



INSTALLATION / OPERATION MANUAL

E35 CONVECTION OVEN

MANUFACTURED BY

Moffat Limited

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New Zealand

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Dealer.....	
Service Agent.....	

Introduction

We are confident that you will be delighted with your TURBOFAN OVEN, and it will become a most valued appliance in your commercial kitchen.

A new oven can seem very complex and confusing at first glance. To ensure you receive the utmost benefit from your new Turbofan, there are two important things you can do.

Firstly

Please read the instruction book carefully and follow the directions given. The time taken will be well spent.

Secondly

If you are unsure of any aspect of the installation, instructions or performance of your oven, contact your E35 dealer promptly. In many cases a phone call could answer your question.

Installation Requirements



It is most important that this oven is installed correctly and that operation is correct before use.

Installation shall comply with local electrical, health and safety requirements.

This equipment is to be installed to comply with the Federal, State or local plumbing codes having jurisdiction.

Before Connection to Power Supply

- Remove all packing.
- Check equipment and parts for damage. Report any damage immediately to the carrier and distributor.
- Remove protective plastic coating from the side panels.
- Check that the following parts have been supplied with your oven:
 - 1 x Water Inlet Elbow.
- Report any deficiencies to the distributor who supplied the oven.
- Fit the feet to the oven.
- Check that the available power supply is correct to that shown on the rating plate located on the right-hand side panel.

Model	Electrical Rating
E35-xx-251	230-240 V a.c., 50 Hz, 1P+N+E, 12.5 kW @ 240 V
E35-xx-P251	208-220 V a.c., 50 Hz, 1P+N+E, 12.5 kW @ 220 V
E35-xx-P253	208-220 V a.c., 50 Hz, 3P+E, 12.5 kW @ 220 V
E35-xx-P261	208-220 V a.c., 60 Hz, 1P+N+E, 12.5 kW @ 220 V
E35-xx-P263	208-220 V a.c., 60 Hz, 3P+E, 12.5 kW @ 220 V
E35-xx-T251	230-240 V a.c., 50 Hz, 1P+N+E, 12.5 kW @ 240 V
E35-xx-T253	230-240 V a.c., 50 Hz, 3P+E, 12.5 kW @ 240 V
E35-xx-T261	230-240 V a.c., 60 Hz, 1P+N+E, 12.5 kW @ 240 V
E35-xx-T263	230-240 V a.c., 60 Hz, 3P+E, 12.5 kW @ 240 V
E35-xx-353	380 V a.c., 50 Hz, 3P+N+E, 12.5 kW @ 380 V
E35-xx-363	380 V a.c., 60 Hz, 3P+N+E, 12.5 kW @ 380 V
E35-xx-453	400-415 V a.c., 50 Hz, 3P+N+E, 12.5 kW @ 415 V
E35-xx-463	400-415 V a.c., 60 Hz, 3P+N+E, 12.5 kW @ 415 V
E358-xx-453	400-415 V a.c., 50 Hz, 3P+N+E, 8.0 kW @ 415 V

Location

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

Rear	0" / 0 mm	
Left-hand side	0" / 0 mm	
Right-hand side	3" / 75 mm	(Fixed installations require at least 500mm (20") clearance at the right hand side for service accessibility).

- Position the oven in its working position.

Installation

- Use a spirit level to ensure oven is level from side to side and front to back. (If this is not carried out, uneven cooking could occur). The feet / legs used with bench/floor mounting or provided with stands are adjustable and will require adjusting in levelling the unit.
- The unit should be positioned such that the operating panel and oven shelves are easily reachable for loading and unloading.

Important:

THE VENT LOCATED ON THE OVEN TOP MUST NEVER BE OBSTRUCTED.

Bench Mounting

- For bench mounted applications the oven must be fitted with 100 mm / 4 inch feet.

CAUTION:

To reduce the risk of fire, the appliance is to be installed over a non-combustible surface only. Such surface shall extend not less than 12 inches (300 mm) beyond the appliance on all sides.

Floor Mounting

- For floor mounted applications the oven must be fitted with 150mm / 6inch legs.

NOTE: Four 100 mm / 4 inch adjustable or 150 mm / 6 inch legs are available separately from your E35 dealer as an optional extra.

Stand Mounting

- Ovens that are to be mounted on stands do not require feet or legs. Refer to instructions for mounting on stand in instructions supplied with separately ordered stands.
- Avoid having heat producing equipment such as fryers or steamers adjacent to the right-hand side of oven.

Electrical Connection

Important:

- FIXED WIRING INSTALLATIONS MUST INCORPORATE AN ALL-POLE DISCONNECTION SWITCH.

- Remove side cover panel to allow access to the terminal block and strain relief cable clamp.
- The cable can be fitted through the entry grommet and secured from strain by tightening the fitted strain relief bushing.
- Connect cable to the terminals as marked.
- Refit cover panel.

THIS APPLIANCE MUST BE EARTHED / GROUNDED.

