FE3D & FE4D TEMPERATURE SENSOR REMOVAL

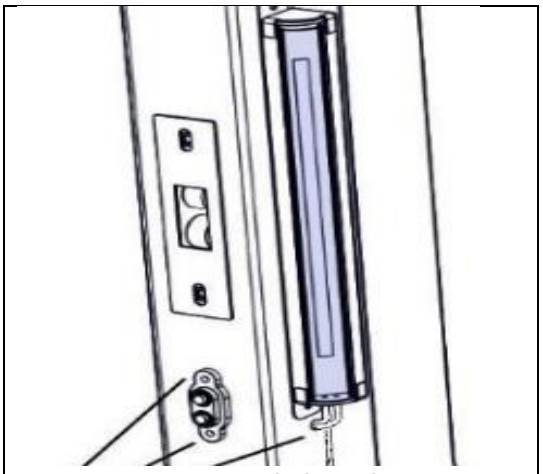


7.15 NEON REMOVAL



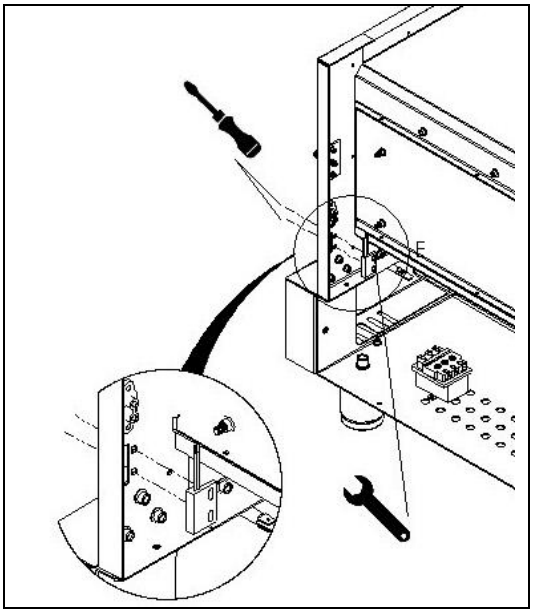
7.16 LED LIGHT STRIP REMOVAL

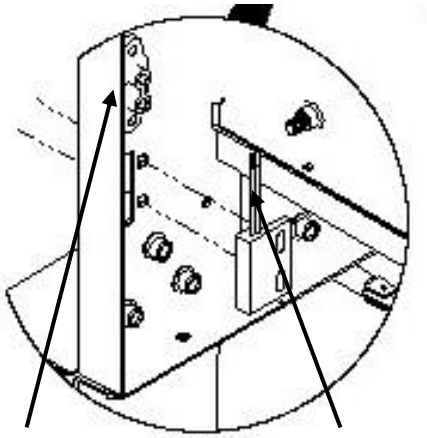




Remove contact switch and
disconnect LED wires from connector.
Pull wires through door frame.
Ensure correct wire & switch polarity

