## **20D**SERIES

# turbofan

## E20D Series (Digital Operation)

Service Manual





Turbofan E20D Series Convection Ovens Amendment 1 © Copyright Moffat Ltd. 10 February 2016.

OBLUE SEAL

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## E20D Series Turbofan Convection Ovens.

	E27D3 - Turbofan Oven - 3 Tray Convection Oven. E28D4 - Turbofan Oven - 4 Tray Convection Oven.
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ALL INSTALLATION AND SERVICE REPAIR WORK MUST BE CARRIED OUT BY QUALIFIED PERSONS ONLY. IMPROPER INSTALLATION, ALTERATION, ADJUSTMENT, MAINTENANCE OR SERVICE MAY CAUSE PROPERTY DAMAGE, INJURY OR DEATH. ENSURE SUPPLY IS SWITCHED OFF BEFORE SERVICING. ALWAYS TEST AFTER SERVICE REPAIRS. 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.



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



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.

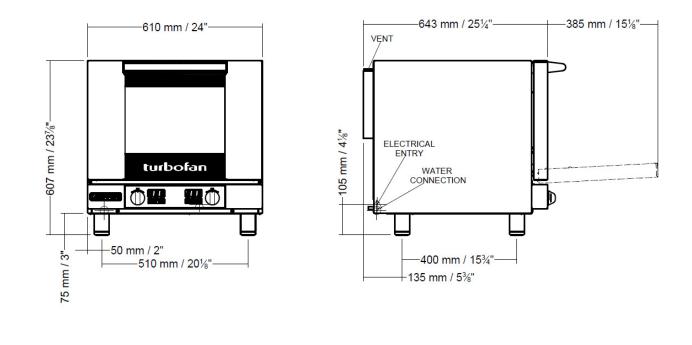


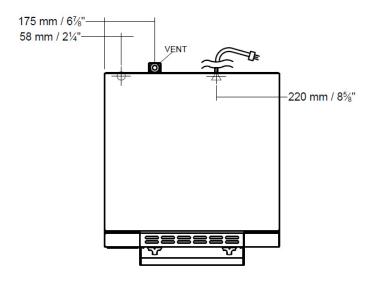
No user serviceable parts inside.

Qualified service person access only.

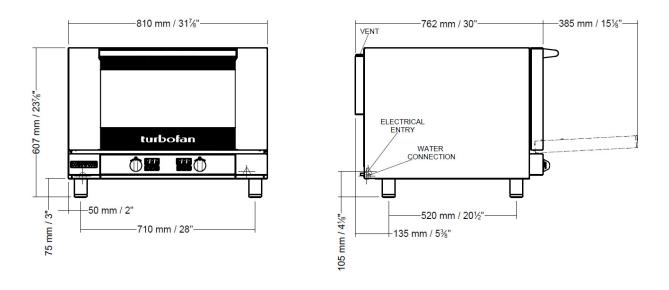
Disconnect from power before servicing.

## E23D3

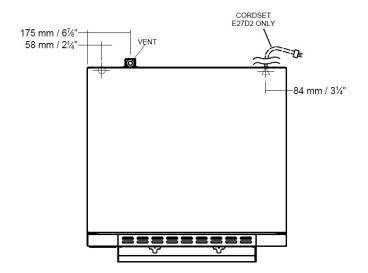




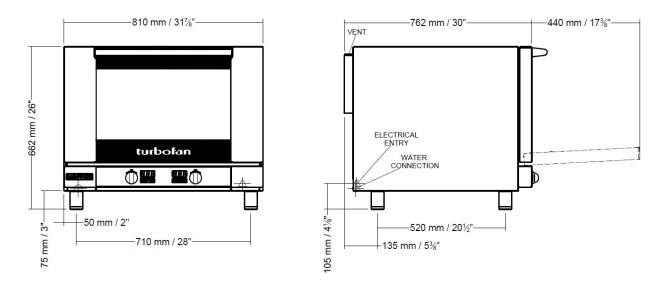
## E27D2 / E27D3



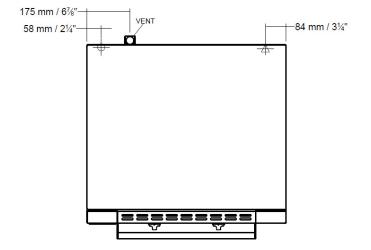
4



## E28D4



5



## **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

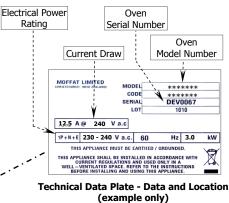
Oven Tray Details		
	Tray Capacity	Tray Spacing
E23D3	3 x EN <sup>2</sup> / <sub>3</sub> Tray 3 x US <sup>1</sup> ⁄ <sub>2</sub> Pan	85mm / 3 <sup>1</sup> / <sub>3</sub> "
E27D2	2 x EN 600 x 400mm Tray 2 x US Full Pan	110mm / 4 <sup>1</sup> / <sub>3</sub> "
E27D3	3 x EN 600 x 400mm Tray 3 x US Full Pan	85mm / 3 <sup>1</sup> / <sub>3</sub> "
E28D4	4 x EN 600 x 400mm Tray 4 x US Full Pan	76mm / 3 ″

## **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.





#### Clearances

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

Тор	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 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.

#### 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. 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.

#### **Electrical Connection**



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**

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

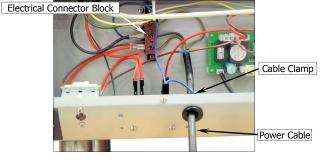
#### **Ovens Supplied without Cordsets**

- 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 and through the compression gland on the electrical switchgear panel.

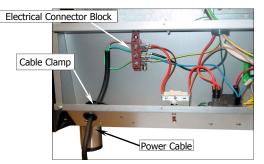
L1 Phase RED – BROWN – BLACK –	L2 Neutral BLACK BLUE WHITE	
WARNING: THIS APPLIANCE MUST BE GROUNDED / EARTHED		

3. Connect the mains supply to the appropriately marked terminals on the terminal block.

#### 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.
- 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 legs so that the oven is level and at the correct height.

#### **Initial Start-Up**

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Before using the new oven;

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

## **Operation Guide**

AND COULD CAUSE BURNS IF TOUCHED.



SOME PARTS OF THIS OVEN WILL BECOME VERY HOT DURING USE

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



#### **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).



## `On/Off' Key and LED

**Right Display** 

Shows cook time.

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.

Turbofan E20D Series Convection Ovens Amendment 1

## Manual Mode

In Manual Mode the oven settings are.

- 60-260C / 140-500F. - Temperature - 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. - On / Off.

- End of stage alarm

## 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  $\ensuremath{\text{St1}}$  to  $\ensuremath{\text{St5}}$  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.

Hold steam key for steam. If StE = 0:

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).

## **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 PRS

Right Display will flash

#### 2. ENTERING PASSWORD (OPERATOR PASSWORD - 123).

Rotate 'Timer' knob to enter password 723.



Press 'Light' key to confirm password.

Left Display will show one of the operator settings, eg.  $\rho_{r} H$ 

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.		2
<i>ESE</i>	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	<b>Program Pre-Heating Condition -</b> Increases Pre-heating 'Ready' Temperature above Program Set Temperature in 'Program' Mode to allow for heat loss when loading oven.		0
SEG	<i>G</i> Multi-Stage Enable - Activates / de-activates multi-stage programming.		YES
528	<ul> <li>StE = 0 Steam Key operates as a momentary key, steam is injected into oven for as long as the key is pressed.</li> <li>StE = 1 - 5 Steam Key will start a sequence of steam pulses from 1 to 5.</li> </ul>	0 - 5	0

## **Operational Faults**

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.	Check output from overtemp. If no output, replace overtemp.	
	Transformer.	Confirm power input to transformer. Check power output from transformer. If no power output, replace transformer.	
	Controller.	Check power input from overtemp. Check power input from transformer. If both power inputs are satis, replace controller.	
`dor' on display.	Door open.	Close door.	
	Door / hinges obstructed	Clear obstruction.	
	Door hinges worn / faulty.	Replace both hinges.	
	Door faulty and does not close properly.	Door damaged, replace door.	
	Door microswitch out of adjustment.	Adjust door microswitch.	
	Door microswitch faulty.	Check continuity through microswitch, if faulty, replace.	
`Err 001' on displays.	Oven Temperature Probe faulty.	Replace oven temperature probe.	
'Err 003' on displays.	Wiring faulty. Missing loop wire on controller between terminals COM and ID2.	Check plug connections to controller are secur and not damaged.	
Oven heats up but fan does not operate.	Capacitor faulty.	Check and replace if faulty.	
	Fan Motor faulty.	Replace fan motor.	
	Controller faulty.	Replace controller.	
Oven Fan operates but no heating in oven.	Heating relay faulty.	Replace heating relay.	
oven.	Element faulty.	Replace element.	
	Controller faulty.	Check 'Heat' output from controller. If no output, Controller faulty, replace.	
'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.	
	Water solenoid faulty.	Replace water solenoid.	
	Controller faulty.	Check steam output from controller to solenoid. If no output. Replace controller.	
Oven light not illuminating.	Blown bulb.	Replace bulb.	
	Blown fuse (E27D3 and E28D4 only).	Replace fuse.	