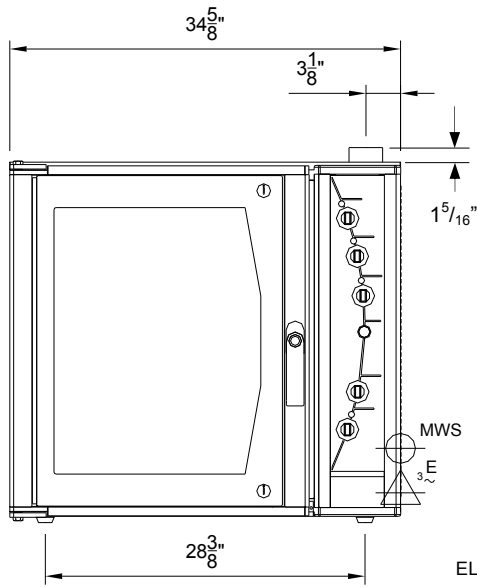
Water Connection

- A cold water supply should be fitted to the water inlet ($\frac{3}{4}$ " BSP connection) which is located near the rear of the right hand side of the unit.
- Alternately, a connection elbow and sealing washer is supplied with this unit for direct connection of a $\frac{1}{2}$ " ID hose, and is recommended for easy installation and service.
- Connect water supply - Max inlet pressure 80psi / 550kPa.
- Turn on water supply to check for leaks.

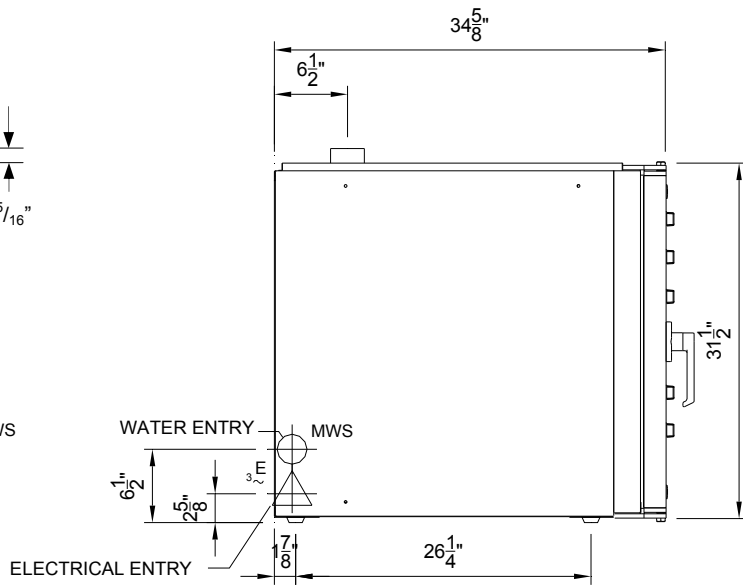
Before Use

- Operate the oven for about 1 hour at 400°F (200°C) to remove any fumes or odours which may be present.

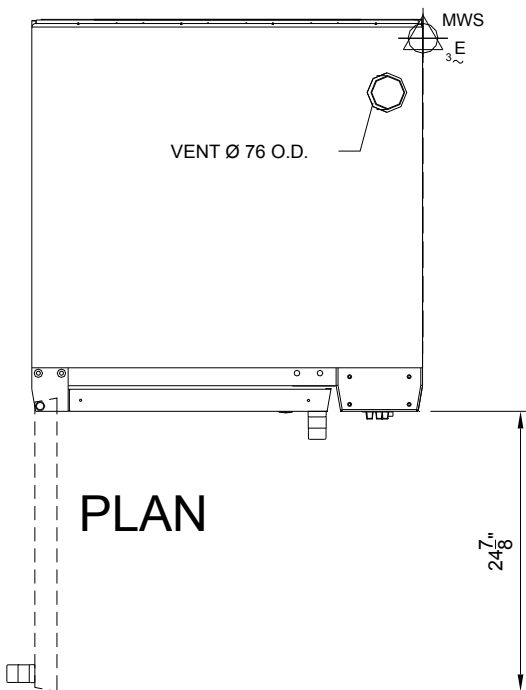
E35 Specifications



FRONT



SIDE



PLAN

Electrical Connection	Refer to Section 'Before Connecting to Power Supply' on Page 3.
Cold Water Connection	3/4" B.S.P. or 1/2 ID hose (550kPa / 80psi maximum pressure).

Operation

Description of Controls



Vent

Vent closed with switch in the vertical position.
Vent open with switch in the horizontal position.



Thermostat

Temperature range 100 - 550°F (60-280°C).
Indicator illuminates when the elements are cycling ON to maintain set temperature.



Bake Timer

1 Hour bake timer.
(Indicator illuminates when "time up" (0) reached, and buzzer sounds).



Steam Switch

Push steam switch to activate steam into the oven chamber. Release switch to stop steam.



