

OVEN SERIAL NO. _

OVEN CODE 149 150 153 156 158 159

CONDENSER SERIAL No. _

In the event of an enquiry please quote these numbers.

www.monoequip.com



Bx OVEN

SET UP AND OPERATION OF OVEN **AND CONDENSER UNIT (IF FITTED)**

CLASSIC

Failure to adhere to the operation, cleaning and maintenance instructions detailed in this manual could affect the warranty of this oven.



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 EN55014-2:1997+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	CHEN Whows				
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

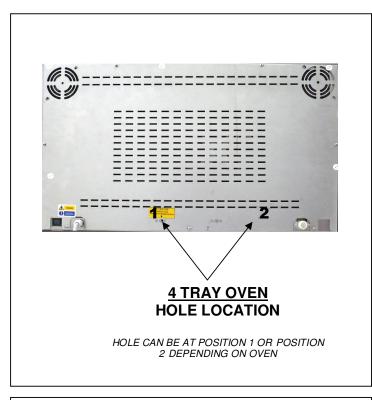
Queensway, Swansea West Industrial Park, Swansea SA5 4EB UK

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)







REAR VIEW OF OVENS

3

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

SAFETY SYMBOLS

The following safety symbols are used throughout this product documentation. Before using your new equipment, read the instruction manual carefully and pay special attention to information marked with the following symbols.



WARNING

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



WARNING

Indicates a hazardous situation which, if not avoided, will result in electric shock.



CAUTION

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

ELECTRICAL SAFETY AND ADVICE REGARDING SUPPLEMENTARY ELECTRICAL PROTECTION:

Commercial bakeries, kitchens and foodservice areas are environments where electrical appliances may be located close to liquids or operate in and around damp conditions or where restricted movement for installation and service is evident.

The installation and periodic inspection of the appliance should only be undertaken by a qualified, skilled and competent electrician, and connected to the correct supply suitable for the load as stipulated by the appliance data label.

The electrical installation and connections should meet the necessary requirements of the local electrical wiring regulations and any electrical safety guidelines.

We Recommend:

- Supplementary electrical protection with the use of a residual current device (RCD)
- Fixed wiring appliances incorporate a locally situated switch disconnector to connect
 to, which is easily accessible for switching off and safe isolation purposes. The
 switch disconnector must meet the specification requirements of IEC 60947.



The supply to this machine must be protected by a 30mA RCD

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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 fitted with **LED** (classic) displays for the user-friendly control panels.







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

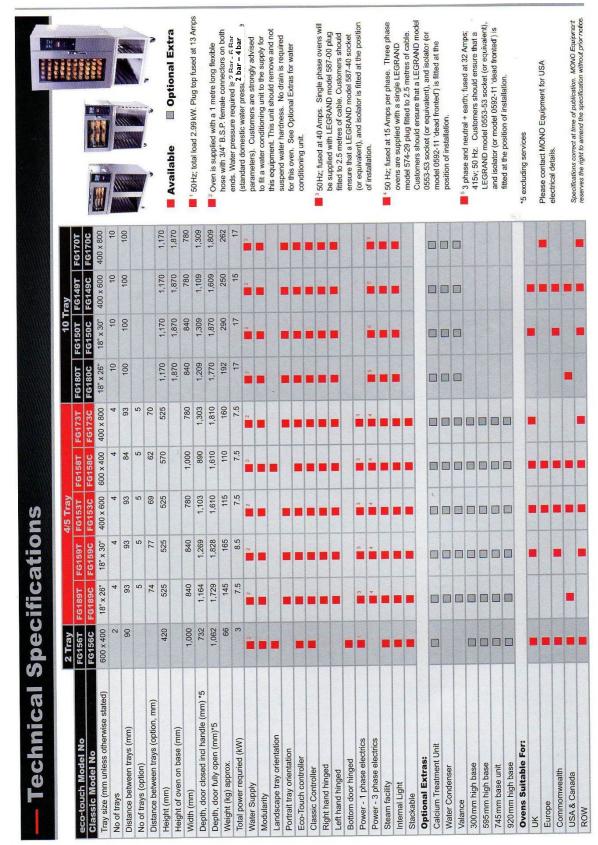
10-TRAY Bx OVEN



 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





The supply to this machine must be protected by a 30mA RCD

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.



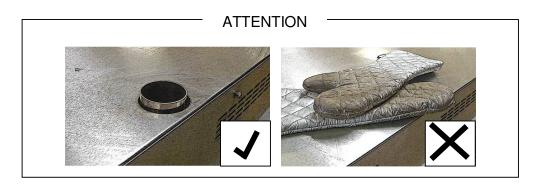
- 3. All repairs and maintenance of electrical units must be carried out by authorised electricians; even then, electrical access panels must not be opened unless the mains supply to the oven is isolated.
- 4. All connections to the oven must be made in accordance with the statuary requirements of the 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.

