

OVEN SERIAL NO					
OVEN CODE 149	150	153	156	158	159

CONDENSER SERIAL No. _____(IF FITTED) In the event of an enquiry please quote these numbers.



Bx OVEN

ECOTOUCH CONTROL

OPERATION AND MAINTENANCE OF OVEN AND CONDENSER UNIT (IF FITTED)



DECLARATION OF CONFORMITY

We hereby declare that this machine complies with the essential health and safety requirements of :-

- The Machinery Directive 2006 / 42 / EC
- The Low voltage Directive 2014 / 35/ EC
- The requirements of the Electromagnetic Compatibility Directive 2004 / 108EC, 91 / 263 / EEC, 92 / 31 / EEC Incorporating standards EN55014-1:2006+A1:2009+A2:2011

EN55014-1:2006+A1:2009+A2:2011 EN55014-2:1997+A1:2001+A2:2008

- The General Safety of Machinery and food processing Standards applicable
- Materials and Articles intended to come into contact with food Regulation (EC) No. 1935 / 2004

Signed	CHON hours					
G.A.Williams – Quality Manager						
Date						
Machine FG Code.	Machine Serial No.					

A technical construction file for this machine is retained at the following address:

MONO EQUIPMENT

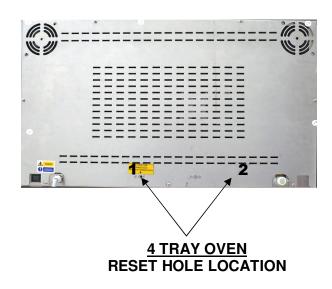
Queensway, Swansea West Industrial Park, Swansea SA5 4EB UK

MONO EQUIPMENT is a business name of **AFE GROUP Ltd**Registered in England No.3872673 VAT registration No.923428136

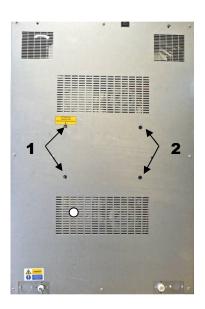
Registered office: Unit 9, Bryggen Road,
North Lynn Industrial Estate,
Kings Lynn,
Norfolk,
PE30 2HZ

ATTENTION

IF OVEN FAILS TO HEAT UP, WHEN FIRST CONNECTED TO A POWER SUPPLY OR DURING USE AT ANYTIME, PRESS RESET BUTTON(S) LOCATED THROUGH THE REAR BACK PANEL. (DO NOT REMOVE BACK PANEL)



HOLE CAN BE AT POSITION 1 OR POSITION 2 DEPENDING ON OVEN



10 TRAY OVEN
RESET HOLE LOCATION

HOLES CAN BE AT POSITION 1 OR POSITION 2 DEPENDING ON OVEN

REAR VIEW OF OVENS

IF THIS FAILS TO CORRECT THE SITUATION, PLEASE CONTACT YOUR SUPPLIER

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MONO Contact Information

1.0 INTRODUCTION

- A combination of clean industrial design and the latest technology, the MONO BX oven range is designed specifically to take the baking Industry's standard trays.
- The ovens in the range are of **stainless steel construction** and some have removable tray racks to aid cleaning.
- The smaller ovens are designed to be **stackable** without separate support, so your business can grow without taking up more ground space.
- The high-speed fans, elements and steam systems give **efficient air circulation** to produce a professional bake across a range of products.
- The doors are double glazed to increase the efficiency of the ovens well-insulated baking chamber
- Ovens are supplied with LCD TOUCH displays for the user-friendly control panels.
 A voice prompt facility is also available for the basic instructions like "Bake over".





10-TRAY Bx OVEN

 The 10-tray Bx is supplied with a 10-tray capacity stainless steel base with locking castors.



OPTIONAL CONDENSER



• The optional condenser unit can be fitted to any Bx oven or stacked Bx ovens as required. With thermostatic control it can be adjusted to operate in most ambiant temperatures.

2.0 SPECIFICATIONS

	4/5 TRAY OVENS			10 TRAY OVENS	
	FG159	FG153	FG158	FG150	FG149
TRAY SIZE	18"x30"	40x60	60x40	18"x30"	40x60
HEIGHT	525mm	525mm	570mm	1170mm	1170mm
HEIGHT OF OVEN ON BASE				1870mm	1870mm
WIDTH	840mm	780mm	1000mm	840mm	780mm
DEPTH – DOOR CLOSED	1269mm	1103mm	890mm	1309mm	1109mm
DEPTH – DOOR OPEN	1828mm	1610mm	1610mm	1870mm	1609mm
WEIGHT (kg)	165	115	110	290	250

POWER (uk versions)

4/5 TRAY OVENS - 240v. 1 PHASE, 50HZ

415v. 3 PHASE, + NEUTRAL + EARTH, 50HZ

10 TRAY OVENS - 415v. 3 PHASE, + NEUTRAL + EARTH, 50HZ

WATER

Supplied with 1 Metre flexible hose $-\frac{3}{4}$ " B.S.P. BOTH ENDS.

WATER PRESSURE 2bar – 4bar

Domestic pressure is usually within this parameter.

Water conditioning unit advised.

No drain required (unless condenser fitted).

3.0 SAFETY

In the interest of safety and efficient operation of the oven, it is essential that this manual should be made available to the operator before work is commenced.

The following points should be observed and followed at all times.

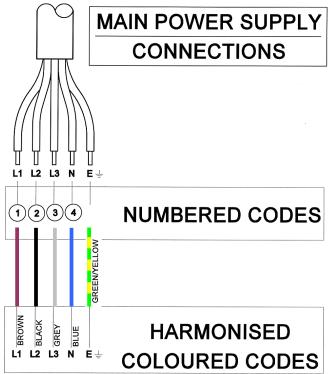
- 1. The oven is designed for baking of bread, confectionery and savoury products only. DO NOT use it for any other items without consulting with **MONO**.
- 2. The oven must be allowed to cool before any form of cleaning is started.
- 3. All repairs and maintenance of electrical units must be carried out by authorised electricians; even then, electrical access panels must not be opened unless the mains supply to the oven is isolated.
- 4. All connections to the oven must be made in accordance with the statuary requirements of the country of installation.
- 5. While the oven is in operation (and for some time after use), it is inadvisable to touch the oven window or the surrounds because of conducted heat.
- 6. The oven must be operated as described in this manual.
- 7. Only **MONO** spare parts should be used on this oven.
- 8. The construction of the oven must not be changed.
- 9. The owner of the oven is legally obliged to instruct staff of these safety points and of the safe operation of the oven. **These instructions should not be removed from the working area.**
- To prevent door glass from shattering DO NOT CLEAN OVEN GLASS WHEN HOT.
- 11. Customers operating a BX oven in a hard water area must ensure that an efficient water-softening device protects the water supply to the equipment.
- 12. Oven gloves should be worn when moving products in or out of the oven.

ATTENTION

DO NOT COVER THE DAMPER FLUE

4.0 INSTALLATION

The oven should be connected to a wall isolator.



- 2. It is the customers' sole responsibility to arrange adequate ventilation and it should be sufficient to ensure water does not condense on or around the oven. A 50mm gap is required at the sides and rear of this oven.

 Chimneys and evacuation ducts, fitted above mono ovens should be insulated.
- 3. If an oven with steam has been chosen, connect to a suitable water supply making sure that the pipes are flushed out to remove all foreign bodies i.e. flux or solder. Customers in hard water areas must ensure that an efficient water treatment device protects the supply to the oven. It is the customers' responsibility to install and maintain an adequate water supply to the oven, which should comply with local water regulations.
- 4. In the interests of hygiene, we strongly recommend that before using the oven for the first time you wipe the inside of the oven and all accessories thoroughly with a clean cloth soaked in warm soapy water. Although the utmost care is taken during assembly and predelivery inspection, there is always a possibility of residue contaminating the first bake if this is not done.
- 5. Ensure that the locking castors on the base unit (if supplied) are locked into position.

6. AMBIENT WORKING TEMPERATURES.

Ambient working temperatures for electric/electronic components such as solenoid switches, circuit breakers, motors etc should be **no more than 40°C (115° f)**

Manufacturers of these and other electrical components advise that any ambient temperature above 40°C affects the functionality of the components and any related guarantees become void. For example, above this temperature motors are not satisfactorily cooled, contactor efficiency is seriously impaired and electronic components shut down. It is the customers' sole responsibility to arrange for adequate ventilation. Any component malfunctioning during the guarantee period that is found to have been subject to excessive humidity or ambient working temperature above 40°C (115°F) will not be covered by the component manufacturers guarantee or MONO's product warranty.

5.0 ISOLATION

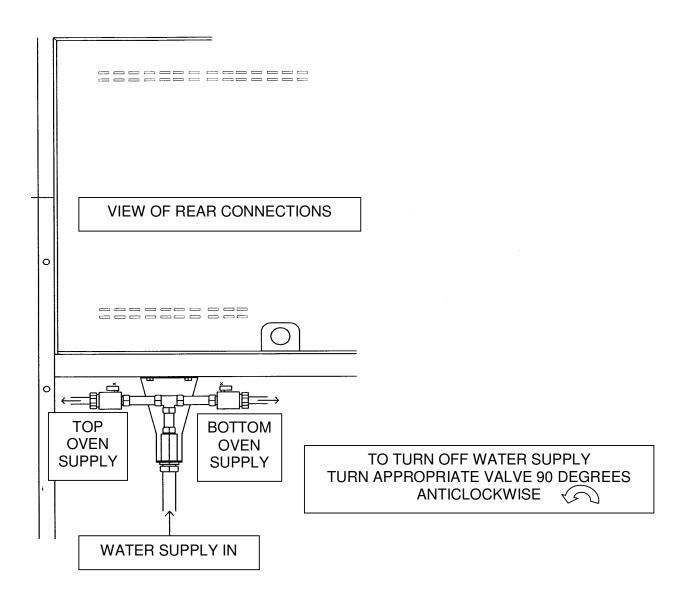
ELECTRICITY SUPPLY

To stop the oven in an emergency, switch off electricity at the wall isolator.

WATER SUPPLY

For stacked ovens, the water supply can be shut off by closing the shut-off valves (See diagram)

For non-stacked ovens the water supply should be shut off at the nearest shut-off point



6.0 CLEANING INSTRUCTIONS

DAILY

NOTE: BEFORE CLEANING, ISOLATE OVEN FROM MAINS SUPPLY AND ALLOW TO COOL.

- The equipment is to be cleaned daily using approved chloride—free cleaning fluid
- Sweep any debris (after it has been allowed to cool) onto oven removable trays and remove for cleaning.
- Brush down and wipe oven front, back and sides.
- Wipe clean with a damp cloth that has been soaked in a solution of mild detergent and hot water.

IMPORTANT:

TAKE CARE WATER DOES NOT ENTER CONTROL PANEL OR REAR ACCESS PANEL.

DO NOT REMOVE THE REAR PANELLING INSIDE THE OVEN.
THIS ALLOWS ACCESS TO THE FAN ASSEMBLY WHICH IS NOT SAFETY
INTERLOCKED AND COULD CAUSE INJURY

WEEKLY

NOTE: BEFORE CLEANING, ISOLATE OVEN FROM MAINS SUPPLY AND ALLOW TO COOL.

Complete daily check then

- Clean any burnt-on debris by careful use of a proprietary oven cleaner, carefully following the manufacturer's instructions. Do not allow the oven cleaner to get onto the control panel.
- Scrub cabinet wheels (if fitted), with a mild detergent and hot water using nylon cleaning brush.

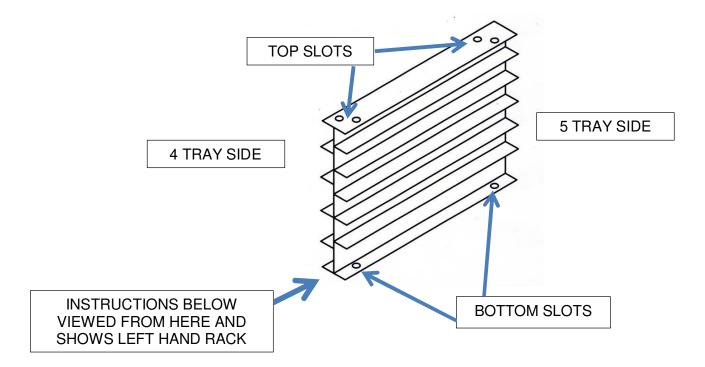
Ovens using 60cm x 40cm trays (FG156 2 tray / FG158 4 tray)

Open the oven door and remove internal runner racking from sides of oven. (lift and unlatch racking. Further instructions on next pages).

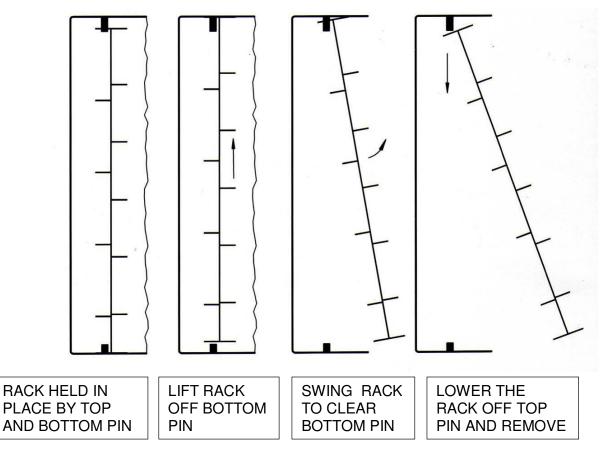
This allows access to hidden areas in the oven, which can be wiped with a damp cloth.

Wipe down, and clean racking with a damp cloth and replace.

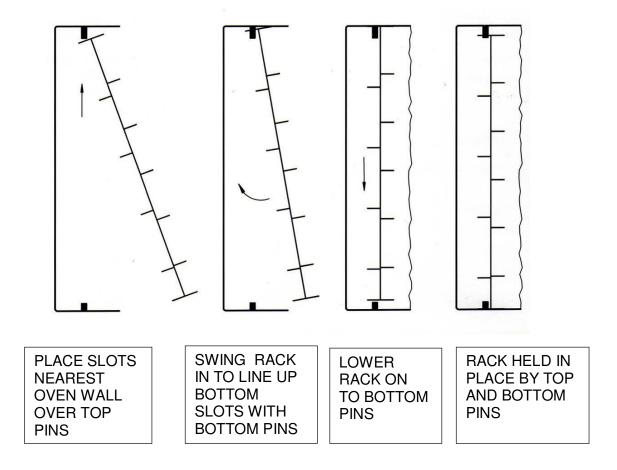
REMOVING AND INSTALLING RUNNER RACKS



TO REMOVE RUNNER RACK (LEFT HAND SHOWN)

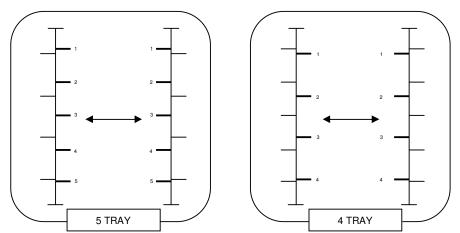


TO INSTALL RUNNER RACK (LEFT HAND SHOWN)



NOTE

BEFORE ATTEMPTING TO FIT THE RACKS, ENSURE THAT BOTH RACKS HAVE THE CORRECT NUMBER OF RUNNERS FACING EACH OTHER.

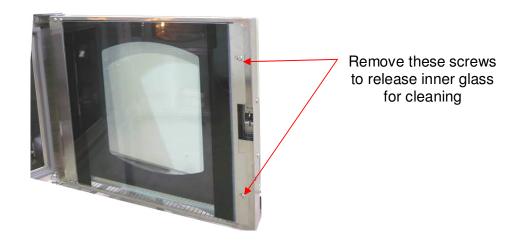


4 tray ovens

The inner door glass is hinged to enable cleaning of internal surfaces.

To open, remove the two screws shown in the picture below.

The internal surfaces of the door glass can then be cleaned using a suitable glass cleaner.



7.0 IDEAL OPERATING CONDITIONS

- Room should be allowed for the door to open fully to allow easy loading and unloading of product without people coming in contact with hot surfaces.
- Racks should be available to allow cooked products to cool safely.
- Oven gloves should be available at all times.
- It is the customers' sole responsibility to arrange adequate ventilation and it should be sufficient to ensure water does not condense on or around the oven. A 50mm gap is required at the sides and rear of this oven.
- Chimneys and evacuation ducts, fitted above mono ovens should be insulated

AMBIENT WORKING TEMPERATURES.

