turbofan®

20DSERIES

E20D Series
(Digital Operation)

Installation and Operation Manual

turbofan
CONVECTION OVEN SYSTEMS

MOFFAT®

BLUE SEAL®

234092-1

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MANUFACTURED BY

Moffat Limited
Rolleston 7675
New Zealand

INTERNATIONAL CONTACTS

AUSTRALIA

Moffat Pty Limited
Web: www.moffat.com.au
E.Mail: vsales@moffat.com.au
Main Office: (tel) +61 (03) 9518 3888
(fax) +61 (03) 9518 3833
Service: (tel): 1800 622 216
Spares: (tel): 1800 337 963
Customer Service: (tel): 1800 335 315
(fax): 1800 350 281

CANADA

Serve Canada
Web: www.servecanada.com
E.Mail: info@servecanada.com
Sales: (tel): 800 551 8795 (Toll Free)
Service: (tel): 800 263 1455 (Toll Free)

NEW ZEALAND

Moffat Limited
Web: www.moffat.co.nz
E.Mail: sales@moffat.co.nz
Main Office: (tel): 0800 663328

UNITED KINGDOM

Blue Seal
Web: www.blue-seal.co.uk
E.Mail: sales@blue-seal.co.uk
Sales: (tel): +44 121 327 5575
(fax): +44 121 327 9711
Spares: (tel): +44 121 322 6640
(fax): +44 121 327 9201
Service: (tel): +44 121 322 6644
(fax): +44 121 327 6257

UNITED STATES

Moffat
Web: www.moffat.com
Sales: (tel): 1800 551 8795 (Toll Free)
(tel): +1 336 661 1556
(fax): +1 336 661 9546
Service: (tel): 866 673 7937 (Toll Free)
(tel): +1 336 661 1556
(fax): +1 336 661 1660

REST OF WORLD

Moffat Limited
Web: www.moffat.co.nz
E.Mail: export@moffat.co.nz

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Contents List

E20D Series Turbofan Convection Ovens.

Model Numbers Covered in this Manual

E23D3 - Turbofan Oven - 3 Tray Convection Oven.
E27D2 - Turbofan Oven - 2 Tray Convection Oven.
E27D3 - Turbofan Oven - 3 Tray Convection Oven.
E28D4 - Turbofan Oven - 4 Tray Convection Oven.

Introduction **2**
Safety Information

Specifications **3**

Installation **6**
Installation Requirements
Unpacking
Location
Clearances
Stand Mounted Ovens
Electrical Connection
Ovens Supplied with Cordsets
Ovens Supplied without Cordsets
Water Connection
Recommended Water Specifications
Positioning and Levelling of Oven
Initial Start-Up

Operation **8**
Description of Controls
Manual Mode
Steam Mode
Cooking in Manual Mode
Cooking in Program Mode

Programming **13**

Controller Operator Settings **16**
Changing Operator Settings
Operator Settings Table

Cleaning and Maintenance **17**
Cleaning Guidelines
Oven Cleaning
Periodic Maintenance

Fault Finding **19**

Electrical Schematics **20**

Replacement Parts List **23**

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Introduction

Before using your new oven, please read this instruction manual carefully, pay particular attention to any information labelled **'WARNING'**, **'CAUTION'**, **'IMPORTANT'** or **'NOTE'** in this manual.

Warning — **Indicates a hazardous situation which, if not avoided, will result in death or serious injury.**

Caution — **Indicates a hazardous situation which, if not avoided, will result in minor or moderate injury.**

If you are unsure of any aspect of the installation, instructions or performance of your oven, contact your TURBOFAN dealer promptly. In many cases a phone call could answer your question.

Should you contact your TURBOFAN dealer on any matter concerning this oven, please have the information provided opposite, readily available.

This manual must be kept by the owner for future reference.

A record of the ***Date of Purchase, Date of Installation*** and ***Serial Number of the oven*** should be recorded in the area provided below.

The serial number of this oven can be found on the Technical Data Plate located on the front right hand side panel, see diagram in 'Installation Section'.

Model Number:

Serial Number:

Dealer:

Service Provider:

Date Purchased:

Date Installed:

Safety Information

For your safety, please pay attention to the following symbols marked on the appliance.

- Risk of electric shock.

No user serviceable parts inside.

Qualified service person access only.

Disconnect from power before servicing.

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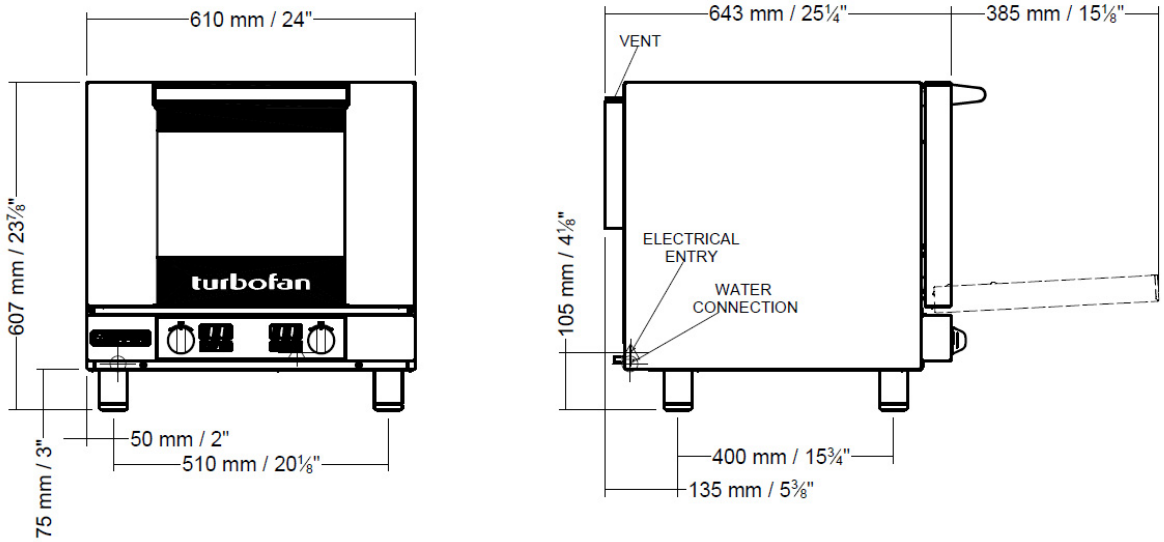
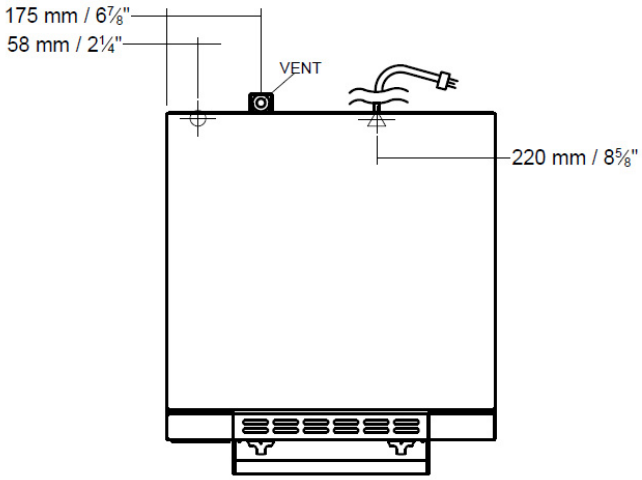
E23D3