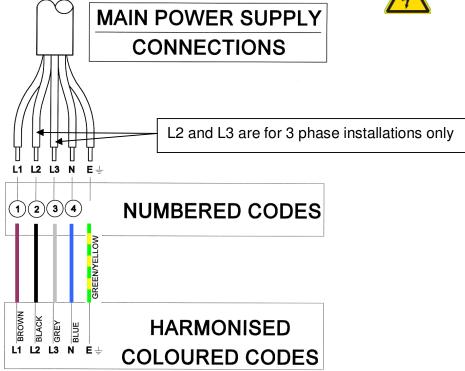


4.0 INSTALLATION

The supply to this machine must be protected by a **30mA RCD**

1. 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.

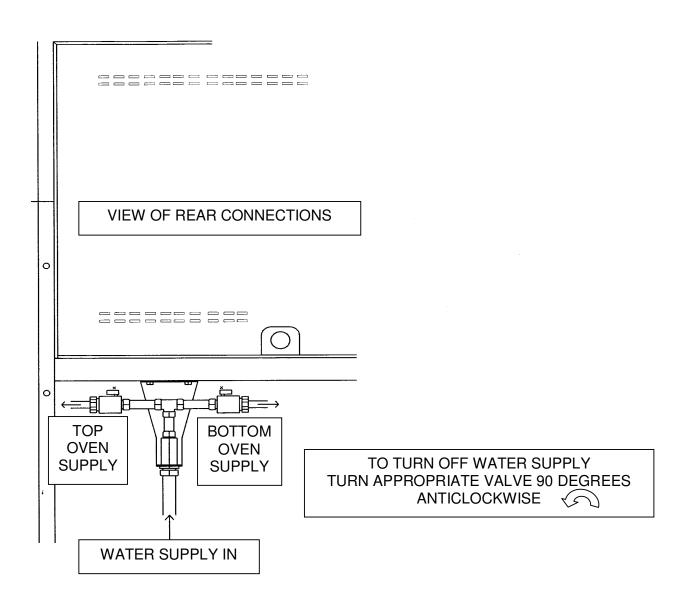
ELECTRICITY SUPPLY

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 racking from sides of oven. (*lift and unlatch racking*).

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

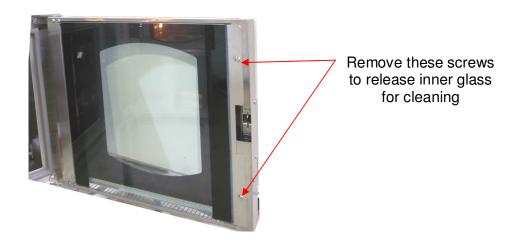
Wipe down, and clean racking with a damp cloth and replace.

4 tray ovens

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

To open, remove the two screws shown in the sketch 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 CLASSIC Operating Instructions

Section 8

8.0 BX'CLASSIC' OPERATING INSTRUCTIONS RUNNING PRE-SET PROGRAMS

REFER TO CONTROL PANEL (SEE RIGHT)

- **Switch on power** by pressing green button (1).
- Select required program using UP/ DOWN scroll keys (2).
- **3** Press START key (3) to begin bake cycle.
 - Oven will heat to set temperature and display will flash actual temperature.
 - When set temperature is reached the display will stop flashing. The oven is now ready
- 4 Load product. Close door.
- 5 Press START key (3).

Display will show the following:-

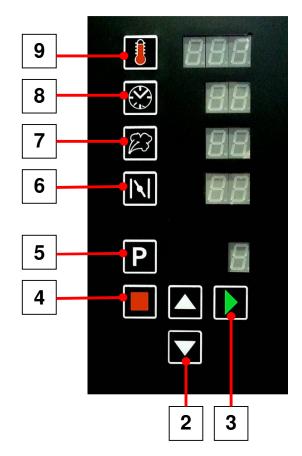
- (9) Actual temperature.
- (8) Remaining bake time in minutes.

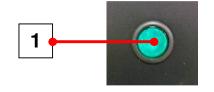
 Display will automatically switch to show remaining seconds during the last minute of bake time.

At this time increase bake time if required. Press time key (8), then up/down keys (2) to add more time amount required. Press time key (8) then start (3).

- (7) Steam time (if set) in seconds.

 If the actual temperature is less than the minimal steaming temperature of 125 C then '--' will be displayed. This indicates that steaming functions are inhibited.
- (6) Damper duration (delay before open) in minutes.
- (5) Program number/bake cycle indicator. Display will alternate between program number and the spinning bake cycle indicator.
- 6 Press **STOP** key (4) when "bake over" alarm sounds





9.0 BX 'CLASSIC' PROGRAMMING INSTRUCTIONS

CREATING PROGRAMS/CHANGING PROGRAM VALUES.