Ambient working temperatures for electric/electronic components such as solenoid switches, circuit breakers, motors etc should be **no more than 40°C (115° f)**

Manufacturers of these and other electrical components advise that any ambient temperature above 40°C affects the functionality of the components and any related guarantees become void. For example, above this temperature motors are not satisfactorily cooled, contactor efficiency is seriously impaired and electronic components shut down. It is the customers' sole responsibility to arrange for adequate ventilation. Any component malfunctioning during the guarantee period that is found to have been subject to excessive humidity or ambient working temperature above 40°C (115°F) will not be covered by the component manufacturers guarantee or MONO's product warranty.

Bx oven ECO range inc condenser and spares RevA18 11-01-18 14



Section 8

TOUCH SCREEN OPERATING INSTRUCTIONS

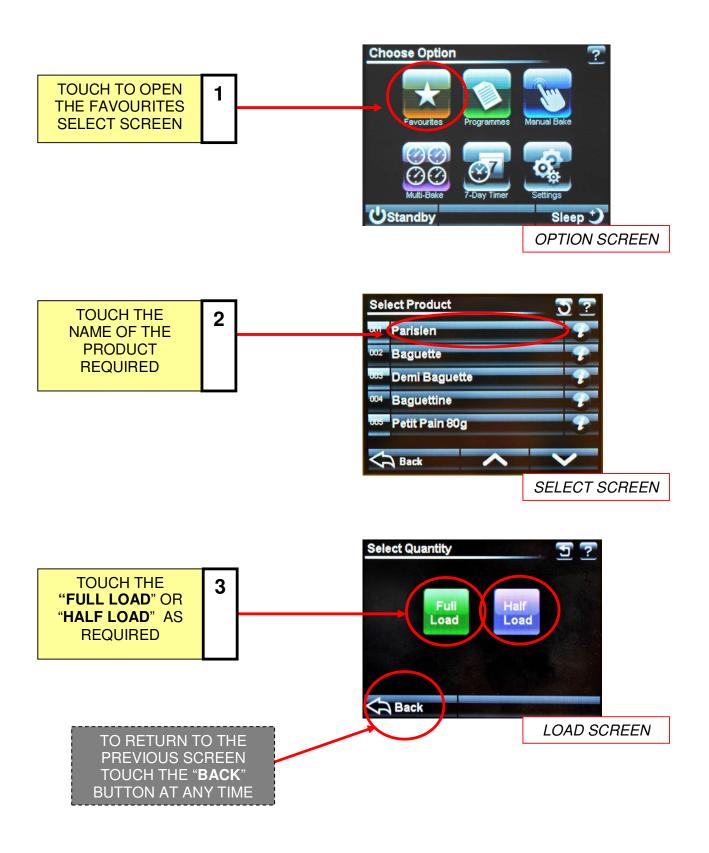
BASIC OPERATION

ALL OPERATIONS ARE ACTIVATED BY TOUCHING AREAS ON THE SCREEN, WHICH WILL PASS YOU ON TO THE NEXT INFORMATION PANEL.

<u>DO NOT USE EXCESSIVE FORCE.</u>
(THE PRESSURE REQUIRED TO OPERATE THE PANEL CAN BE ALTERED IN THE SETTINGS SECTION)



8-1.0 BAKING USING FAVOURITES MENU

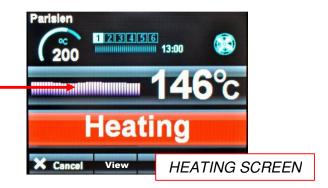


Bx oven ECO range inc condenser and spares RevA18 I1-01-18

IF THE OVEN IS NOT UP TO TEMPERATURE IT WILL SHOW THE HEATING SCREEN.

WAIT FOR THE OVEN TO REACH TEMPERATURE

IF THE OVEN IS TOO HOT FOR THE TEMPERATURE CHOSEN, THE SCREEN WILL TELL YOU TO OPEN THE DOOR TO AID COOLING.



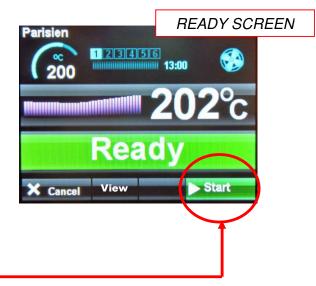
WHEN OVEN IS AT THE CORRECT TEMPERATURE THE "**READY**" SCREEN WILL SHOW.

4

- 1. OPEN DOOR AND LOAD PRODUCT.
- 2. CLOSE THE DOOR FULLY.
- 3. TOUCH "START"

TIP

TO HELP TO KEEP THE OVEN HOT, TRY NOT TO KEEP THE DOOR OPEN MORE THAN NEEDED



BAKE IN PROGRESS SCREEN

THIS SCREEN WILL SHOW WHILE THE PRODUCT IS BAKING

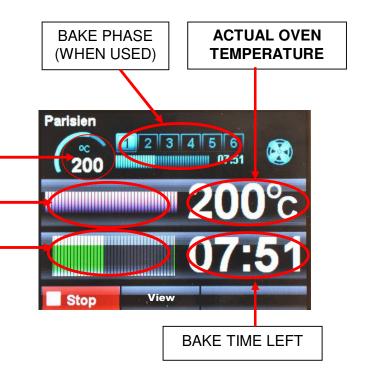
SET TEMPERATURE

TEMPERATURE PROFILE BAR

BAKE TIME PROGRESS BAR

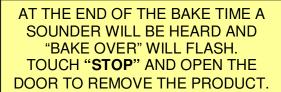
NOTE

The actual temperature shown will rise and fall above and below the set temperature as the oven cools and reheats. This is not a fault





5



TO KEEP THE OVEN BAKING FOR EXTRA MINUTES

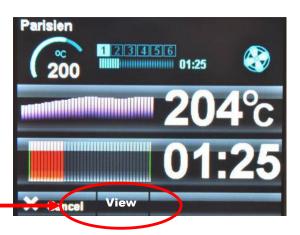
THE "+ 10 MIN" BUTTON CAN BE TOUCHED.

(THIS TIME CAN BE ALTERED IN SET UP)



TOUCHING "VIEW" BUTTON DURING A BAKE

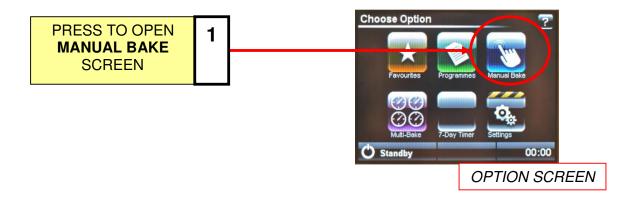
TOUCHING "VIEW" BUTTON
DURING A BAKE WILL SHOW THE
SETTINGS FOR THE BAKE IN PROGRESS.
TOUCH "CANCEL" TO GO BACK TO THE
PREVIOUS SCREEN.





VIEW SCREEN

8 - 2.0 BAKING USING MANUAL MENU



SET BAKE TIME AND TEMPERATURE



2

SET BAKE TEMPERATURE

TOUCH TEMPERATURE ON THE SCREEN TO ACTIVATE THE KEYBOARD SCREEN. KEY IN REQUIRED TEMPERATURE AND TOUCH "DONE"



SET BAKE TIME

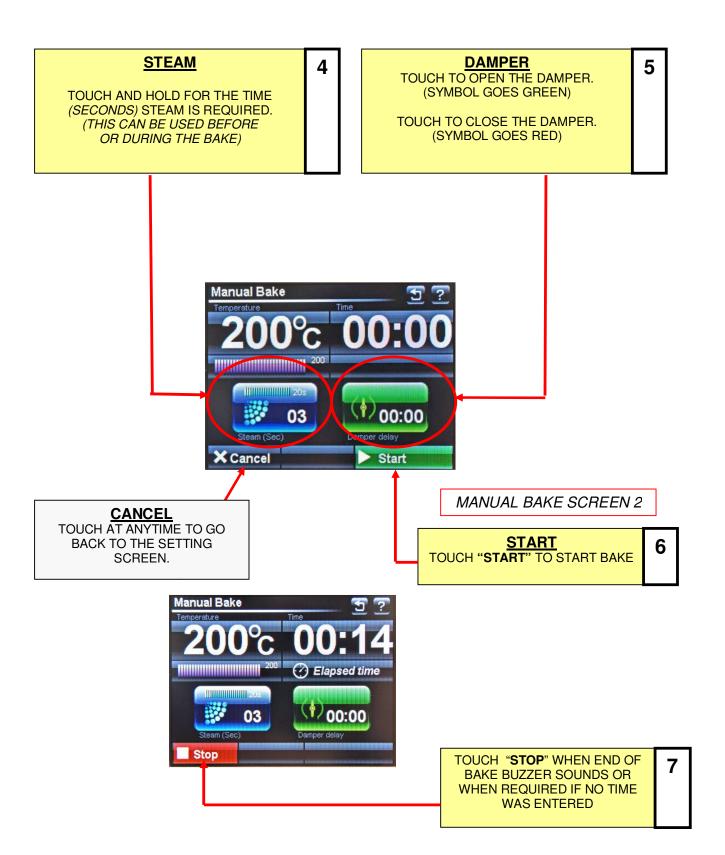
TOUCH TIME ON THE SCREEN TO ACTIVATE THE KEYBOARD SCREEN.
KEY IN REQUIRED TIME AND TOUCH "DONE"



NOTE:

TIME DOES NOT HAVE TO BE SET IN MANUAL MODE. (ONLY TEMPERATURE) WHEN START IS TOUCHED, THE TIME WILL COUNT UP INSTEAD OF DOWN.
TOUCH STOP TO FINISH BAKE.

USE STEAM TIME AND DAMPER IF REQUIRED



SAVE MANUAL PROGRAM, IF REQUIRED



MANUAL BAKE SCREEN 3

SAVE SETTINGS

IF NO TIME WAS ENTERED AT THE START OF THE BAKE, WHEN STOP IS TOUCHED "SAVE" WILL APPEAR AT THE BOTTOM OF THE SCREEN. "SAVE"CAN BE TOUCHED AND AN OPTION SCREEN WILL APPEAR.

TOUCH "ADD TO FAVOURITES" OR "SAVE AS"



USE KEYBOARD TO TYPE THE REQUIRED NAME AND PRESS "**SAVE**"

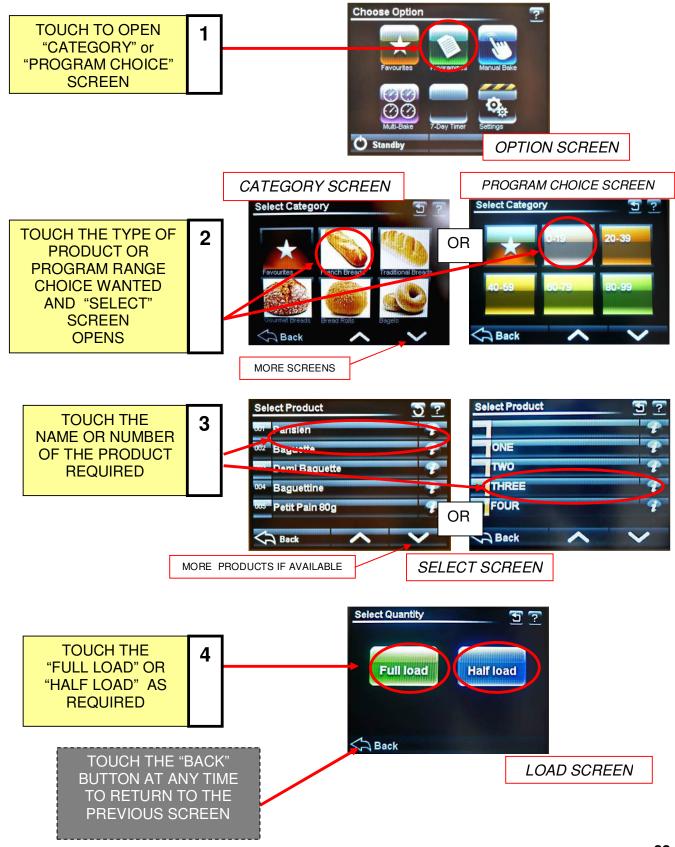


NOTE: In manual mode, only one operation of the steam or damper is saved.

8 - 3.0 BAKING USING PROGRAMMES MENU

NOTE: THIS COVERS TWO VERSIONS OF FIRMWARE. THE OVEN CAN BE SET TO SHOW EITHER 1. PICTORIAL CHOICES OF PRODUCT CATERGORIES

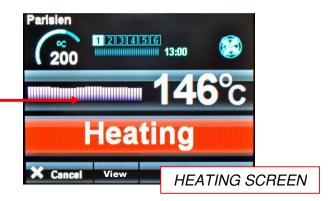
2. A NUMERICAL VERSION THAT SHOWS RANGES OF PROGRAM NUMBERS.



IF THE OVEN IS NOT UP TO TEMPERATURE IT WILL SHOW THE HEATING SCREEN.

WAIT FOR THE OVEN TO REACH **TEMPERATURE**

IF THE OVEN IS TOO HOT FOR THE TEMPERATURE CHOSEN. THE SCREEN WILL TELL YOU TO OPEN THE DOOR TO AID COOLING.



READY SCREEN

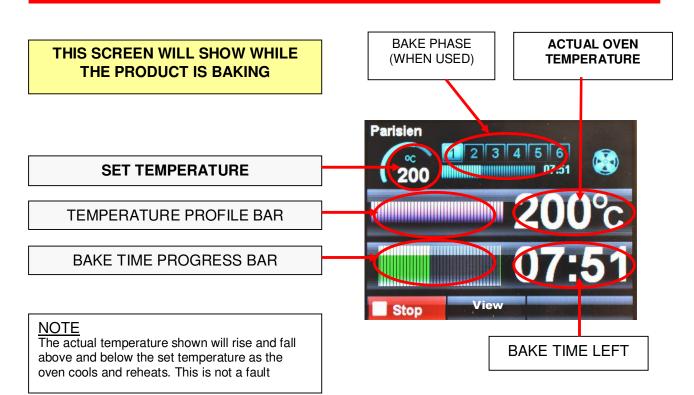
WHEN THE OVEN IS AT THE CORRECT TEMPERATURE, THE "READY" SCREEN WILL SHOW.

- 1. OPEN DOOR AND LOAD PRODUCT.
- 2. CLOSE THE DOOR FULLY.
- 3. TOUCH "START"

TIP

TO HELP TO KEEP THE OVEN HOT. TRY NOT TO KEEP THE DOOR OPEN MORE THAN NEEDED









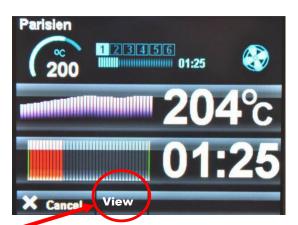
AT THE END OF THE BAKE TIME A SOUNDER WILL BE HEARD AND "BAKE OVER" WILL FLASH. TOUCH "STOP" AND OPEN THE DOOR TO REMOVE THE PRODUCT.

6

TO KEEP THE OVEN BAKING FOR EXTRA
MINUTES
THE "+ 10 MIN" BUTTON CAN BE
TOUCHED.
(THIS TIME CAN BE ALTERED IN SET UP)

TOUCHING "VIEW" BUTTON DURING BAKE

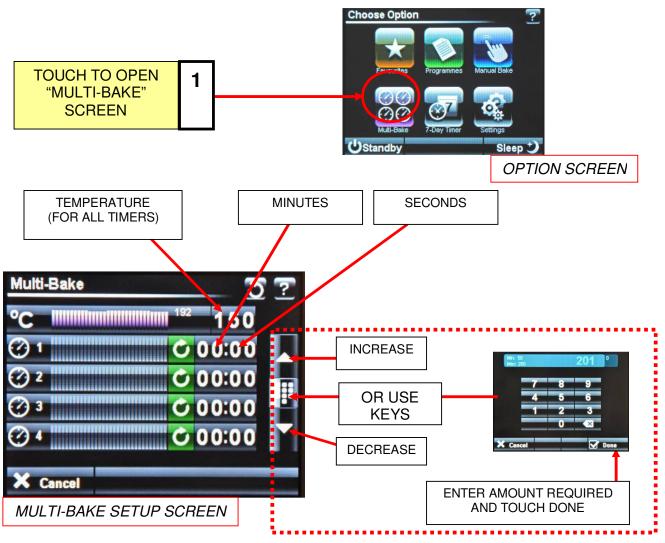
TOUCHING "VIEW" BUTTON
DURING BAKE WILL SHOW THE SETTINGS
FOR THE BAKE IN PROGRESS.
TOUCH "CANCEL" TO GO BACK TO THE
PREVIOUS SCREEN.





8 - 4.0 BAKING USING MULTI-BAKE MENU

Multi-bake allows the setting of up to four bake timers so that up to four different products can be baked in the same load. (Products must all use the same temperature).