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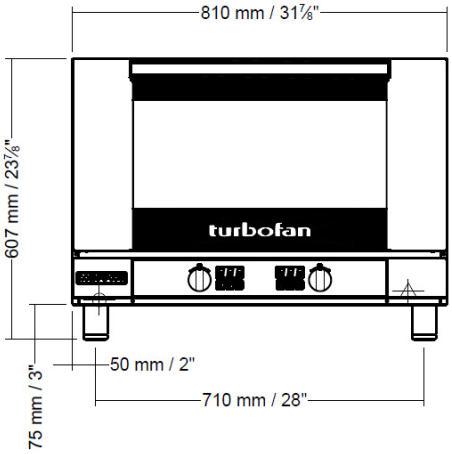
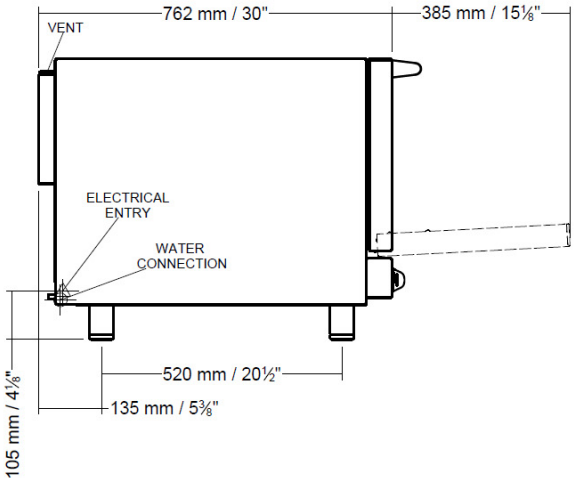
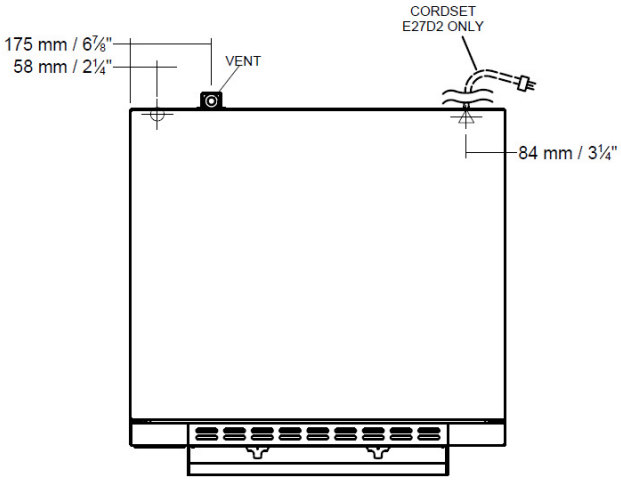
E27D2 / E27D3







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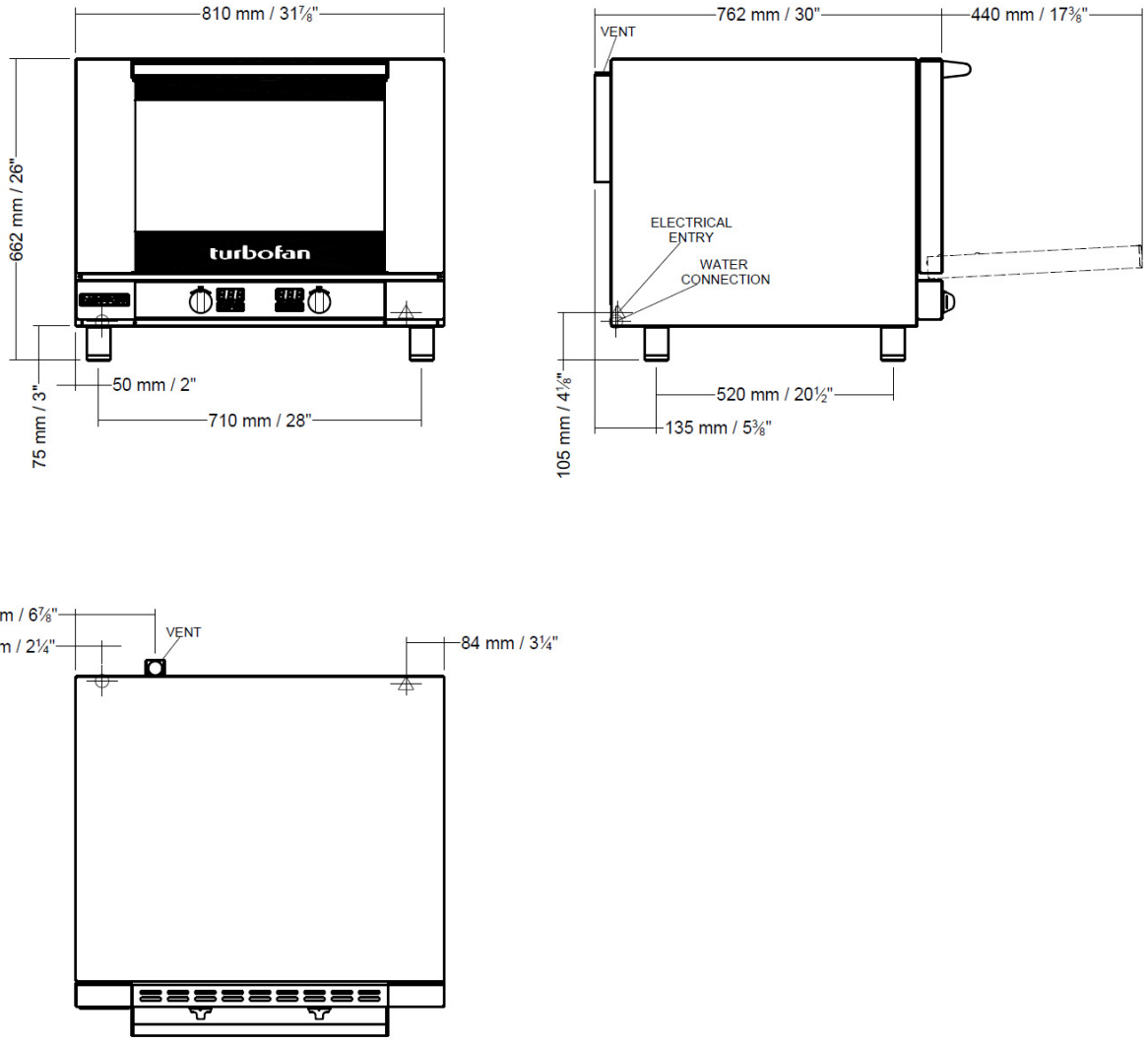
Specifications

E28D4



Oven Specifications Tables:-

Oven Power Ratings		
E23D3	208V, 220V, 230-240V,	1P+N+E, 50-60 HZ, 2.7 kW 1P+N+E, 50-60 HZ, 3.0 kW 1P+N+E, 50-60 HZ, 3.0 kW
E27D2	208V, 220V, 230-240V,	1P+N+E, 50-60HZ, 2.7kW 1P+N+E, 50-60HZ, 3.0kW 1P+N+E, 50-60HZ, 3.0kW
E27D3	208V, 220V, 230-240V,	1P+N+E, 50-60HZ, 4.2kW 1P+N+E, 50-60HZ, 4.7kW 1P+N+E, 50-60HZ, 4.7kW
E28D4	208V, 220V, 230-240V,	1P+N+E, 50-60HZ, 5.4kW 1P+N+E, 50-60HZ, 6.0kW 1P+N+E, 50-60HZ, 6.0kW

Oven Tray Details		
	Tray Capacity	**Tray Spacing**
E23D3	3 x EN $^{2}/_{3}$ Tray 3 x US ½ Pan	85mm / 3 $^{1}/_{3}$"
E27D2	2 x EN 600 x 400mm Tray 2 x US Full Pan	110mm / 4 $^{1}/_{3}$"
E27D3	3 x EN 600 x 400mm Tray 3 x US Full Pan	85mm / 3 $^{1}/_{3}$"
E28D4	4 x EN 600 x 400mm Tray 4 x US Full Pan	76mm / 3 "

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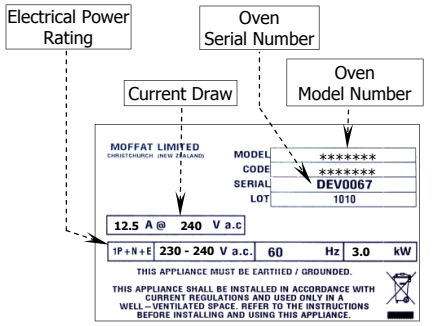
Installation Requirements

Important:

- **Installation shall comply with local electrical, health and safety requirements.**
- **It is most important that this oven is installed correctly and that oven operation is correct before use.**
- **If you have any questions regarding the proper installation and / or operation of this oven, please contact your local Turbofan distributor.**



Technical Data Plate - Data and Location (example only)

Unpacking

1. Remove all packaging and transit protection including all protective plastic coating from the exterior stainless steel panels.
2. Check the oven and supplied parts for damage. Report any damage immediately to the carrier and distributor.
3. Check that the following parts have been supplied with your oven:-

   4 x Leg Adjustable.
   Brass Adaptor.
   Rubber Washer. } **USA / Canada / Mexico only.**

4. Report any deficiencies to the distributor who supplied your oven.
5. Securely fit the 4 legs supplied with the oven.
6. Check that the available electrical supply is correct to that shown on the Technical Data Plate located on the front right hand side panel.

   - **Refer to 'Specifications' section, 'Oven Specifications Tables'.**

Location

1. Position the oven in its approximate working position.
2. The unit should be positioned so that the control panel and oven shelves are easily reachable for loading and unloading.