Pre-set values for bake temperature; bake time, steam and (optional) damper may be modified at any point.

CREATING/CHANGING PROGRAM VALUES

- **1.Switch on power** by pressing green button (1).
- **2.**Use the UP/DOWN arrow keys (2) to select a program to change
- **3.**Press the key associated with the change required (temperature (9), time (8), steam (7), damper (6)). A selection indicator will flash in the right hand side of the selected window.
- 4. Use up/down arrow keys (2) to modify the value

The operator now has the option to save the changes, or run the program with temporary values. If the operator chooses not to save the modifications,

then the program will reset to its original values upon reselection.

5.Press START (3) to bake *(see next page for further baking instructions)*

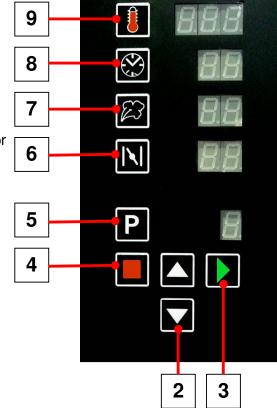
or save the values as follows

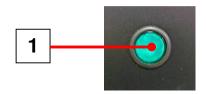
SAVING PROGRAM VALUES

6.Press and hold the **P** key (5) for 5 seconds. During this time, all displayed values will flash. The controller will bleep at the end of this period to acknowledge the program save.

Note:

Programs cannot be saved during a bake cycle.





<u>SETTING PREBAKE TEMPERATURE (if enabled)</u>

Press (9). (one dot flashes)

Press (9) and hold for 3 seconds (3 dots flash).

Use up/down arrow keys (2) to set temperature.

Press (9) to save

Pre-set values for bake temperature; bake time, steam, sleep mode etc. may be modified at any point.

FAN DELAY ENABLING

NOTE: This facility is only functional on a 3 phase oven.

If it is activated on a1 phase, the fan will stop.

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds.

Press start (3) - "FAN" is displayed

press (8) to change to 00 (disable) or 01 (enable)

press up/down (2) to change next display to between 00 and 60 seconds

00 = no delay 60= 60seconds delay

OVEN PREBAKE ENABLING

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds.

or if already done for above setting, continue by

pressing start 3 - "Prb" is displayed

Press (8) to show "-0" for disabled or again to show "-1" for enabled.

CHANGING TEMPERATURE FROM C TO F

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds.

or if already done for above setting, continue by

pressing start (3) - "F" OR "C" is displayed Press arrow key (2) to change this.

_. ___ ..._

SLEEP MODE ENABLING

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds or if already done for above setting, continue by

pressing start (3) - "SIp" is displayed

press up/down (2) to change next display to between 00 and 60

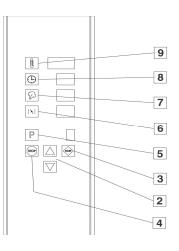
00 = disabled 1-60= 60 minutes delay before sleep.

DAMPER

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds

or if already done for above setting, continue by pressing start (3) - "dpr" is displayed

press (8) to change to -0 (disable) or -1 (enable)



TEMPERATURE SET POINT/CHAMBER DISPLAY

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds. or if already done for above setting, continue by pressing start (3) - "**dsp**" is displayed press (8) to change between "**sp**" = set point temperature displayed or "**ct**" = chamber temperature displayed.

Pressing start (3) again sets the display back to normal operating mode.

PROGRAM "0" ENABLE (Temperature and time only control)

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds. or if already done for above setting, continue by pressing start (3) - "**P0E**" is displayed press (8) to change to -0 (disable) or -1 (enable)

8 HOUR TIMER(20 minute warning of 8hrs of operation)

Hold the **P** key (5), together with the **STOP** key (4) for 5 seconds. or if already done for above setting, continue by pressing start (3) - "**8HR**" is displayed press (8) to change to -0 (disable) or -1 (enable)

10.0 MAINTENANCE

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

11.0 STEAM SYSTEM MAINTENANCE

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

12.0 BULB REPLACEMENT.

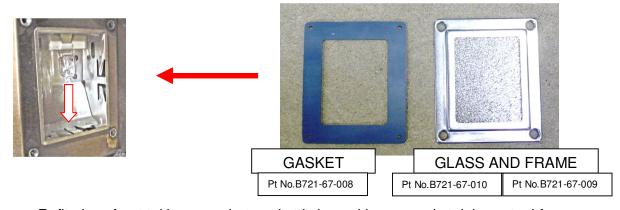
REPLACEMENT BULB = B857-94-007

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

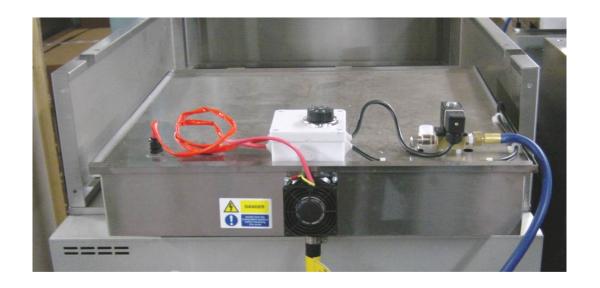
- Ensure oven is isolated from mains supply and allow to cool.
- Remove screws (4 per light) and take glass, frame and gasket off lamp unit.