## **Operational Faults (Cont'd)**

Fault	Possible Causes	Remedy
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. Controller faulty.	Check motor output from controller. If no output, replace controller.
	Capacitor faulty.	Check and replace capacitor if faulty.
	Fan Motor faulty.	Replace fan motor.

## **Element Resistance and Current Table**

ELEMENT RESISTANCE AND CURRENT				
Model	Watts	Resistance ± 5% @20°C (68°F)	Current ± 5%	
E23D3	2800W	230 - 240V	20.5 Ω	11.7A @ 240V
	2800W	12.7A @ 220V		
E27D2	2800W	240V	20.5 Ω	11.7A @ 240V
	2800W	220V	17.3 Ω	12.7A @ 220V
E27D3	4500W	230 - 240V	12.8 Ω	18.8A @ 240V
	4500W	208 - 220V	10.7 Ω	20.5A @ 220V
E28D4	2800W x 2	230 - 240V	<b>20.5</b> $\Omega$ each	11.7A @ 240V each
	2800W x 2	208 - 220V	17.3 Ω each	12.7A @ 220V each

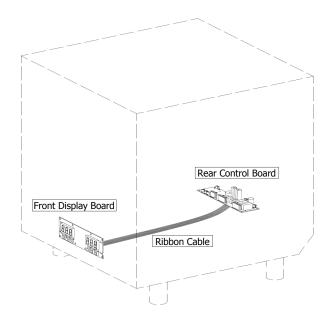
## 5.1 Replacement

5.2

5.1.1	Control Panel / Controller Front Display Board / Rear Control Board /
5.1.2	Time / Temp Encoders
5.1.3	Capacitor's / Heating Relay / Transformer / Fuse (E27D3 / E28D4 Only) / Fuse Holder (E27D3 / E28D4 Only)16
5.1.4	Overtemp Thermostat / Temperature Probe
5.1.5	Fan / Fan Motor
5.1.6	Element(s)
5.1.7	Water Solenoid / Spray Nozzle
5.1.8	Door Removal / Door Hinges / Door Inner Glass
5.1.9	Door Microswitch
5.1.10	Oven Light Fixture
Adjustr	nent and Calibration
5.2.1	Door Microswitch
5.2.2	Temperature Calibration

## 5.1 Replacement

5.1.1 Control Panel / Controller - Front Display Board / Rear Control Board.



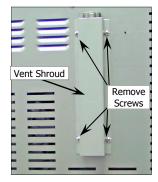
#### To remove the Control Panel:-

1. Remove 2 screws on underside of control panel and remove panel.



#### To remove the Rear Access Panel:-

1. Remove 4 screws securing the rear vent shroud and remove the shroud.

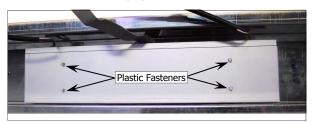


2. Remove screws securing the rear access panel and remove panel. Screws at bottom of panel only require just loosening as panel is slotted to ease re-fitting.

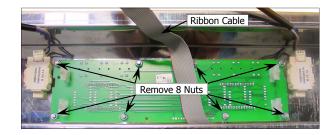


#### To remove the Controller - Front Display Board:-

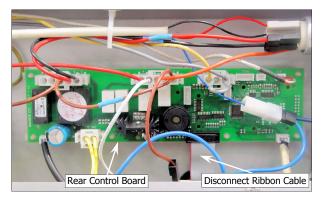
1. Using pliers, carefully compress the 4 plastic fasteners securing the cover over the front display board and remove the cover.



2. Undo securing 8 nuts and remove front display board.

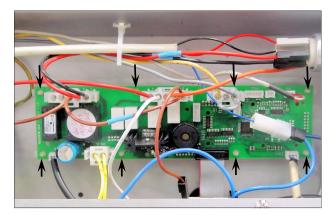


3. At the rear of the oven, disconnect ribbon cable at the rear control board and pull ribbon cable through to front of oven.



## To remove the Rear Control Board:-

- Note position of connectors before disconnecting plugs from control board.
- 1. Disconnect plugs from the rear control board.
- 2. Using pliers, carefully compress the 8 plastic fasteners securing the rear control board to the electrical panel and remove the rear control board.



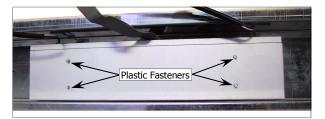
- 3. Fit replacement rear control board to the electrical panel.
- 4. Re-connect plugs to rear control board, noting position of connectors when re-fitting.

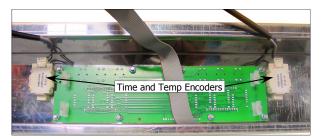
#### 5.1.2 Time - Temp Encoders.

1. Remove 2 screws on underside of control panel and remove control panel.

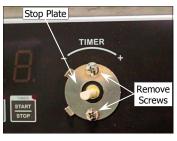


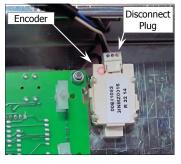
2. Using pliers, carefully compress the 4 plastic fasteners securing the cover over the front display board and remove the cover.



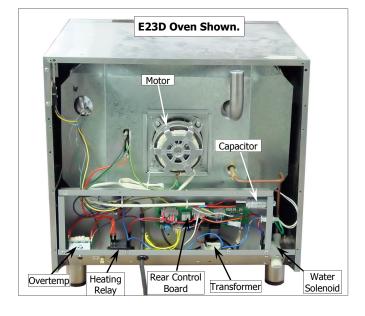


- 3. Pull off the Timer and Temp control knobs from the control panel. These are a push fit.
- 4. Remove 2 securing screws and knob stop plate.
- 5. Unplug cables from encoder and remove encoder from rear of control panel.
- 6. Refit in reverse order.





5.1.3 Capacitor(s) / Heating Relay / Transformer / Fuse / (E27D3 / E28D4 Only) Fuse Holder (E27D3 / E28D4 Only)

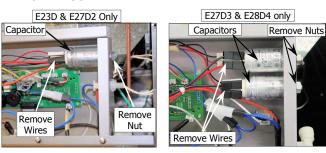


#### **Remove Rear Access Panel:-**

- 1. At the rear of the oven, remove the vent shroud.
- 2. Remove the rear access panel.



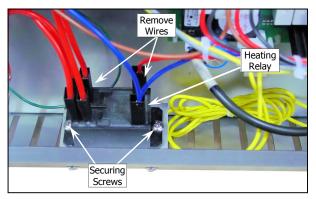
#### Capacitor(s):-



- 1. Remove wires from rear of capacitor.
- 2. Remove securing nut.
- 3. Replace capacitor and refit in reverse order.

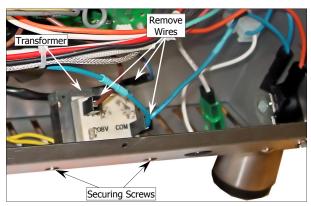
Capacitor Specifications
Motor Capacitor, 5uF - 208 - 240V.
Motor Capacitor, 6uF - 200V.

#### Heating Relay:-



- 1. Disconnect all electrical connections to the heating relay.
- 2. Undo the 2 screws securing the heating relay to the rear of the oven.
- 3. Remove the heating relay from the oven.
- 4. Refit the replacement heating relay in reverse order.

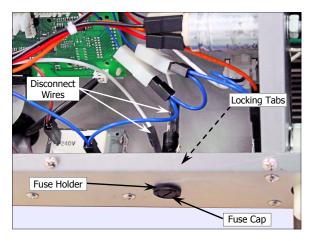
#### Transformer:-



- 1. Disconnect all electrical connections to the transformer.
- 2. Undo the 2 screws securing the transformer to rear of oven.
- 3. Remove the transformer.
- 4. Refit the replacement transformer in reverse order.

#### Fuse (E27D3 - E28D4 Only):-

- 1. Using a flat bladed screwdriver, unscrew the fuse cap and remove the cap and fuse.
- 2. Refit a replacement fuse into the cap and refit cap and fuse into fuse holder.



#### Fuse Holder (E27D3 - E28D4 Only):-

- 1. Remove wires from the fuse holder.
- 2. Press in the locking tabs at the rear of the fuse holder and push out the fuse holder from the oven rear.
- 3. Replace fuse holder and refit in reverse order.

#### 5.1.4 Overtemp Thermostat / Temperature Probe

#### **Remove Rear Access Panel:-**

1. At the rear of the oven, remove the vent shroud and rear access panel.

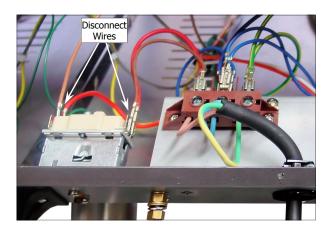
Remove Screws Vent Shroud	
Just Loosen Screws	
Just Loosen screws	

#### **Overtemp Thermostat:-**

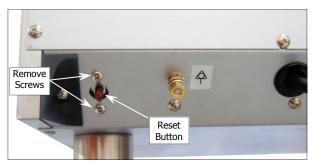
- 1. Unhook back of phial from the phial holder inside the oven.
- 2. Pull phial towards back of oven to remove from front holder.
- 3. Remove phial through rear of oven.



4. Remove wires from the overtemp.



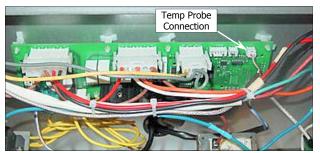
5. Remove 2 screws securing overtemp and remove overtemp from rear of oven.