Clearances

To ensure correct ventilation for the motor and controls, the following minimum installation clearances are to be adhered to:-

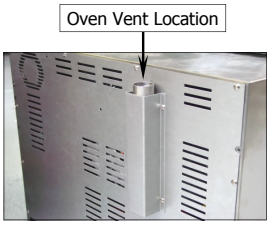
Top	200mm / 8".
Rear	25mm / 1".
Left-hand side	25mm / 1".
Right-hand side	25mm / 1".

CLEARANCE FROM SOURCE OF HEAT.

A minimum distance of 300mm (12") from the appliance sides and rear is required.

Important:

The vent located at the rear of the oven must NOT be obstructed.



Stand Mounted Ovens

For ovens that are to be mounted to a stand, the oven feet are used to level the oven on the stand. Refer to the instructions supplied with separately ordered stands for mounting details.

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Electrical Connection

Warning

This oven must be earthed / grounded.

If the supply cord is damaged, it must be replaced by a suitably qualified person in order to avoid a hazard.

Each oven should be connected to an adequately protected power supply and an isolation switch mounted adjacent to, but not behind the oven and must be readily accessible to the operator. This switch must be clearly marked and readily accessible in case of fire.

Check the electricity supply is correct to as shown on the Technical Data Plate on front right hand corner of oven side panel.

Ovens Supplied with Cordsets

Ensure that the oven is fitted with the appropriate power cord and plug.

Ovens Supplied without Cordsets

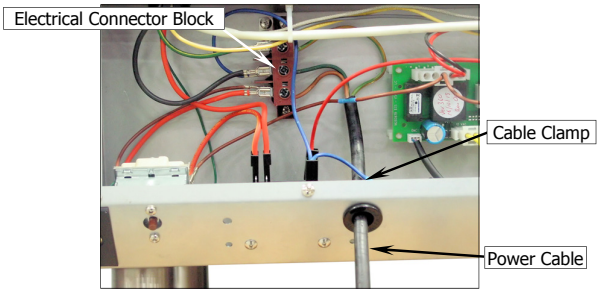
NOTE: All electrical connections must only be carried out by a suitably qualified person.

1. Remove oven rear cover panel.
2. Bring the supply cable up through the grommet at rear of oven.
3. Connect the mains supply to the appropriately marked terminals on the terminal block.
4. Fit cable into cable clamp and tighten clamp.

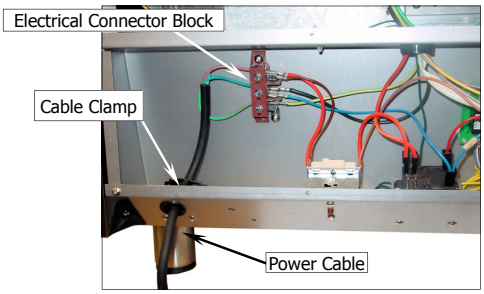
L1 Phase	L2 Neutral	Ground
RED — BLACK		GREEN GREEN/YELLOW
BROWN — BLUE		
BLACK — WHITE		

WARNING: THIS APPLIANCE MUST BE GROUNDED / EARTHED

E23D Ovens.



E27D / E28D Ovens.



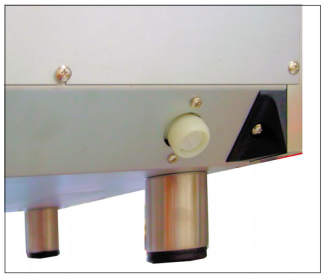
NOTE:

- **Fixed wiring installations must incorporate an all-pole disconnection switch.**

Water Connection

NOTE: If the Steam Mode cooking option is not required, the oven does not need to be connected to a water supply.

1. Connect a cold water supply to the water inlet (R ¾" Connector) at the rear of the oven.



- Max Inlet Pressure 80psi / 550kPa.

2. Turn 'On' the water supply and check for leaks.

Recommended Water Specifications

In order to prevent corrosion or scaling in the oven and water system due to supplying water that is either too soft or too hard, the following recommendations should be used as a guideline.

Hardness:	**Between 60 and 90ppm.**
PH:	**Greater than 7.5.**
Chlorides:	**Less than 30 ppm.**

Positioning and Levelling of Oven

Correctly locate the oven into its final operating position and using a spirit level, adjust the oven legs so that the oven is level and at the correct height.

Initial Start-Up

Before using the new oven;

1. For first time use of the oven, operate the oven for about one hour at 200°C / 400°F to remove any fumes or odours which may be present.
2. Please refer to the Operation Section of this manual for details on how to correctly operate and shutdown the oven.

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Description of Controls

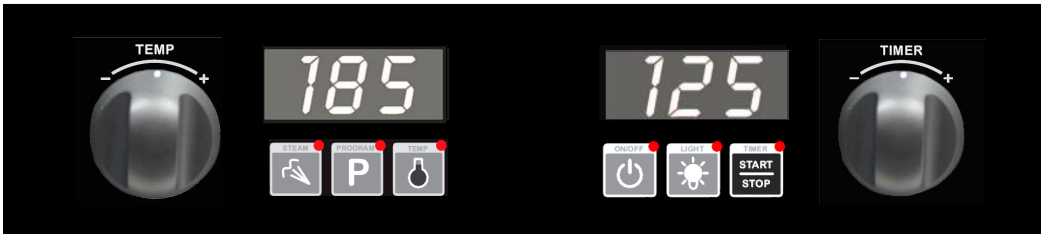
Warning

Some parts of this oven will become VERY HOT during use and could cause burns if touched.

Warning

Take care when opening the oven door during baking. Let the hot air and steam escape before removing or replacing food as the steam produced can cause steam burns.

- This oven is intended for use in a commercial kitchen and must only be put to the use for which it was intended, i.e. cooking food product. To use this oven correctly please read the following sections carefully:-



Temp Knob

Temp knob is used;
To adjust the settings shown on the Left Display.

Timer Knob

Timer knob is used;
To adjust the settings shown on the Right Display.

Left Display
Manual Mode;- shows set oven temperature.
When used with 'Temp' Key, display shows Actual Oven Temp for 5 seconds.

Program Mode;- shows program number.
When used with the 'Temp' key, display shows set and actual oven temperature for 4 seconds.

'Steam' Key and LED
Press Steam Key to initiate steam injection.
LED is illuminated during steam injection.

'Program' Key and LED
Press Program Key to access Program Mode.
LED is illuminated whilst in Program Mode.

'Temp' Key and LED

In Manual Mode;- Press Temp Key to display oven actual temperature.
LED flashes when showing actual temp.

In Program Mode;- Press Temp Key to display oven set and actual temperature.
LED flashes when showing set and actual temp.

LED remains 'On' when heating element is 'On' (Heating Indicator).

Right Display
Shows cook time.

'On/Off' Key and LED
Press the 'On/Off' key once to turn the oven 'On'.
Press and hold 'On/Off' key for 1.5 seconds to turn the oven 'Off'.
LED is illuminated when oven is 'Off' (Stand-by).

'Light' Key and LED
Press to switch oven lights 'On/Off'. LED is 'On' when oven light is 'On'.
Refer to Section 'Controller Operator Settings' for 'Light Auto-Off' settings.

NOTE: Oven light will turn 'On' (overriding 'Auto-Off' setting) whenever a timer is running.

'Timer-Start / Stop' Key and LED
Press the 'Timer-Start/Stop' key once to start the timer.
Press and hold the 'Timer-Start/Stop' key for 3 seconds to cancel the timer.
LED is illuminated whilst timer is running.

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Manual Mode

In Manual Mode the oven settings are.

- Temperature - 60-260C / 140-500F.
- Timer - 0-180min or Infinite.
- Steam - St0 - St5.

Program Mode

In Program Mode 20 Programs can be programmed.
Up to 3 cooking stages can be set in each of the programs.
In each stage the following settings are possible.

- Temperature - 60-260C / 140-500F.
- Time - 0-180min or Infinite.
- Steam - St0 - St5.
- End of stage alarm - On / Off.

Steam Mode

The steam function can be used in two different ways.

The 'Operator Setting' **StE** determines the function.
(Refer to the 'Controller Operator Settings' section for details on how to change the settings).

- With **StE = 0**, the steam key operates as a momentary key, steam is injected into the oven for as long as the key is pressed. **This is the Default Setting.**
- With **StE = 1** to **5**, the steam key will start a sequence of steam pulses, with 1 to 5 being the number of pulses.

  Additionally, with **StE = 1** to **5**, the steam level setting can be quickly changed by holding the steam key for three seconds and choosing level **St1** to **St5**.

In Program Mode:

Each stage of a program can be set to steam level **St0** to **St5**.

Steam level **St0** means that there is no automatic steaming in the program / stage. Steam can be manually injected at any time during program cooking.

Steam levels **St1** to **St5** means the program / stage starts with a sequence of steam pulses. Steam can be manually injected at any time after the automatic steaming is finished.