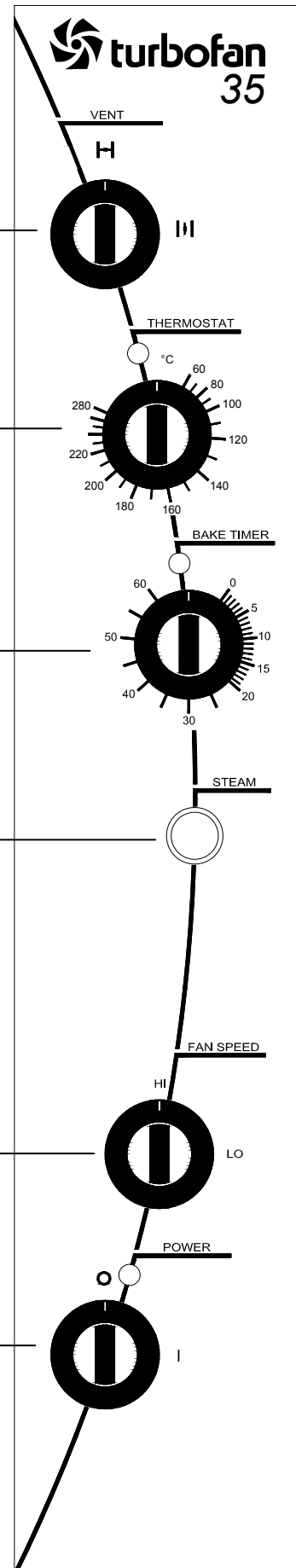
Fan Speed

Full fan speed in the vertical (HI) position.
Half fan speed in the horizontal (LO) position.



Power

Turn to switch power on or off (on horizontal, off vertical) (indicator illuminates when power is on).



Baking



1. Turn Power 'On'

The indicator light will illuminate whenever the switch is in the “I” (On) position (the oven lights will also illuminate).

The oven fan will start after 10 seconds with the door closed. The fan delay will repeat whenever the door is closed after opening.

The oven fan will change rotation direction every 90 seconds.



2. Fan Speed

The oven fan can either be operated at “HI” fan speed or “LO” speed by rotating the knob. This may be done before or during a cooking cycle.

For most applications the HI fan speed provides best results. For delicate baked products or roasting the LO fan speed may be more suitable.



3. Oven Vent

The oven vent can be opened or closed at any stage during a cooking cycle in the oven.

For best steam results on baked product always ensure the oven vent is closed.

The oven vent combines an over pressure feature that allows the vent to open automatically when required for periods when steam injection is used, to relieve excess pressure.



4. Set Thermostat to Desired Cooking Temperature

The thermostat indicator light will illuminate when ever the elements are cycled on to maintain set temperature.



5. Load Oven

Once the oven is up to temperature, open the door and load the oven with product. Avoid delays in loading the oven with the door open as this will delay oven temperature recovery.

The ovens fan will stop when the door is opened. The fan will start 10 seconds after the door is closed.



6. Steam

When steam is required press the steam button. Steam will be injected into the oven chamber for as long as the steam button is held pressed.



7. Set Timer to Desired Time.

To set timer, turn knob clockwise to the required time. At any stage, the time can be adjusted in either direction.

For settings less than 10min, first set to greater setting, then turn down to required time period.

This 60 minute timer is completely independent of the oven control.

Operation

Baking



8. Time Up

When the timer reaches 0 minutes the buzzer will sound, and the indicator illuminates.

To cancel the buzzer turn the timer to the off position.



9. Unload Oven

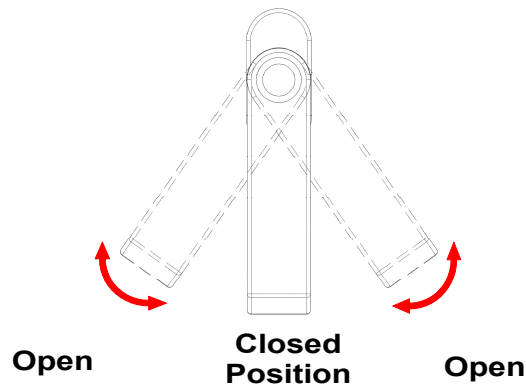
Open the door and unload the oven .

The oven fan will stop when the door is opened.

Door Handle

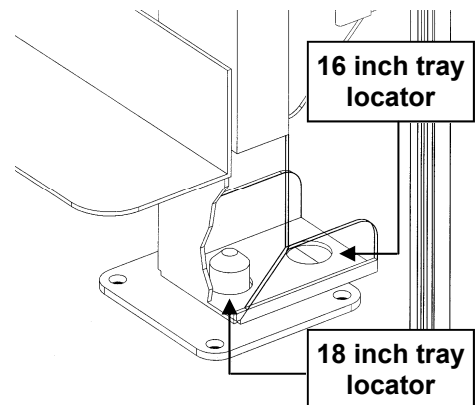
Standard Door Catch Operation

- A. To open the oven door, rotate the handle either clockwise or anti-clockwise to the 'Open' position to unlatch the door and pull the door open with the door handle.
- B. To close the door, push the door firmly closed and the door will lock in the closed position. (there is no need to turn the handle to the closed position as the door self-latches in the closed position and the handle will self-centre to the 'Closed' position).