7.17 PROXIMITY SENSOR AND LED CONTACT REMOVAL

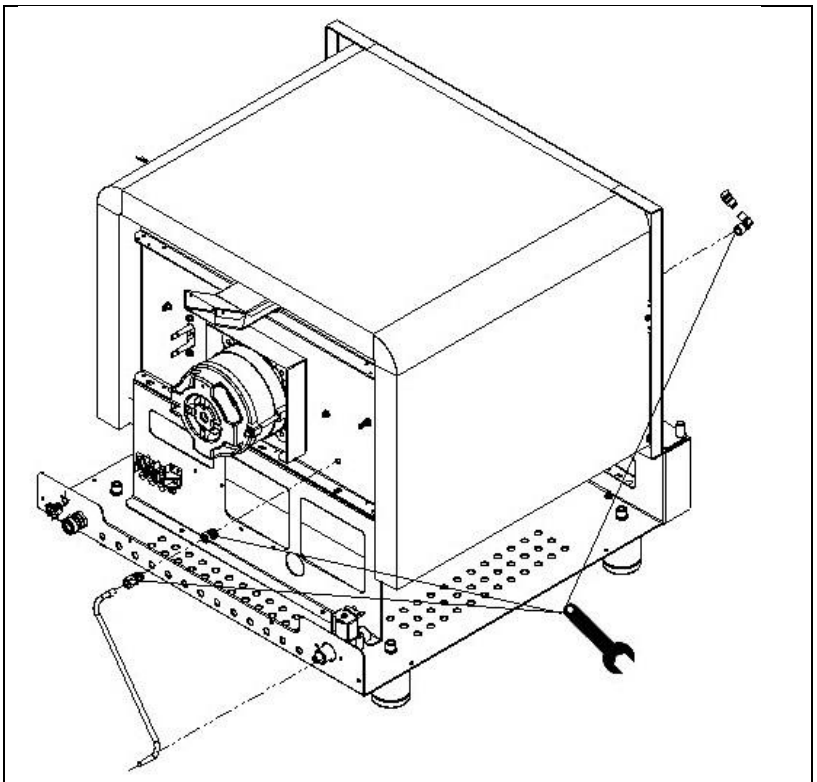




LED contact Proximity sensor

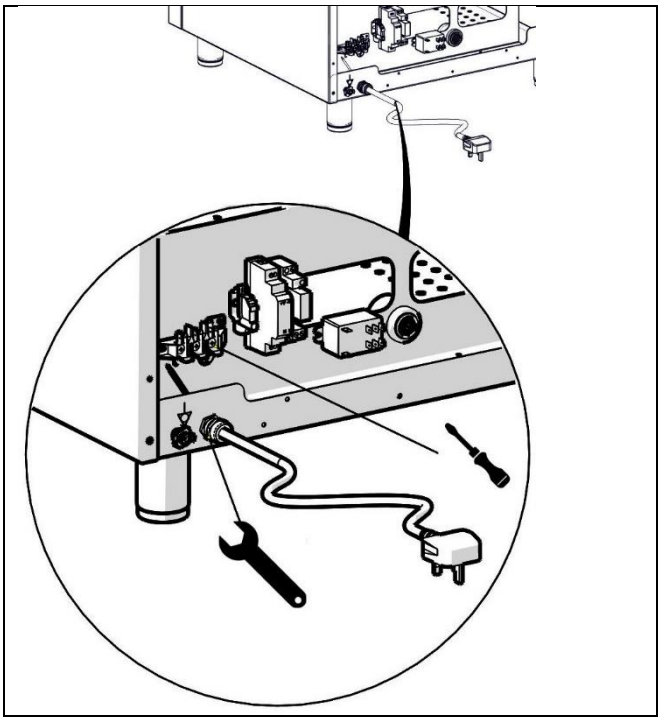
Disconnect switch wires from terminal block.
Ensure correct polarity of LED contact wires.