If **StE = 0**: Hold steam key for steam.

If **StE = 1 to 5**: Press steam key to start a steam sequence.

Quick access to levels **St1** to **St5** is also available when in Program Mode when **StE = 1 to 5**.

For more information on setting steam levels in programs, refer to the 'Programming' section of this manual.

In Manual Mode / Cooking with Timer:

Steam can be injected at any time.

If **StE = 0**: Hold steam key for steam.

If **StE = 1 to 5**: Press steam key to start a steam sequence.

NOTE: When using the steam functions, if the Oven Temperature is BELOW 100°C (212°F), water may pool in oven as temperature will be too low to create steam.

(Steam Mode is available by default - to disable the Steam Mode, enter the 'Operator Settings' and change the enable steam function **ESt** to **'no'.**
Refer to section 'Controller Operator Settings' for further details).

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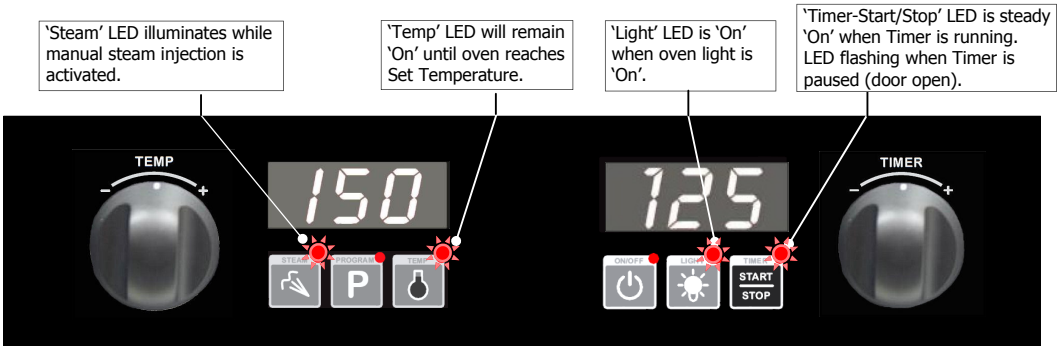
Cooking in Manual Mode

On oven start-up the controller defaults to the following settings:-

Oven Temperature is set to 150°C (325°F). *Refer 'Controller - Operator Settings' section to change default start-up temperature.*
Oven Timer is not set, display shows **' - - -'**.
Steam Level (St0 to St5) is set to the last used level.



1. SET OVEN TEMPERATURE.

Press 'On/Off' key to turn 'On' the oven.
Rotate 'Temp' knob to select temperature required.
+ to increase the temperature (Max. 260°C / 500°F).
- to decrease the temperature (Min. 60°C / 140°F).

The oven will commence heating to the displayed set temperature and 'Temp' LED will be 'On'.

NOTE: The oven can be used without using the timer.

2. SET TIMER.

Rotate 'Timer' knob to select time required.
+ to increase the time (Max. 180 minutes).
- to decrease the time (Min. 1 minute).

NOTE: Timer can be set to 'Infinite' **. If timer is set to 'Infinite', timer will count elapsed time to a max of 999 minutes and elapsed time will be shown on the right hand display.**

3. STARTING TIMER.

Press 'Timer-Start/Stop' key to start timer operation. LED will illuminate to indicate the timer is running and timer will start counting (down if a time has been set on the timer) (elapsed time if '**InF**' has been set on the timer).
Opening oven door when timer is operating will pause timer and turn 'Off' fan and heating. Timer LED will flash and '**dor**' will be shown in the right hand display.
Press and hold 'Timer-Start/Stop' key for 3 seconds to cancel timer. 'Timer-Start/Stop' LED will turn 'Off'.

4. STEAM INJECTION.

Press 'Steam' key to initiate steam injection.

NOTE: Refer to 'Steam Mode' settings at start of this section, for additional explanation of steam level adjustments.

5. CANCELLING 'TIME UP' ALARM (COOKING TIME COMPLETED).

When the set Cooking Time is completed, alarm will sound and Timer 'Start/Stop' LED flashes.

- Press 'Timer-Start/Stop' key to cancel alarm, oven will continue cooking at Oven Set Temperature. Display will revert to Set Temperature and Time, 'Timer-Start/Stop' LED will turn 'Off'.
- Alternatively, open oven door to cancel alarm.

Close oven door to resume cooking at Oven Set Temperature. Display will revert to Set Temperature and Time.

NOTE: Any of the above settings can be adjusted, during the cooking operation, by using the above controls and keys.

- **Viewing Actual Oven Temperature.** Press 'Temp' key during cooking, Oven Actual Temperature will display on left hand display and 'Temp' LED flashes for 5 seconds, then left hand display will revert to displaying Oven Set Temperature.

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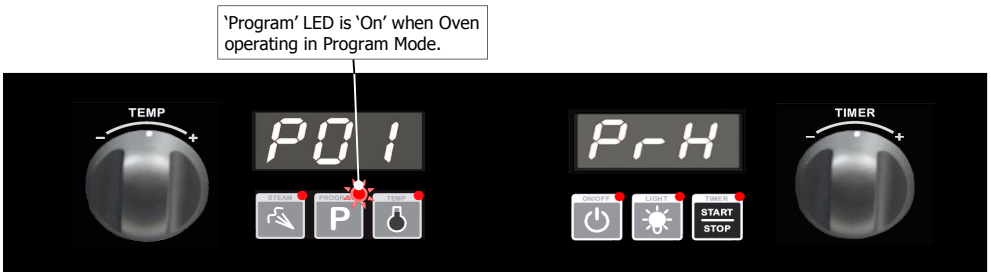
Cooking in Program Mode

The oven can be pre-programmed with up to 20 Programs; each program can contain a maximum of 3 stages. When you receive your oven, the controller is not pre-programmed. Refer to next section, '*Programming*' to learn how to set oven programs.
NOTE: Multi-stage programming is enabled by default. If you do not plan to use multi-stage cooking, change the operator setting 'StG' to 'no' (refer to section 'Controller Operator Settings'). This simplifies program-related features of the oven.



1. SELECTING A PROGRAM.

Press 'On/Off' key to turn 'On' the oven.
Press 'Program' key.

Left Display will show program number selected.

+ to scroll forward through programs.
- to scroll backward through programs.

Right Display will show PrH, oven is 'Pre-Heating', or rdy if oven is already up to temperature. (If display shows **'- - -'**, a time has not been programmed and the oven will not preheat.
Program cannot be started until pre-heating is completed.

2. OVEN READY.

Right Display will show rdy when oven is up to pre-heat temperature and an alarm will sound.

Load product into oven.

3. START A PROGRAM.

Press 'Timer-Start/Stop' key to start cooking program.

During Program Operation the Left and Right Displays will show the following:-

- Left Display shows Program Number, e.g. P01
- Right Display will show either,
  - Total Time Remaining in Program.

OR

  - Total Elapsed Time of Program (if any Program Stages are set to InF).

Pressing and holding 'Timer-Start/Stop' key for 3 seconds will cancel the program.

4. STEAM INJECTION

If automatic steam injection has been set for the Stage / Program, the steam sequence will start after a short delay. The 'Steam' LED will be 'On' during preheating and when a program is selected in 'Program' Mode. The 'Steam' LED will turn 'Off' when automatic steam is finished.

For additional steam injection whilst a program is running, press the 'Steam' key. The steam level set in Manual Mode will be available. i.e. hold steam key for steam if **StE =0** or press Steam key for steam sequence if **StE =1 to 5**.

NOTE: Refer to 'Steam Mode' settings at start of this section, for additional explanation of steam level adjustments.

5. ACKNOWLEDGING AN 'END OF STAGE' ALARM (IF SET).

If a stage alarm has been set, an alarm will sound at completion of the stage and the program is paused.

- Press 'Timer-Start/Stop' key, when ready, to progress to next stage.

OR

- The program will progress to the next stage after 1 minute.

6. CANCELLING A PROGRAM 'TIME UP' ALARM (COOKING TIME COMPLETED).

When program is completed, the alarm will sound.

- To cancel the alarm, press 'Timer-Start/Stop', oven will continue cooking at Oven Set Temperature. Displays will revert to Program Number (Left Display) and **'rdy'** or **'PrH'** (Right Display).
- Alternatively, open oven door to cancel alarm and turn 'Off' fan and heating.

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Cooking in Program Mode (Continued)

Viewing / Adjusting Temperature During Program Cooking.

- **VIEWING ACTUAL OVEN TEMPERATURE**

Press 'Temp' key during cooking. Oven Set Temperature will display on Left Display for 2 seconds, then Actual Temperature will display on Left Display for 2 seconds. Display will revert to displaying the program number after 4 seconds.