 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.



13

CONDENSER UNIT

All versions should be part of a regular cleaning schedule. Water should be drained and parts cleaned with an antibacterial wash.

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ELECTRICAL INFORMATION s	EE ELECTRICS MANUAL

Bx oven CLASSIC HAL range inc condenser RevA19 16-01-19

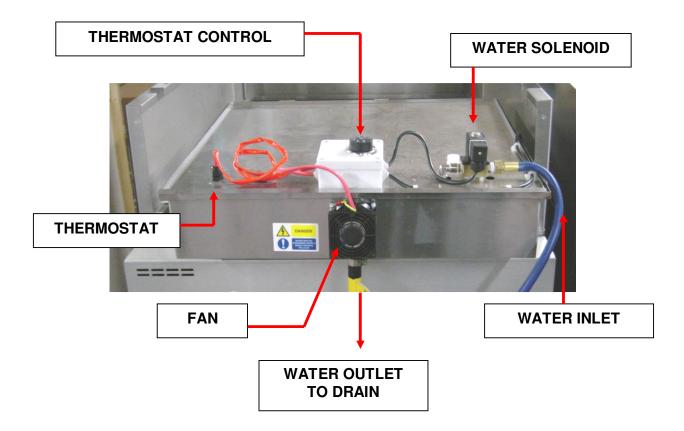
INTRODUCTION

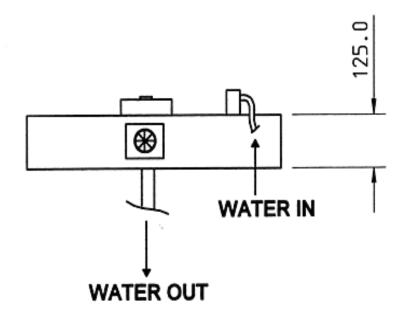
The condenser can be fitted to any Bx oven or stacked Bx ovens as required.

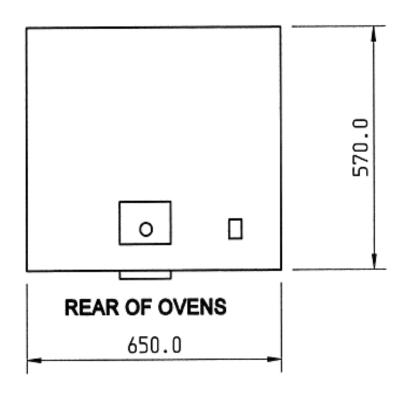
With thermostatic control it can be adjusted to operate in most ambiant temperatures. Simple water conection (washing machine type fitting) and a hose to drain are all that is required to operate efficiently.

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.







Bx oven CLASSIC HAL range inc condenser RevA19 16-01-19

SPECIFICATIONS

POWER 230volts, 1 phase, 50hz,

21watts

Wired to oven electrical panel.

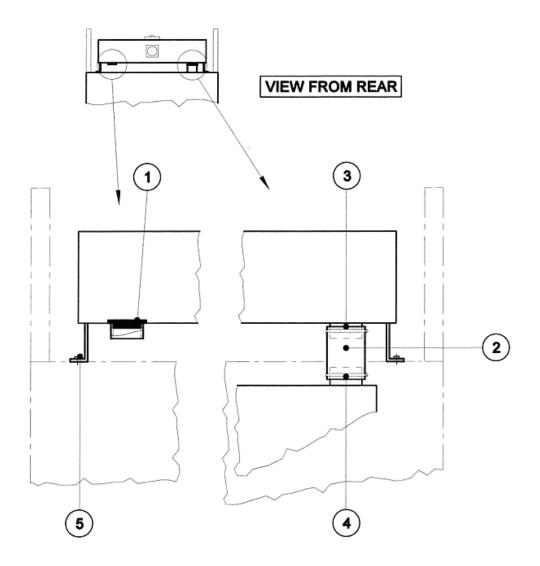
WATER Washing machine type connection to normal water supply