Side Racks

1. The side racks can be fitted in one of two positions, in order to take 16 or 18 inch trays.
2. To position racks for 16 inch trays, use the holes at the rear of the rack.
3. Alternatively for 18 inch trays, use the holes nearest the centre of the oven.

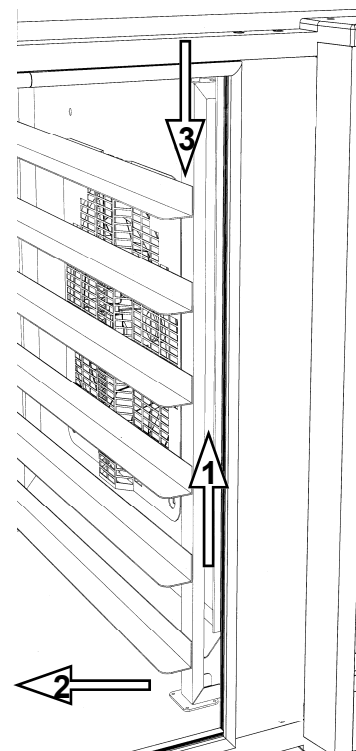


Removal of Side Racks

1. Lift the side rack off the bottom locating pins.
2. Move the bottom of the side rack toward the centre of the oven.
3. Lower side rack to clear top locating pins, and remove.

Replacement of Side Racks

1. Insert rack into the oven, placing appropriate holes over the top locating pins.
2. Lift the side rack over the bottom locating pins.
3. Lower side rack with the appropriate holes over the bottom locating pins.



Cleaning

Cleaning Guidelines

CAUTION:

ALWAYS TURN OFF THE POWER SUPPLY BEFORE CLEANING.

THIS UNIT IS NOT WATER PROOF.

DO NOT USE WATER JET SPRAY TO CLEAN INTERIOR OR EXTERIOR OF THIS UNIT.

Exterior

Clean with a good quality stainless steel cleaning compound. Harsh abrasive cleaners may damage the surface.

Interior

Ensure that the oven chamber is cool. Do not use wire brushes, steel wool or other abrasive materials. Clean the oven regularly with a good quality oven cleaner. Take care not to damage the fan or oven lights.

Oven Racks

To remove, follow instructions given in Operation section.

Side Racks

To remove, follow instructions given in Operation section.

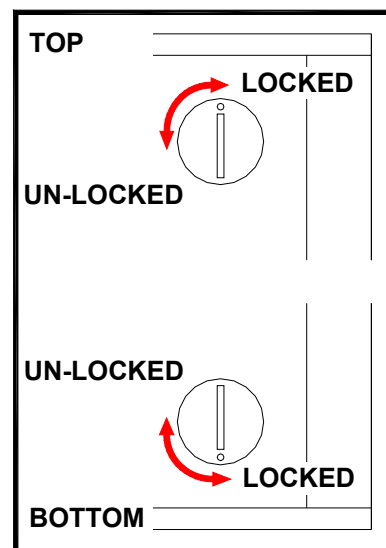
Oven Door Glass

Outer Surfaces

Clean with conventional glass cleaners

Inner Surfaces

To clean between the inner and outer door glasses, firstly ensure the door is locked shut (refer to page 9). With a screwdriver, coin, or other suitable device, ¼ turn the outer glass locks to release the outer glass and allow it to be hinged open for cleaning access (refer diagram for correct procedure).

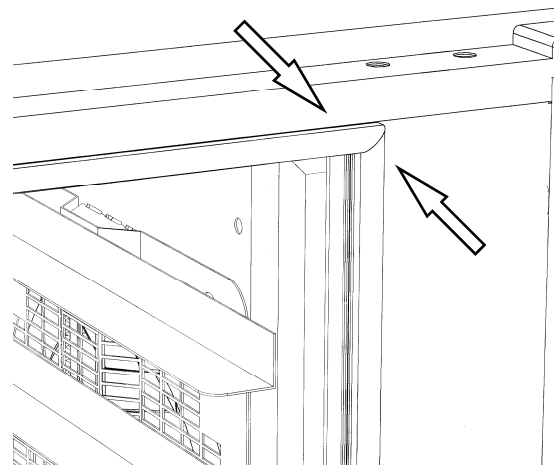


Important:

Always ensure outer glass is hinged closed and locked into position before opening the oven door.

Oven Door Seal

To remove, pull out the seal starting at each corner. The seal may be washed in the sink, but take care not to cut or damage it. To replace, fit the seal in at the corners first, then push in the rest of the seal.