6. Refit in reverse order.

#### Temperature Probe

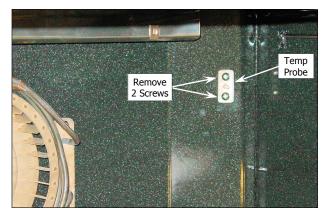
1. Disconnect temperature probe cable from the rear control board.



2. From inside the oven, remove the oven racks and fan baffle.



- 3. Undo the temperature probe securing screw(s).
- 4. Withdraw probe and cable through the oven cavity and into the oven.



- 5. Clean off any existing silicone from around the temperature probe opening in the oven inner wall.
- 6. Fit a new gasket to the rear of the new temperature probe and from inside the oven, feed the probe cable through oven cavity.
- 7. Secure temperature probe to the inside of the oven using the supplied screws.
- 8. Connect temperature probe cable to oven control board.
- 9. Refit the control panel.
- 10. Refit the rear access panel.
- 11. Carry out a functional check of temperature probe using the oven controller.

Temperature Probe Type PT1000				
Temperature °C (°F) Resistance ± 5%				
0 (30)	1000 Ω			
50 (122)	1194 Ω			
100 (212)	1385 Ω			
150 (302)	1573 Ω			
180 (356)	1685 Ω			

Temp

Probe

∉)

0

Gasket

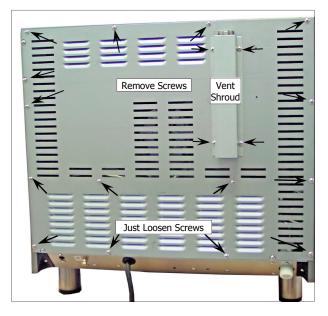
Turbofan E20D Series Convection Ovens Amendment 1

## 5.1.5 Fan / Motor Removal

1. Remove centre and side racks from the oven.

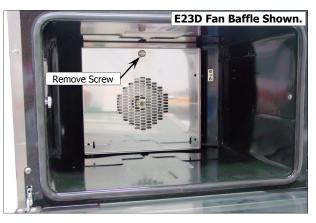


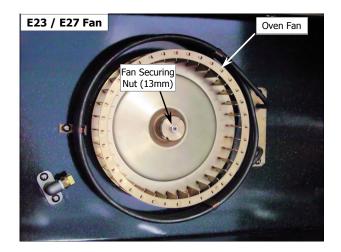
2. At the rear of the oven, remove the vent shroud and rear access panel.



## Fan Motor (E23 / E27):-

1. Remove the fan baffle securing screw (E27, 2 Screws).





## Fan Motors (E28):-

1. Remove the fan baffle securing screws.



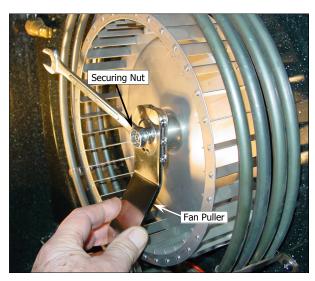


#### Fan Removal (All Models):-

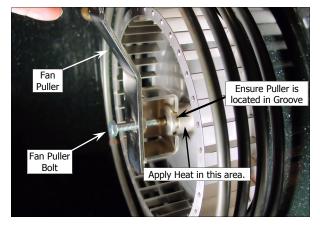
NOTE: A Fan / Gear Puller, a 13mm Spanner and a source of heat may be required to remove the fan from fan motor.

1. Whilst holding the fan stationary using the rear of the fan puller, undo the securing nut and unscrew only until nut is flush with the end of the motor shaft.

## NOTE: Do not remove the Fan Securing Nut.



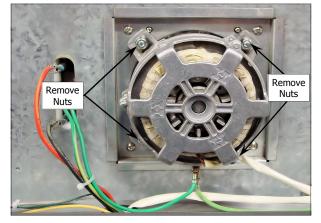
- 2. Fit the fan puller into recess in fan spindle and tighten puller bolt to apply pressure to the fan.
- 3. Apply heat to the fan boss whilst tightening fan puller bolt until fan is released from the motor shaft.



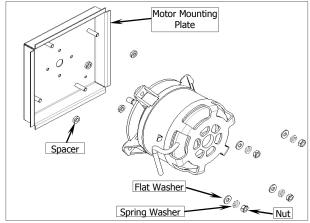
4. Remove fan puller, fan securing nut and remove the fan.

## Motor Removal (All Models):-

- 1. At the rear of the oven, disconnect motor wires from motor connection block, note the wire positions.
- 2. Remove Motor securing Nuts, Spring Washers, Flat Washers.



- 3. Ensure that the 4 spacers are located on the 4 studs fitted to the motor mounting plate.
- 4. Replace Motor and secure with Flat Washers, Spring Washers and Nuts.



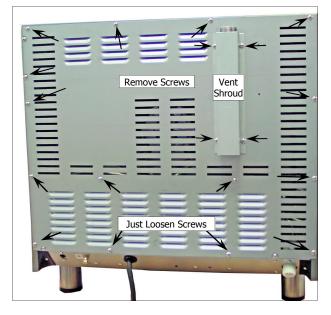
- 5. Reconnect motor wires to connection block, note wire positions.
- 6. Refit oven fan, fan baffle and racks to the oven
- 7. Refit oven rear access panel and vent shroud.

### 5.1.6 Element(s)

1. Remove centre and side racks from the oven.



2. At the rear of the oven, remove the vent shroud and rear access panel.

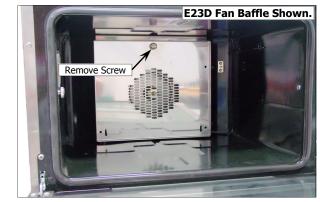


#### To Replace Heating Element (E23 / E27):-

1. Disconnect element wires from terminals.



2. From inside oven, remove the fan baffle.



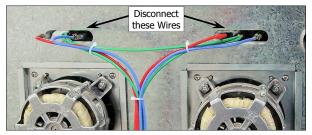
3. Remove the 3 screws securing the element in the oven.



- 4. Withdraw the element and gasket from the oven.
- 5. Replace in reverse order ensuring that the new element gasket supplied with the element, is fitted.

## To Replace Heating Elements (E28):-

1. Disconnect element wires from terminals.



2. From inside oven, remove the fan baffle.



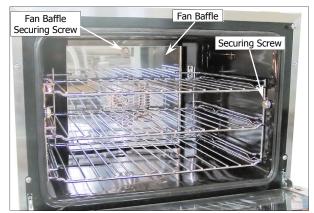
- 3. Remove 3 screws securing element in oven.
- 4. Withdraw the element and gasket from oven.



- 5. Replace in reverse order ensuring that the new element gasket supplied with the element, is fitted.
- 6. Refit oven fan baffle and racks to the oven.
- 7. Refit oven rear access panel and vent shroud.

#### 5.1.7 Water Solenoid / Spray Nozzle

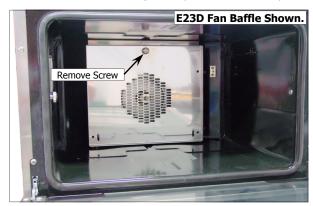
1. Remove centre and side racks from the oven.



2. At the rear of the oven, remove the vent shroud and rear access panel.



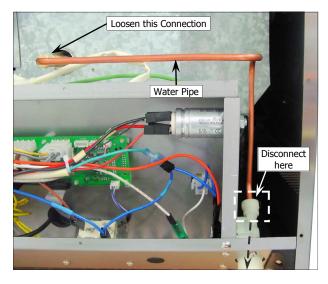
3. Remove the fan baffle securing screw (E27-E28 / 2 Screws).



- 4. Turn off water supply to the oven.
- 5. Disconnect the hose connection to the oven at the oven / water connection point.

#### Water Solenoid

1. Loosen copper pipe connection into oven at the brass fitting.

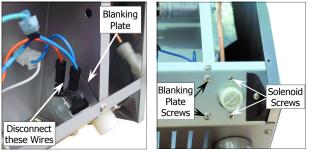


2. Disconnect the copper pipe connection to the solenoid valve by pressing down on the grey ring of the quick fit connector and pulling up on the copper pipe.



release copper pipe from Water Solenoid Quick Release Connector .

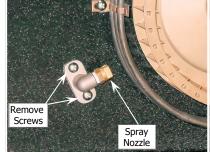
- 3. Disconnect electrical connection to the water solenoid.
- 4. Remove the 2 screws securing the solenoid blanking plate and remove the blanking plate.
- 5. Remove the 2 screws securing the solenoid into the oven and remove the solenoid.



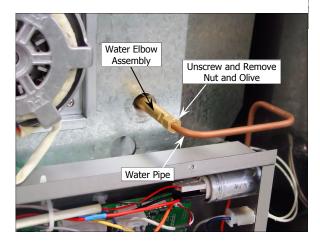
6. Remove and replace the water solenoid.

#### Spray Nozzle

- 1. To replace spray nozzle, unscrew the spray nozzle out of the fixing inside the oven.
- 2. To replace the water elbow assembly, remove the 2 screws securing the water elbow assembly to the oven.