7.18 WATER SOLENOID VALVE AND STEAM INJECTION PIPES



The solenoid valve has a detachable inlet filter

7.19 POWER CABLE REPLACEMENT

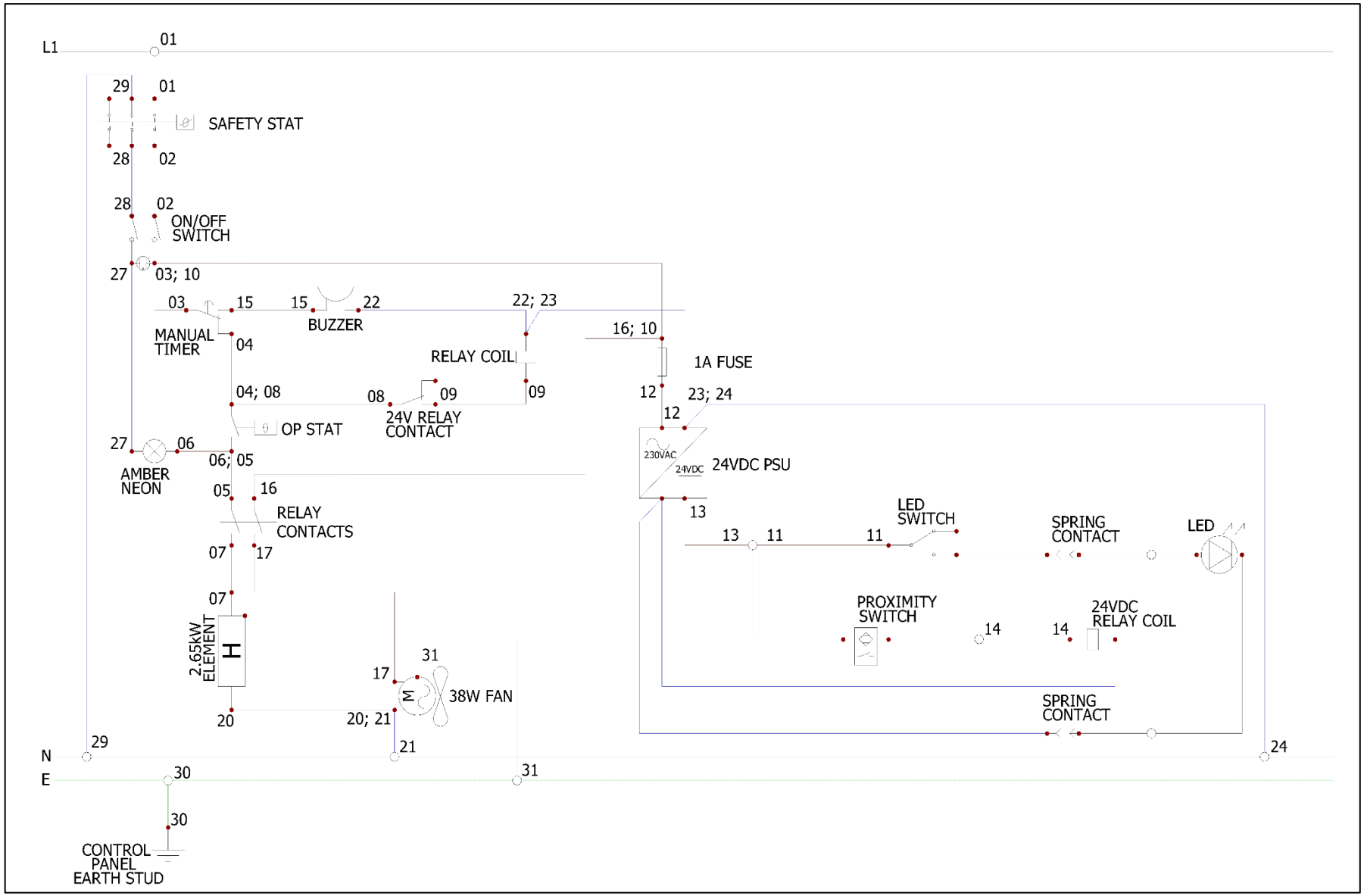


ANY REPLACEMENT SUPPLY CABLE MUST BE 1.5MM², CORD CODE DESIGNATION 245 IEC 57 (CENELEC H05 RN-F).

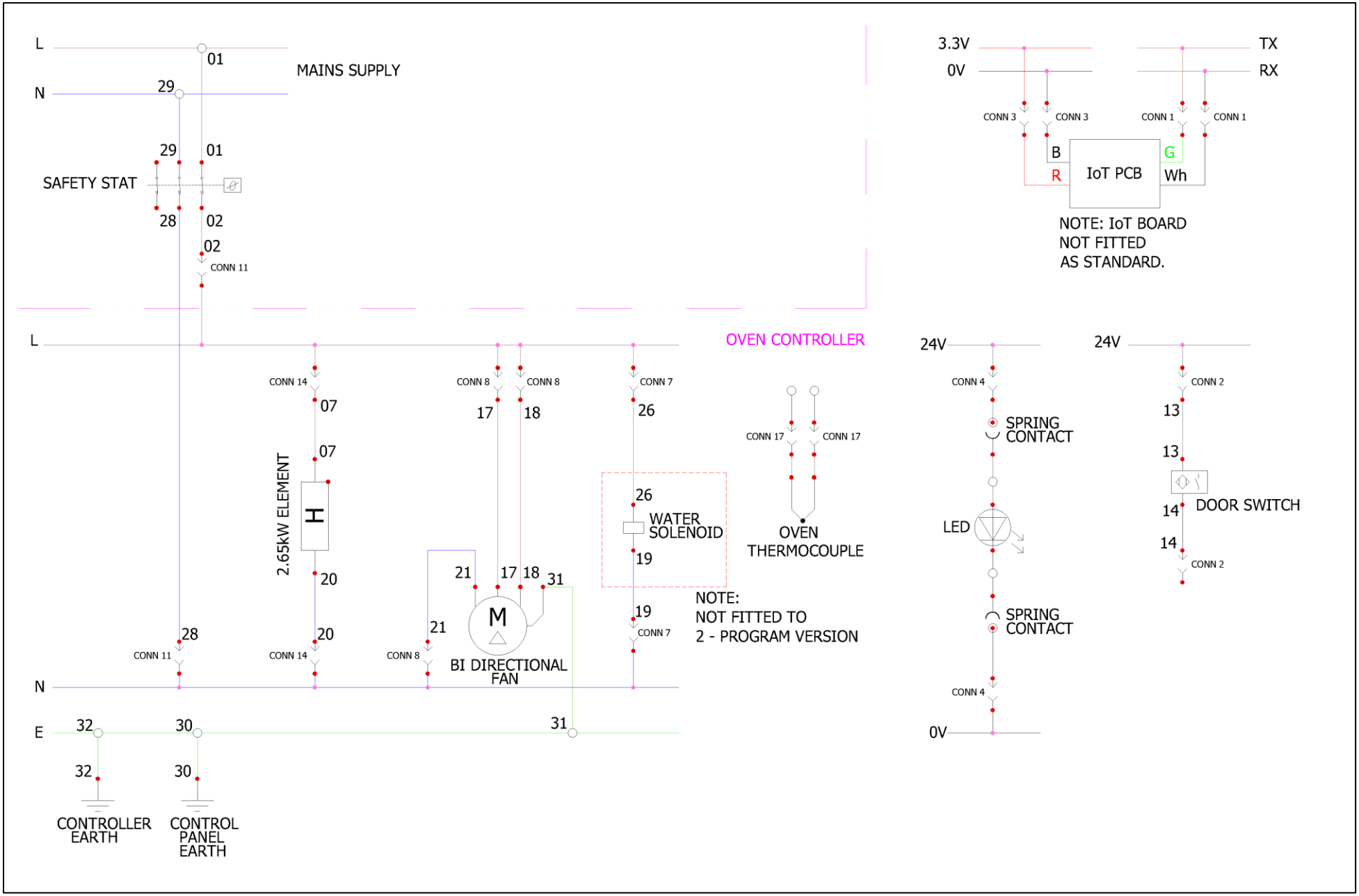
CONNECT BROWN – L, BLUE – N, GRN\YEL - ⏚