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

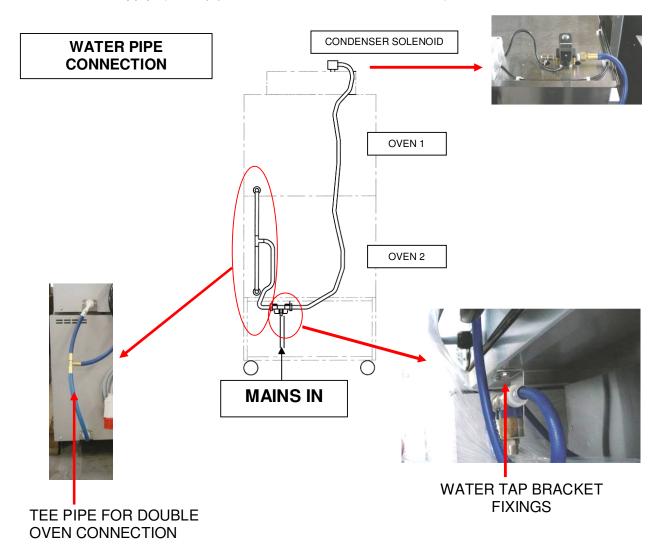
If fixing holes are not present on the top sheet of the oven, they should be marked and drilled at this stage.

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

Bx oven CLASSIC HAL range inc condenser RevA19 16-01-19

- 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 section of this 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)



SAFETY

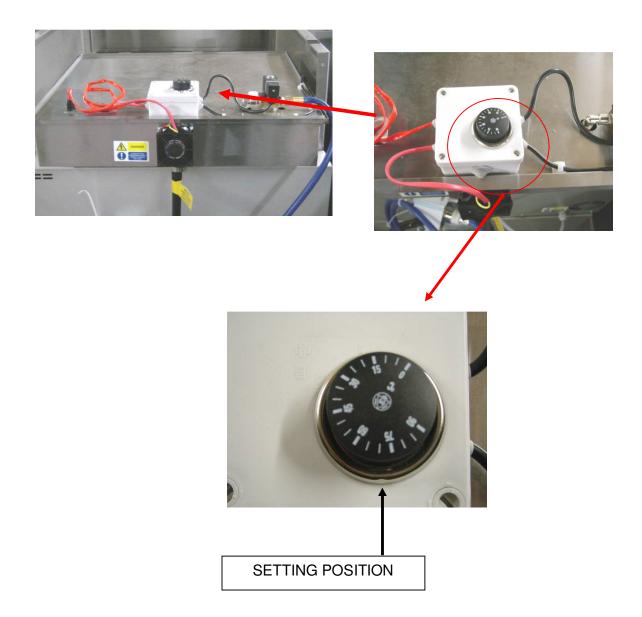
BEFORE INSTALLING ENSURE THAT ALL POWER IS DISCONNECTED AND THE OVEN(S) IS COOL



- 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.
- All versions should be part of a regular cleaning schedule.
 Water should be drained and parts cleaned with an antibacterial wash.



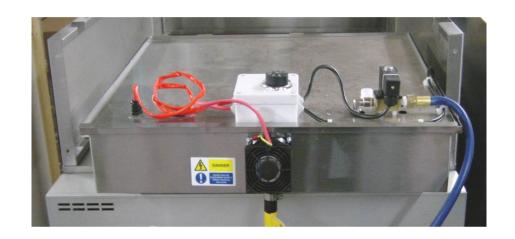
- 4. While the oven is in operation (and for some time after use), it is inadvisable to touch the condenser or the surrounds because of conducted heat.
- 5. The condenser must be operated as described in this manual.
- 6. Only **MONO** spare parts should be used on this condenser.
- 7. The construction of the condenser must not be changed.



- 1. Ensure that the water is connected correctly and the oven power is on.
- 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 CLASSIC HAL range inc condenser RevA19 16-01-19



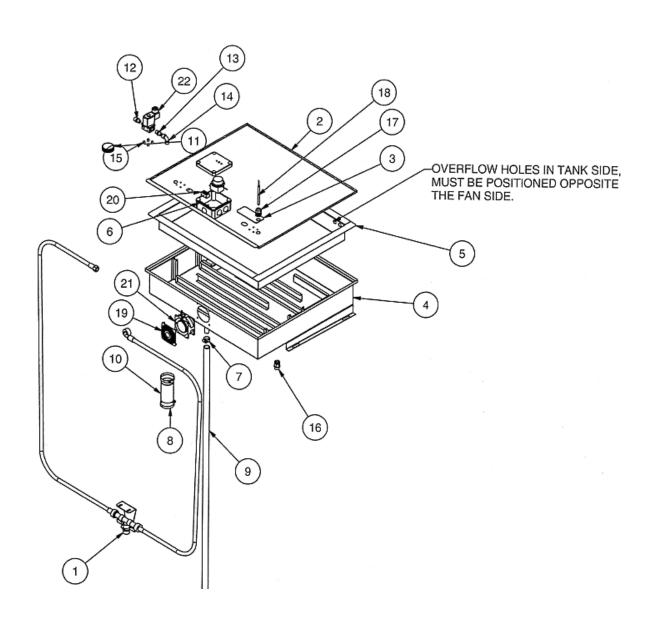
CONDENSER SPARES INFORMATION

FOR ENGINEERS USE ONLY.

