

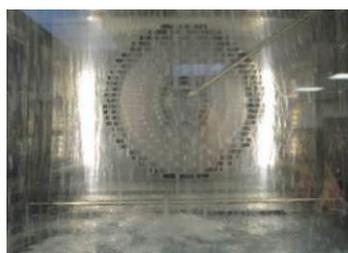


MonoEquip.com

MONO Eco Connect+ Wash Convection Oven

EN

Installation and Operation Manual



Oven Serial Number _____

Oven Code 174 175

Condenser Serial Number _____ (if fitted)

In the event of an enquiry, please quote these serial numbers.



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 2006 / 95 / EC
- The requirements of the Electromagnetic Compatibility Directive 2004 / 108EC, 91 / 263 / EEC, 92 / 31 / EEC
- 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
- Good manufacturing practice for Materials intended to come into contact with food - Regulation (EC) No. 2023 / 2006

Signed	
D. Osmundsen – Quality and Conformance Manager	

Date	
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Machine FG Code.		Machine Serial No.	
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A technical construction file for this machine is retained at the following address:

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

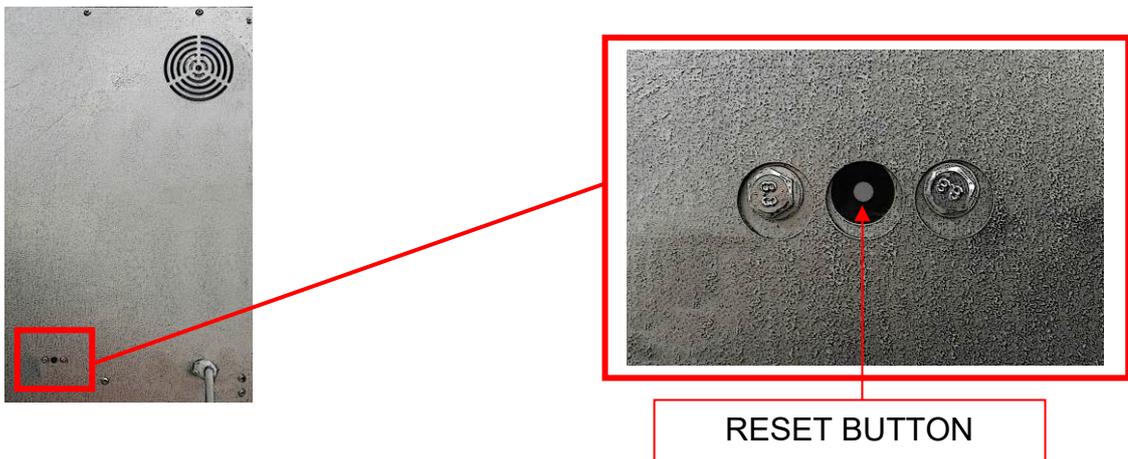
MONO EQUIPMENT is a business name of **AFE GROUP Ltd**
 Registered in England No.3872673 VAT registration No.923428136

Registered office: Unit 35,
 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 LOCATED THROUGH THE REAR BACK PANEL.
(DO NOT REMOVE BACK PANEL)**



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 food service 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.

Your attention is drawn to:

BS 7671:2018 – Guidance Note 8 – 8.13: Other locations of increased risk

It is recognised that there may be locations of increased risk of electrical shock other than those specifically addressed in Part 7 of BS 7671. Examples of such locations could include laundries where there are washing and drying machines in close proximity, and water is present, and commercial kitchens with stainless steel units, where once again, water is present. Where, because of the perception of additional risks being likely, the installation designer decides that an installation or location warrants further protective measures, the options available includes:

- Automatic Disconnection of Supply (ADS) by means of a residual current device having a residual operating current not exceeding 30 mA;
- Supplementary protective equipotential bonding; and
- Reduction of maximum fault clearance time.

The provision of RCDs and supplementary bonding must be specified by the host organisation's appointed installation designer or electrical contractor and installed by a suitably qualified and competent electrician so as to comply with Regulations 419.2 and 544.2.



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

OPENING THE DOUBLE-CATCH DOOR

1. Turn the handle **left** to release the catch halfway.
 - This step allows the steam and heat to escape.
2. Turn the handle **right** to release the door fully.
3. Open the door.