CAUTION:

This appliance is;

- **For professional use and is to be used by qualified persons only.**
- **Only authorised service persons are to carry out installation, and servicing operations.**
- **Components having adjustments protected (e.g. paint sealed) by the manufacturer should not be adjusted by the user / operator.**

This section provides an easy reference guide to the more common problems that may occur during the operation of your equipment. The fault finding guide in this section is intended to help you correct, or at least accurately diagnose problems with your equipment.

Although this section covers the most common problems reported, you may encounter a problem not covered in this section. In such instances, please contact your local authorised service agent who will make every effort to help you identify and resolve the problem. Please note that the service agent will require the following information:-

- **Model code and Serial Number of the appliance. (both can be found on the Rating Plate located on the appliance.**

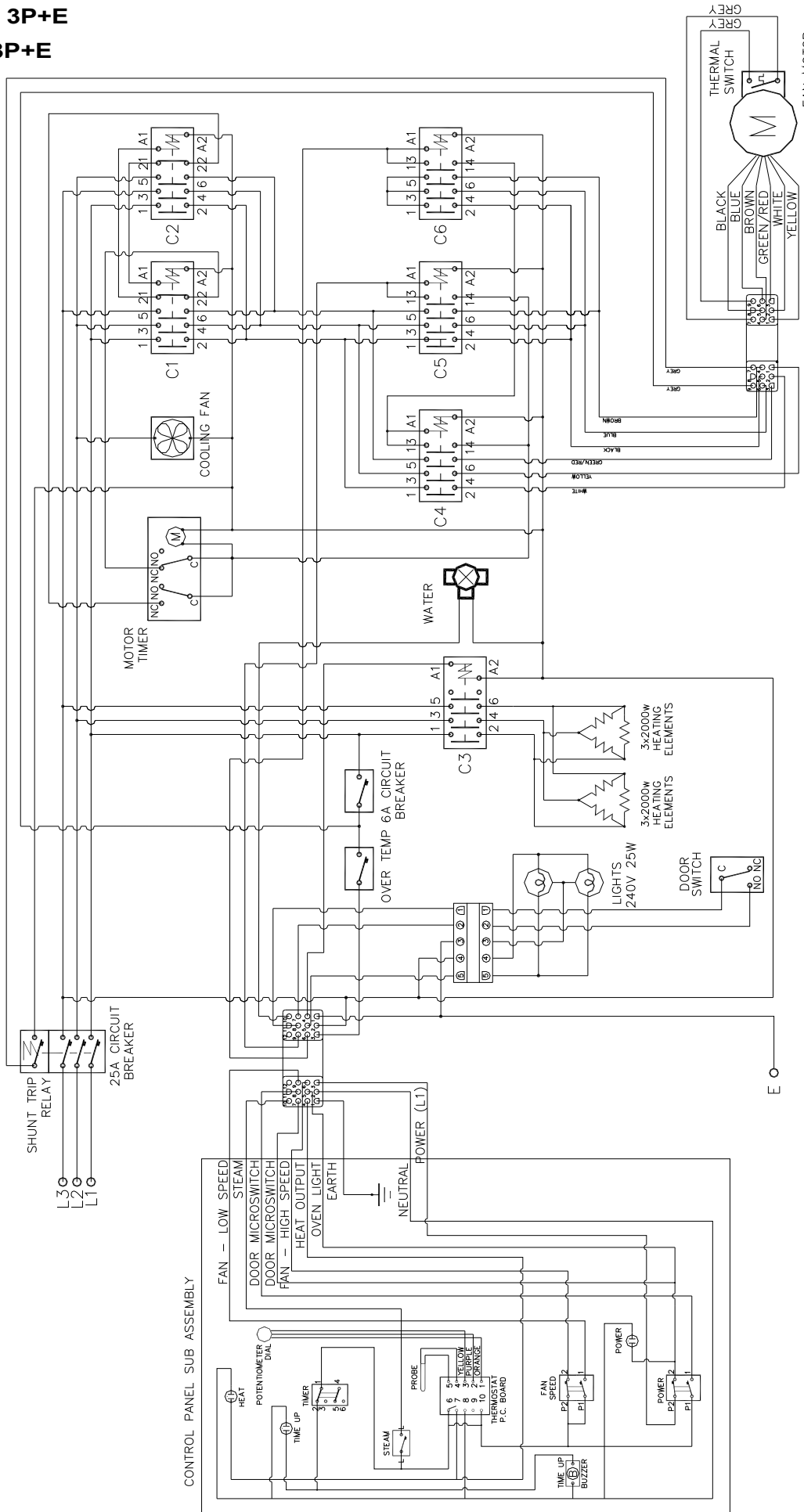
Fault	Possible Cause	Remedy
The oven does not operate / start.	The mains isolating switch on the wall, circuit breaker or fuses are 'Off' at the power board.	Turn 'On'.
	The power switch on the oven is 'Off'.	Depress switch. Switch will illuminate.
	Overtemp safety thermostat tripped.	Reset (Button located at bottom RH side of RH side panel). If fault re-occurs call for service.
Oven light illuminating but fan not working and oven not heating.	Oven door not closed properly.	Close oven door properly.
	Door switch or door catch broken.	Call for service.
Bake timer does not time down.	Bake timer not set correctly.	For settings less than 10 minutes, first set to greater setting then turn back to desired setting.
Oven light not illuminating.	Blown bulb.	Replace bulb.
No water injection / steam.	Water not turned 'On'.	Turn water 'On' at water supply.