Touch temperature and set by using up and down keys (or press the number pad symbol and a keypad appears). Enter the value required and touch done.

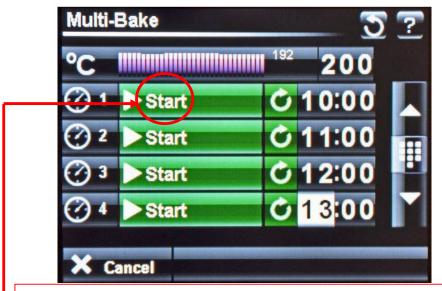
2

Set each timer as required. (You do not have to set all four)

Touch minutes and set by using up and down keys (or touch the number pad symbol and a keypad appears). Enter the value required and touch done.

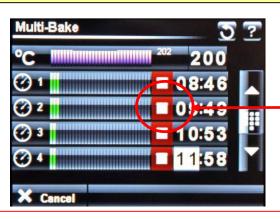
Touch seconds and set by using up and down keys (or press the number pad symbol and a keypad appears). Enter the value required and touch done.





MULTI-BAKE SETUP SCREEN SHOWING FOUR TIMERS SET

TOUCH THE START BUTTON WHEN REQUIRED AND THE TIMER WILL COUNT DOWN.



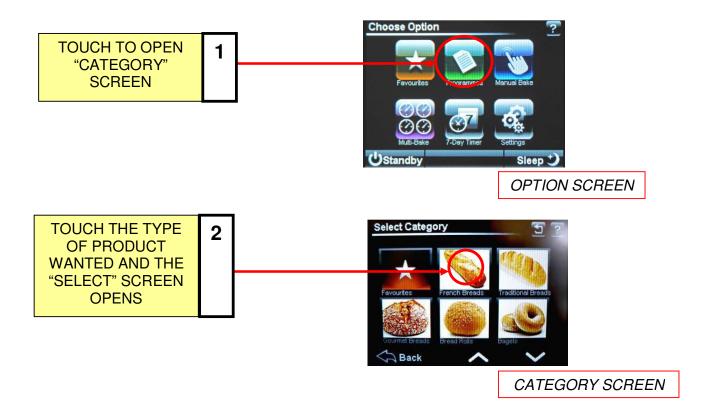
TOUCH TO STOP TIMER

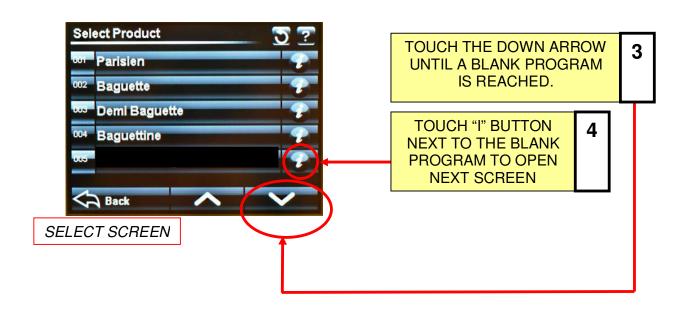
MULTI-BAKE SETUP SCREEN WITH FOUR TIMERS RUNNING

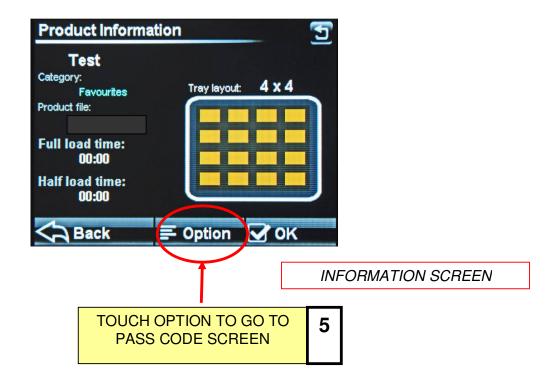


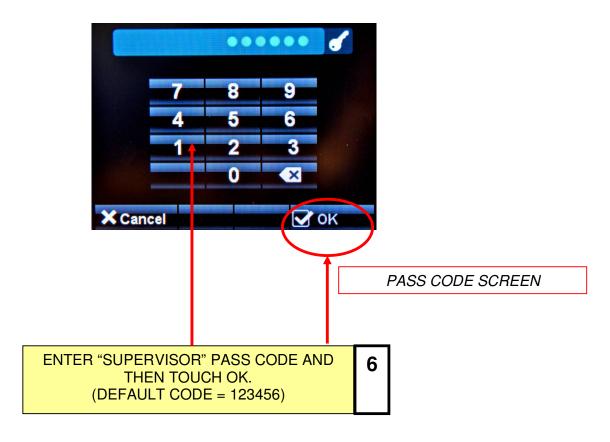
AT THE END OF A SET TIME A
BUZZER SOUNDS.
TOUCH RED BAR TO STOP

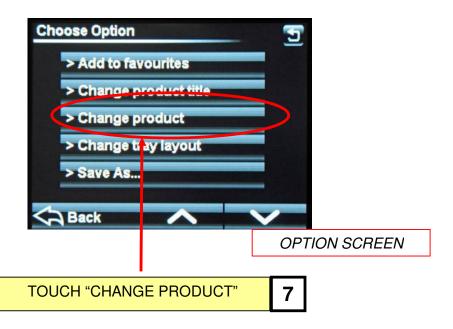
8 - 5.0 CREATING A PROGRAM

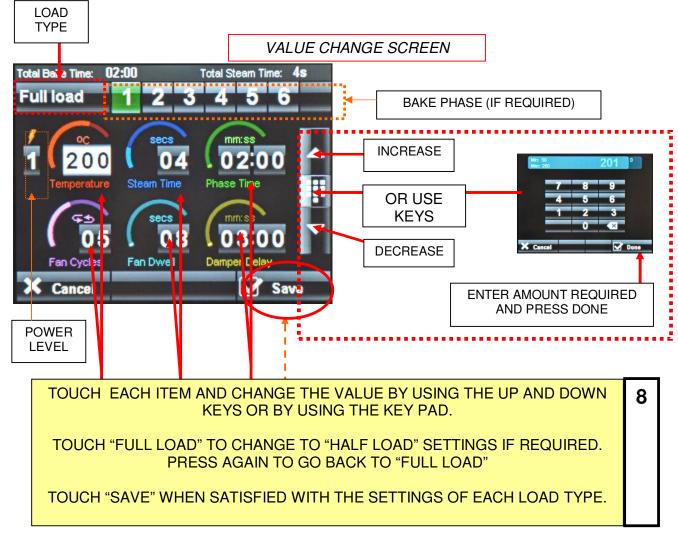






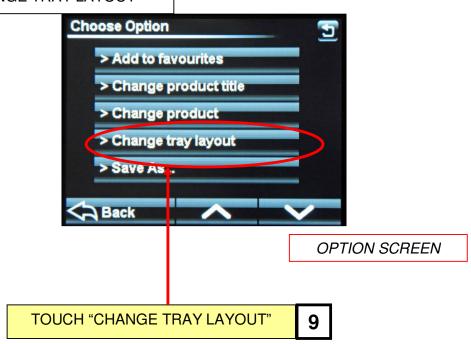


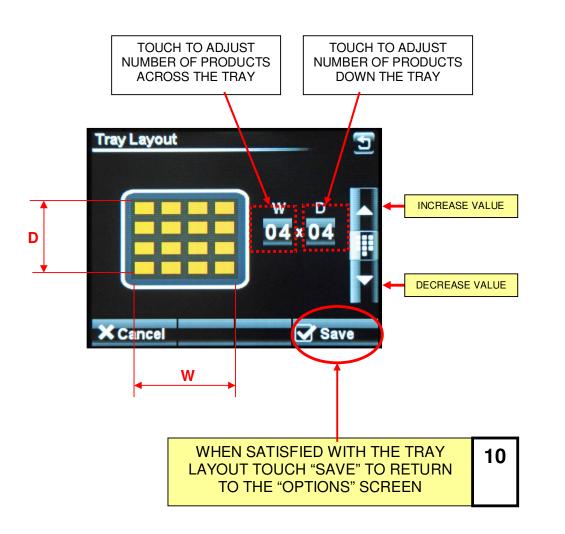


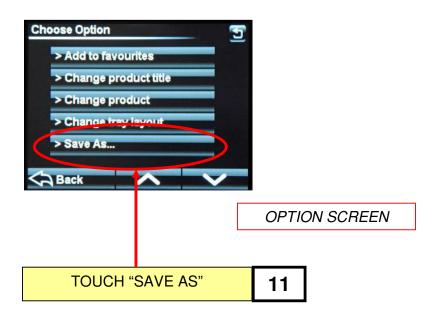


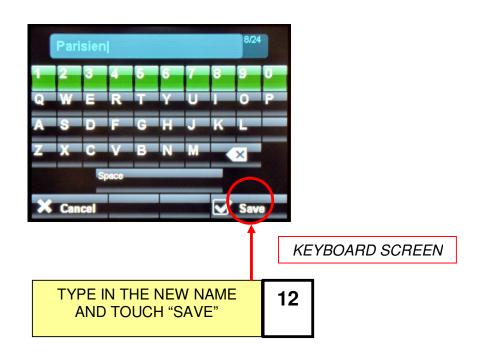
Bx oven ECO range inc condenser and spares RevA18 I1-01-18

CHANGE TRAY LAYOUT



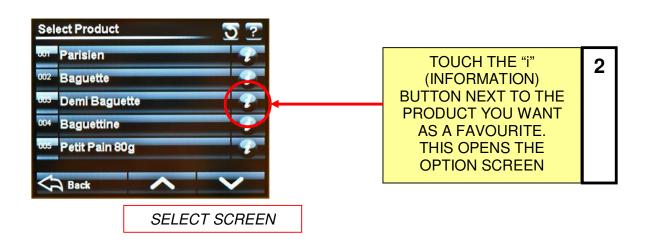


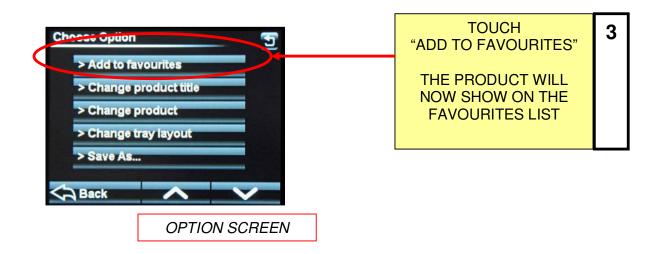




ADD A PRODUCT TO THE FAVOURITES LIST

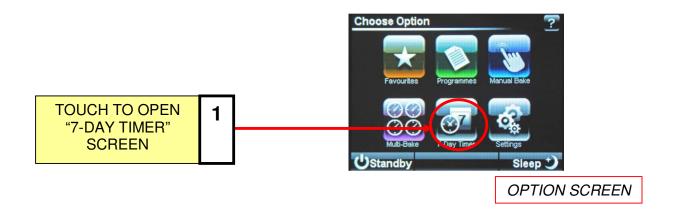


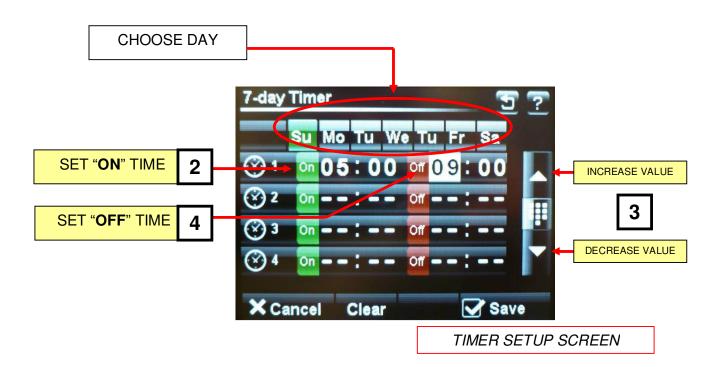




Bx oven ECO range inc condenser and spares RevAl8 II-01-18

8 - 6.0 SETTING 7-DAY TIMER





NOTE

Up to four on/off times can be set for each day.

Touch "clear" to clear the settings on the day shown.

Touch "save" to activate the times set.

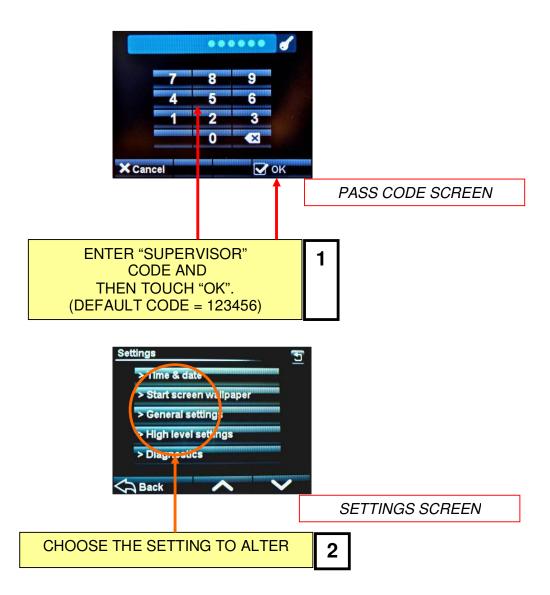
Bx oven ECO range inc condenser and spares RevA18 I1-01-18 34

8 - 7.0 **SETTINGS**

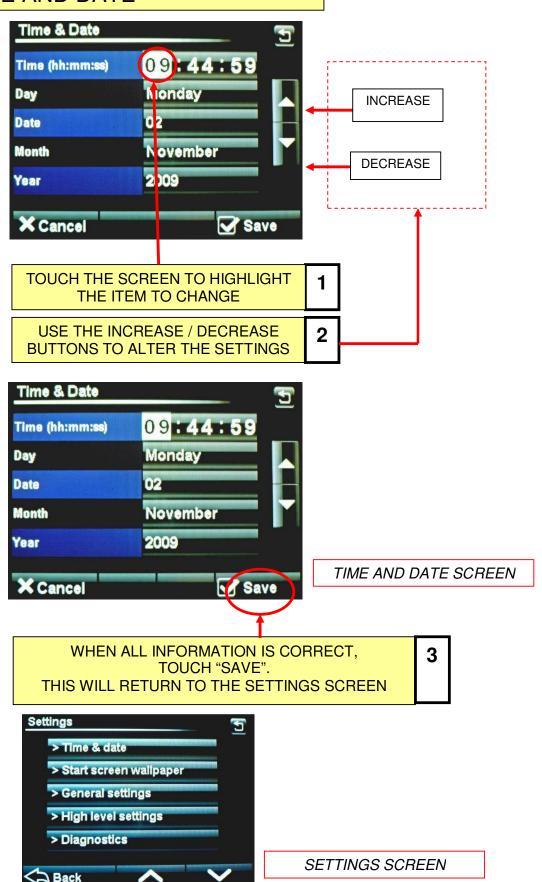


OPTION SCREEN

TOUCH TO OPEN THE "SETTINGS" SCREEN

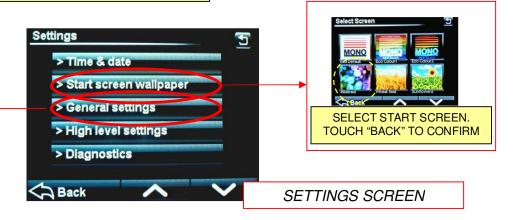


TIME AND DATE



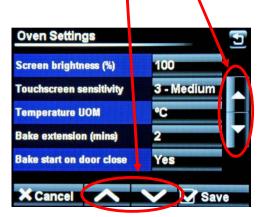
Bx oven ECO range inc condenser and spares RevA18 11-01-18

OVEN SETTINGS (GENERAL)



TOUCH "GENERAL SETTINGS" AND THE FOLLOWING SCREEN WILL APPEAR.

SCROLL DOWN TO MOVE THROUGH ALL CHOICES AND ADJUST EACH ONE AS REQUIRED, USING THE ARROW KEYS.









OVEN SETTINGS EXPLAINED - GENERAL LEVEL

SCREEN BRIGHTNESS -

Adjusts the brightness of the viewing screen for user comfort.

TOUCHSCREEN SENSITIVITY -

Adjusts the pressure required to operate the touch screen. (5 settings)

TEMPERATURE UNIT OF MEASURE -

Centigrade (Celsius) or Fahrenheit

BAKE EXTENSION (mins) -

Adjusts the extra time at the end of a bake for each "extra time" button press. (10mins max)

BAKE START ON DOOR CLOSE -

This will start the set bake program as soon as the door closes.

SLEEP MODE DELAY -

Oven will go into sleep mode after the set minutes, providing it is up to temperature and has been through at least one bake cycle.