3. At the rear of the oven, unscrew and remove the copper pipe, nut and olive from the water elbow assembly.

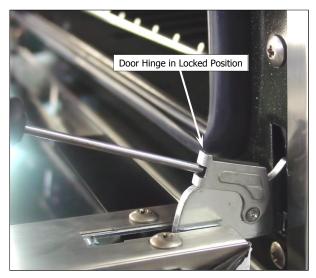


- From inside the oven withdraw the water elbow assembly and gasket and refit in reverse order ensuring that a new gasket is fitted.
- 5. Re-connect the hose connection to the oven at the oven / water connection point.
- 6. Turn 'On' the water supply to the oven and check for leaks.
- 7. Refit the fan baffle.
- 8. Refit the centre and side racks to the oven.
- 9. At the rear of the oven, refit the rear access panel and the vent shroud.

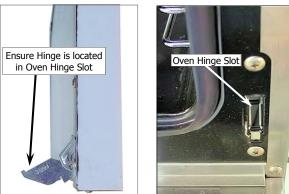
#### 5.1.8 Door Removal / Door Hinges / Door Inner Glass

#### Door Removal:-

- 1. Lock hinges in open position.
- 2. Lift door up and away from oven.



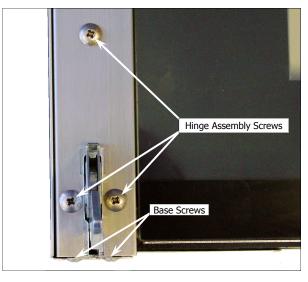
3. To refit door, place hinges in slots and ensure they are fully located.



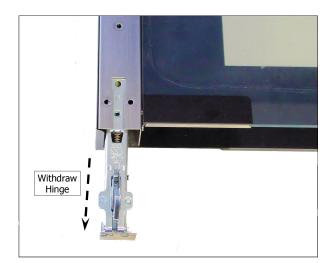
4. Unlock hinges and check door closes against seal.

#### Door Hinge:-

- 1. With the oven door removed as shown earlier, remove the two base screws at the bottom of the hinge.
- 2. Remove 3 hinge assembly screws.



3. Withdraw hinge assembly from bottom of the door.



4. Re-assemble in reverse order.

#### Door Inner Glass:-

#### **Glass Removal**

- 1. Open the oven door fully.
- 2. Using a suitable instrument, move the door lock catches from the unlocked to the locked position to prevent the door from closing.

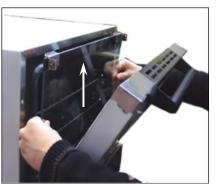


## Service Procedures

 Raise the door until it is restrained by the door lock catches.

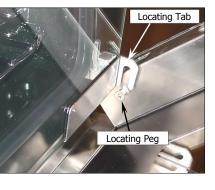


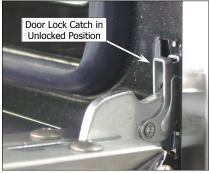
 Grasp inner glass firmly on either side and pull upwards to remove inner glass from locating pegs on either side of door.



#### **Glass Replacement**

- To replace door inner glass, locate 2 locating tabs on either side of inner glass into 2 pegs on door and push down on inner glass until it locks firmly into position.
- 2. Lower the inner glass back into the door, the glass will locate itself in the correct position.
- Open the oven door fully and using a suitable instrument, move door lock catches to the unlocked position.

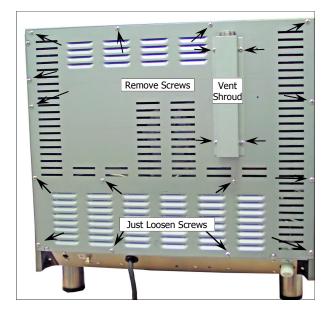




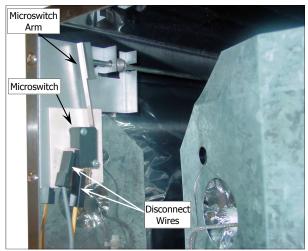
- NOTE: Check that both Door Lock Catches are in the 'Un-Locked' position before closing the door.
- 4. Close the oven door.

#### 5.1.9 Door Microswitch

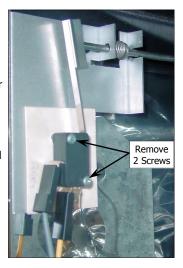
1. At the rear of the oven, remove the vent shroud and rear access panel.



2. Remove wires from the microswitch.



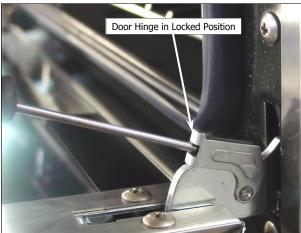
- 3. Unscrew 2 screws and remove microswitch from rear of oven.
- 4. Refit replacement microswitch in reverse order
- Check microswitch adjustment once the replacement microswitch is fitted.
- 6. Refit oven rear access panel and vent shroud.



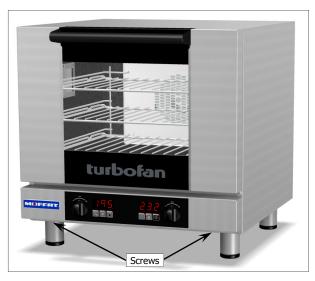
## 5.1.10 Oven Light Fitting

### Light Assembly Removal.

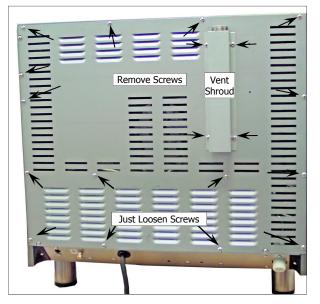
1. Lock door hinges in the open position.



2. Remove oven door by lifting door up and away from oven.



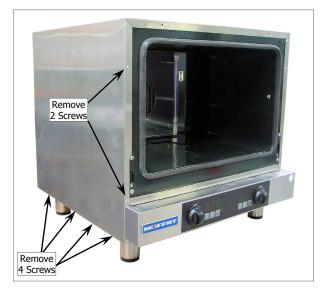
- 3. Remove 2 screws on underside of control panel and remove control panel.
- 4. Remove the vent shroud and rear access panel.



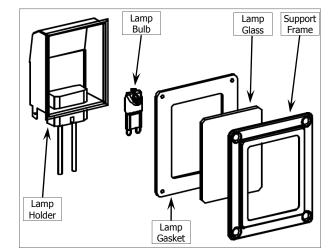
5. Remove Centre and LH Rack from inside the oven.



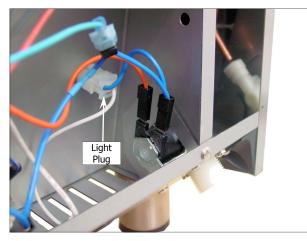
- 6. Remove 2 screws from the LH oven fascia.
- 7. Remove 4 screws on LH underside of oven.



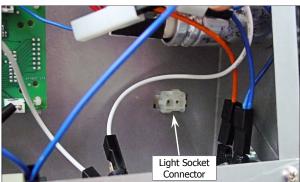
8. From inside the oven, remove the screws securing the lamp support frame, lamp glass, lamp gasket and lamp bulb.



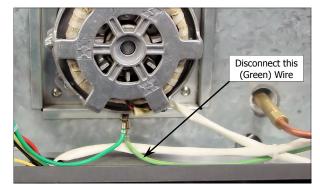
9. At the rear of the oven, unplug the light connection.



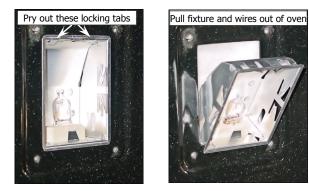
10. Using a small screwdriver, remove the light plug connector from the electrical panel.



11. Disconnect the earth wire at the motor earth point and remove the earth wire from the rear of the lamp fixture. Retain this wire as it will be used on the replacement lamp.

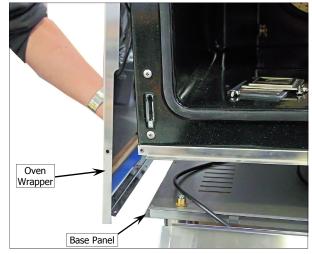


- 12. From inside the oven, pry the locking tabs at the top of the light fixture , inwards.
- 13. Pull out the lamp holder and connecting wires from the oven.

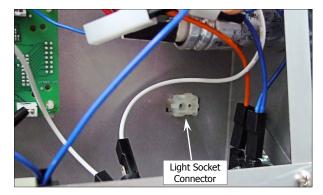


#### Light Fitting Re-fitting.

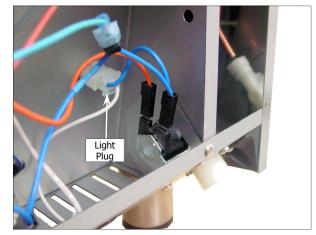
- 1. Connect the (green) earth wire to the rear of the lamp fixture and cable tie the electrical wires together for ease of fitting.
- 2. From inside the oven, feed the electrical wires through the light fixture opening in the oven liner.
- 3. Carefully pull out the bottom of the oven wrapper on the LH side of the oven and pass the light assembly cables through to the rear of the oven.



4. Fit the light socket to the opening in the electrical panel.

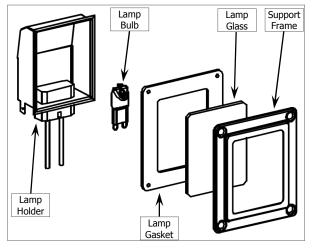


- 5. Connect up the earth wire to the motor earth point.
- 6. Connect the white light plug to the light socket.