7.20 CIRCUIT DIAGRAMS

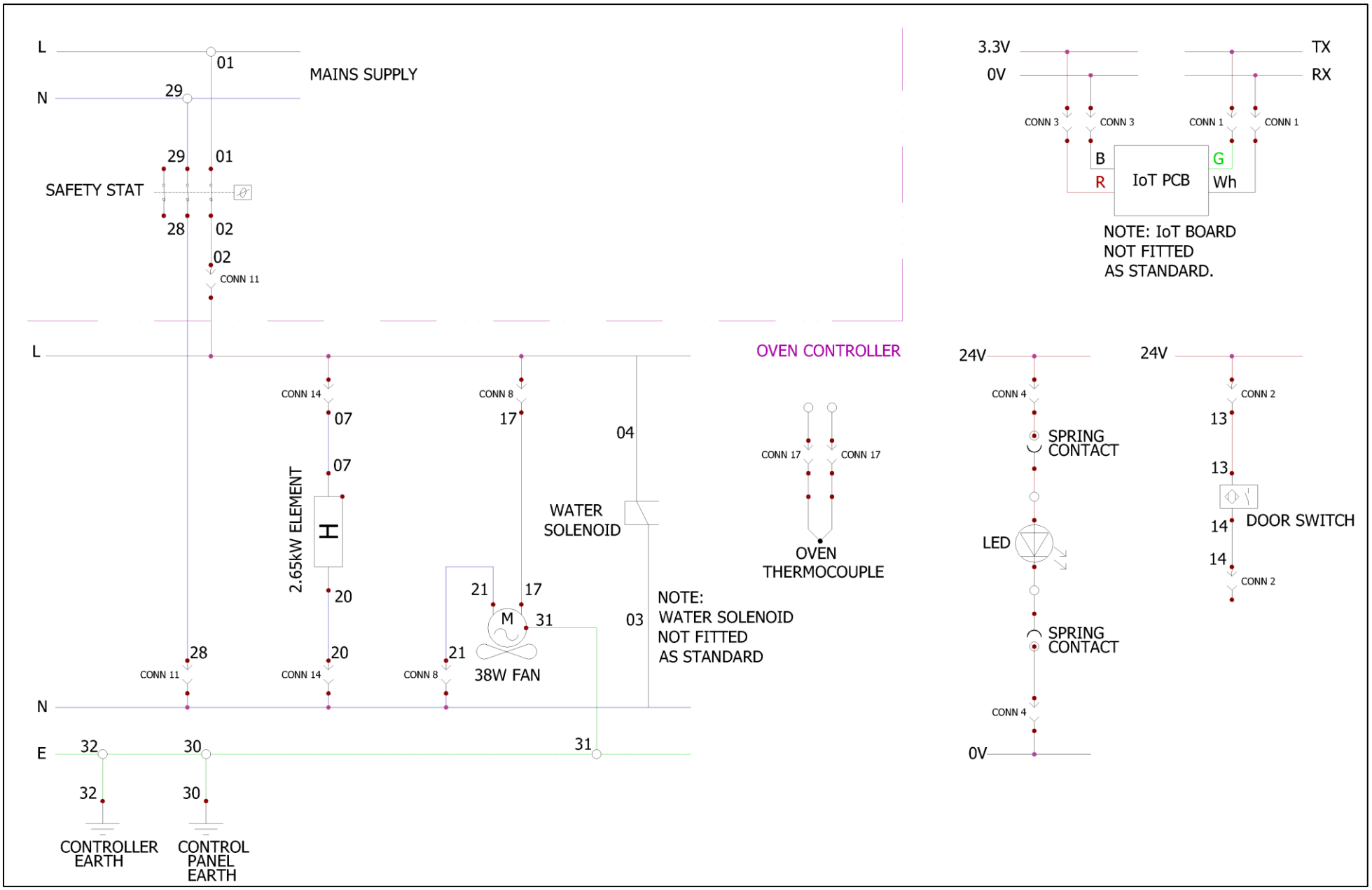
7.20.1 FE2M/FE4M Circuit Diagram



7.20.2 FE3D Circuit Diagram

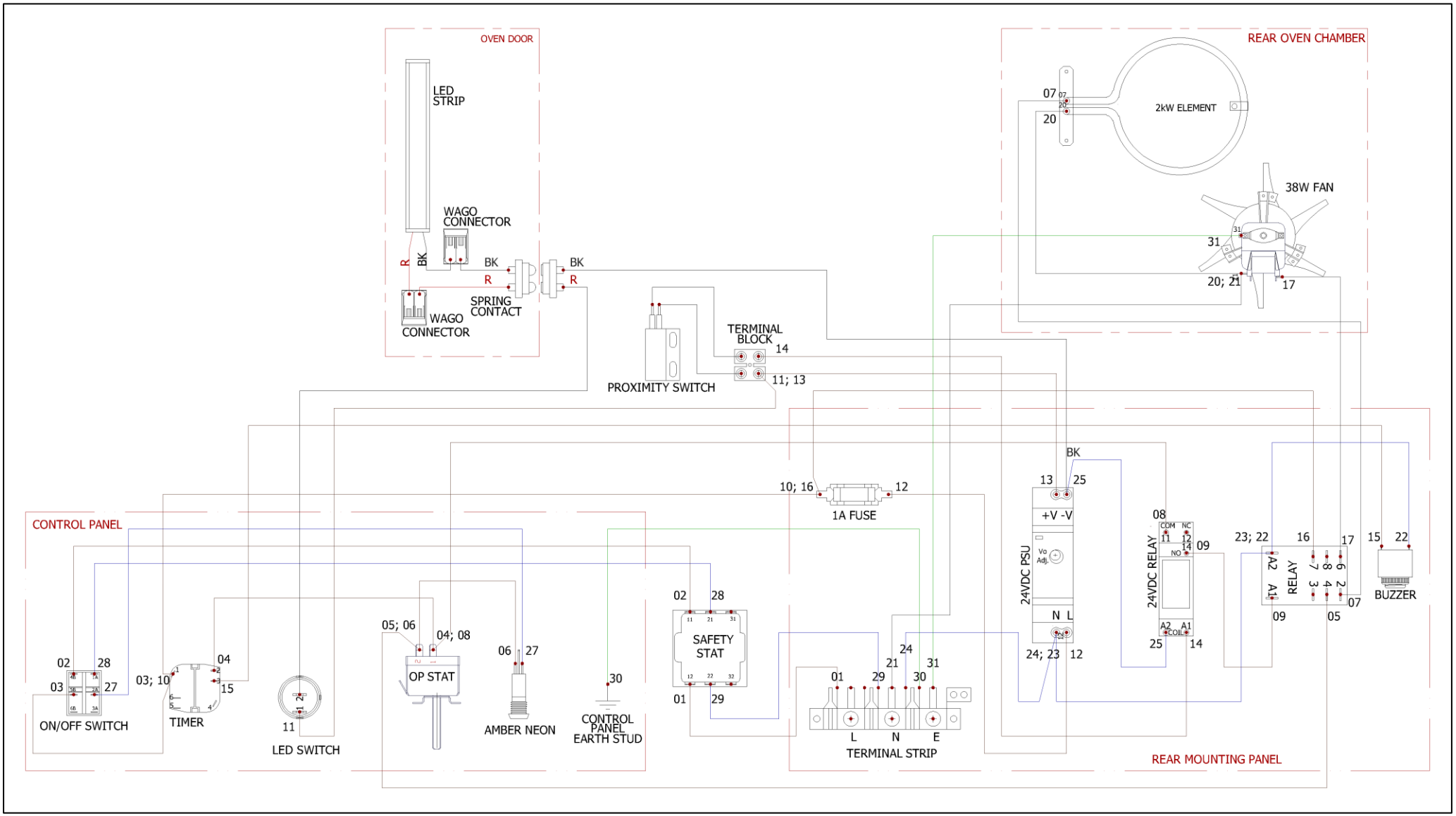


7.20.3 FE4D Circuit Diagram

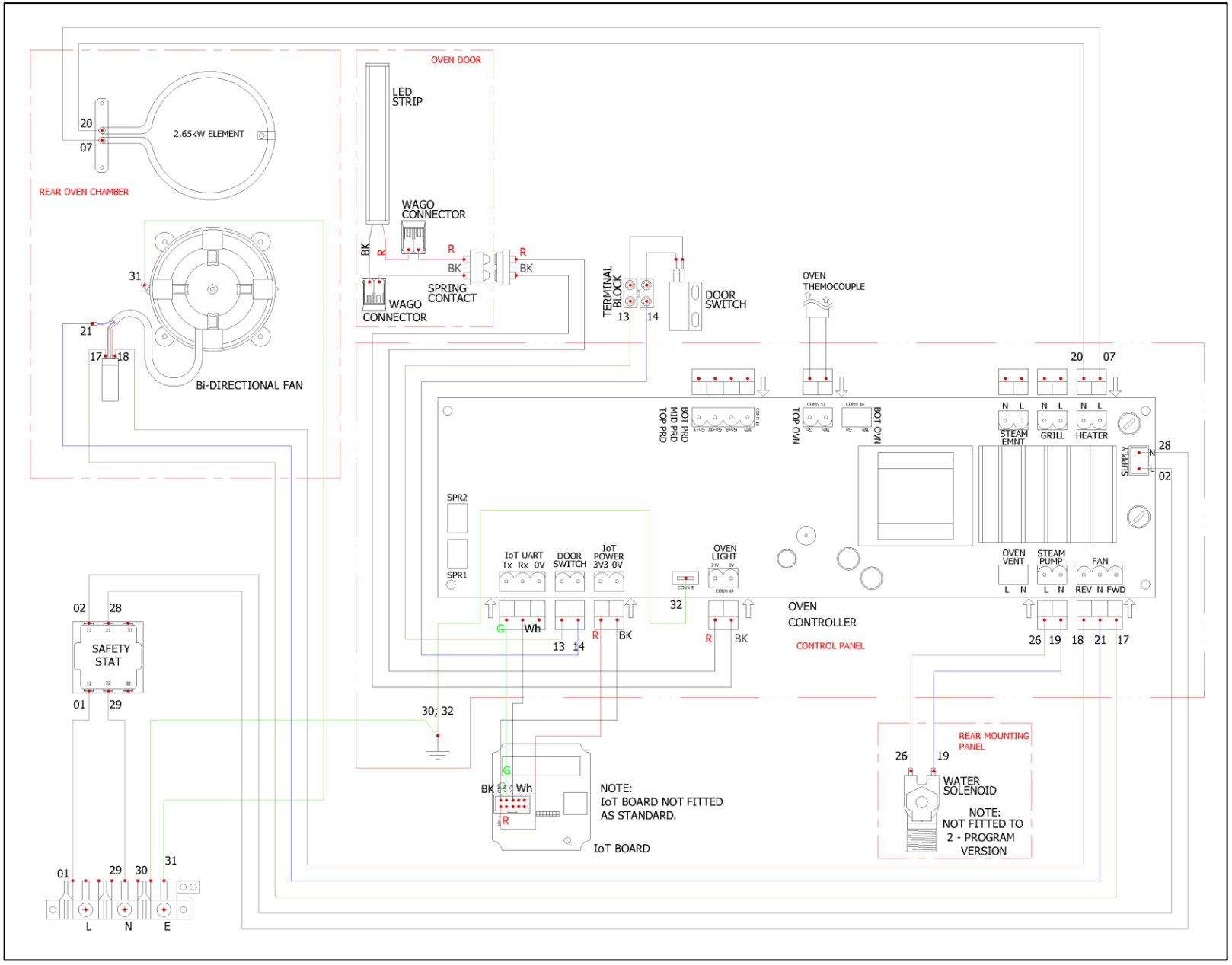


7.21 WIRING DIAGRAMS

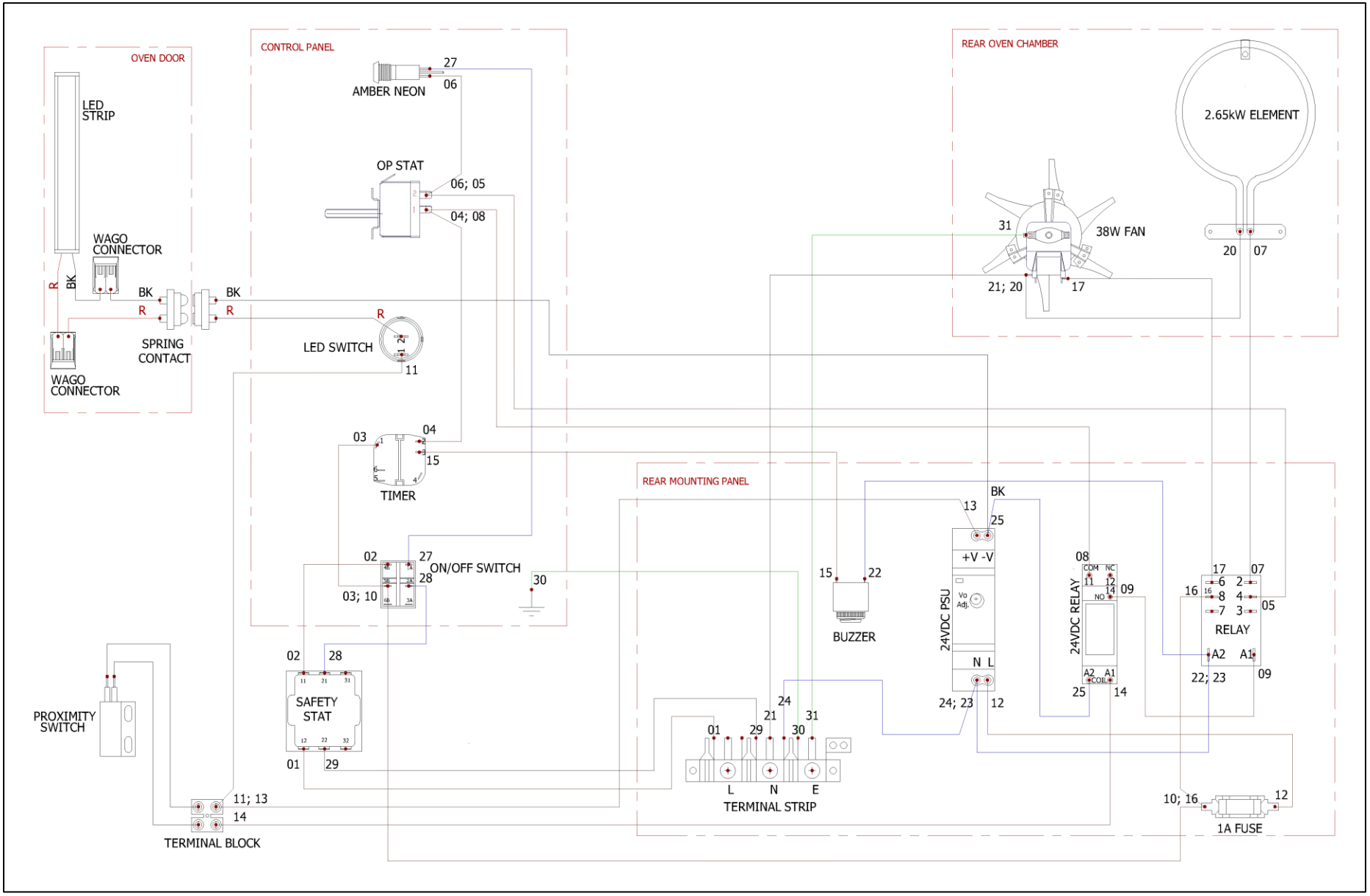
7.21.1 FE2M Wiring Diagram



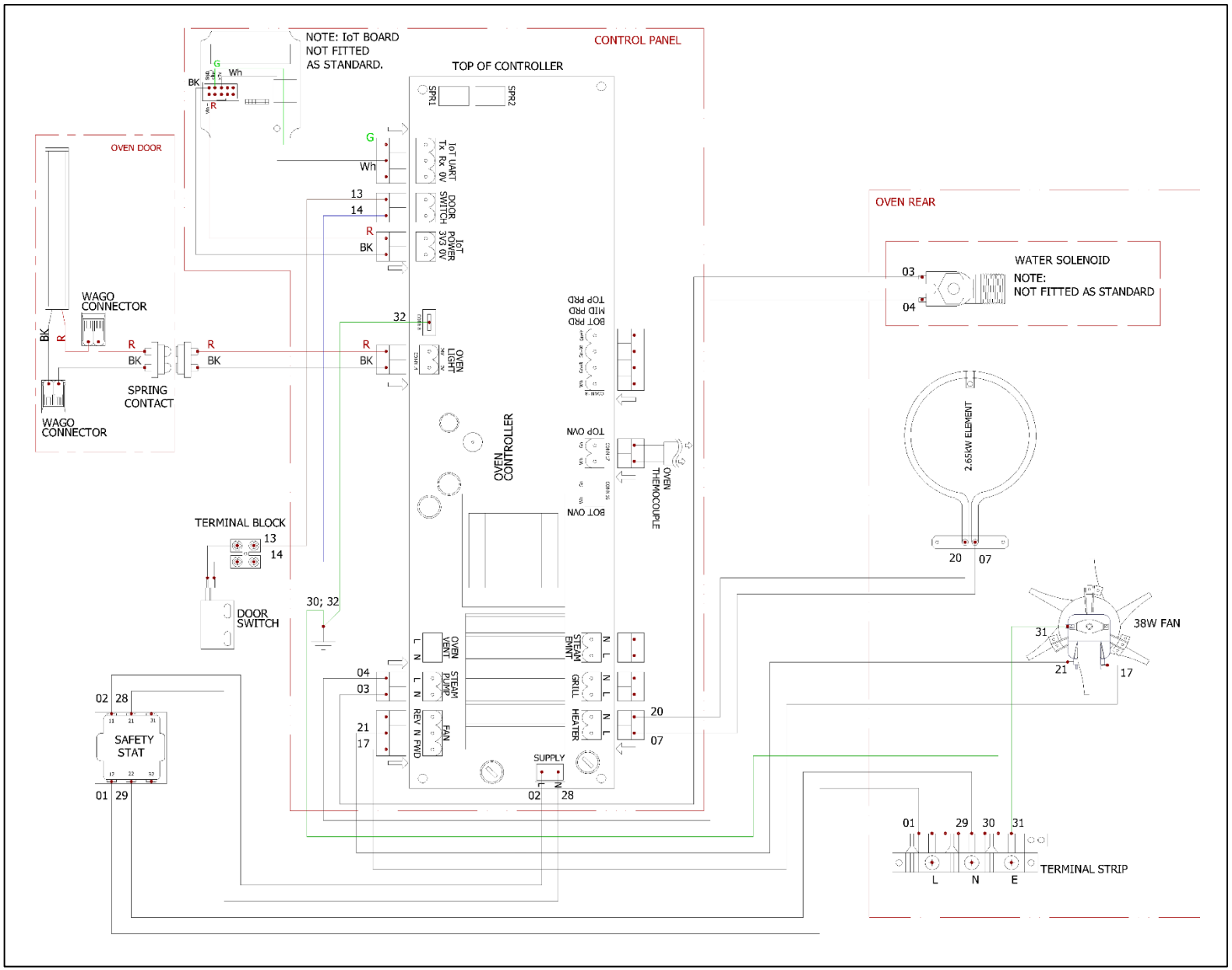
7.21.2 FE3D Wiring Diagram



7.21.3 FE4M Wiring Diagram



7.21.4 FE4D Wiring Diagram



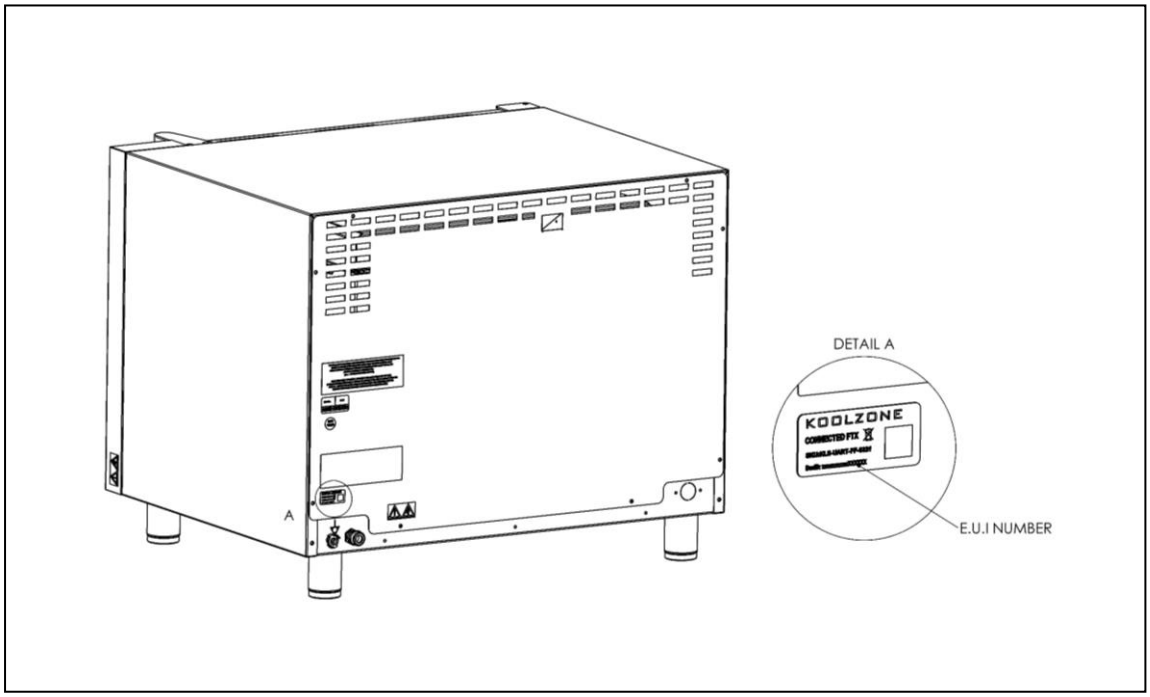
8.0 ACCESSORIES

8.1 CONNECTED KITCHEN CLOUD DATA TRANSFER

For FE3D and FE4D models with IOT option Connected Kitchen is subscription service provided by Koolzone