8 HOUR COUNTDOWN TIMER -

After 8 hours the oven gives a warning and then turns off.

Press any button for an extra hour if required.

POWER LEVEL (1-4) -

Set these as required for each level to be used.

CHART INTERVAL -

Time interval in seconds that the bars show on the heat and bake time progress charts.

SOUNDER SELECT -

Set as external or onboard.

SOUNDER TONE -

Select a tone - Voice or Off

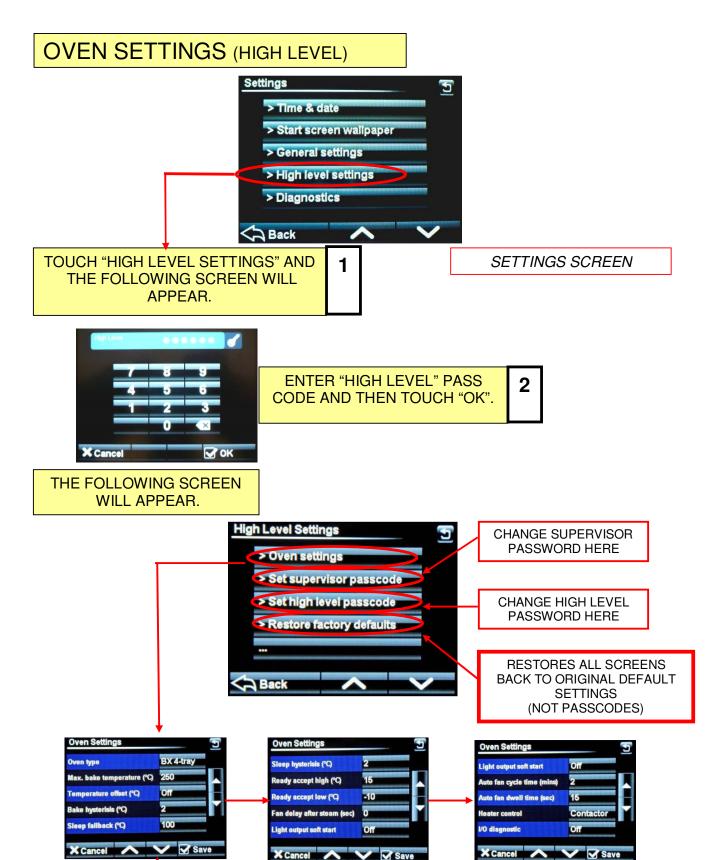
SOUNDER VOLUME -

Adjust to suit the volume required. (onboard sounder only)

SHORTCUT BUTTONS -

1 fn 2fn	Gives the choice of what buttons are active and in which order they appear on the options screen.
3fn 4fn 5fn	Options available = Favourites, Programs, Manual bake, Multi bake, 7-day timer. (Settings at 6fn can not be changed)

Bx oven ECO range inc condenser and spares RevA18 11-01-18 38



SCROLL DOWN TO MOVE THROUGH ALL CHOICES AND ADJUST EACH ONE AS REQUIRED, USING THE ARROW KEYS. 3

OVEN SETTINGS EXPLAINED - HIGH LEVEL

OVEN TYPE -

Set this to the type of oven that the screen is installed on.

MAX. BAKE TEMPERATURE -

Can be set up to 300C, (depending on the oven type)

TEMPERATURE OFFSET -

Can be used to adjust the display to the actual temperature in the oven.

BAKE HYSTERISIS -

Sets bake temperature cycling around a set point. (Above and below).

SLEEP FALLBACK -

Temperature of the oven in "sleep mode" (100C is suggested).

SLEEP HYSTERISIS –

Sets "sleep mode" temperature cycling around a set point. (Above and below).

READY ACCEPT HIGH –

Highest temperature for the oven to display "READY"

READY ACCEPT LOW -

Lowest temperature for the oven to display "READY"

FAN DELAY AFTER STEAM -

Delay before fan starts after the oven has steamed. (60 seconds max)

LIGHT OUTPUT SOFT START -

On/Off Some lights need this for cold start up to stop them blowing.

AUTO FAN CYCLE TIME (MINS) -

Set time required. Only used in manual and multibake modes.

AUTO FAN DWELL TIME -

Set time required. Only used in manual and multibake modes.

HEATER CONTROL –

Contactor or solid state. Defaults to contactor. (solid state not used at the moment)

I/O DIAGNOSTIC -

Displays outputs and inputs at the top of the screen to aid fault finding if needed.

DEFAULT PASSCODES

SUPERVISOR (LOW LEVEL) -- 123456

HIGH LEVEL -- 654321

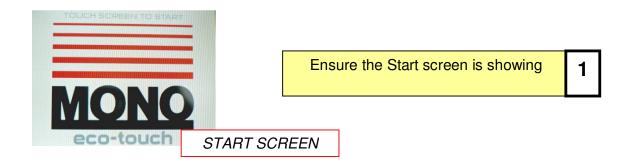
MASTER -- 314159 (This is fixed)

SUGGESTION

To stop unauthorised changes to the oven setup, it is suggested that this page is removed from this manual and kept in a safe place for future reference.

If tampering could be a problem It is also a good idea to change the passcodes at regular intervals.

8 - 8.0 USING THE USB PORT





Insert the USB memory stick into the socket on the side of the oven panel. (Rubber plug may have to be removed first). 2

NOTE

The USB stick will only fit in one way. Do not force into the socket.



Wait for the USB symbol to finish moving

3

4



If old firmware is found, the firmware version screen will appear.

Touch "OK" to update firmware -Wait-

Remove USB stick

OR

Touch CANCEL to choose other items to update or change. (see next page)



Choose action you would like to do.

5



Select the file required.

6



When confirmation of "file loaded ok" shows, remove usb stick

NOTES ON USING USB STICKS

For a USB stick to function correctly it must have the following folder in the root folder.

Mono

Then into that folder add the following:

Firmware

Products

Skins

Sounds

Startup

Place your recipe/product files in the "products" folder.

The oven will find the "**Mono**" folder automatically when the stick is plugged into the oven. Any stick can be used (does not have to be blank) but the Mono folder must be in the root folder.

The most used folders are explained below:

SKINS

These control the way the screen looks in different modes.

<u>Pictorial</u> is when the screen displays catergories using pictures.



<u>Numerical</u> is when the screen displays program numbers.



STARTUP SCREENS

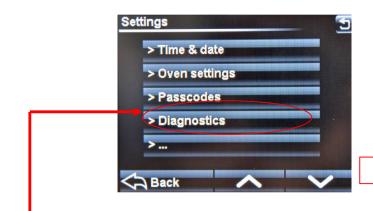
This is the picture/logo you see when the oven is started.



PRODUCT FILES (PROGRAM FILES)

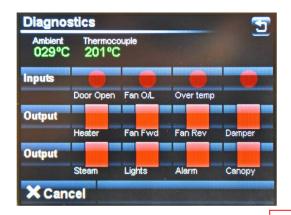
These are the files that contain the information for baking each product e.g. bread,buns,cakes etc.

8 - 9.0 DIAGNOSTICS



SETTINGS SCREEN

TOUCH "DIAGNOSTICS" AND THE FOLLOWING SCREEN WILL APPEAR.



DIAGNOSTICS SCREEN



TOUCH THE REQUIRED OUTPUT AND A SIGNAL IS SENT TO THAT ITEM. THE OUTPUT BEING CHECKED IS HIGHLIGHTED WHEN ACTIVE. TO STOP THE OUTPUT, TOUCH AGAIN.

9.0 MAINTENANCE

- Check for frayed or bare cables.
 The machine must not be used if frayed or bare cables are visible.
- Follow cleaning instructions.

10.0 STEAM SYSTEM MAINTENANCE

• If it is noticed that the steaming operation has deteriorated, perhaps due to hard water scaling, please contact your oven supplier

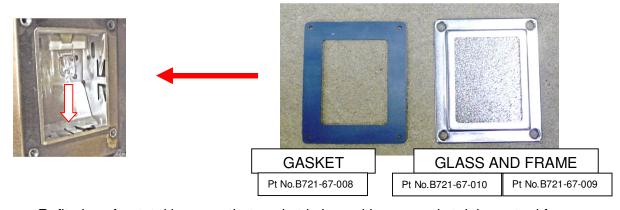
11.0 BULB REPLACEMENT

In the event of a bulb failure, Instructions on how to change a bulb are as follows: -

- Ensure oven is isolated from mains supply and allow to cool.
- Remove screws (4 per light) and take glass, frame and gasket off lamp unit.



 Remove bulb by pulling in direction of arrow and replace with new bulb.



• Refit glass front, taking care that gasket is in position around stainless steel frame.

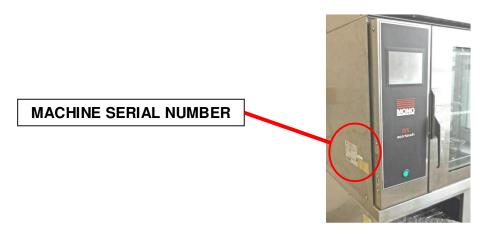
Re-connect oven and test.

<u>DO NOT TOUCH BULBS WITH BARE HANDS.</u>
USE A CLOTH OR GLOVES TO STOP ANY MARKS THAT WILL
CAUSE HOT SPOTS AND PREMATURE BULB FAILURE.

46

12.0 SPARES

When ordering spares please quote the **machine serial number** which can be found on the silver information plate of the machine and on the front cover of this manual.



PART 1

FG150 10 TRAY OVEN SPARES SECTION

PART 2

FG159 4/5 TRAY 18 X 30 OVEN SPARES SECTION

PART 3

FG158 4/5 TRAY 60 X 40 OVEN SPARES SECTION

PART 4

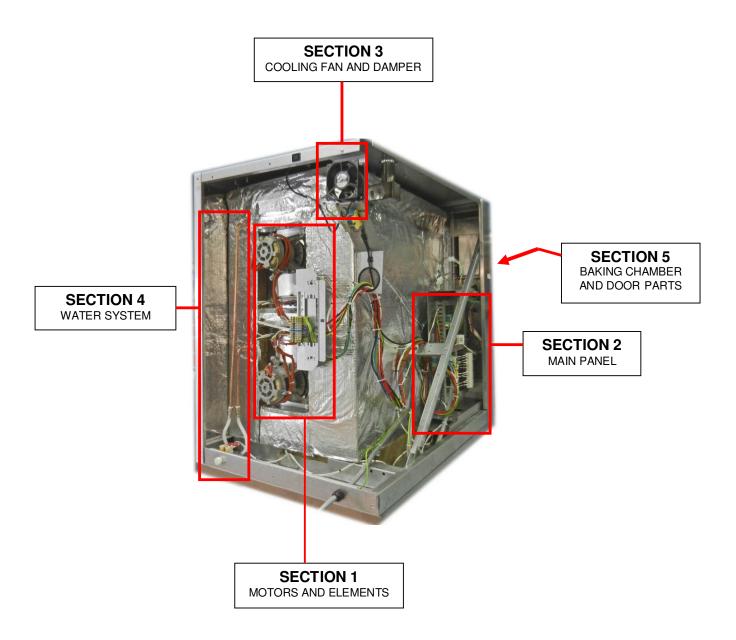
FG153 4/5 TRAY 40 X 60 OVEN SPARES SECTION

email:spares@monoequip.com

Spares +44(0)1792 564039

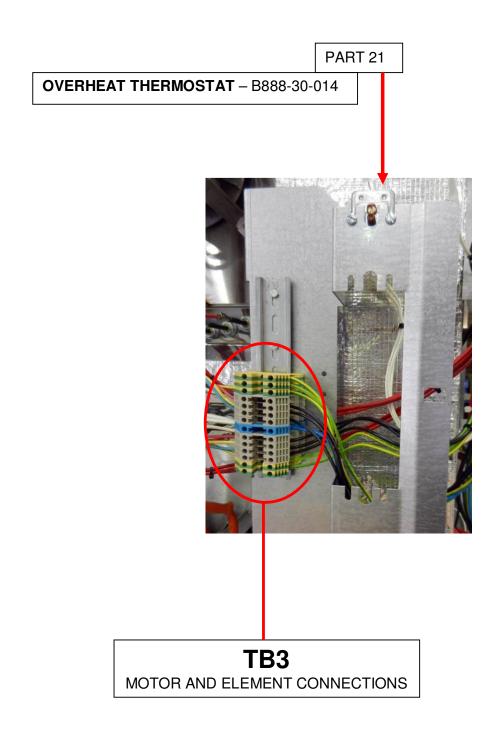
PART 1 10 TRAY OVEN SPARES SECTION

FG150



REAR VIEW WITH OUTER SHEETING REMOVED

PART 1 / SECTION 1 – 10 TRAY - MOTORS AND ELEMENTS FG150 8Kw ovens **HEATING ELEMENT** – B847-04-068 = 240volts B847-04-073 = 220volts PART 30 7Kw ovens **HEATING ELEMENT** - B847-04-067 = 240volts B847-04-074 = 220volts PART 18 PART 19 TOP NOT SHOWN **FAN MOTORS** - B720-74-001 8Kw ovens **HEATING ELEMENT** - B847-04-068 = 240volts B847-04-073 = 220volts PART 31 7Kw ovens **HEATING ELEMENT** - B847-04-067 = 240volts B847-04-074 = 220volts



PART 1 / SECTION 2 – 10 TRAY - MAIN PANEL FG150

PT-4A FAN MOTOR OVERLOAD

B801-03-020

PT4B FAN MOTOR OVERLOAD AUX. CONTACTOR

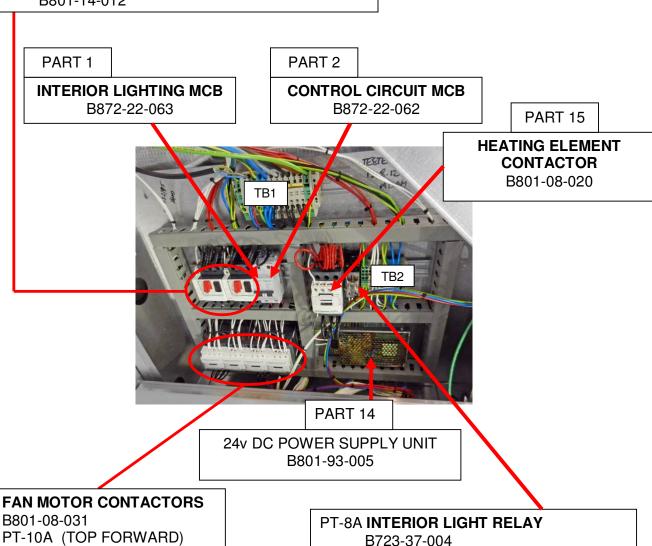
B801-14-012

PT-5A FAN MOTOR OVERLOAD

B801-03-020

PT5B FAN MOTOR OVERLOAD AUX. CONTACTOR

B801-14-012



PART NUMBERS REFER TO DRAWING M1500E25-75100 IN ELECTRICAL MANUAL

PT8B INTERIOR LIGHT RELAY BASE

B723-36-001

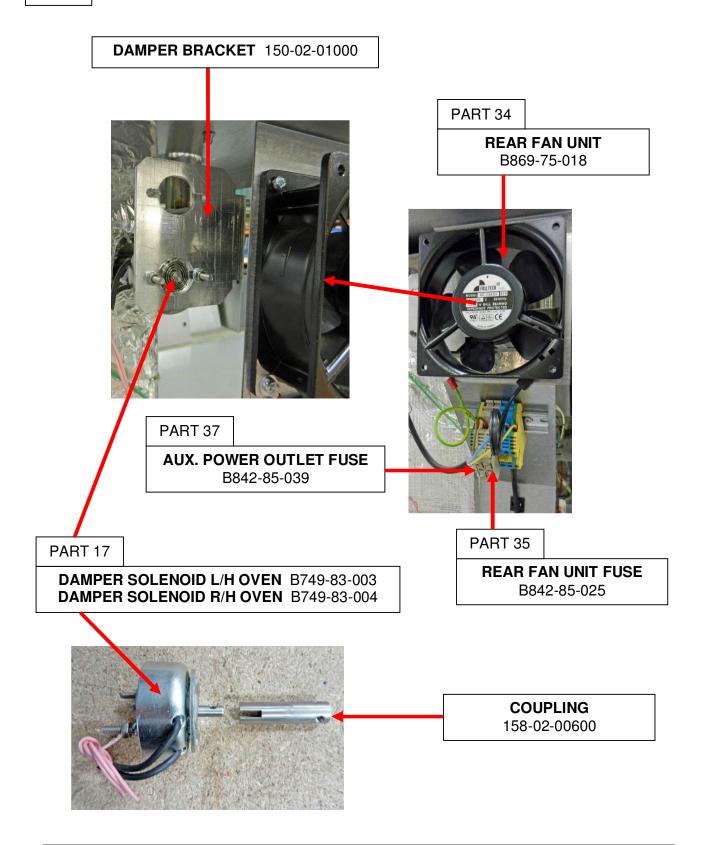
PT-10B (TOP REVERSE)