DO NOT ATTEMPT ANY ALTERATIONS.

IF IN DOUBT, CONTACT MONO EQUIPMENT FOR ADVICE

CONDENSER UNIT MAIN PARTS



ITEM	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.

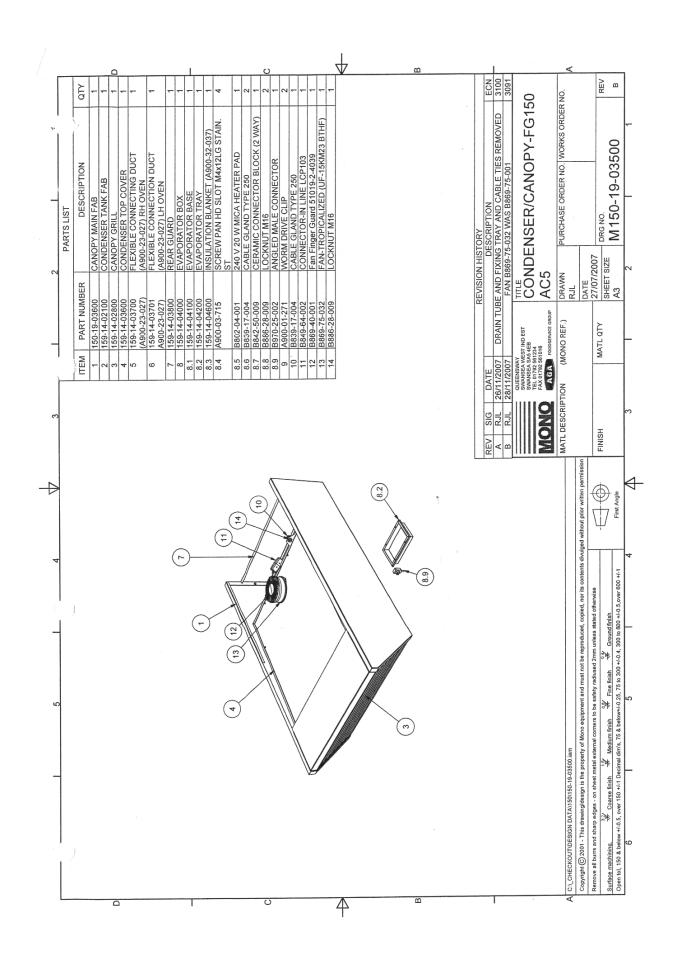
They only require to be plugged in to the socket found to the rear of the oven.