Circuit Schematic

208V-220V, 3P+E

230-240V, 3P+E

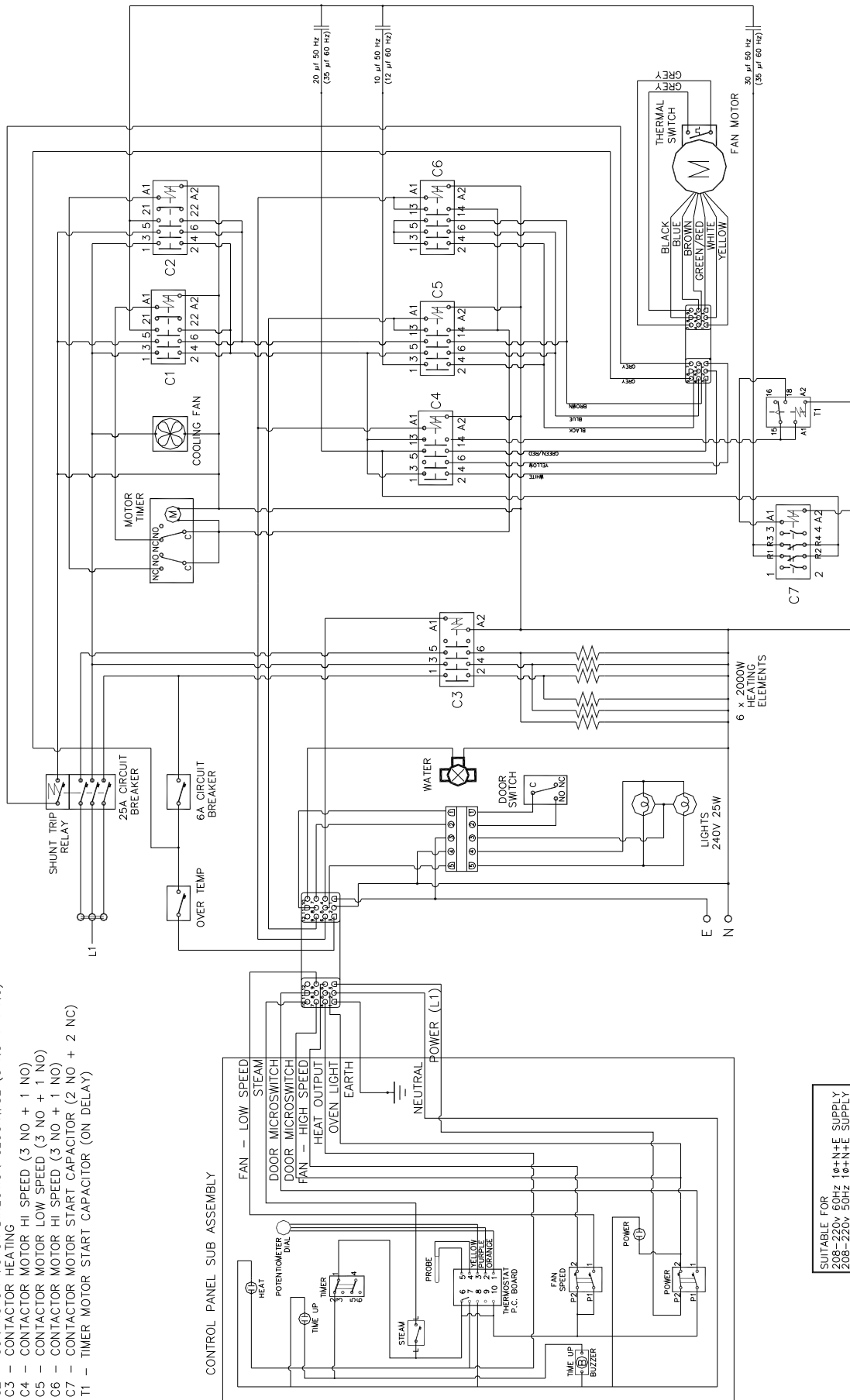
- C1 - CONTACTOR MOTOR DIRECTION ANTI-CLOCKWISE (3 NO + 1 NC)
 C2 - CONTACTOR MOTOR DIRECTION CLOCKWISE (3 NO + 1 NC)
 C3 - CONTACTOR HEATING
 C4 - CONTACTOR MOTOR HI SPEED (3 NO + 1 NO)
 C5 - CONTACTOR MOTOR LOW SPEED (3 NO + 1 NO)
 C6 - CONTACTOR MOTOR HI SPEED (3 NO + 1 NO)