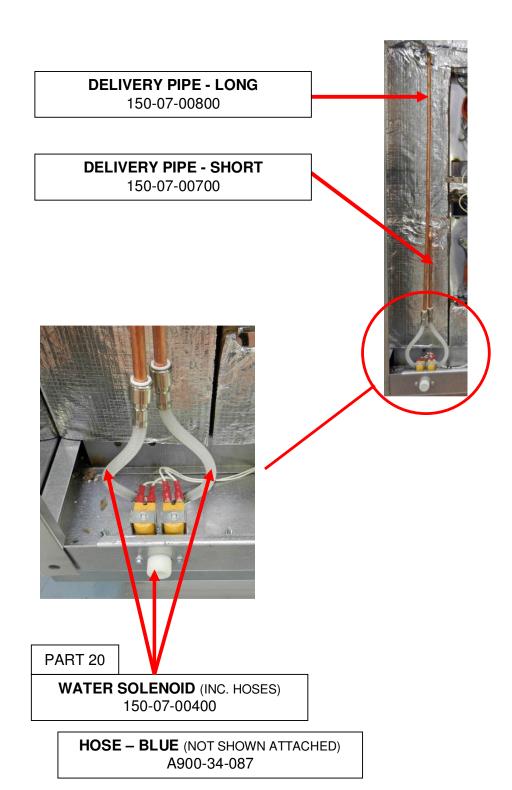
PT-11A (BTM FORWARD)

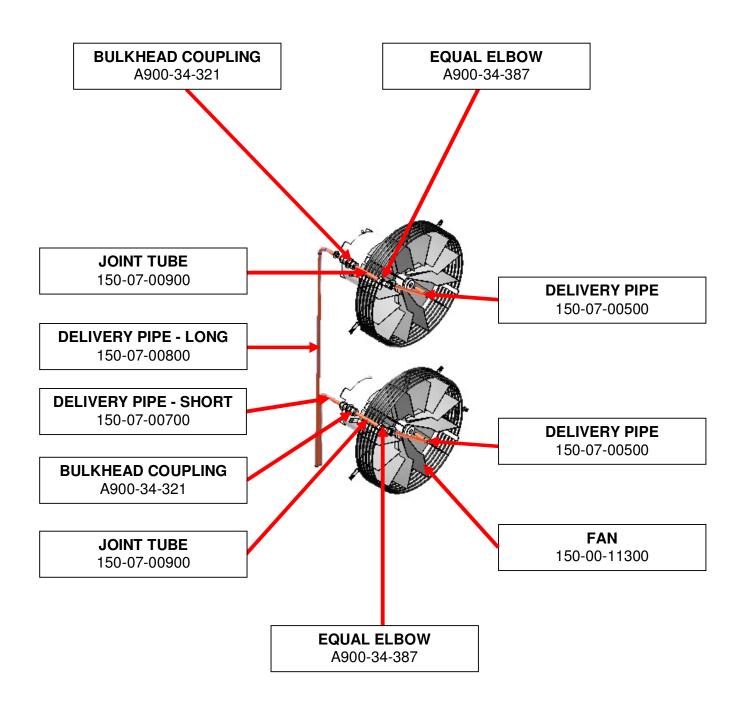
PT-11B (BTM REVERSE)

INTERLOCK UNIT X2

B801-18-005







COMPLETE STEAM ASSY KIT = PT No. 150-07-00003

INCLUDES 150-01-07700 PIPE GUIDE BRKT X 2 AND 150-07-00400 DOUBLE SOLENOID INLET VALVE.

PART 1 / SECTION 5 - 10 TRAY - BAKING CHAMBER AND DOOR PARTS

FG150

TOP HINGE LH OVEN PT No.150-03-05400

TOP HINGE RH OVEN PT No.150-03-04700

DOOR SEAL

PT No.150-03-02500

OUTER DOOR GLASS

PT No.150-03-09900

INNER DOOR GLASS PT No.150-03-10100

SIDE SHEET LH

PT No.150-01-07201 (FIXED RUNNERS NOT SHOWN)

SIDE SHEET RH

PT No.150-01-07200 (FIXED RUNNERS NOT SHOWN)

FAN

PT No.150-00-11300

BOTTOM HINGE LH OVEN PT No.150-03-04700

BOTTOM HINGE RH OVEN PT No.150-03-05400

REAR SHEET

PT No.150-01-06700



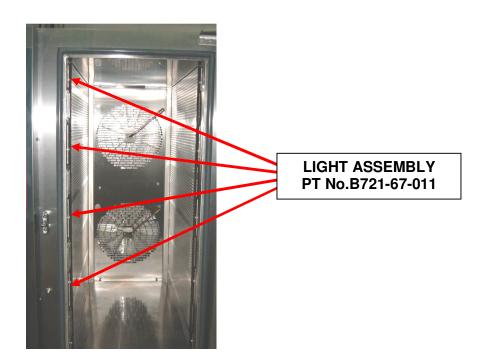
DOOR SWITCH PT No.B842-07-023



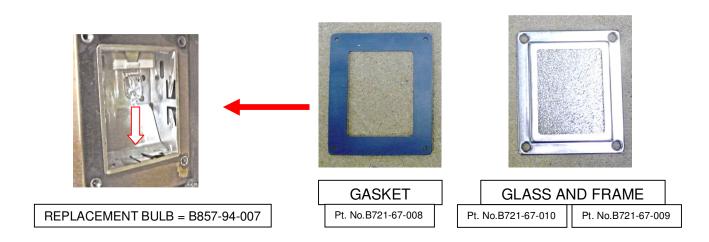


HANDLE/ CATCH ASSEMBLY PT No.A900-27-171

COMPLETE DOOR ASSEMBLY = PT No 150-03-09500 LH AND RH (STATE WHICH REQ'D)



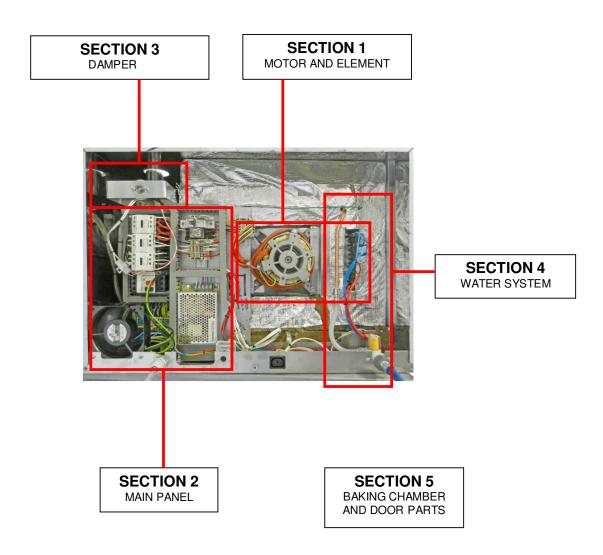
INDIVIDUAL LIGHT ASSEMBLY PARTS AVAILABLE AS BELOW

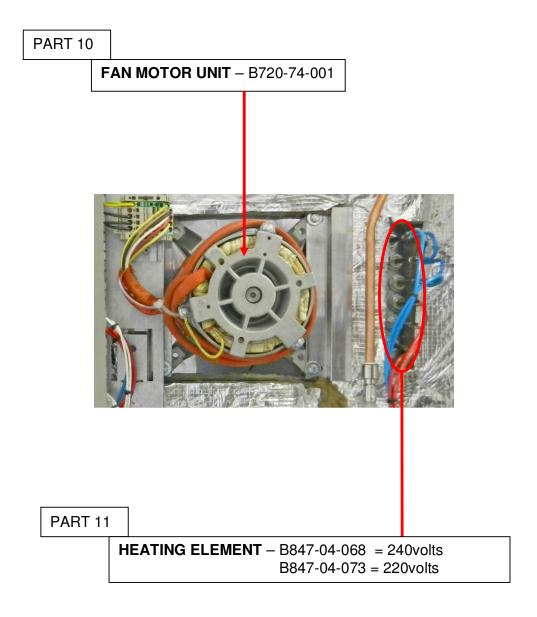


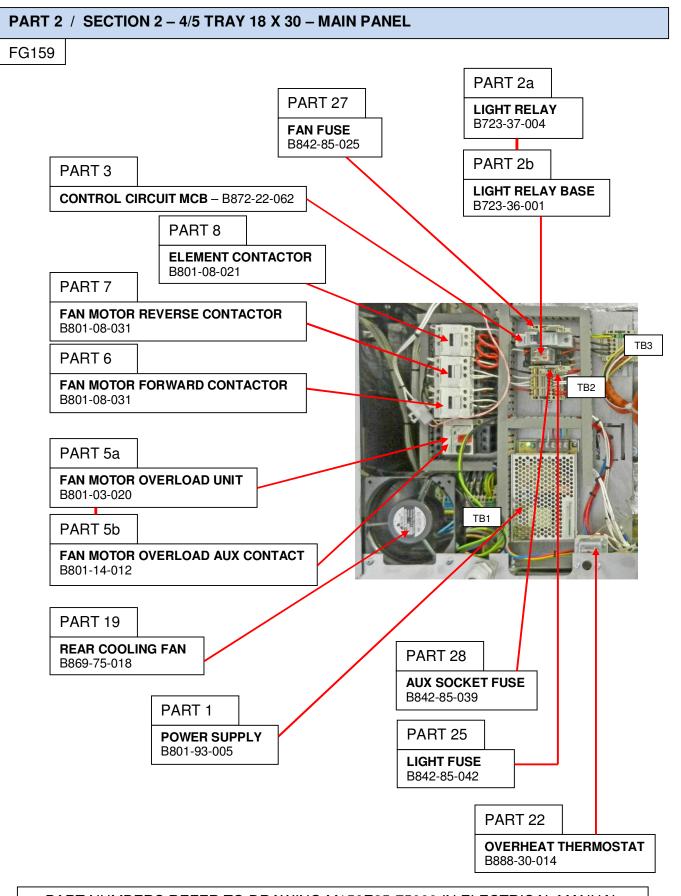
<u>DO NOT TOUCH BULBS WITH BARE HANDS.</u>
USE A CLOTH OR GLOVES TO STOP ANY MARKS THAT WILL
CAUSE HOT SPOTS AND PREMATURE BULB FAILURE.

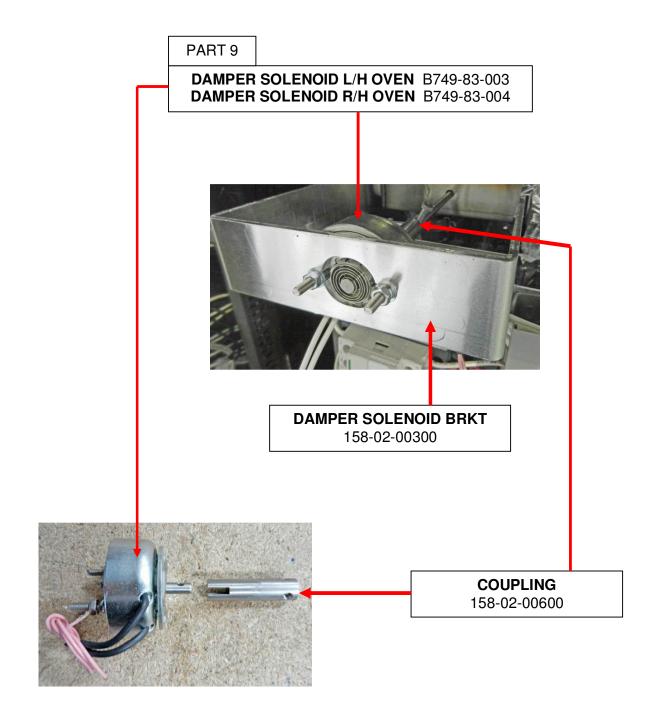
PART 2 4/5 TRAY 18 X 30 OVEN SPARES SECTION

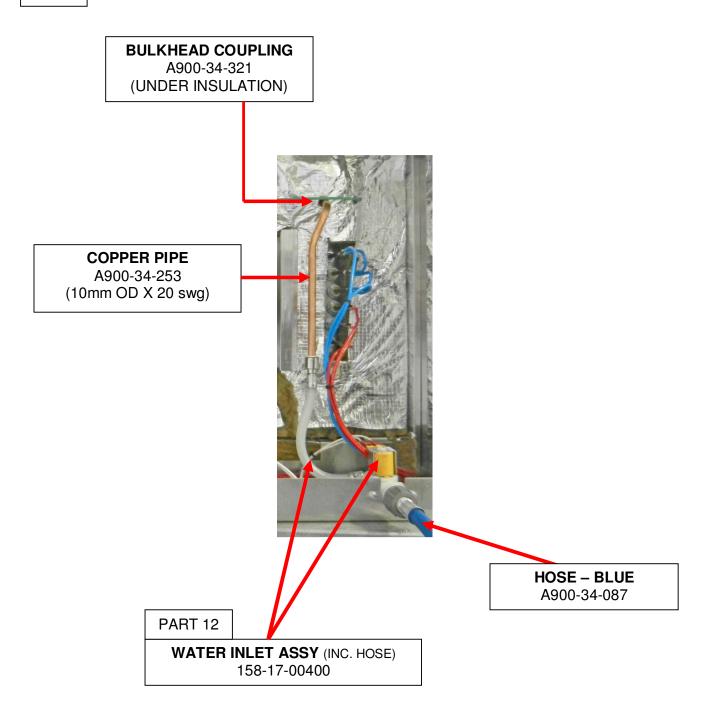
FG159









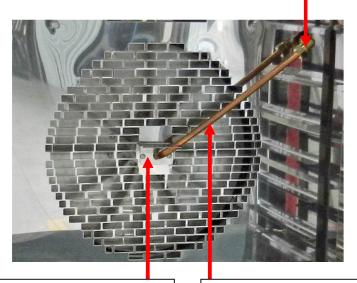


PART 2 / SECTION 4 - 4/5 TRAY 18 X 30 - WATER/STEAM SYSTEM

FG159

EQUAL ELBOW

A900-34-387

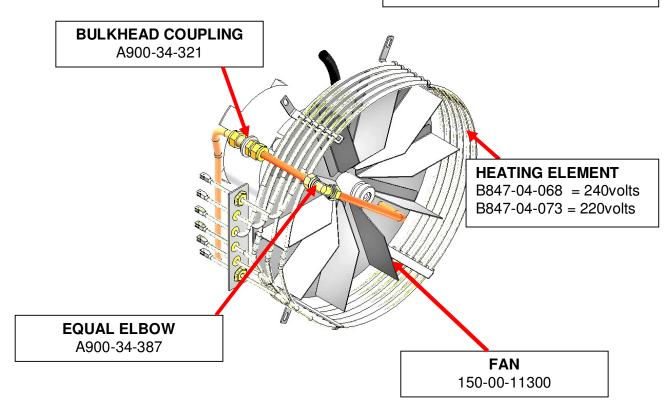


PIPE GUIDE BRACKET

150-01-07700

INDIVIDUAL PART NUMBERS ARE NOT AVAILABLE FOR PIPES. ALL PIPES MADE FROM

A900-34-253 COPPER PIPE 10mm O/D X 20swg WALL



PART 2 / SECTION 5 – 4/5 TRAY 18 X 30 BAKING CHAMBER AND DOOR PARTS

FG159

TOP HINGE LH OVEN PT No.158-03-10501

TOP HINGE RH OVEN PT No.158-03-10500

DOOR SEAL

PT No.159-03-01500

REAR SHEET

PT No.159-01-10900

OUTER DOOR GLASS

PT No.159-03-04200

INNER DOOR INCLUDING GLASS

PT No.159-03-10200

FAN PT No.150-00-11300

LH FIXED RUNNERS 4 TRAY PT No.159-01-05000 **LH FIXED RUNNERS 5 TRAY**

PT No.159-01-05200

BOTTOM HINGE LH OVEN PT No.158-03-10500

BOTTOM HINGE RH OVEN PT No.158-03-10501

RH FIXED RUNNERS 4 TRAY PT No.159-01-05001 **RH FIXED RUNNERS 5 TRAY** PT No.159-01-05201



DOOR SWITCH PT No.B842-07-023

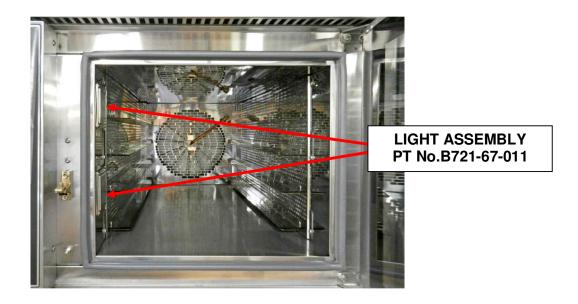




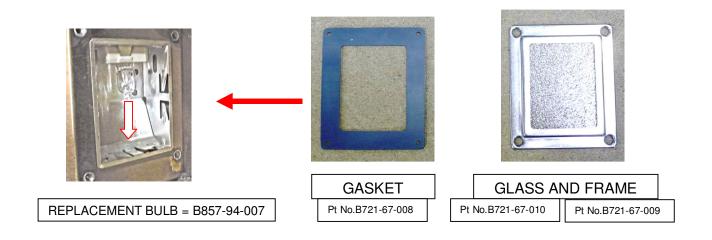
COMPLETE DOOR ASSEMBLY = PT No 159-03-04000 = LH HINGE DOOR PT No 159-03-04001 = RH HINGE DOOR