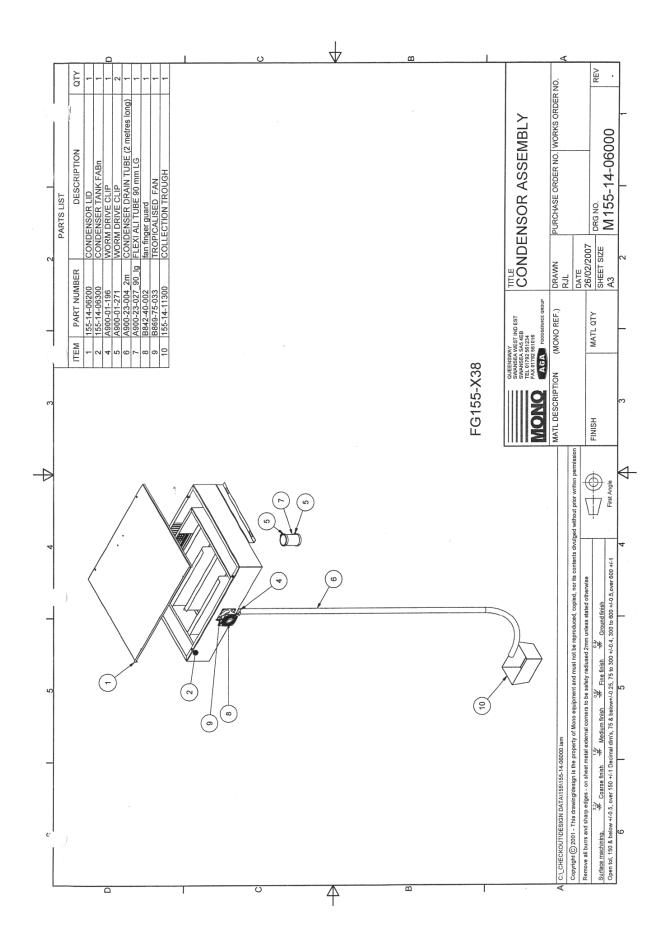


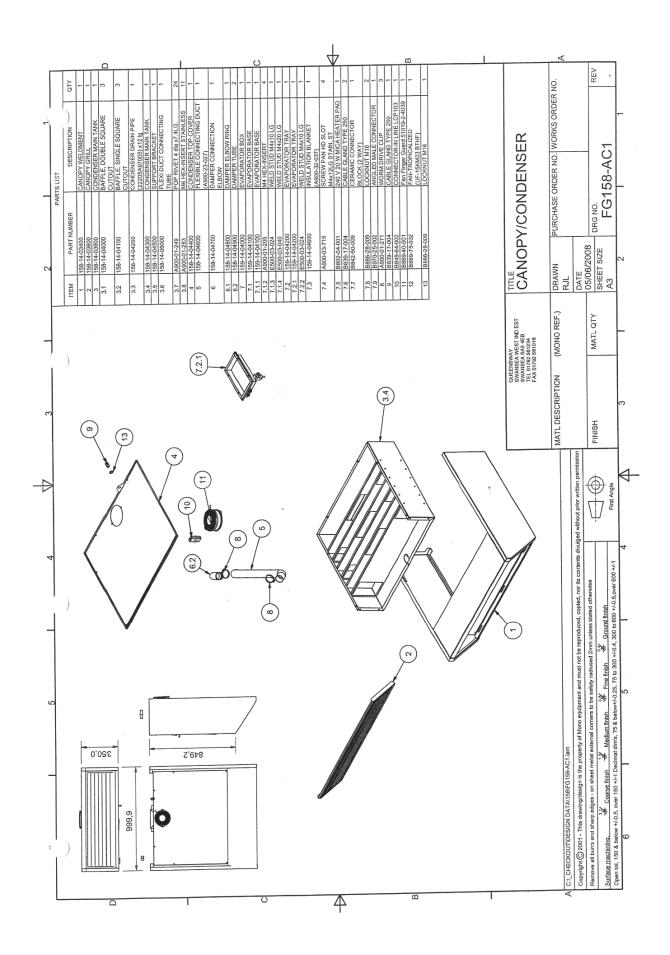
This powers the fan and evaporation pad.

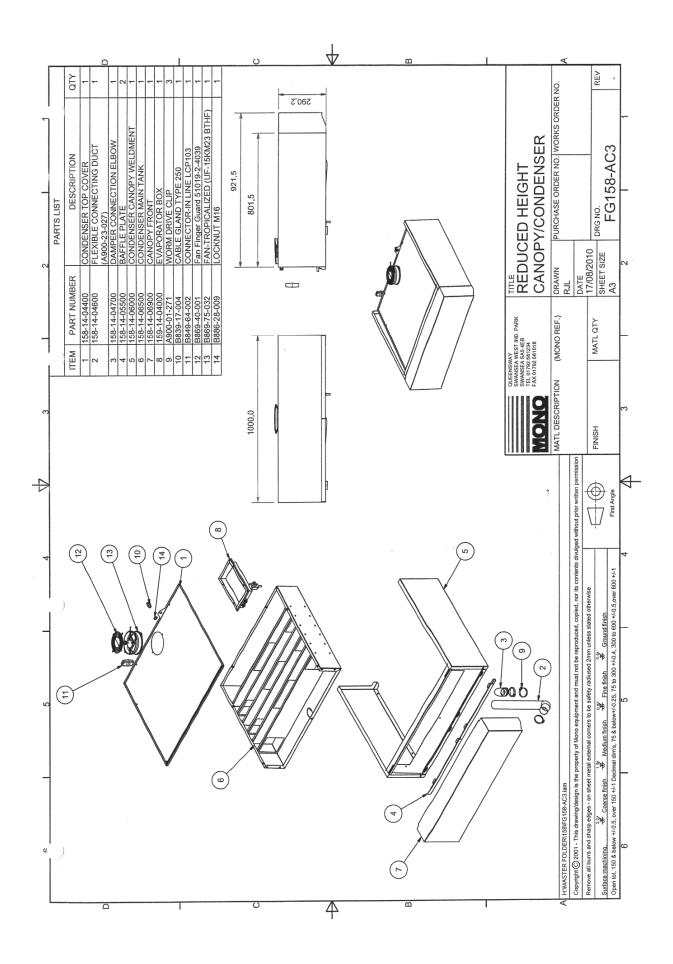
No drain is required.