- **VIEWING SET TEMPERATURE**

Turn 'Temp' knob (in either direction) to display Set Temperature of Current Stage on Left Display. Display will revert to displaying the current program number after a 5-second delay.

- **ADJUSTING SET TEMPERATURE**

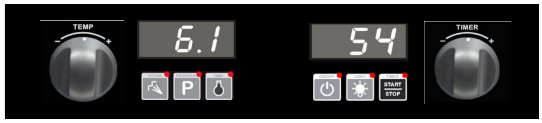
Hold 'Temp' knob in either direction for 3 seconds to enter 'Temp Edit Mode' where 'Temp' knob can be used to temporarily adjust temperature for the current stage. Controller will update the Temperature and exit 'Temp Edit Mode' after a 5-second delay.

Here Oven Set Temperature has been increased from 150 to 175°C (325 to 350°F).

Viewing / Adjusting Time During Program Cooking.

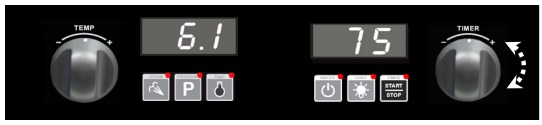
- **VIEWING STAGE NUMBER AND REMAINING TIME**

Turn 'Timer' knob (in either direction), or press 'Program' Key to display Current Stage-in-Progress (Stage, Stage Time Remaining). Displays will revert to displaying program number and time after a 5-second delay.



- **ADJUSTING REMAINING TIME**

Hold the 'Timer' knob in either direction for 3 seconds to enter 'Timer Edit Mode' where 'Timer' knob can be used for temporary adjustment of Stage Time remaining.
The controller will update the value and exit 'Timer Edit Mode' after a 5-second delay.



Here Time has been increased from 54 minutes to 75 minutes.

Time remaining can be adjusted between 0-180 minutes, but cannot be set to 'InF'.

- **ADDING MORE TIME TO A STAGE WHEN THE END OF STAGE ALARM IS SOUNDING.**

At the end of a stage, provided that 'ALr'=On, an end of stage alarm will sound for 1 minute before automatically progressing on to the next stage of the program. While alarm is sounding, additional cooking time can be added to the stage if required.

Rotate and hold 'Timer' knob for 3 seconds to enter Timer Edit Mode and add time to the stage.
When the additional length of time required is displayed.

Press 'Timer-Start/Stop' key to resume the stage,

NOTE: Any changes will only apply to the current stage. Following stages will revert to the programmed settings. Changes made to a program while it is running will not be saved.

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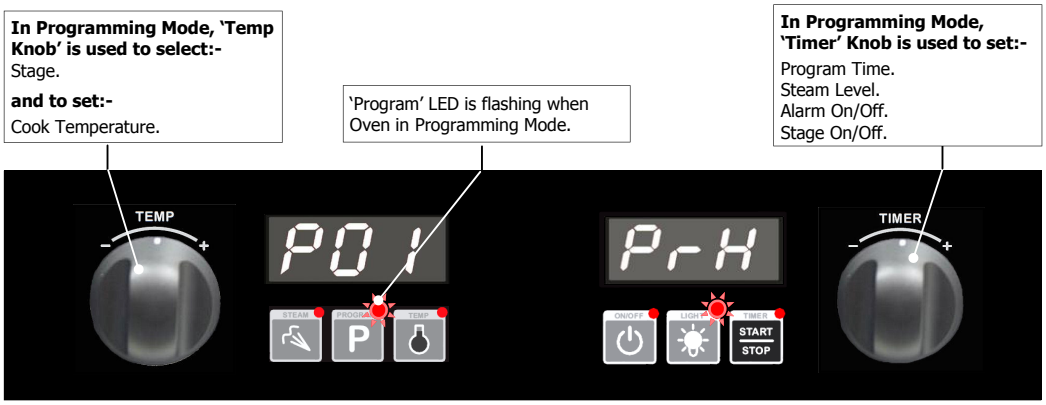
Programming Mode

The oven can be pre-programmed with up to 20 Programs; each program can contain a maximum of 3 stages. When you receive your oven, the controller is not pre-programmed. To set new programs or modify existing programs, carry out steps 1-10 in this section.

NOTE: Multi-stage programming is enabled by default. If you do not plan to use multi-stage cooking, change the operator setting 'StG' to 'no' (refer section 'Controller Operator Settings'). This simplifies program-related features of the oven.



1. SELECT PROGRAM MODE.

Press 'Program' key to enter Program Mode.
'Program' LED will illuminate.

2. SELECT PROGRAM REQUIRED (P01 - P20).

Rotate 'Temp' knob to the program required.
Left Display will show program selected.

3. ENTER PROGRAMMING MODE.

Press and hold 'Program' key until a beep is heard, indicating entry into Programming Mode.

- If Multi-Stage Cooking enabled; Left Display shows program and stage numbers eg. 3.1 = Program 3, Stage 1.
- If Multi-Stage Cooking disabled; Left Display shows program numbers eg. P03 = Program 3, Stage 1.

'Program' LED will flash whilst in Programming Mode.

4. SELECT STAGE TO PROGRAM.

All active stages and the first inactive stage are visible and can be accessed by rotating the 'Temp' knob to scroll through the stages. When editing a program for the first time, only the first stage will be visible and it will be 'Off' by default.

Press 'Program' key to begin editing the program and stage displayed on the Left Display.

5. SET OVEN TEMPERATURE.

Left Display flashing

Rotate 'Temp' knob to select temperature required.

+ to increase the temperature (Max. 260°C / 500°F).
- to decrease the temperature (Min. 60°C / 140°F).

Press 'Program' key to confirm temperature setting. Controller will step to Cook Time setting.

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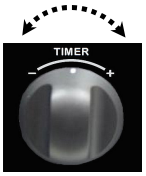
6. SET COOK TIME.

Right Display flashing

Turn and Release Timer Knob to change selection.

Hold Knob to Fast Forward / Fast Reverse.



- - - = No time set and Stage is 'OFF'.

InF = Infinite Time Setting.

Time = From 1 minute to 180 minutes.

Rotate 'Timer' knob clockwise to select time required.

'+' to increase Cook Time (Max. 180 minutes).

'-' to decrease Cook Time (Min. 1 minute).

Select 'InF' for infinite cooking time.

- **By setting Infinite Time setting ('InF'),** Oven counts time upwards up to a limit of 999 minutes. The Infinite ('InF') timer option is only available as an option when setting the last stage of a program. If the 'InF' timer option is programmed, no stages after the 'InF' stage will be available / visible. Turn 'Off' all stages that come after a given stage in order to set an 'InF' timer for that stage.

Press 'Program' key to confirm Timer setting, controller will step to steam level setting.

7. SET STEAM LEVELS (St0 - St5).

*Left Display shows St *.

Right Display flashing

Rotate 'Timer' knob to select Steam level required.

'+' to increase steam level (Max 5).

'-' to decrease steam level (Min 0).

(Refer to the Operation section, 'Steam Mode', for additional explanation of steam level settings).

Press 'Program' key to confirm steam level setting. Controller will step to 'End of Stage Alarm' setting.

8. SET 'END OF STAGE' ALARM ('ON-OFF').

*Left Display shows AL r *.

Right Display flashing.

Rotate 'Timer' knob to select 'End of Stage' alarm state required.

'+' = 'ON' - Alarm will sound at completion of cooking stage, program is paused awaiting user action. Refer to 'Operation' section, 'Cooking in Program Mode' - 'Acknowledging an End of Stage Alarm'.

'-' = 'OFF' - Oven will continue on to the next cooking stage without sounding an alarm.

NOTE: Regardless of the setting applied to the last stage of the program, a program 'Time Up' Alarm will sound to indicate the end of the program.

Press 'Program' key to confirm alarm option. A beep will sound to confirm that all stage parameters have been set.

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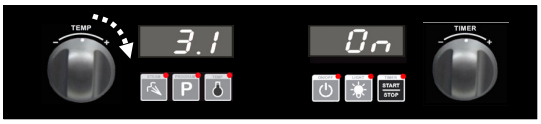
9. TURN STAGES 'ON / OFF'.

- **To Turn a Stage 'On'.**
  Either - Rotate 'Timer' knob clockwise to select 'On'.
  Or - Press 'P' key and program stage settings.

(Setting a time for a stage automatically changes its state to 'On').

Program 3, Stage 1. - STATE: ON.



Program 3, Stage 2. - STATE: ON.

- **To Turn a Stage 'Off'.**
  Rotate 'Timer' knob anti-clockwise to select 'Off'.

Program 3, Stage 3. - STATE: OFF (ie; Inactive).