PART 2 / SECTION 5 – 4/5 TRAY 18 X 30 BAKING CHAMBER AND DOOR PARTS

FG159



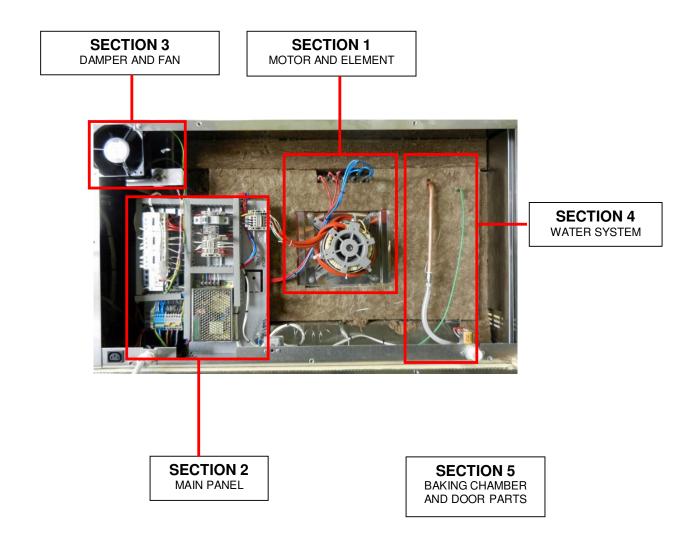
INDIVIDUAL LIGHT ASSEMBLY PARTS AVAILABLE AS BELOW



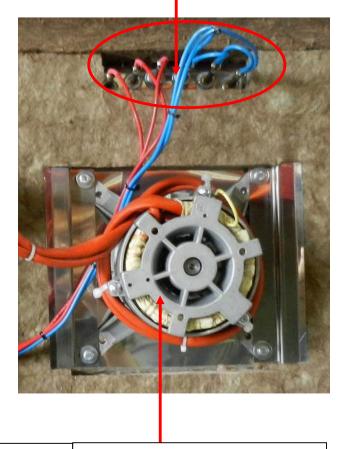
<u>DO NOT TOUCH BULBS WITH BARE HANDS.</u> USE A CLOTH OR GLOVES TO STOP ANY MARKS THAT WILL CAUSE HOT SPOTS AND PREMATURE BULB FAILURE.

PART 3 4/5 TRAY 60 X 40 OVEN SPARES SECTION

FG158

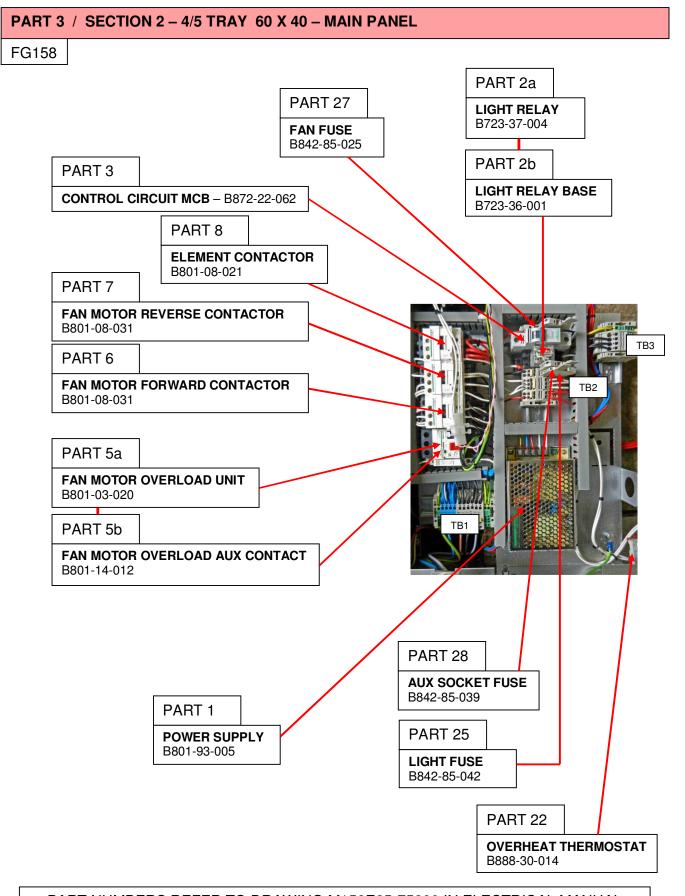


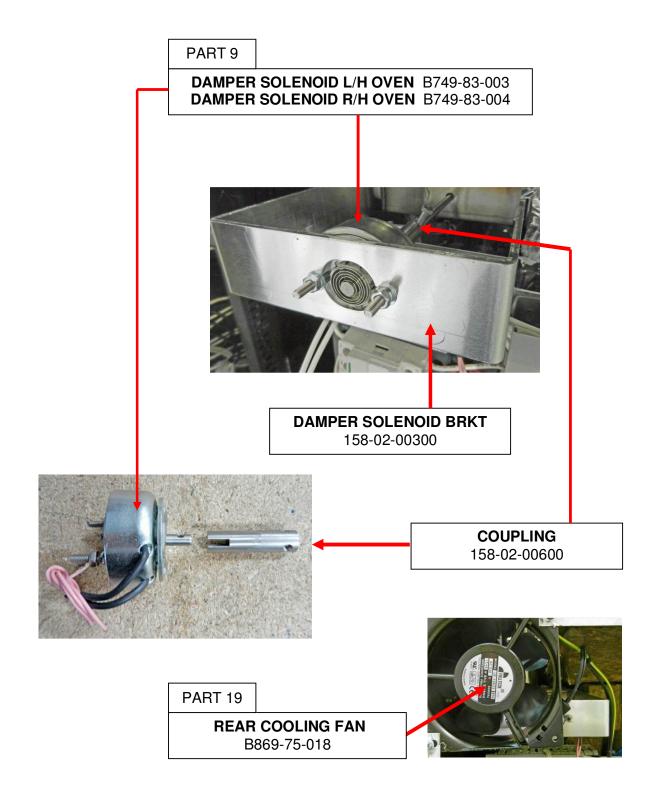
PART 11 HEATING ELEMENT – B847-04-067 = 240volts B847-04-074 = 220volts

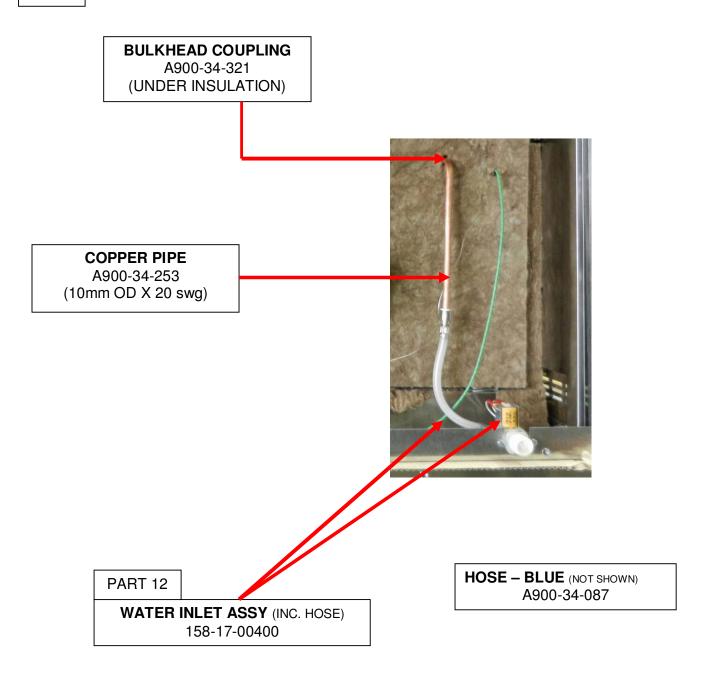


PART 10

FAN MOTOR UNIT – B720-74-001



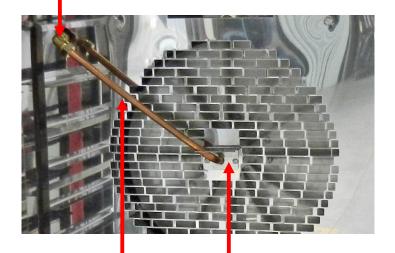




PART 3 / SECTION 4 – 4/5 TRAY 60 X 40 – WATER/STEAM SYSTEM

FG158

EQUAL ELBOW A900-34-387



INDIVIDUAL PART NUMBERS ARE NOT AVAILABLE FOR PIPES.
ALL PIPES MADE FROM

A900-34-253 COPPER PIPE 10mm O/D X 20swg WALL PIPE GUIDE BRACKET 150-01-07700

#EATING ELEMENT B847-04-067 = 240volts B847-04-074 = 220volts EQUAL ELBOW A900-34-387 BULKHEAD COUPLING A900-34-321 FAN 158-00-11200

PART 3 / SECTION 4 – 4/5 TRAY 60 X 40 BAKING CHAMBER AND DOOR PARTS

FG158

TOP HINGE LH OVEN PT No.158-03-10501

TOP HINGE RH OVEN PT No.158-03-10500

DOOR SEAL PT No.158-03-01500

REAR SHEET PT No.158-01-11200

FAN

PT No.158-00-11200

OUTER/INNER DOOR GLASS

PT No.158-03-03600

LH RUNNER RACK 4/5 TRAY PT No.158-04-01000

RH RUNNER RACK 4/5 TRAY

PT No.158-04-01001

BOTTOM HINGE LH OVEN PT No.158-03-10500

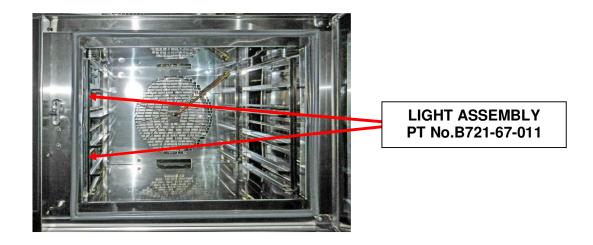
BOTTOM HINGE RH OVEN PT No.158-03-10501



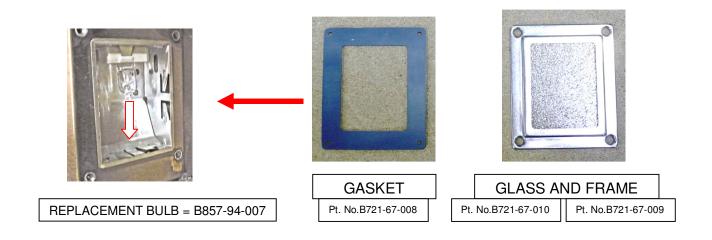
DOOR SWITCH PT No.B842-07-023



COMPLETE DOOR ASSEMBLY = PT No 158-03-03400 = LH HINGE DOOR PT No 158-03-03401 = RH HINGE DOOR



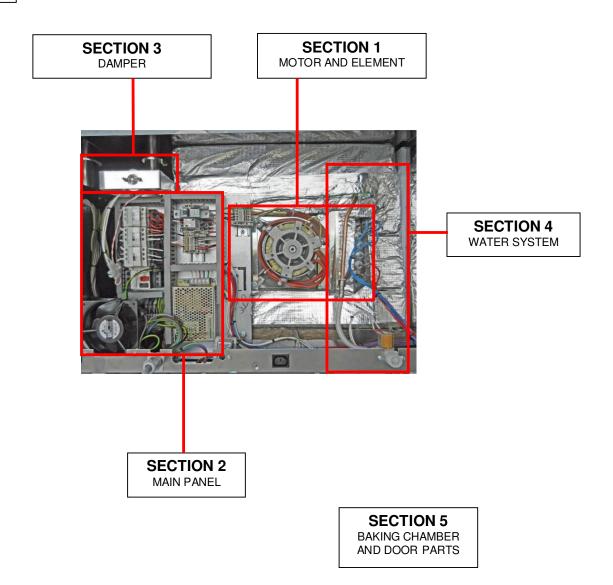
INDIVIDUAL LIGHT ASSEMBLY PARTS AVAILABLE AS BELOW



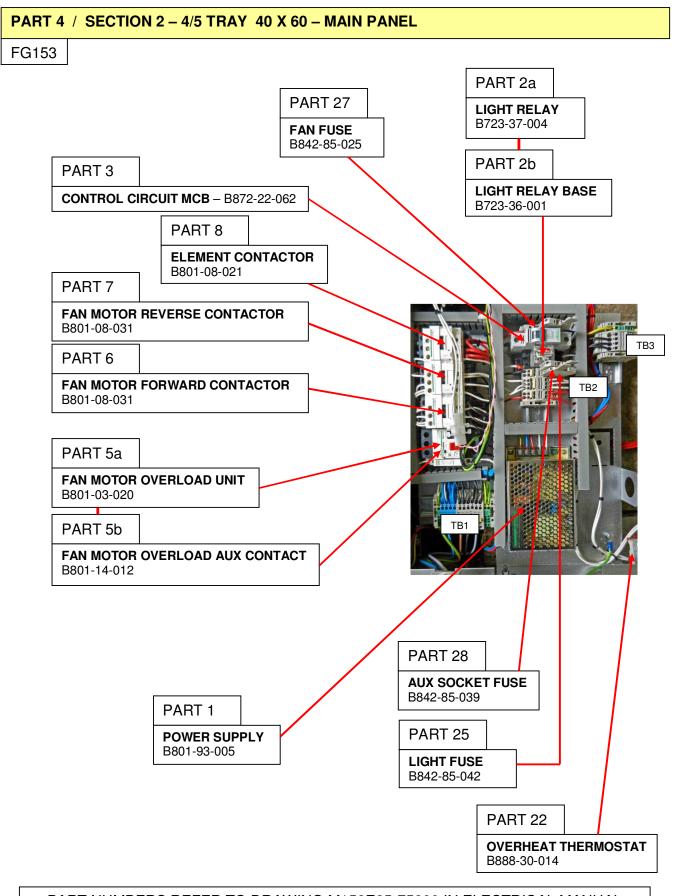
<u>DO NOT TOUCH BULBS WITH BARE HANDS.</u> USE A CLOTH OR GLOVES TO STOP ANY MARKS THAT WILL CAUSE HOT SPOTS AND PREMATURE BULB FAILURE.