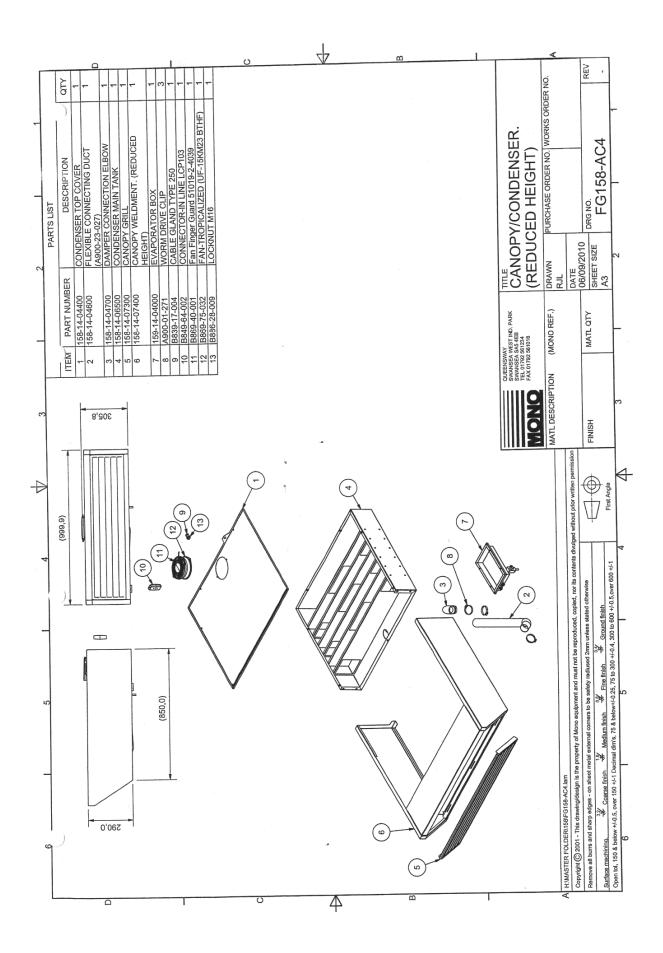
Bx oven CLASSIC HAL range inc condenser RevA19 16-01-19

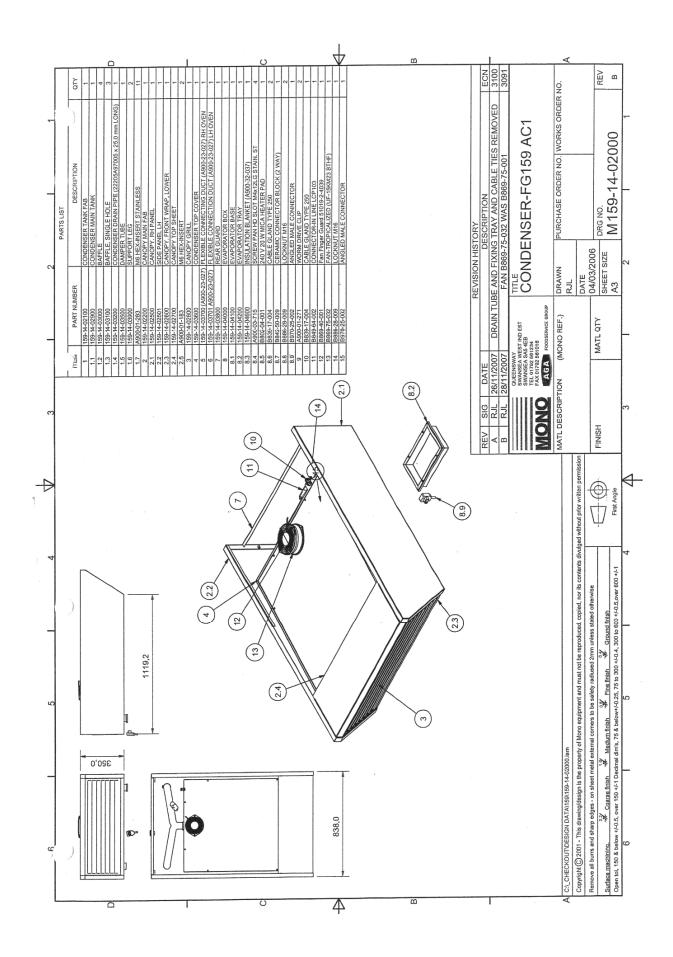




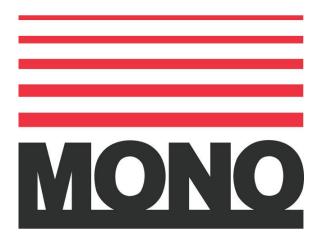








If a fault arises, please do not hesitate to contact the Customer Service Department, quoting the **machine serial number** on the silver information plate of the machine and on the front cover of this manual



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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)