Note

- These instructions apply to both left-hand and right-hand ovens.
 - The door will not open unless power is connected to the oven. If the door does not open at first, push fully shut and it will then open.
 - The door is locked shut and it is not possible to open it during the wash cycle.
 - To close the door, firmly push it fully shut.
-



Closed-door



Step 1. Turn left



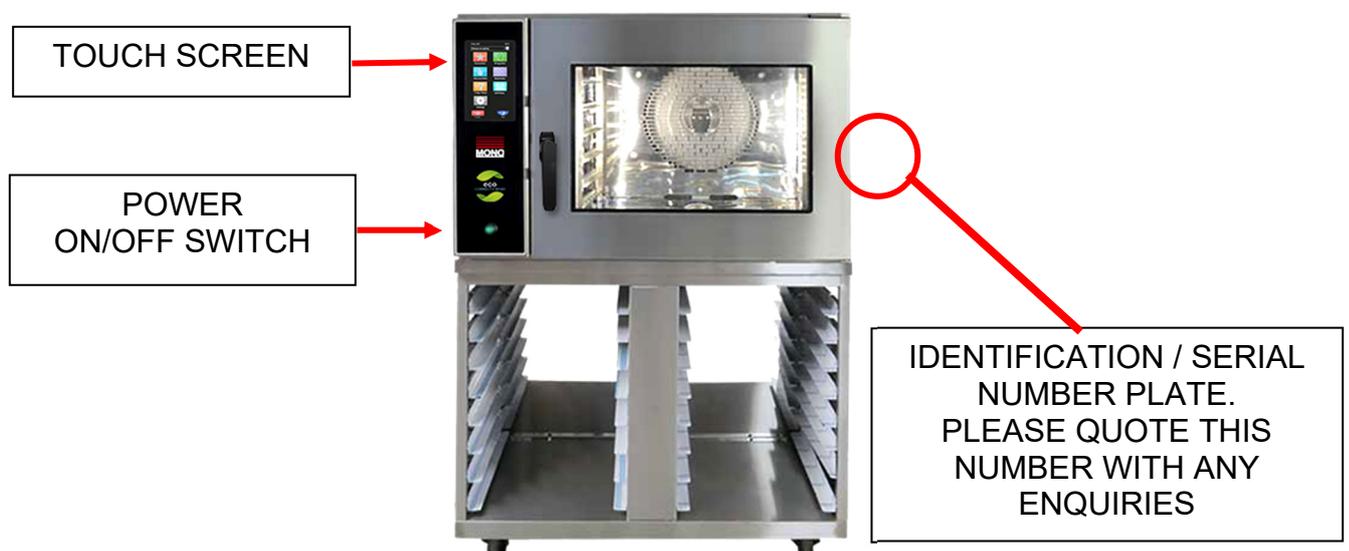
Step 2. Turn right

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1. INTRODUCTION

- A combination of clean industrial design and the latest technology, the **MONO BX wash oven** is designed specifically to take the baking Industry's standard 40cm x 60cm trays with the option of a quick and easy "Tray Loading Cassette system" which loads up to 14 trays in seconds.
- The ovens are constructed using **stainless steel** which makes them easy to clean.
- The variable fan, element and steam system give **efficient air circulation** to produce a professional bake across a range of products and work together to produce excellent conditions for the wash cycle.
- The door is **double glazed** to increase the efficiency of the ovens well-insulated baking chamber and contains LED lights to illuminate the interior.
- To prevent contact with any cleaning fluids or water during the cleaning cycle, the **main door locks** until all cleaning cycles are finished.
- Ovens are supplied with **LCD TOUCH** displays for the user-friendly control panels.
- So long as the Mono "Power Max Plus" cleaning cartridge is used, the ovens can be connected to a normal domestic drain system without any problems with the environment.
- Full control and monitoring via an app for smartphones or handhelds is available.
- The self-clean System provides 4 set programmes for hot flush, gentle, standard and power wash cycles or a custom wash facility to suit specific needs.
- The management programme provides diagnostics, fault-logging and even electrical power usage and costing