NOTE: Only the last active ('On') stage can be turned 'Off'.

Rotate 'Temp' knob:-

'+' to advance one stage.
'-' to go to the previous stage.

Repeat Step 1 to Step 9 to program additional stages.

10. EXIT PROGRAMMING MODE.

Press and hold 'Program' key for 3 seconds until a beep sounds to exit the Programming Mode.

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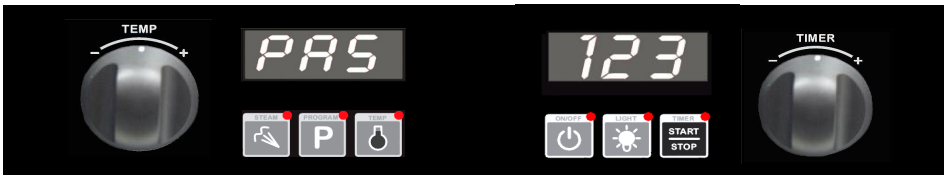
Changing Operator Settings

NOTE: Oven must be in 'Stand-By' Mode to access operator settings (i.e. Power to oven but both displays are blank and 'On/Off' LED is 'On').



1. ENTERING THE OPERATOR SETTING MODE.

Press and hold 'Steam' and 'Timer-Start/Stop' keys together for 3 seconds.

Left Display will show PAS.

Right Display will flash 000 .

2. ENTERING PASSWORD (OPERATOR PASSWORD - 123).

Rotate 'Timer' knob to enter password 123 .

Press 'Light' key to confirm password.

Left Display will show one of the operator settings, eg. PrH

Right Display will show the value of the setting, eg. 185

3. CHANGING THE SETTINGS.

Rotate 'Timer' knob to reach the setting to be adjusted.

Press 'Light' key to confirm setting to be adjusted. Right Display will flash.

Rotate 'Timer' knob to select value required.

Press 'Light' key to confirm value. Right Display will stop flashing.

See below for a list of Operator Settings available

4. EXITING THE OPERATOR SETTING MODE.

Press 'On-Off' key, to exit the Operator Settings Mode and to return to Stand-By Mode.

Operator Settings Table

Setting	Description	Value Range	Default Value
PrH	**Oven Pre-Heat** - Automatic Pre-Heat Temperature on oven start-up.	**60 - 260°C (140 - 500°F)**	**150°C (325°F)**
L-0	**Light Auto 'Off' Setting Time -** 0 = Light turned off manually (No Auto Off). 1 = 1 minute auto 'Off'. 2 = 2 minutes auto 'Off', etc.	**0 - 60 mins**	**2**
ESt	**Enable Steam -** Activates / deactivates steam-related features.	**'YES' or 'no'**	**YES**
uoL	**Alarm Volume -** Can be adjusted to suit operators preference.	**0 - 10**	**5**
PrE	**Program Pre-Heating Condition -** Increases Pre-heating 'Ready' Temperature above Program Set Temperature in 'Program' Mode to allow for heat loss when loading oven.	**0 - 30°C 0 - 54°F**	**0**
StG	**Multi-Stage Enable -** Activates / de-activates multi-stage programming.	**'YES' or 'no'**	**YES**
StE	**StE = 0** Steam Key operates as a momentary key, steam is injected into oven for as long as the key is pressed. **StE = 1 - 5** Steam Key will start a sequence of steam pulses from 1 to 5.	**0 - 5**	**0**

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Cleaning Guidelines

Caution

Always turn off the electrical power supply at the mains supply before commencing cleaning.

This oven is not water proof. Do not use water jet spray to clean interior or exterior of the appliance.

To achieve the best results, cleaning must be regular and thorough. If any small faults occur, have them looked at promptly. Don't wait until they cause a complete breakdown.

NOTE:

- **Carefully read and follow the safety instructions on the label of the cleaning product to be used.**
- **DO NOT use harsh abrasive scouring pads or abrasive detergents as they could damage the oven.**
- **Ensure that any detergent or cleaning material has been completely removed after each cleaning.**

To keep your oven clean and operating at peak efficiency, follow the procedures shown below.

Oven Cleaning

NOTE:

- **If the oven usage is very high, the cleaning procedure should be carried out on a more frequent basis.**
- **Allow the oven interior to cool to approx 50˚C - 120˚F before commencing cleaning.**

Stainless Steel Surfaces

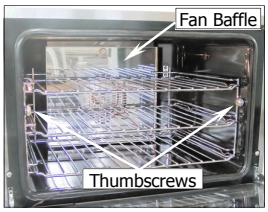
a. Thoroughly clean the exterior surfaces of the oven with, a damp cloth moistened with a mild detergent solution, or a soft bristled brush.

b. Baked on deposits or discolouration may require a good quality stainless steel cleaner. Always apply cleaner when the oven is cold and rub in the direction of the grain.

Side Racks

a. Remove the oven racks.

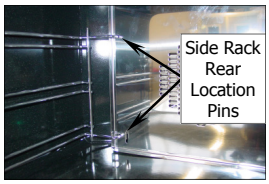
b. Partially undo thumbscrews (anti-clockwise) securing the racks to the oven wall, until racks are loose.



c. Pull racks forward to disengage location pins at rear of rack from fan baffle, remove side racks from oven.

d. Clean all racks with a mild anti bacterial detergent and hot water, using a soft bristled brush.

e. Dry the racks thoroughly with a dry cloth.

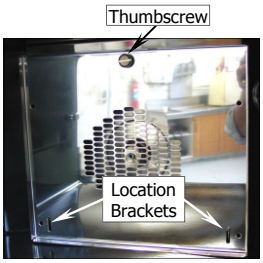


f. To refit the racks, engage the locating pins at rear of side rack into locating holes in fan baffle at rear of oven.

g. At the same time locate the front of the racks over the thumbscrew and hand tighten the thumbscrew.

h. Refit the oven racks to the oven.

Fan Baffle



a. Remove side racks as shown previously.

b. Undo (anti-clockwise) and remove the thumbscrew at the top of the fan baffle. (E27 / E28 Ovens, have 2 thumbscrews).

c. Tilt the fan baffle forward and lift up off the location brackets at rear of oven.

d. Clean fan baffle with mild anti bacterial detergent and hot water solution with a soft bristled brush.

e. Dry fan baffle thoroughly with a soft dry cloth before re-fitting.

f. Refit the fan baffle and hand tighten the thumbscrew(s) to secure the fan baffle.

Lamp Glass

a. Remove the LH side rack as shown previously.

b. Wash the glass lens with a soft sponge using warm water and a detergent solution. Rinse with clean, warm water.

c. Dry the glass lens thoroughly with a dry cloth.

d. Refit LH side rack as shown previously.

Door Seal

a. To remove door seal, pull the 1 piece seal forward until it pulls out of the location groove around the oven. **Note the way the seal is fitted to the oven, with the lip facing inwards.**

b. Check for wear and damage and replace as required.

c. Wash the door seal in a sink, taking care not to cut or damage the seal.

d. Dry the seal thoroughly.

e. Refit seal with lip facing into centre of the oven.

f. Press the seal into the locating groove in the front face of the oven until the seal is properly located all around the oven.

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Oven Interior

- **Allow the oven interior to cool to approx 50˚C - 120˚F before commencing cleaning.**

a. Remove the oven racks and the fan baffle as shown previously.
b. Clean any build up of grease from the oven interior, using a mild anti bacterial detergent, a hot water solution and a soft bristled brush.
c. Dry the oven thoroughly with a soft dry cloth.
d. Clean the oven regularly with a good quality oven cleaner.

Door Glass

a. The oven door and glass can be washed with a solution of hot water and a mild anti bacterial detergent, using a damp cloth.
b. Dry the oven door thoroughly with a soft dry cloth.
c. Clean door glass with a conventional glass cleaner.

Periodic Maintenance

NOTE: All maintenance operations should only be carried out by a qualified service person.

Controls and mechanical parts should be checked and adjusted periodically by a qualified service person. It is recommended that the appliance is serviced every 6 months.

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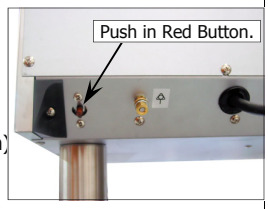
Fault Finding

This section provides a reference to the more common problems that may occur during the operation of your oven. This fault finding guide is intended to help you correct and accurately diagnose problems with your oven.

When fault finding a problem, always use a process of elimination starting with the simplest solution and working through to the most complex. Never overlook the obvious.