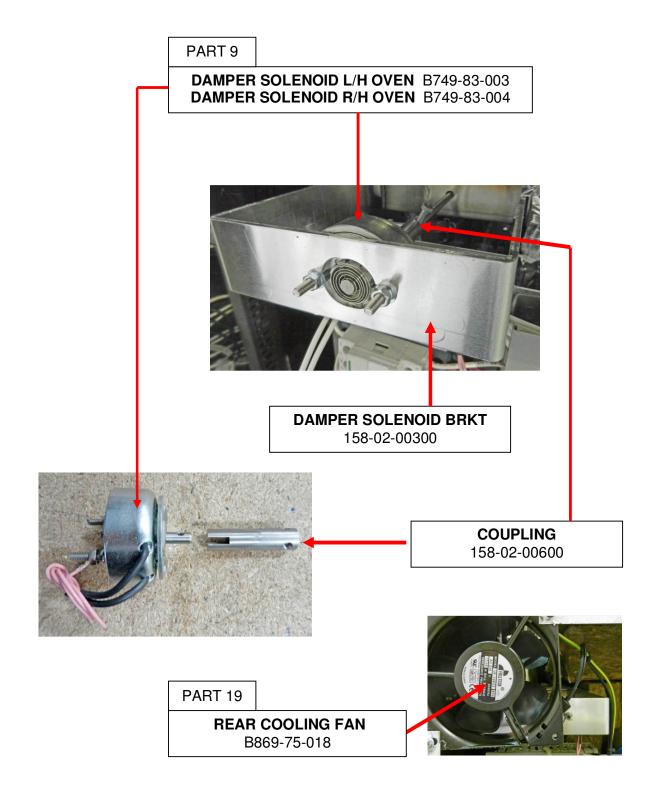
PART 4 4/5 TRAY 40 X 60 OVEN SPARES SECTION

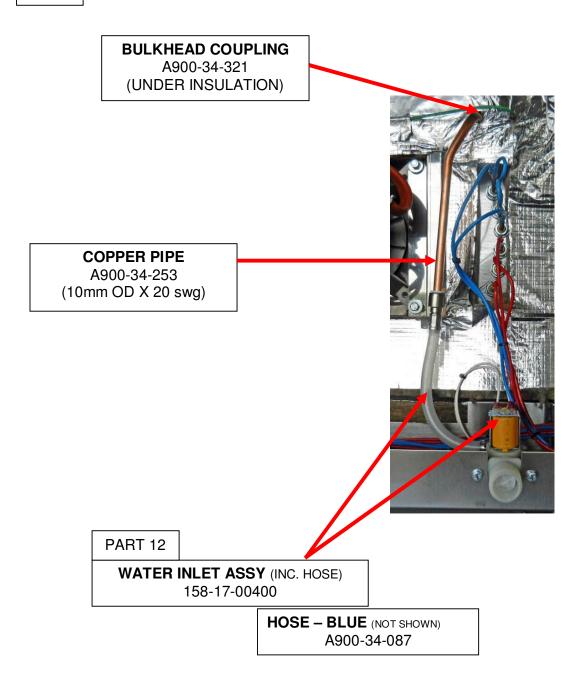
FG153



HEATING ELEMENT - B847-04-067 = 240volts PART 11 B847-04-074 = 220volts **FAN MOTOR UNIT** – B720-74-001 PART 10







PART 4 / SECTION 4 - 4/5 TRAY 40 X 60 - WATER/STEAM SYSTEM

FG153

EQUAL ELBOW

A900-34-387



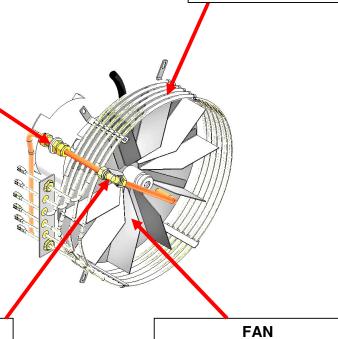
INDIVIDUAL PART NUMBERS ARE NOT AVAILABLE FOR PIPES. ALL PIPES MADE FROM

A900-34-253 COPPER PIPE 10mm O/D X 20swg WALL PIPE GUIDE BRACKET

150-01-07700

HEATING ELEMENT B847-04-067 = 240volts B847-04-074 = 220volts

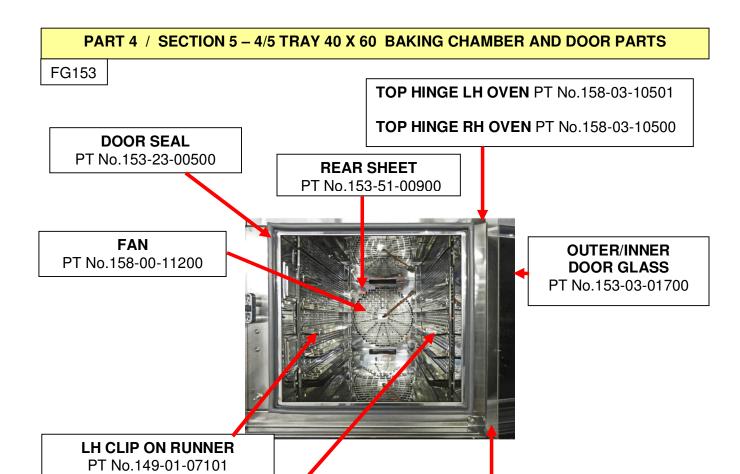
BULKHEAD COUPLING A900-34-321



EQUAL ELBOW

A900-34-387

158-00-11200





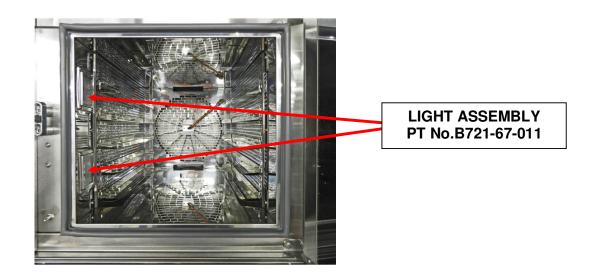
BOTTOM HINGE LH OVEN PT No.158-03-10500

BOTTOM HINGE RH OVEN PT No.158-03-10501

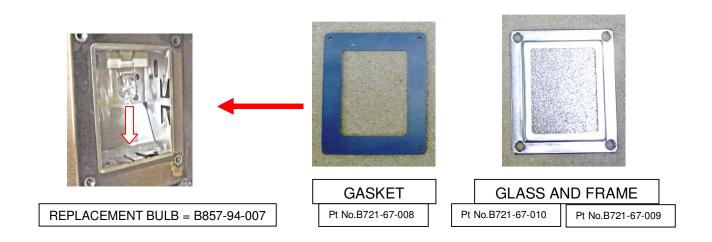
COMPLETE DOOR ASSEMBLY = PT No 153-03-01200 = LH HINGE DOOR PT No 153-03-01201 = RH HINGE DOOR

RH CLIP ON RUNNER

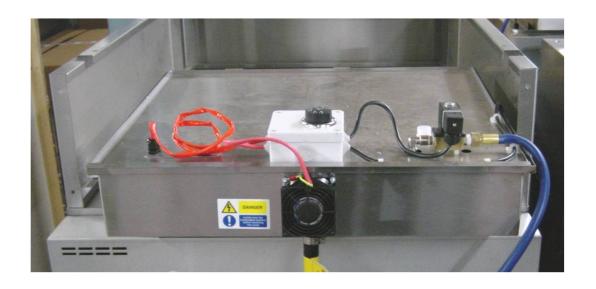
PT No.149-01-07100



INDIVIDUAL LIGHT ASSEMBLY PARTS AVAILABLE AS BELOW



<u>DO NOT TOUCH BULBS WITH BARE HANDS.</u> USE A CLOTH OR GLOVES TO STOP ANY MARKS THAT WILL CAUSE HOT SPOTS AND PREMATURE BULB FAILURE.



Section 13

CONDENSER UNIT

(IF FITTED)

The condenser can be fitted to any Bx oven or stacked Bx ovens as required.

CONDENSER INFORMATION INDEX

INTRODUCTION	PAGE 81			
DIMENSIONS	PAGE 82			
SPECIFICATIONS	PAGE 83			
INSTALLATION	PAGE 84			
SAFETY	PAGE 86			
OPERATION	PAGE 87			
SPARES	PAGE 88			
ELECTRICAL INFORMATION SEE ELECTRICAL MANUAL AVAILABLE SEPERATLY				

AIRFLOW CONDENSER INFORMATION PAGE 91

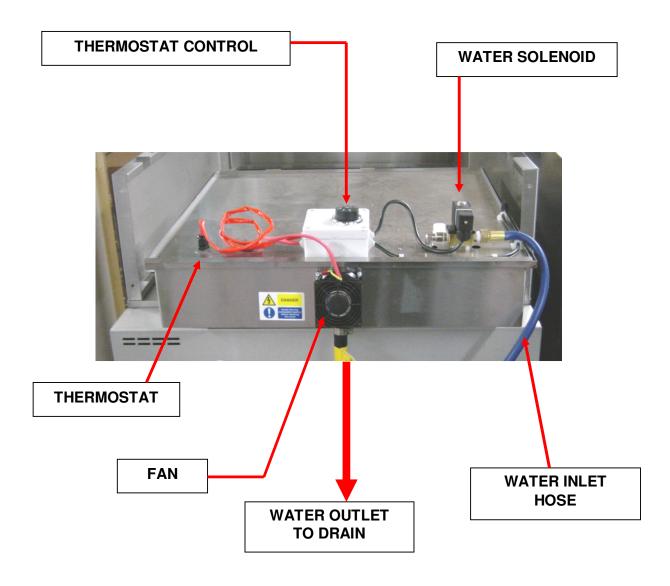
INTRODUCTION

The condenser can be fitted to any Bx oven or stacked Bx ovens as required.

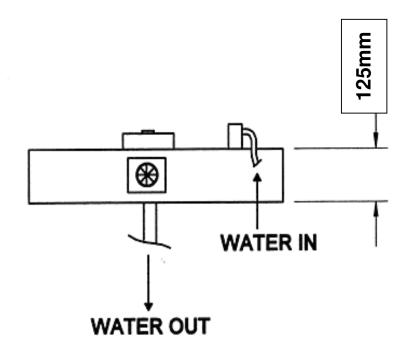
With thermostatic control it can be adjusted to operate in most ambiant temperatures. Simple water conection (washing machine type fitting) and a hose to drain are all that is required to operate efficiently.

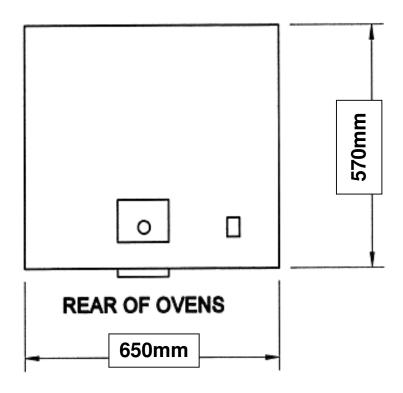
Steam is drawn from the fluepipe of the oven through a thermostatically controlled water cooled chamber and condenses to drain away.

When the cooling water reaches a set temperature it is automatically replaced with cold water to keep the condensing process as efficient as possible.



DIMENSIONS





Bx oven ECO range inc condenser and spares RevA18 11-01-18

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SPECIFICATIONS

POWER 230volts, 1 phase, 50hz,

21watts

Wired to oven electrical panel.

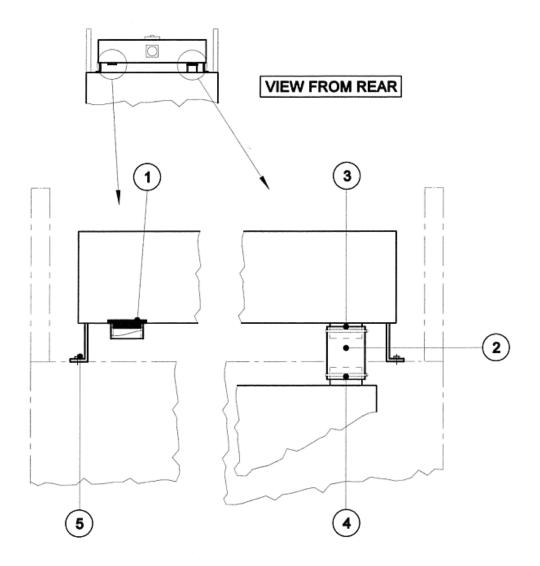
WATER Washing machine type connection to normal water supply

via steam water connection to oven(s).

NOISE Less than 85dB

WEIGHT Approx 18kg (not including water)

BEFORE INSTALLING ENSURE THAT ALL POWER IS DISCONNECTED AND THE OVEN IS COOL



- 1. Before fitting the main condenser assembly, insert blanking plug (1) into lower hole that will not be required for the hand of oven being used.
- 2. Connect tube (2) to the spigot and retain with worm-drive clip (3).

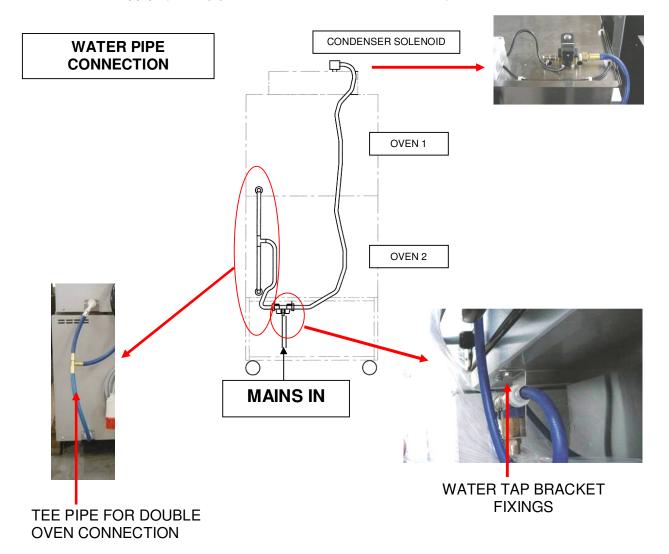
NOTE

If fixing holes are not present on the top sheet of the oven, they should be marked and drilled at this stage.

Position condenser correctly and mark hole positions (*centre of each slot*). Remove condenser and drill holes of 6.5mm diameter at 4 positions.

- 3. Place condenser in position ensuring that the tube (2) passes through the hole in the top of the oven and worm drive clip (4), then over spigot of the damper assembly on the oven.
- 4. Tighten worm-drive clip (4).
- 5. Fasten condenser unit to top of oven with M6 x 12mm long hex head screws and washers in 4 positions.

 (If holes have been drilled, nuts will have to be used also).
- 6. Connect wiring, depending on whether the oven is 4 tray or 10 tray, as shown in electrical manual.
- 7. Connect drain hose to a suitable drain.
- 8. Attach water tap bracket to frame of base as shown and fasten water hose to a water supply. (A tee pipe must be used on double ovens)

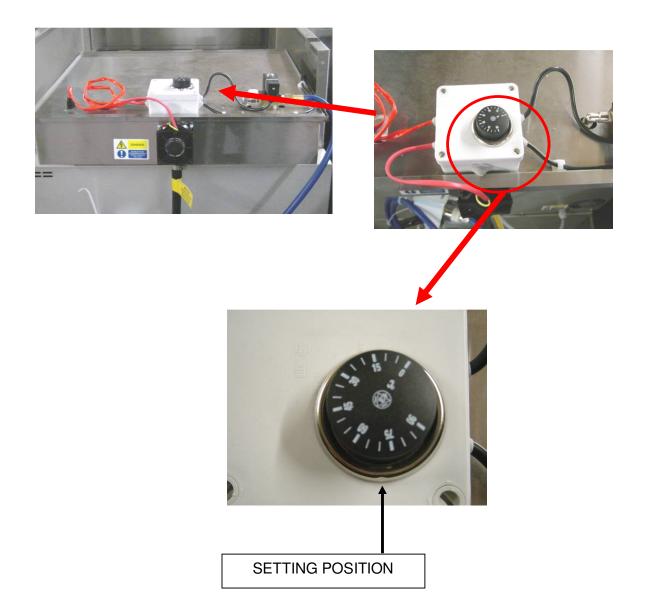




BEFORE INSTALLING ENSURE THAT ALL POWER IS DISCONNECTED AND THE OVEN(S) IS COOL

- 1. All repairs and maintenance of electrical units must be carried out by authorised electricians; even then, electrical access panels must not be opened unless the mains supply to the oven is isolated.
- 2. All connections to the oven must be made in accordance with the statuary requirements of the country of installation.
- 3. While the oven is in operation (and for some time after use), it is inadvisable to touch the condenser or the surrounds because of conducted heat.
- 4. The condenser must be operated as described in this manual.
- 5. Only **MONO** spare parts should be used on this condenser.
- 6. The construction of the condenser must not be changed.
- 7. If the oven is not to be used for some time, it is advisable to ensure that the condenser unit is drained of water.

OPERATION

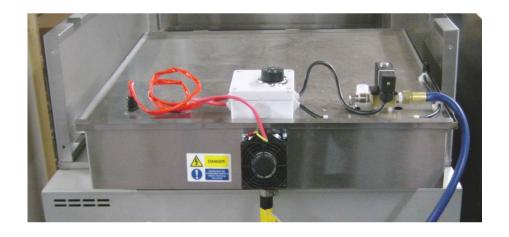


- 1. Ensure that the water is connected correctly and the oven power is on.
- 2. The thermostat control should be adjusted to the required position.

It is suggested that as a starting point the thermostat is set at 60. It can then be adjusted down if the performance drops or adjusted up if it is found that the water is being replaced too often.

Bx oven ECO range inc condenser and spares RevA18 II-0I-18

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CONDENSER SPARES INFORMATION

FOR ENGINEERS USE ONLY.

DO NOT ATTEMPT ANY ALTERATIONS.