Ltd. This option provides real time data from a Cloud based network. Oven supplied with this option is IOT ready and requires some additional steps from Koolzone to enable. For example, a site survey and LoRaWAN Gateway will be required. Please contact Koolzone Ltd on the below:

Tel: +44 3300 88 11 36
Email: info@koolzone.com
Website: www.koolzone.com

Koolzone will require the Equipment Unique Identification (E.U.I Number) for setup. This is located below data plate as shown below.



Once LoRaWAN Network has been commissioned and user account set up, a user login and password will be required.

9.0 FAULT FINDING

FAULT	POSSIBLE CAUSES	REMEDY	USER	*ENG
No Power	Fuse in plug blown	Replace fuse	✓	
		If fuse blows again		✓
	Safety thermostat tripped	Reset thermostat (refer to section 7.13)	✓	
Safety thermostat trips again	Thermostat faulty Fan motor fault	Replace faulty component(s)		✓
Not heating \ no fan rotation \ no oven light	Door not properly closed	Close door	✓	
	Proximity switch faulty	Replace proximity switch		✓
Not heating	Heating element faulty	Replace element		✓
	Relay faulty (M models)	Replace relay		✓
	Thermostat faulty	Replace thermostat (M models). Replace thermocouple (D models)		✓
No fan rotation	Oven baffle incorrectly fitted	Remove & refit baffle (refer to section 7.8)	✓	
	Fan motor fault	Replace fan motor assy.		✓