You may encounter a problem not covered in this section, please contact your service provider who will require the following information:-

- **The Model and Serial Number of the oven, can be found on the Technical Data Plate located on the front right hand side panel of the oven.**

Fault	Possible Causes	Remedy
Oven does not operate / display blank / Stand-By LED Off.	Mains isolating switch, circuit breaker or fuses are 'Off' at the power board.	Turn 'On' isolating switch. Check circuit breaker / fuses.
	Overtemp tripped.	Reset Overtemp located at rear of oven. (Push in red button) 
	Overtemp / Controller / Transformer faulty.	Replace. Call for service.
'dor' on display.	Door open.	Close door.
	Door / Hinges obstructed.	Clear obstruction.
	Door Switch faulty.	Call for service.
'Err 001' on displays.	Oven Temperature Probe faulty.	Call for service.
'Err 003' on displays.	Wiring faulty.	Call for service.
Oven heats up but fan does not operate.	Fan Motor / Capacitor / Controller faulty.	Call for service.
Oven Fan operates but no heating in oven.	Relay / element / controller faulty.	Call for service.
'Est' on display when pressing steam key.	Steam function disabled.	Enable steam. Refer to 'Controller Operator Settings'.
Oven does not Steam.	Water turned 'Off' at mains supply.	Turn 'On' water at mains supply.
	Injector Nozzle blocked.	Unblock Injector Nozzle. Call for service.
	Water Solenoid / Controller faulty.	Call for service.
Oven light not illuminating.	Blown bulb.	Replace bulb.
	Blown fuse (E27D3 and E28D4 only).	Replace fuse.
Uneven cooking.	Too high a temperature selected.	Select a lower temperature.
	Oven or racks not level.	Check oven and racks and level.
	Insufficient air space around trays or baking tins.	Ensure oven racks are spaced to allow air flow around all shelves.
	Oven overloaded with product.	Re-load oven.
	Opening oven door un-necessarily.	Ensure oven door remains closed where possible.
	Oven door seal damaged or faulty.	Check seals and replace if damaged.
	Oven vent restricted.	Ensure oven vent is not blocked or shrouded.
	Fan motor not operating in both directions.	Call for service.

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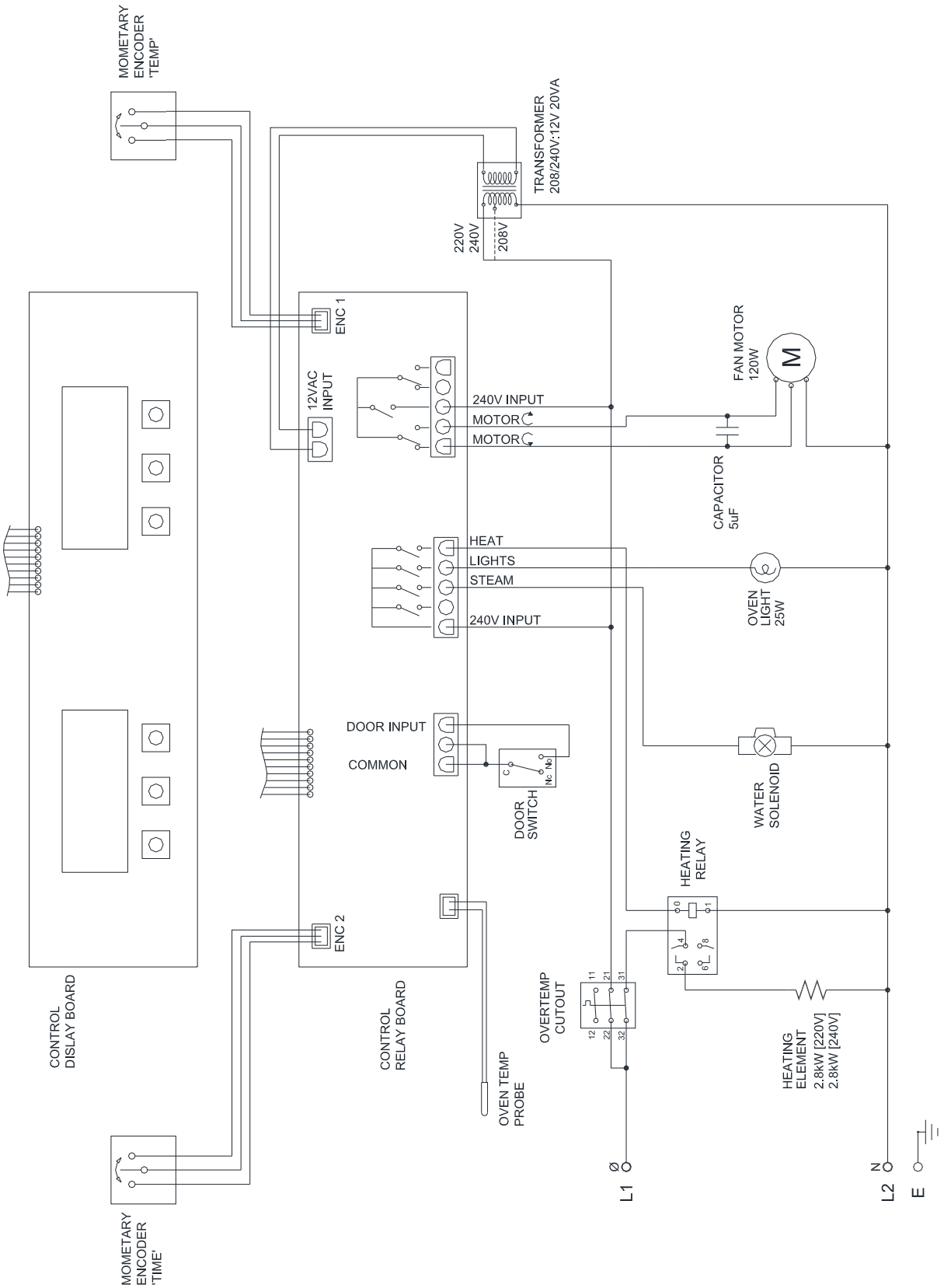
E23D3 / E27D2 - Wiring Schematic



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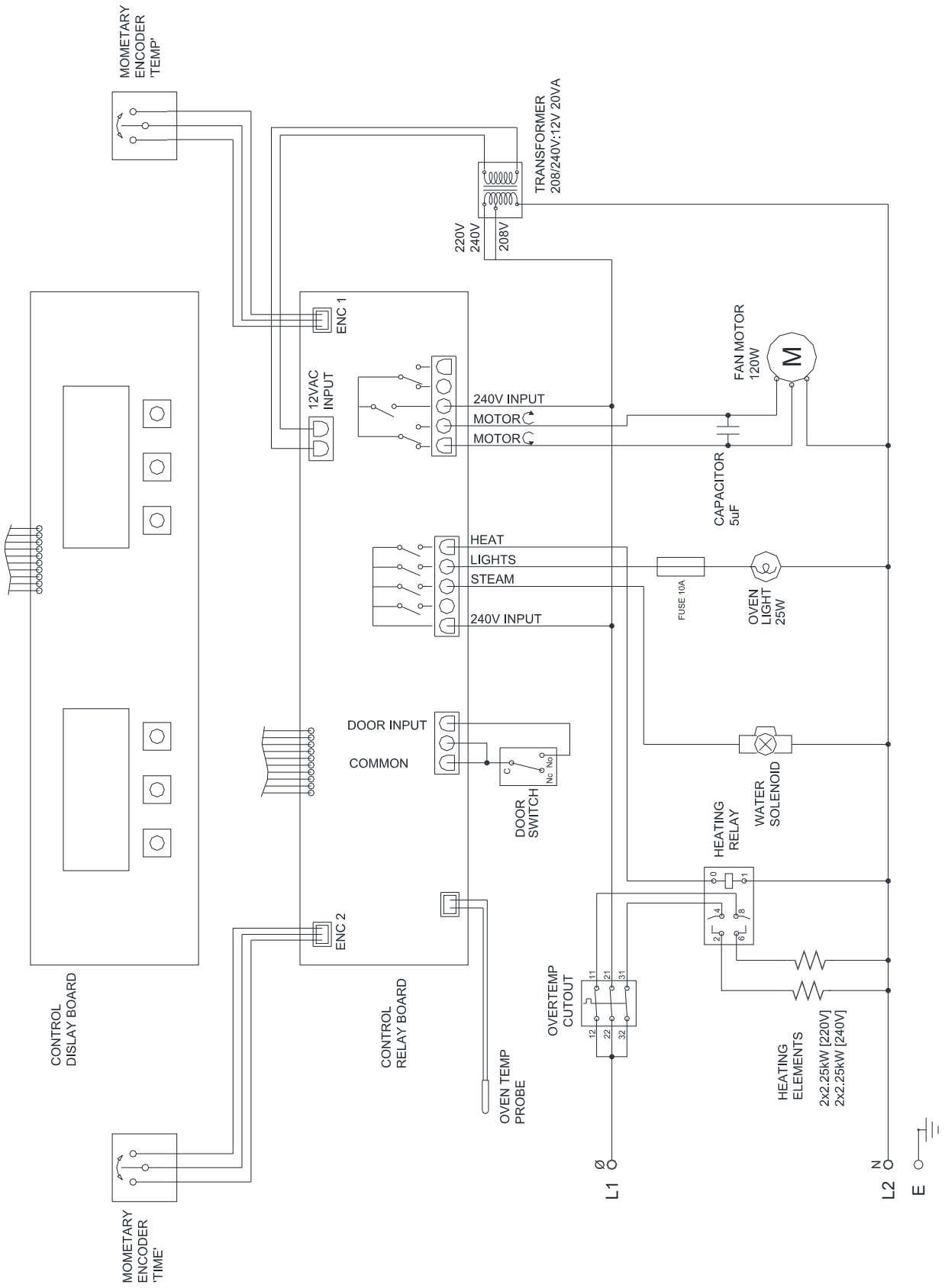
E27 D3 - Wiring Schematic