7. Refit the oven wrapper, taking note that the bottom of the oven wrapper sits on top of the base panel.

- 8. Fit lamp bulb, gasket, glass and support frame to the light fixture.
- NOTE: Ensure that the Lamp Gasket is fitted correctly. The gasket sits between the Lamp Glass and the Lamp Holder as shown below.

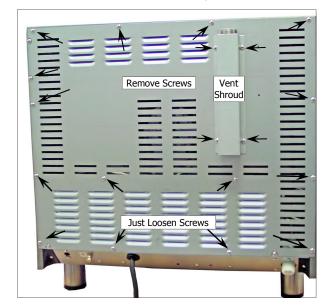


- 9. Refit the control panel.
- 10. Refit the oven door.
- 11. Refit the centre and LH oven racks.
- 12. Refit the rear access panel and vent shroud.

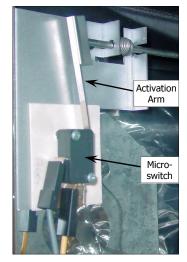
## 5.2 Adjustment and Calibration

#### 5.2.1 Door Microswitch

1. Remove the vent shroud and rear access panel.



- 2. Bend the microswitch activation arm so that the microswitch open circuits when door is open.
- Check microswitch adjustment when door is opened and closed.
- 4. Refit the rear access panel and vent shroud.



#### 5.2.2 Temperature Calibration

- 1. Place temperature probe in the centre of oven.
- 2. Close door and allow temperature to stabilise.
- 3. Enter service parameters settings menu on control panel and check P10 'Oven Temperature Offset' (refer to Section 6.1 'Viewing / Changing Service Parameters').

## **Viewing / Changing Service Parameters**

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



### 1. ENTER SERVICE PARAMETER MODE.



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

Left Display will show PRS

Right Display will flash **BBB** .

## 2. SET PASSWORD (SERVICE / FACTORY PASSWORD - 321).

Rotate 'Timer' knob to enter Service Password 321.

Press 'Light' key to confirm password.

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

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

#### 3. SETTING THE PARAMETERS.

Rotate 'Timer' knob to the parameter required.



Press 'Light' key to confirm parameter. Right Display will flash.

Whilst Right Display is flashing, rotate 'Timer' knob to select value required.

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

See overleaf for a list of Operator Settings available

## 4. EXITING THE PARAMETER MODE.



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

## **Table of Service Parameters**

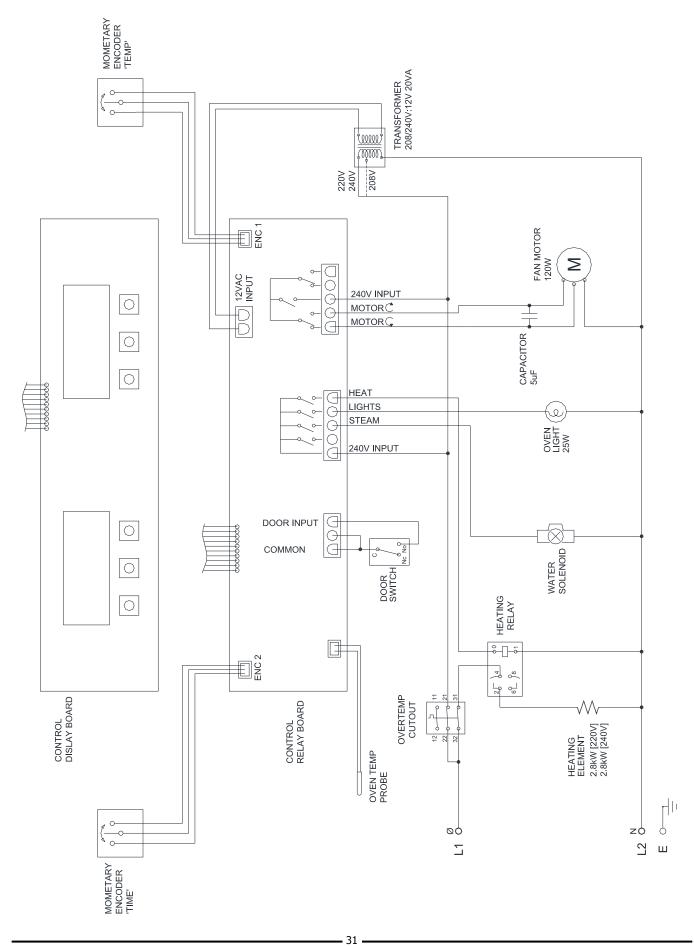
Para.		Min	Max	Default		
No.	Description	°C	٩F	E23 E27 E28	UoM	Pass <sup>0</sup>
P01	<b>Temperature Scale</b> . Defines temperature scale used, ( $C = °C$ , $F = °F$ ). Changing scale from °F to °C will reset all temperature parameters to their default values.	С	F	с		S
P02	Oven Model and Software Revision.	E23 r01	E28 r01	E27 r01		S
P03	<b>Minimum Oven Temp Set Point.</b> The minimum temperature that the oven can be set to.	0	300	60	°C	S
	Maximum Oven Temp Set Point. The maximum temperature that the oven can	(32)	(572)	(140)	(°F)	
P04	be set to.	0	300	260	°C	S
	<b>Oven Default Preheat Temp.</b> The temperature that the oven will pre-heat to on	(32)	(572)	(500)	(°F)	
PrH	start-up.	P3	P4	<b>150</b> (302)	°C (°F)	U
	Hysteresis Temperature Gap. The temperature drop from the Set Point before	1	10	1	°C	_
P08	the heating cycles back 'On'.	(2)	(18)	(2)	(°F)	S
P09	<b>Temperature Regulation Offset.</b> The temperature below set point that the oven heating turns off. i.e. If <b>P9</b> is set to 5 and oven temperature is set to 180°, oven	0	10	0	°C	S
P09	heating will turn 'Off' at 175°. This is intended to allow for thermal over-run in the oven cavity.	(0)	(18)	(0)	(°F)	5
P10	<b>Oven Temperature Offset.</b> This offset is always added to the raw temperature measurement, to correct the value. (Value shown on display is the corrected	-25	25	0	°C	S
FIU	value).	(-45)	(45)	(0)	(°F)	5
P11	Maximum Timer Set Point. Maximum time that can be set.	1	180	180	min	S
L-0	<b>E23 / E27 / E28. Time Light stays On.</b> Duration of time for which light stays 'On'. Pressing 'Light Key' will turn oven light 'On / Off' in all settings. If 1-60min set, oven light will turn off after set time elapsed. If '0' is set, key must be pressed to turn lights off.	0	60	2	min	υ
Est	<b>Enable Steam Injection.</b> Enables / disables the steam injection features. For users who do not connect steam and also special account provision which does not want or need steam.	no	YES	YES		U
P14	<b>Steam Injection Pulse Time.</b> This is the duration of each steam pulse in tenths of a second. eg 25 = 2.5seconds, 120 = 12.0 seconds.	0.1	30.0	1.0	sec	S
P16	<b>E23 / E27 / E28. Oven Fan Rotation Time.</b> The time the fan will rotate in one direction before changing direction.	1	999	120	sec	S
P17	<b>E23</b> / <b>E27</b> / <b>E28</b> . Oven Fan Reversing Pause Time. The time between the fan stopping and re-starting in the opposite direction.	5	10	10	sec	S
voL	<b>Buzzer Volume</b> . Volume of buzzer can be adjusted between 'O' - No Buzzer and '10' maximum volume.	0	10	5		U
P20	Thermal Switch NO or NC Contacts. ID2 Digital Input Polarity.	0	1	1		S
	Program Preheating Offset. In Program Mode only. The temperature above 'Set	0	30	0	°C	
PrE	Temperature' that the oven will pre-heat to. (To allow for heat loss during door opening and cold product loading). NOTE;- Upon starting the Program, Oven Set Temperature will revert to the Set Temperature.	0	54	(0)	°F	U
P22	Maximum Open Door Time in Program Ready State. This is the time allowance for door open when loading oven, to avoid Pre-Heating state re-activating once the door is closed. NOTE;- If door has been open longer than the time set (60) and actual temper- ature has dropped below the set temperature for that program, when the door is closed, the oven will revert to the pre-heating mode.	30	180	60	sec	S
StG	<b>Multi-Stage Cooking Enable</b> This parameter will control whether or not the oven can program with multiple stages.	No	Yes	Yes		U
P26	Maximum Number of Stages	2	5	3		S
ECP	Enable Core Temp Probe? Set to 'NO' for 20D Series.	No	Yes	No		S
StE	Steam Level. Controls the function of the Steam Key. Level 0 is fully manual - Valve open while key is pressed. Level 1 to 5 gives 1 to 5 pulses, once only, when Steam Key is pressed (Pulse length defined by P14).	0	5	0		U

(0) Defines the password level of the parameter.