No oven light	LED strip faulty	Replace LED strip		✓
	Spring contact faulty	Replace spring contact		✓

PROBLEM	POSSIBLE CAUSES	REMEDY	USER	*ENG

***ENG** Service engineer only.

10.0 SPARE PARTS

FE2M, FE4M	FE3D, FE4D
Wire rack – 460mm wide - (FE2M)	Wire rack – 460mm wide – (FE3D)
Wire rack – 525mm wide – (FE4M)	Wire rack – 525mm wide – (FE4D)
Temperature control knob	Temperature control knob
ON/OFF switch	LED light strip - 190mm long (FE3D)
Heat demand neon amber	LED light strip - 295mm long (FE4D)
LED light strip - 190mm long	Control board – Oven controller
LED switch	Oven thermocouple
Spring contact	Spring contact
Proximity/Door switch	Proximity/Door switch
Wago connector	Wago connector
Operating thermostat	IoT board (optional)
Safety thermostat	Safety thermostat
2.00kW element - (FE2M)	2.65kW element
2.65kW element – (FE4M)	38W fan motor
38W fan motor	Fan impellor - unidirectional
Fan impellor - unidirectional	Fan impellor - bidirectional
230V ac relay	Water solenoid (optional)
24V psu	Terminal block
24V relay	
timer	
buzzer	
Terminal Strip (LNE)	
Terminal block	

When ordering spare parts please quote the following:

Model Number
Serial number

This information will be found on data plate attached to the appliance
Visit our website for further spares information.

11.0 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.