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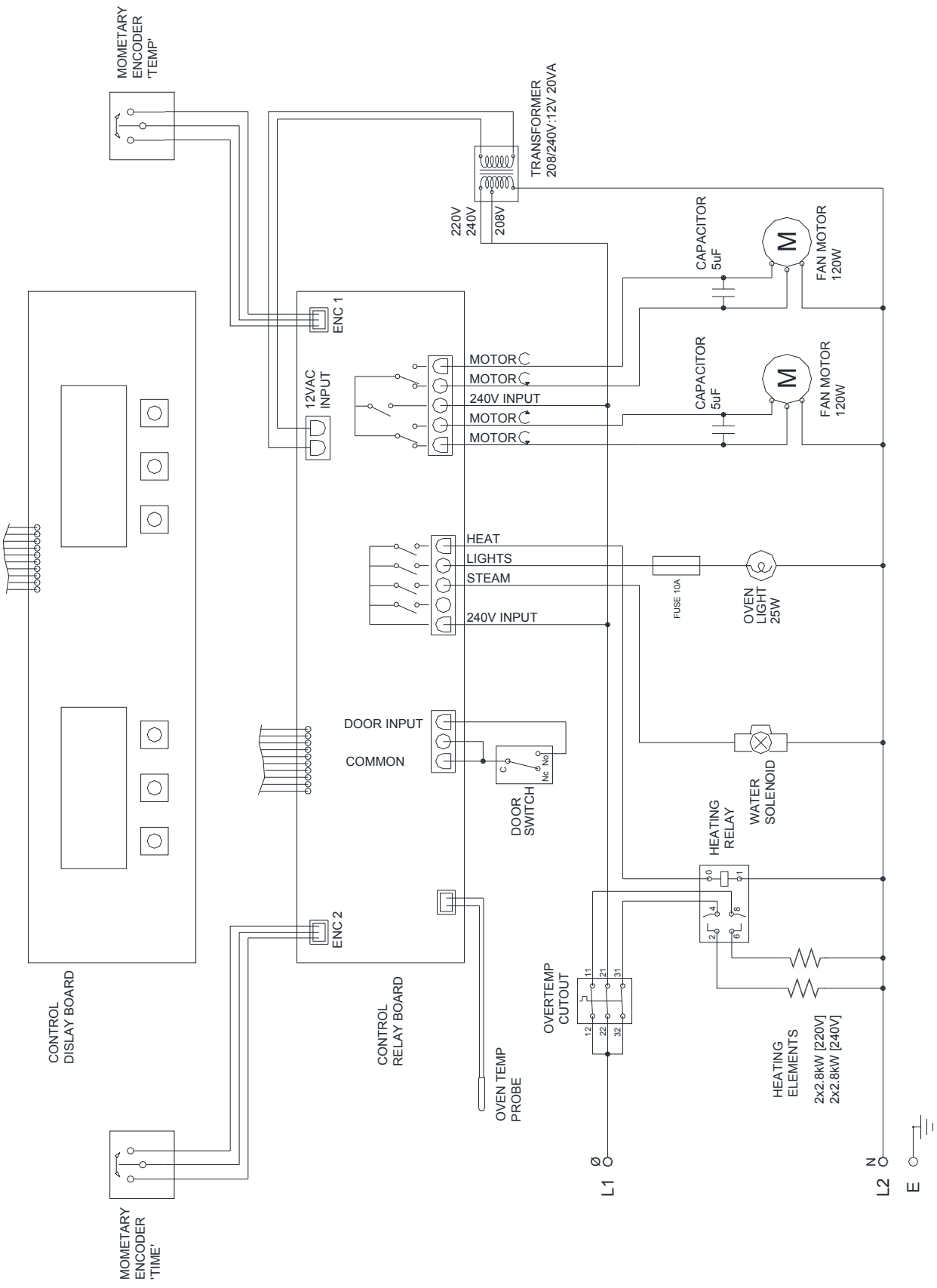
E28 D4 - Wiring Schematic



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Replacement Parts List

Important:

Only genuine authorized replacement parts should be used for the servicing and repair of this oven. The instructions supplied with the parts should be followed when replacing components.

For further information and servicing instructions, contact your nearest authorized service provider or Turbofan Dealer.

When ordering replacement parts, please quote the part number and the description as listed below. If the part required is not listed below, request the part by description and quote model number and serial number which is shown on the Technical Data Plate.

Item	Description	E23D3	E27D2 / E27D3	E28D4
238194	Digital Controller Kit	●	●	●
237447K	Temperature Probe PT1000 Kit	●	●	●
234429	Transformer, 208 / 240V x 12VAC, SEC 20VA	●	●	●
234447	Knob T/Fan	●	●	●
238407	Encoder	●	●	●
234088	Oven Element, 2800W, 230 - 240V **US, CAN, AU, NZ, UK, XP.**	●	● D2 *only*	●
234089	Oven Element, 2800W, 208 - 220V **US, CAN, XP.**	●	● D2 *only*	●
234107	Oven Element, 4500W, 208 - 220V **US, CAN, XP.**		● D3 *only*	
234108	Oven Element 4500W, 230 - 240V **US, CAN, AU, NZ, UK, XP.**		● D3 *only*	
236264	Element Gasket	●	●	●
235585	Fan Motor Kit	●	●	●
238989	Motor Shaft Seal (part of Fan Motor Kit above)	●	●	●
234251	Capacitor 5uF 208 - 240V	●	●	●
238881	Relay, 30A, DPST HF92F, 240V	●	●	
234821	Overtemp, 355°C - 20K	●	●	●
233862	Door Microswitch	●	●	●
238981	Water Solenoid	●	●	●
021057	Spray Nozzle	●	●	●
025922	Adaptor 3/4" BSP/GHT, Brass (USA / CA / MX only).	●	●	●
021527	Washer Rubber 23 x 14.5 x 1.5mm (USA / CA / MX only).	●	●	●
021352	Oven Lamp Lens	●	●	●
231814	Lamp Bulb G9 25W, 230V Halogen	●	●	●
021354	Oven Lamp Gasket	●	●	●
234802	Fuse Holder		● D3 *only*	●
234803	Fuse 10A		● D3 *only*	●
233913	Door Inner Glass - E23	●		
233368	Door Inner Glass - E27		●	
233346	Door Inner Glass - E28			●
233293	Door Hinge - E23	●		
233294	Door Hinge - E27		●	
233295	Door Hinge - E28			●
232667	Door Seal - E23	●		
232666	Door Seal - E27		●	
234466	Door Seal - E28			●
232379	Leg Adjustable (73 - 80 mm)	●	●	●
232682	Side Rack LH, E23	●		
232683	Side Rack RH, E23	●		
234721	Side Rack LH, E27, 2 Tray.		●	
234722	Side Rack RH, E27, 2 Tray.		●	
233558	Side Rack LH, E27, 3 Tray.		●	
233559	Side Rack RH, E27, 3 Tray.		●	
238214	Side Rack LH, E27, 2, Tray 600 x 400.		●	
238215	Side Rack RH, E27, 2, Tray 600 x 400.		●	
238216	Side Rack LH, E27, 3, Tray 600 x 400.		●	
238217	Side Rack RH, E27, 3, Tray 600 x 400.		●	
233556	Side Rack, E28			●
238218	Side Rack LH, E28, 600 x 400.			●
238219	Side Rack RH, E28, 600 x 400.			●
233564	Oven Rack E23	●		
233565	Oven Rack E27, E28		●	●
238220	Oven Rack E27, E28, 600 x 400.		●	●
233552	Thumb Screw	●	●	●

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