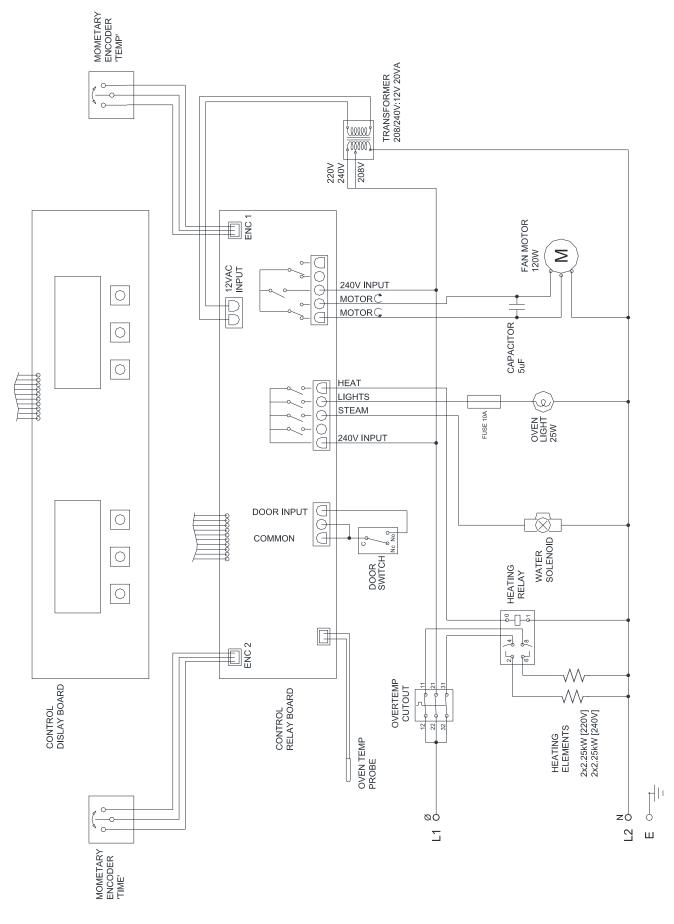
S = Service / Factory. (Password level 321)

U = User. (Password level 123).