IF IN DOUBT, CONTACT MONO EQUIPMENT FOR ADVICE

MONO

Queensway Swansea West Industrial Estate Swansea. SA5 4EB UK

email:spares@monoequip.com

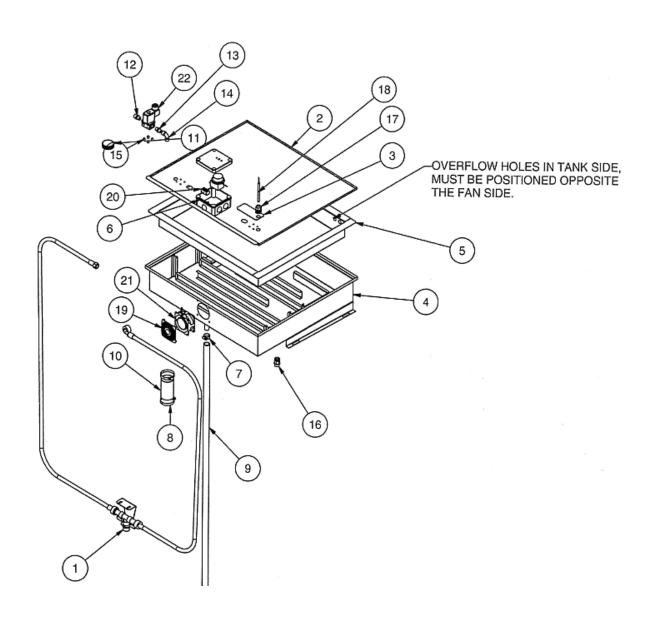
Web site: www.monoequip.com

Tel. +44(0)1792 561234

Spares +44(0)1792 564039

Fax. 01792 561016

CONDENSER UNIT MAIN PARTS



<u>ITEM</u>	PART No.	DESCRIPTION	QTY
1	150-07-01300	INLET WATER CONTROL UNIT	1
2	150-19-01700	TOP SHEET	1
3	150-19-02300	COVER PLATE	1
4	150-19-02600	BASE TRAY	1
5	150-19-02700	WATER TANK	1
6	150-25-07100	JUNCTION BOX	1
7	A900-01-196	WORM DRIVE CLIP	1
8	A900-01-271	WORM DRIVE CLIP	2
9	A900-23-004	DRAIN TUBE (2 METRES)	1
10	A900-23-027	FLEXIBLE TUBE	1
11)	A900-27-187	PLUG INSERT	1
12	A900-34-191	REDUCER 1/4"BSP MALE X 3/8" BSPT MALE	1
13	A900-34-244	REDUCER 1/4"BSP MALE X 1/4" BSPT MALE	1
14)	A900-34-245	ELBOW	1
15)	B811-33-001	SPACER	4
16	B839-17-003	CABLE GLAND TYPE 251	1
17)	B842-17-005	CABLE GLAND TYPE 206-6096	1
18	B842-30-003	THERMOSTAT	1
19	B842-40-002	FAN GUARD	1
20	B842-50-005	PORCELAIN CONNECTING BLOCK	1
21)	B869-75-033	FAN	1
22	B867-83-011	SOLENOID VALVE	1

OTHER VERSIONS THAT MAY BE FITTED

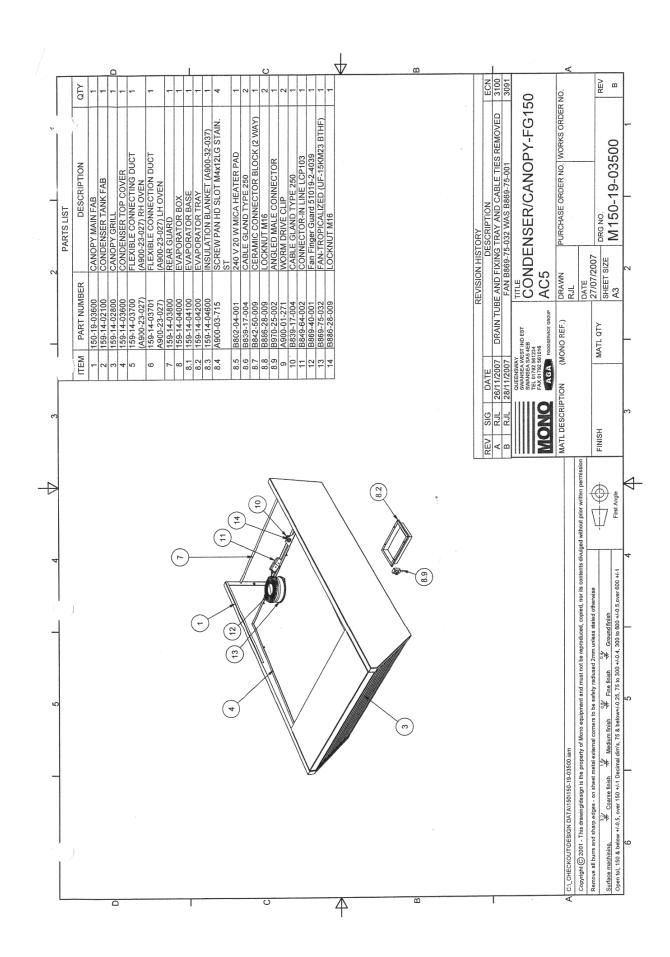
The following evaporation design versions could be fitted to your oven.

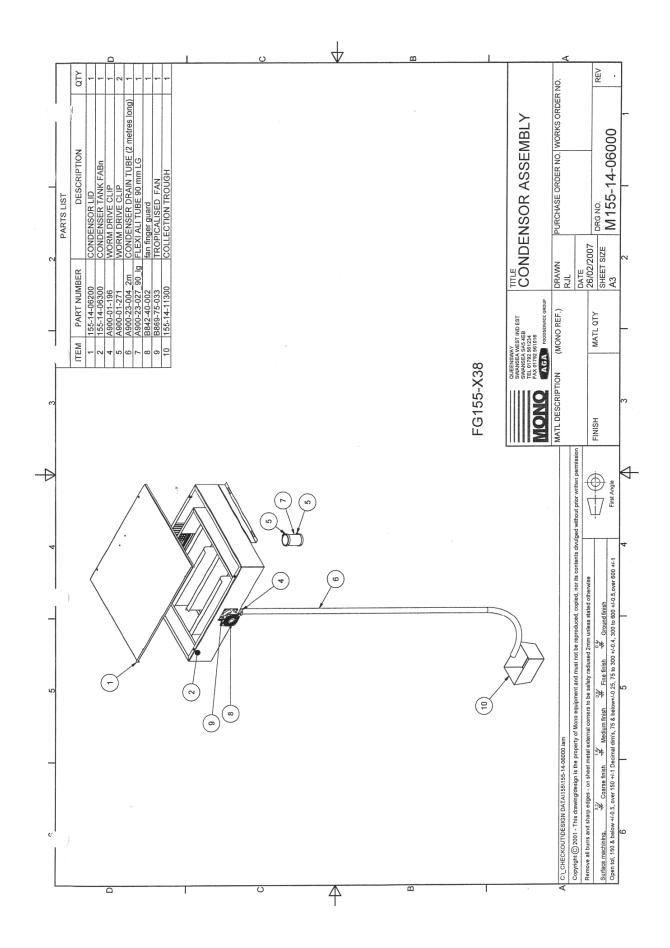
They only require to be plugged in to the socket found to the rear of the oven.

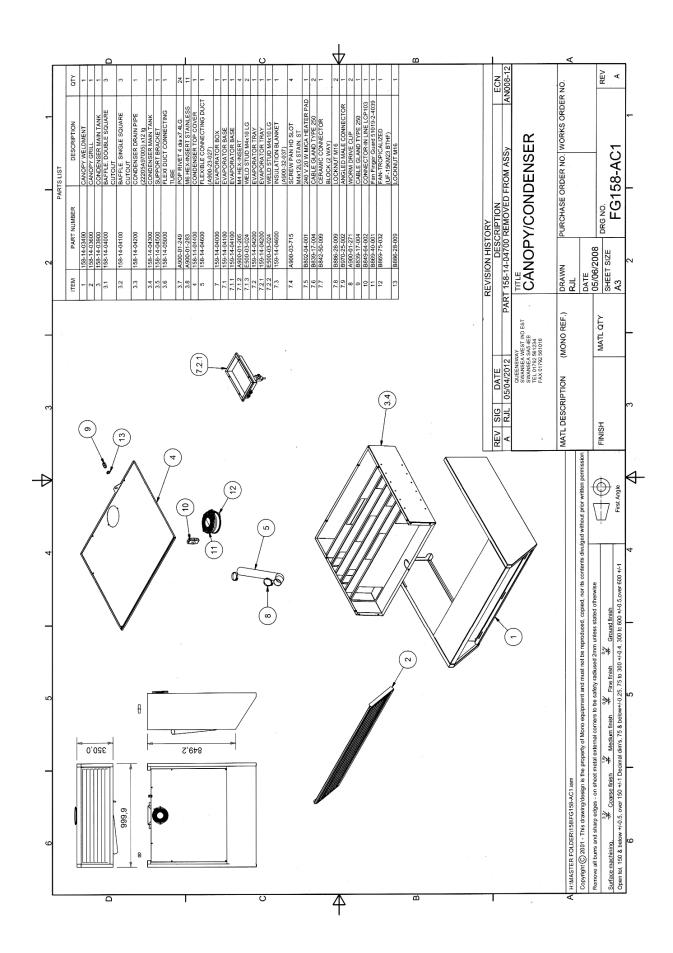


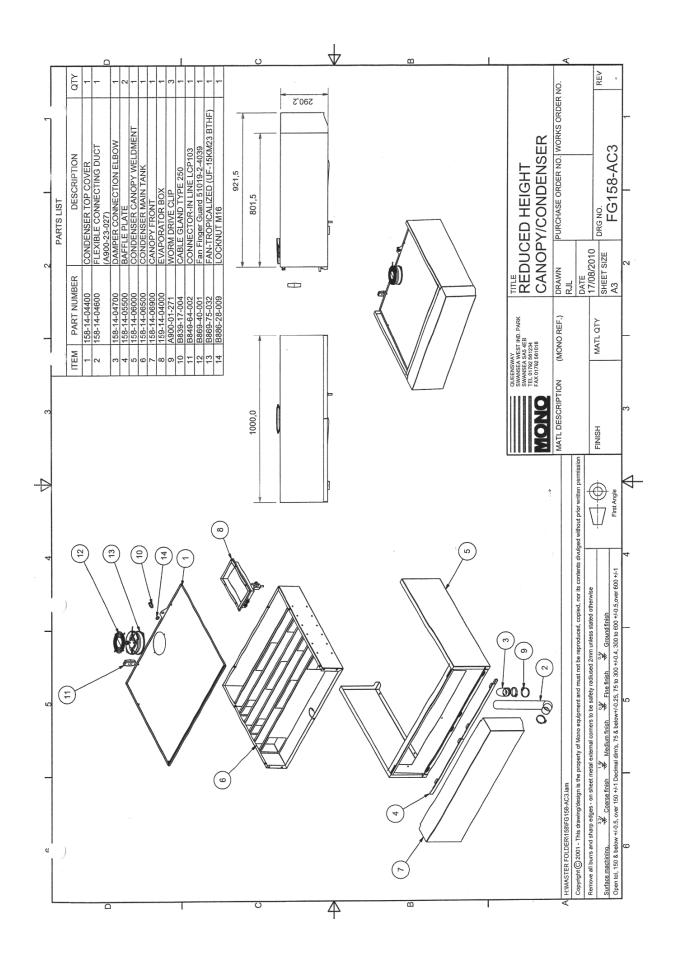
This powers the fan and evaporation pad.

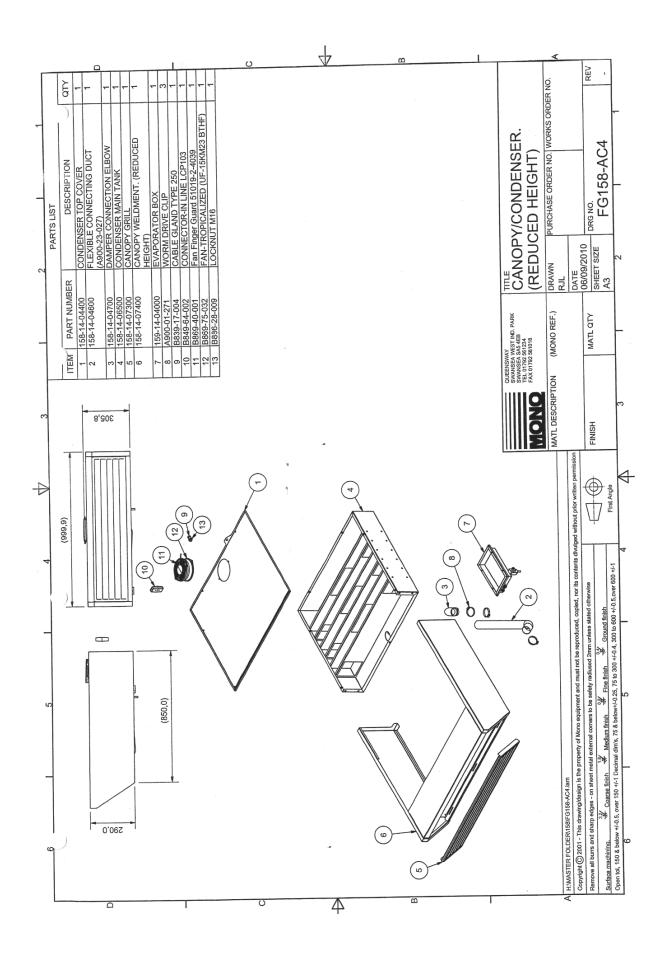
No drain is required.

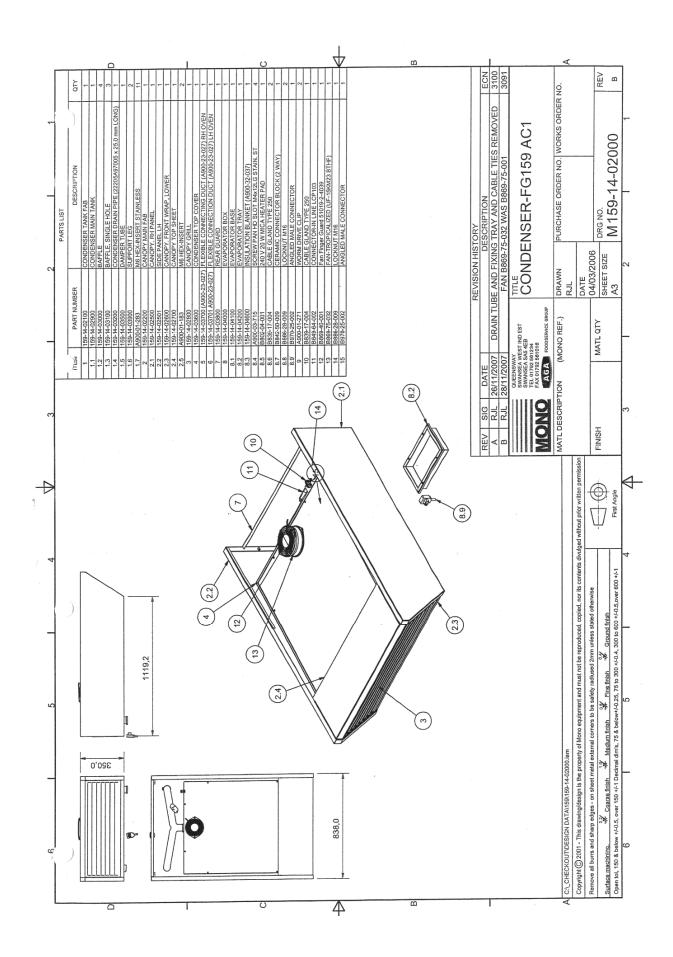












If a fault arises, please do not hesitate to contact the Customer Service Department, quoting the **machine serial number** on the silver information plate of the machine and on the front cover of this manual

MONO

Queensway Swansea West Industrial Estate Swansea. SA5 4EB UK

email:spares@monoequip.com Web site: www.monoequip.com

> Tel. +44(0)1792 561234 Spares +44(0)1792 564039 Fax. 01792 561016

OVEN DISPOSAL

CARE SHOULD BE TAKEN WHEN THE MACHINE COMES TO THE END OF ITS WORKING LIFE. ALL PARTS SHOULD BE DISPOSED OF IN THE APPROPRIATE PLACE, EITHER BY RECYCLING OR OTHER MEANS OF DISPOSAL THAT COMPLIES WITH LOCAL REGULATIONS.

(IN UK, ENVIRONMENTAL PROTECTION ACT 1990 APPLIES)