SUITABLE FOR
 208V-220v, 3Ø+E SUPPLY
 230V-240v, 3Ø+E SUPPLY

208-220V, 1P+N+E
230-240V, 1P+N+E

- C1 - CONTACTOR MOTOR DIRECTION ANTI-CLOCKWISE (3 NO + 1 NC)
- C2 - CONTACTOR MOTOR DIRECTION CLOCKWISE (3 NO + 1 NC)
- C3 - CONTACTOR HEATING
- C4 - CONTACTOR MOTOR HI. SPEED (3 NO + 1 NO)
- C5 - CONTACTOR MOTOR LOW SPEED (3 NO + 1 NO)
- C6 - CONTACTOR MOTOR HI. SPEED (3 NO + 1 NO)
- C7 - CONTACTOR MOTOR START CAPACITOR (2 NO + 2 NC)
- TI - TIMER MOTOR START CAPACITOR (ON DELAY)

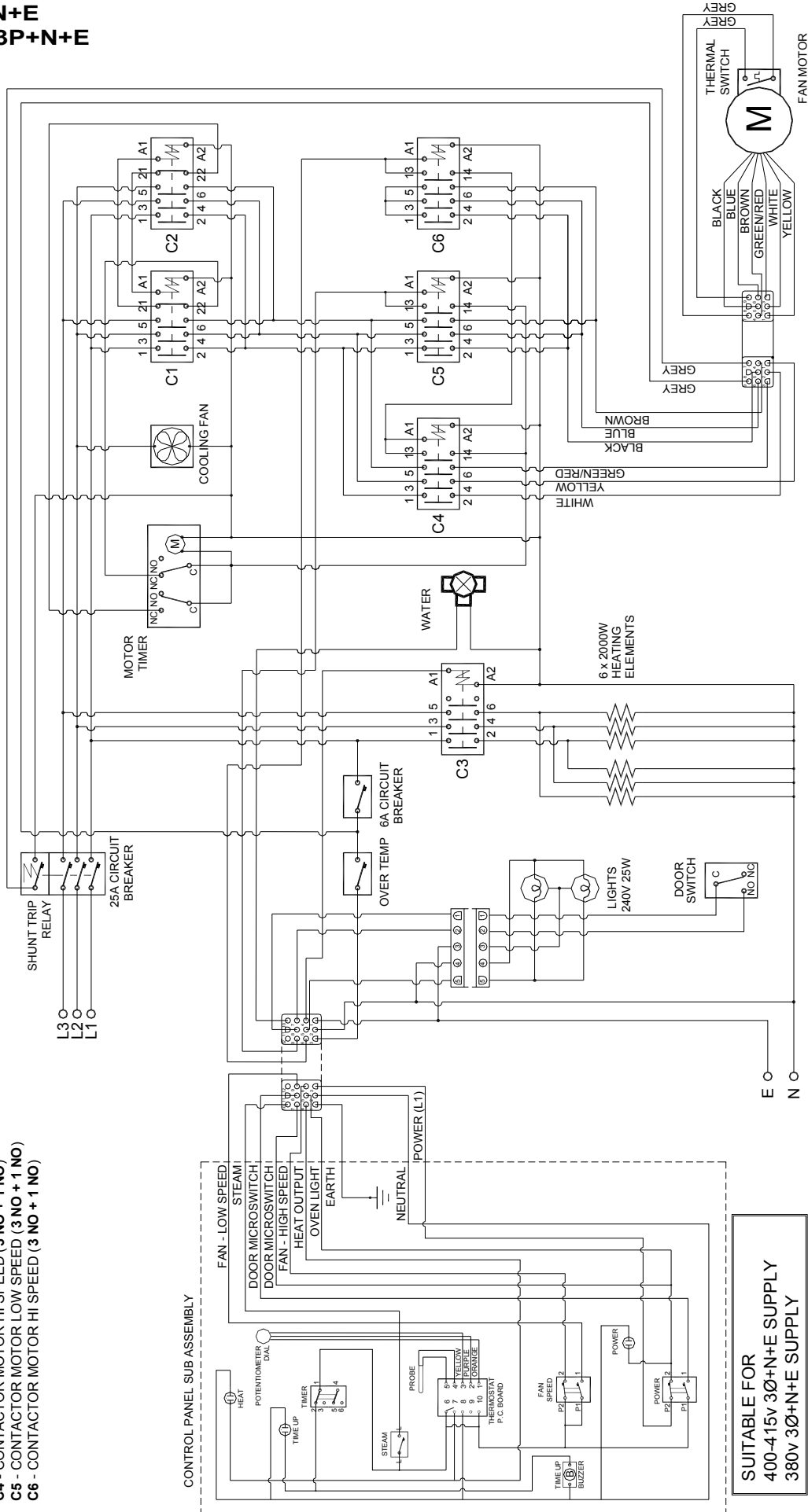


SUITABLE FOR
 208-220V 60HZ 1Ø+N+E SUPPLY
 230-240V 60HZ 1Ø+N+E SUPPLY
 208-220V 50HZ 1Ø+N+E SUPPLY
 230-240V 50HZ 1Ø+N+E SUPPLY