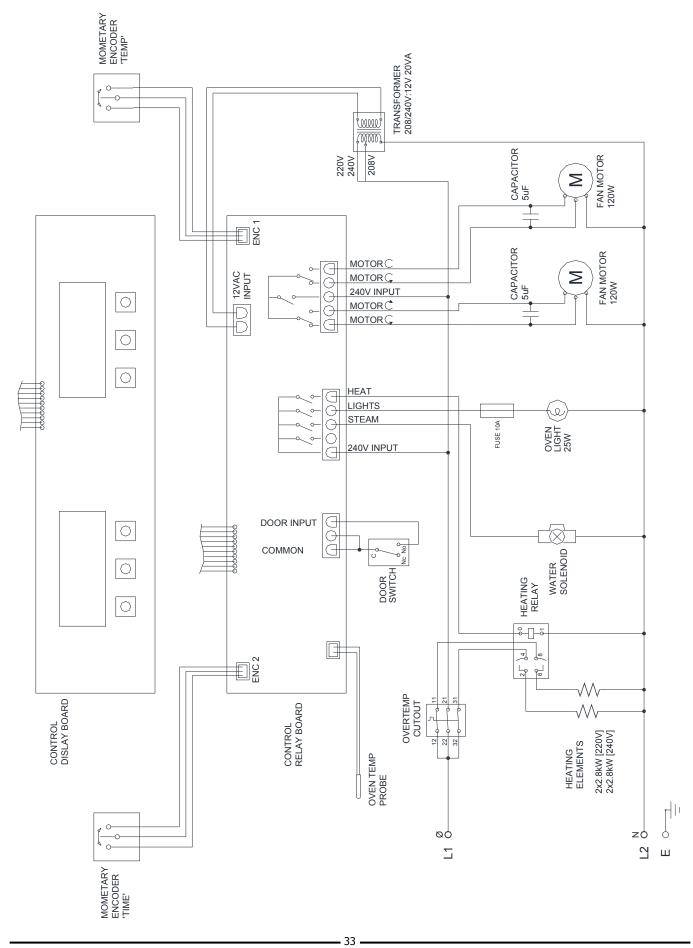
## E23D3 / E27D2 - Electrical Schematic



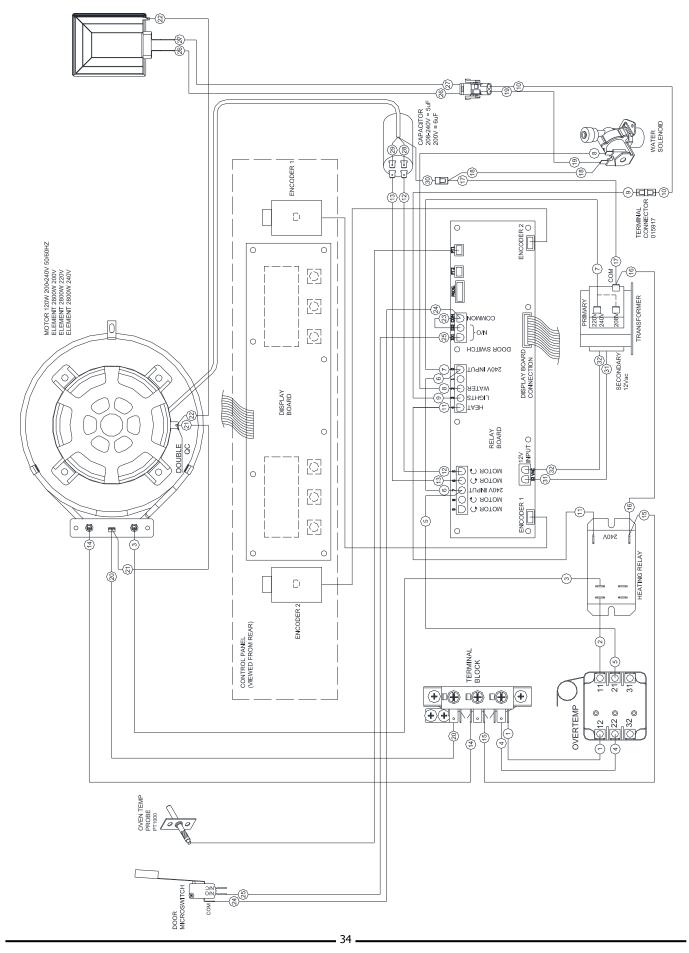
## E27D3 - Electrical Schematic



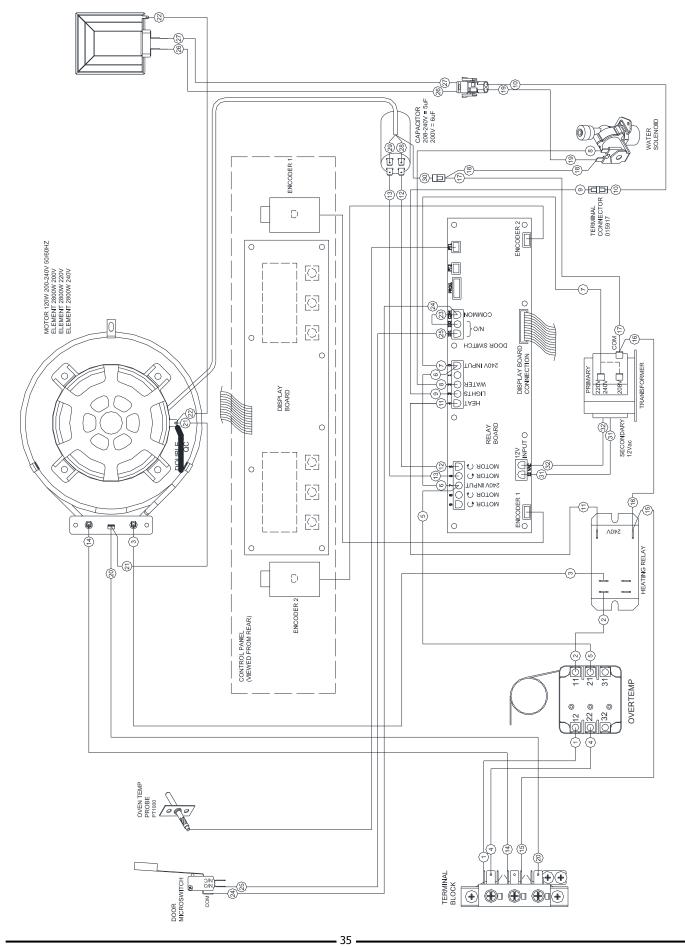
## E28D4 - Electrical Schematic



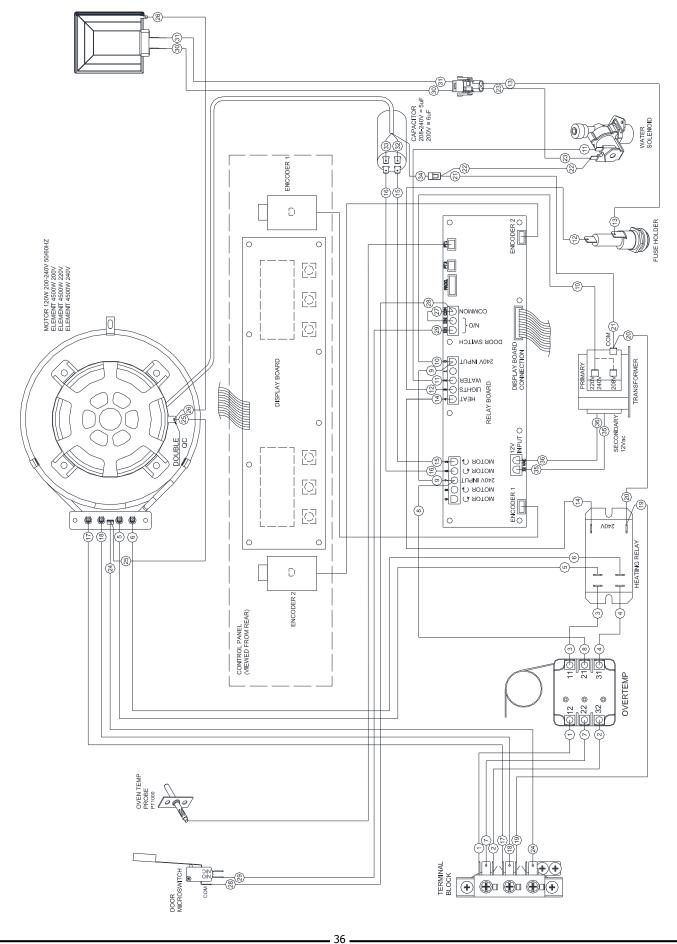
#### E23D3 Wiring Diagram



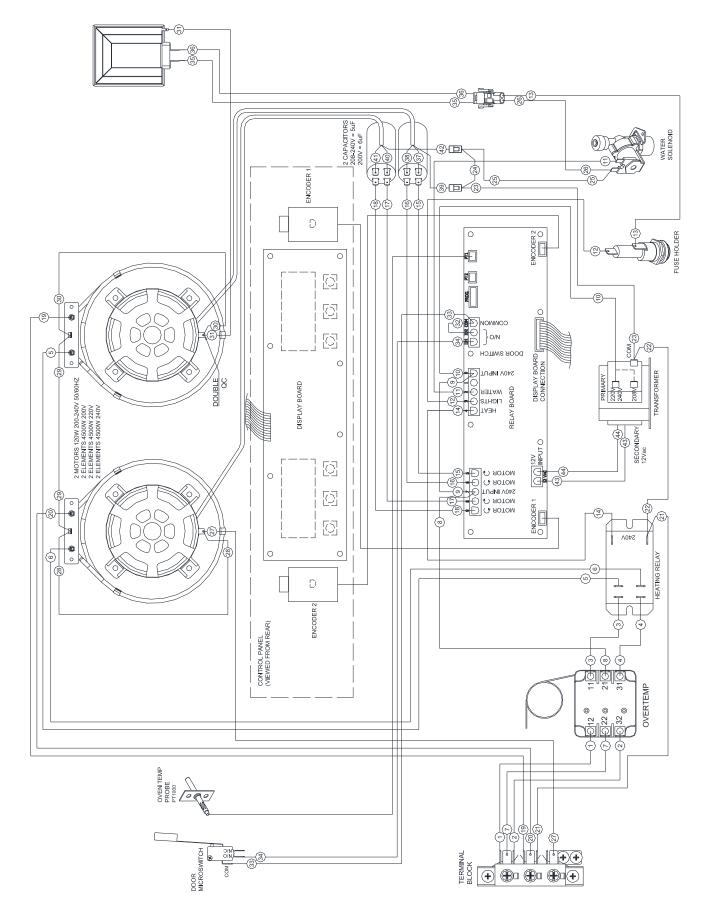
## E27D2 - Wiring Diagram



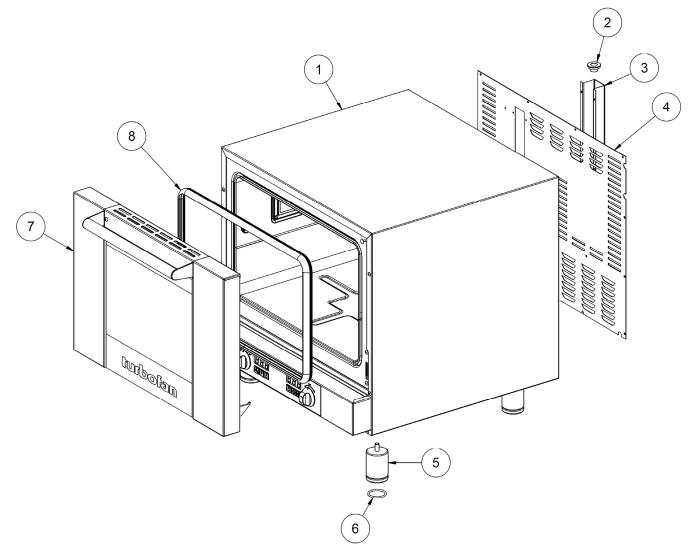
### E27D3 - Wiring Diagram



## E28D4 - Wiring Diagram



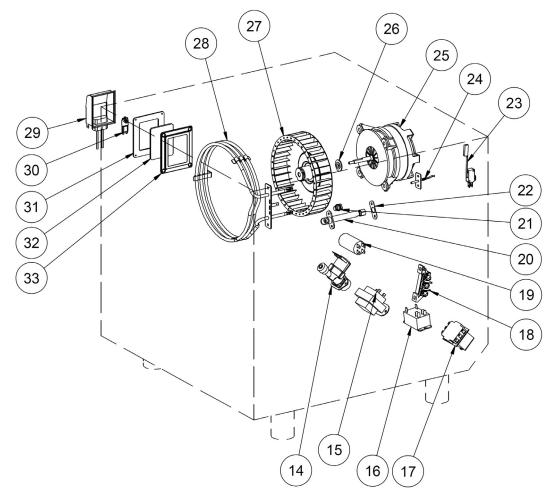
## Outer Assembly - E23D3, E27D2 / E27D3, E28D4



ITEM	PART No.	DESCRIPTION	*RPL
	232834	WRAPPER E23	D
1	232823	WRAPPER E27	D
	233057	WRAPPER E28	D
2	234738	VENT INSERT	D
3	232680	OVEN VENT REAR COVER	D
	238860	REAR PANEL E23	D
4	238861	REAR PANEL E27	D
	238862	REAR PANEL E28	D
5	232379	ADJUSTABLE LEG 3" / 76mm	D
6	232380	FOOT O-RING	С
	233910	DOOR ASSY E23	С
7	232894	DOOR ASSY E27	С
	232895	DOOR ASSY E28	С
	232667	DOOR SEAL E23	В
8	232666	DOOR SEAL E27	В
	234466	DOOR SEAL E28	В

*Rec	*Recommended Parts Level	
RPL	PL Number of units in service	
A	1-5	
В	5-10	
С	10-50	
D	50+	

### Element and Motor - E23D / E27D

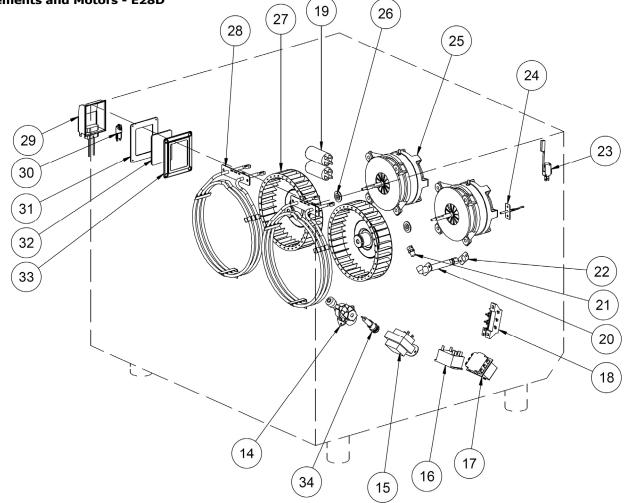


ITEM	PART No.	DESCRIPTION	*RPL
	238981	WATER SOLENOID 180° JG1/4" 240V RPE	Α
14	025922	ADAPTOR 3/4" BSP/GHT, BRASS (USA / CA / MX ONLY).	
	021527	WASHER RUBBER 23 X 14.5 X 1.5MM (USA / CA / MX ONLY).	
15	234429	TRANSFORMER 208/240V x 12VAC SEC 20VA	В
16	238881	RELAY DPST HF92F 30A 240VAC	В
17	234821	OVERTEMP THERMOSTAT 355°C-20K 55.33579.030	Α
18	026160	TERMINAL BLOCK	D
19	234251	CAPACITOR 5µF, 208-240V	В
19	237336	CAPACITOR 6µF, 200V	В
20	238983	WATER ELBOW ASSEMBLY	D
21	021057	SPRAY NOZZLE	С
22	238986	GASKET - WATER ELBOW	Α
23	233862	MICROSWITCH	A
24	237447K	TEMP PROBE KIT DIGITAL	В
25	237337	FAN MOTOR L7- EB25 2 POLE 1 SPEED	В
26	238989	MOTOR SHAFT SEAL	В
27	234137	FAN	В
21	235420	FAN PULLER / TIGHTENER (not shown)	С
	234088	OVEN ELEMENT 2800W 240V - E23D3 / E27D2	В
	234089	OVEN ELEMENT 2800W 220V - E23D3 / E27D2	В
28	234108	OVEN ELEMENT 4500W 240V - E27D3	В
	234107	OVEN ELEMENT 4500W 220V - E27D3	В
	236264	ELEMENT GASKET (Not shown)	В
29	232108	LAMPHOLDER G9 HALOGEN	В
30	231814	LAMP BULB G9/25W, HALOGEN	Α
31	021352	GLASS LENS	Α
32	021354	GASKET	Α
33	021353	SUPPORT FRAME	
34	234802	FUSE HOLDER - E27D3 ONLY	D
34	234803	FUSE 10 AMP - E27D3 ONLY	А

*Rec	*Recommended Parts Level	
RPL	RPL Number of units in service	
A	1-5	
В	5-10	
С	10-50	
D	50+	

## Exploded Parts List

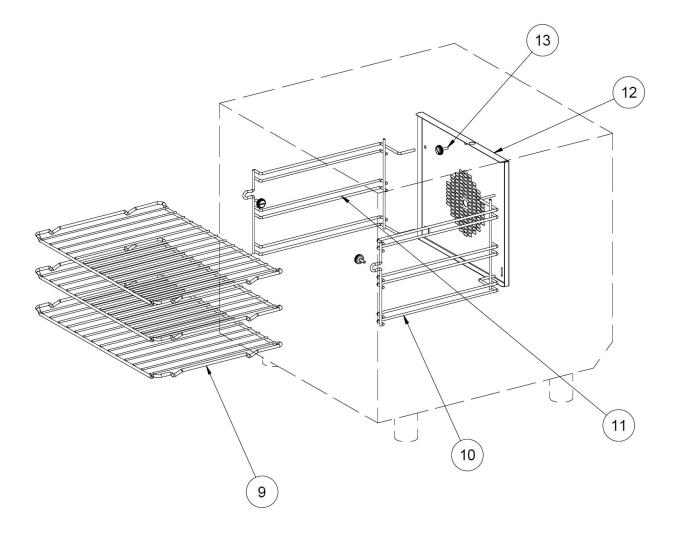
#### **Elements and Motors - E28D**



ITEM	PART No.	DESCRIPTION	*RPL
	238981	WATER SOLENOID 180° JG1/4" 240V RPE	Α
14	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).	
15	234429	TRANSFORMER 208/240V x 12VAC SEC 20VA	В
16	238881	RELAY DPST HF92F 30A 240VAC	В
17	234821	OVERTEMP THERMOSTAT 355°C-20K 55.33579.030	Α
18	026160	TERMINAL BLOCK	D
19	234251	CAPACITOR 5µF, 208-240V	В
19	237336	CAPACITOR 6µF, 200V	В
20	238983	WATER ELBOW ASSEMBLY	D
21	021057	SPRAY NOZZLE	С
22	238986	GASKET - WATER ELBOW	Α
23	233862	MICROSWITCH	Α
24	237447K	TEMP PROBE KIT DIGITAL	В
25	237337	FAN MOTOR L7- EB25 2 POLE 1 SPEED	В
26	238989	MOTOR SHAFT SEAL	В
27	234137	FAN	В
21	235420	FAN PULLER / TIGHTENER (not shown)	С
	234088	OVEN ELEMENT 2800W 240V - E28D4	В
28	234089	OVEN ELEMENT 2800W 220V - E28D4	В
	236264	ELEMENT GASKET (Not shown)	В
29	232108	LAMPHOLDER G9 HALOGEN	В
30	231814	LAMP BULB G9/25W, HALOGEN	Α
31	021352	GLASS LENS	Α
32	021354	GASKET	Α
33	021353	SUPPORT FRAME	Α
0.4	234802	FUSE HOLDER - E28D4 ONLY	D
34	234803	FUSE 10 AMP - E28D4 ONLY	Α

*Rec	ommended Parts Level	
RPL	Number of units in service	
A	1-5	
В	5-10	
С	10-50	
D	50+	

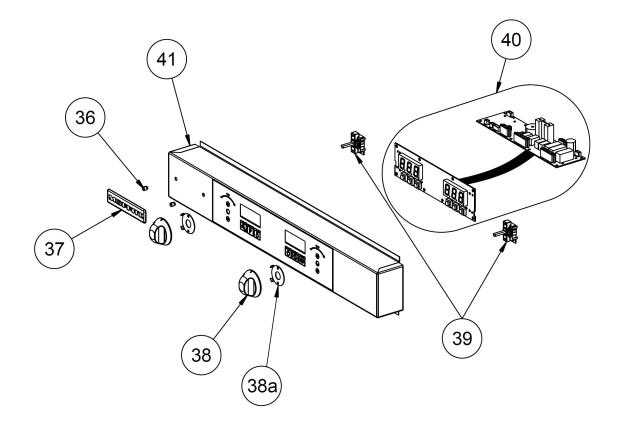
## **Oven Racks - All Ovens**



ITEM	PART No.	DESCRIPTION	*RPL
	233564	OVEN RACK E23	D
9	233565	OVEN RACK E27, E28	D
	238220	OVEN RACK E27, E28, 600 x 400	D
	232683	SIDE RACK RH E23	D
	234722	SIDE RACK RH E27, 2 Tray	D
	233559	SIDE RACK RH E27, 3 Tray	D
10	238215	SIDE RACK RH, E27, 2 Tray, 600 x 400	D
	238217	SIDE RACK RH, E27, 3 Tray, 600 x 400	D
	238219	SIDE RACK RH, E28, 600 x 400	D
	233556	SIDE RACK, E28	D
	232682	SIDE RACK LH E23	D
	234721	SIDE RACK LH E27, 2 Tray	D
11	233558	SIDE RACK LH E27, 3 Tray	D
11	238214	SIDE RACK LH E27, 2 Tray, 600x400	D
	238216	SIDE RACK LH, E27, 3 Tray, 600 x 400	D
	238218	SIDE RACK LH, E28, 600 x 400	D
	232879	FAN BAFFLE E23	D
12	232896	FAN BAFFLE ASSY E27	D
	232685	FAN BAFFLE ASSY E28	D
13	233552	THUMBSCREW	В

*R	*Recommended Parts Level	
RPL	Number of units in service	
A	1-5	
В	5-10	
С	10-50	
D	50+	

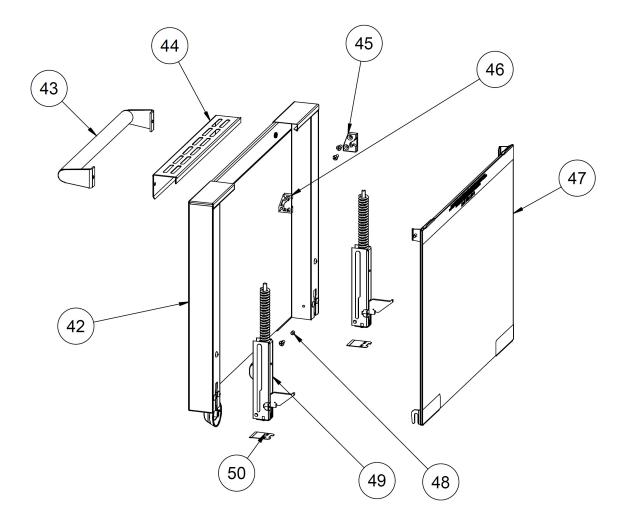
## **Control Panel - ALL**



ITEM	PART No.	DESCRIPTION	*RPL
36	228132	TUBE CLIP	В
37	233865	BADGE MOFFAT	D
57	233867	BADGE BLUE SEAL UK, CAN	D
38	234447	KNOB INDEX	В
38a	238895	KNOB STOP PLATE	
39	238047	ENCODER MOMENTARY 1.1M	Α
40	238194	DIGITAL CONTROLLER KIT	В
41	238124	CONTROL PANEL LAMINATED E23D	D
41	238125	CONTROL PANEL LAMINATED E27D / E28D	D

*Re	*Recommended Parts Level	
RPL	Number of units in service	
A	1-5	
В	5-10	
С	10-50	
D	50+	

## **Door Assembly ALL Ovens**



ITEM	PART No.	DESCRIPTION	*RPL
	233911	DOOR OUTER E23	С
42	233341	DOOR OUTER E27	С
	233340	DOOR OUTER E28	С
43	235151	DOOR HANDLE <b>E23</b>	D
43	235152	DOOR HANDLE E27 / E28	D
44	233918	DOOR TOP TRIM E23	D
44	233254	DOOR TOP TRIM E27 / E28	D
45	234602	INNER GLASS CATCH T-FAN LH	D
46	234624	INNER GLASS CATCH T-FAN RH	D
	233913	DOOR INNER GLASS ASSY E23	С
47	233368	DOOR INNER GLASS ASSY E27	С
	233346	DOOR INNER GLASS ASSY E28	С
48	003397	ELEMENT SPACER PLATED	D
	233293	DOOR HINGE E23	С
49	233294	DOOR HINGE E27	С
	233295	DOOR HINGE E28	С
50	233352	DOOR BOTTOM COVER	D

	*Recommended Parts Level	
	<b>RPL</b> Number of units in service	
	A	1-5
	В	5-10
	С	10-50
ĺ	D	50+

Turbofan E20D Series Convection Ovens Amendment 1

## **SK STANDS**



SK23 - Stand for E22 and E23 610mm/24"(W) x 530mm/20%"(D) x 900mm/35½(H) Accepts US½ pan and EN⅔ tray



SK2731U - Stand for E27 / E28 810mm/32"(W) x 650mm/25½"(D) x 900mm/35½"(H) Accepts US ½ and US full pan



SK2731N — Stand for E27 / E28 810mm/32"(W) x 650mm/25½"(D) x 900mm/35½"(H) Accepts EN 600x400 or GN1/1 pans