Circuit Schematic

380V, 3P+N+E
400-415V, 3P+N+E

- C1 - CONTACTOR MOTOR DIRECTION ANTI-CLOCKWISE (3 NO + 1 NC)**
- C2 - CONTACTOR MOTOR DIRECTION CLOCKWISE (3 NO + 1 NC)**
- C3 - CONTACTOR HEATING**
- C4 - CONTACTOR MOTOR HI SPEED (3 NO + 1 NO)**
- C5 - CONTACTOR MOTOR LOW SPEED (3 NO + 1 NO)**
- C6 - CONTACTOR MOTOR HI SPEED (3 NO + 1 NO)**



Replacement Part List

Replacement Part List

Control Panel

020849	Neon Indicator Light.
020985	Thermostat Potentiometer.
011760	Timer - (60 Minute).
232411	Steam Switch Assembly.
231792	Selector Switch (Fan Speed).
020822	Selector Switch (Power).
231764	Solid State Thermostat.
020883K	Thermostat Probe.
020823	Control Panel Knobs.

Gear Plate

231740	Heating Contactor	E35-xx-x253 / 263 (3P+E) Models Only.
231739	Heating Contactor	1P+N+E & 3P+N+E Models.
231741	Motor Contactor	(3NO+1NO).
231742	Motor Contactor	(3NO+1NC).
234033	Contactor	(2NO+2NC), 1 Phase Models Only.
231743	Contactor Interlock	3 Phase Models Only.
024567	Timer - Fan Direction.	
231748	Timer - On Delay	1 Phase Models Only.
232410	Shunt Trip.	
232409	Circuit Breaker - 40A	E35-xx-x253 / 263 (3P+E) Models Only.
232408	Circuit Breaker - 25A.	1P+N+E & 3P+N+E Models.
232407	Circuit Breaker - 6A.	
232108	Lamp Holder Complete	(G9 Halogen).
231814	Light Bulb G9.	25W 230V - (G9 Halogen).
021352	Oven Lamp Glass.	
021354	Lamp Gasket.	
025400	Over Temperature Thermostat.	
021156	Cooling Fan.	
232551	Capacitor 10mF,	└ 50Hz, 1 Phase Models Only.
231553	Capacitor 20mF,	
231554	Capacitor 30mF,	
232552	Capacitor 12mF,	└ 60Hz, 1 Phase Models Only.
232555	Capacitor 35mF,	
011794K	Buzzer.	

Motor & Elements

020886K	Motor Kit - 208-240V 60Hz.
020885K	Motor Kit - 208-240V 50Hz.
020745K	Motor Kit - 380-415V.
025396	Fan.
020896	Motor Shaft Seal.
020762	Element - 230 - 240V, 2000W.
020763	Element - 208 - 220V, 2000W.
022259	Element - 230 - 240V, 1250W, - (E358, 8kW Models Only).
020774	Microswitch.

Steam System

020851	Water Solenoid Valve.
020853	Spray Adaptor Body.
020819	Vent Over-Pressure Spring.
020824	Vent Gasket.
021526	Water Inlet Elbow.

Replacement Part List (continued)**Door**

231438	Door Seal.
231804	Single Step Locking Dog.
231803	Door Inner Glass.
232364	Door Glass Outer Spring.
231801	Door Inner Glass Buffer.
230745	Hinge Bush.
230741	Hinge Mounting Plate Top.
230742	Hinge Mounting Plate Bottom.
231494	Door Handle.
232134	Door Outer Glass Assembly.

Racks

020809	Side Rack L / Hand WA (E35-26").
020810	Side Rack R / Hand WA (E35-26").
020811	Side Rack L / Hand WA (E35-30").
020812	Side Rack R / Hand WA (E35-30").
015168	Oven Rack (E35-26").
020993	Oven Rack (E35-30").

Optional Extras

025916	Rack Runner 4 Tray LH WA (E35-26").
025917	Rack Runner 4 Tray RH WA (E35-26").
026127	Rack Runner 5 Tray LH WA (E35-26").
026128	Rack Runner 5 Tray RH WA (E35-26").
025089	Rack Runner 8 Tray LH WA (E35-26").
025090	Rack Runner 8 Tray RH WA (E35-26").
023118	Side Rack L / Hand WA 8 Tray (E35-30").
023119	Side Rack R / Hand WA 8 Tray (E35-30").
026590	Rack Runner 4 Tray L / Hand WA (E35-30").
026591	Rack Runner 4 Tray R / Hand WA (E35-30").
021236	Double Stack Kit (E35-26").
021237	Double Stack Kit (E35-30").
021348	Adjustable Legs 4".
230578	Leg Assy 150mm ST/ST.