2. SPECIFICATIONS

	10 tray	4 tray	stacked
HEIGHT	1240	640	2000
HEIGHT OF OVEN ON BASE	1360		
WIDTH	1000	1000	
DEPTH – DOOR CLOSED	860	860	
DEPTH – DOOR OPEN	1620	1620	
TRAY SIZE	600mm x 400mm		

POWER (uk versions)

4/5 TRAY OVENS - 415 volts. 3 PHASE, + NEUTRAL + EARTH, 50HZ
11amps per phase, total power 7.5kW
(element = 7kW 240v stainless steel)

10 TRAY OVENS - 415 volts. 3 PHASE, + NEUTRAL + EARTH, 50HZ
21amps per phase, total power 15kW
(element = 7kW 240v stainless steel x2)

POWER (export versions)

4/5 TRAY OVENS - 400 volts. 3 PHASE, + NEUTRAL + EARTH, 50HZ
12amps per phase, total power 7.5kW
(element = 7kW 220v stainless steel)



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

WATER

$\frac{3}{4}$ " B.S.P. Flexible hose.

WATER PRESSURE 2 bar – 4 bar
Domestic pressure is usually within this parameter.

Water conditioning unit advised, especially in hard water areas.

DRAINAGE

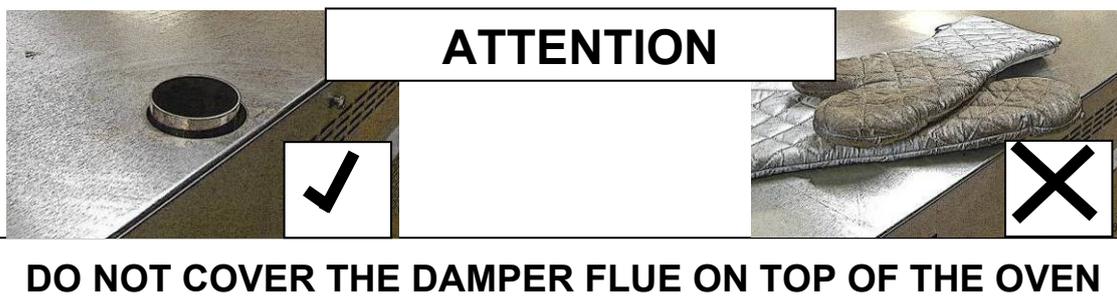
The oven must be connected to a drain via a standpipe or be connected to a drainage pipe that does not allow water flow-back into the machine.

3. 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 first consulting with **MONO**.
2. Failure to adhere to the operation, cleaning and maintenance instructions detailed in this manual could affect the warranty of this oven.
- 
 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 main electrical supply to the oven is isolated.
4. All connections to the oven must be made in accordance with the statutory 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 from inside.**
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.**
10. To prevent door glass damage - **DO NOT CLEAN OVEN GLASS WHEN HOT.**
11. Customers operating a BX oven must ensure that water quality is good or 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.
13. Care should be taken when handling cleaning cartridges. Do not break open or use damaged cleaning cartridges. Store cleaning cartridges in original packaging.
14. If the oven is not going to be used for an extended period, switch off the electrical and water supplies.



4. INSTALLATION

POWER (uk versions)

4/5 TRAY OVENS - 415 volts. 3 PHASE, + NEUTRAL + EARTH, 50HZ
11amps per phase, total power 7.5kW
(element = 7kW 240v stainless steel)

10 TRAY OVENS - 415 volts. 3 PHASE, + NEUTRAL + EARTH, 50HZ
21amps per phase, total power 15kW
(element = 7kW 240v stainless steel x2)

POWER (export versions)

4/5 TRAY OVENS - 400 volts. 3 PHASE, + NEUTRAL + EARTH, 50HZ
12amps per phase, total power 7.5kW
(element = 7kW 220v stainless steel)



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

WATER

$\frac{3}{4}$ " B.S.P. Flexible hose.

WATER PRESSURE 2 bar – 4 bar
Domestic pressure is usually within this parameter.

Water conditioning unit advised, especially in hard water areas.

DRAINAGE

The oven must be connected to a drain via a standpipe or be connected to a drainage pipe that does not allow water flow-back into the machine.

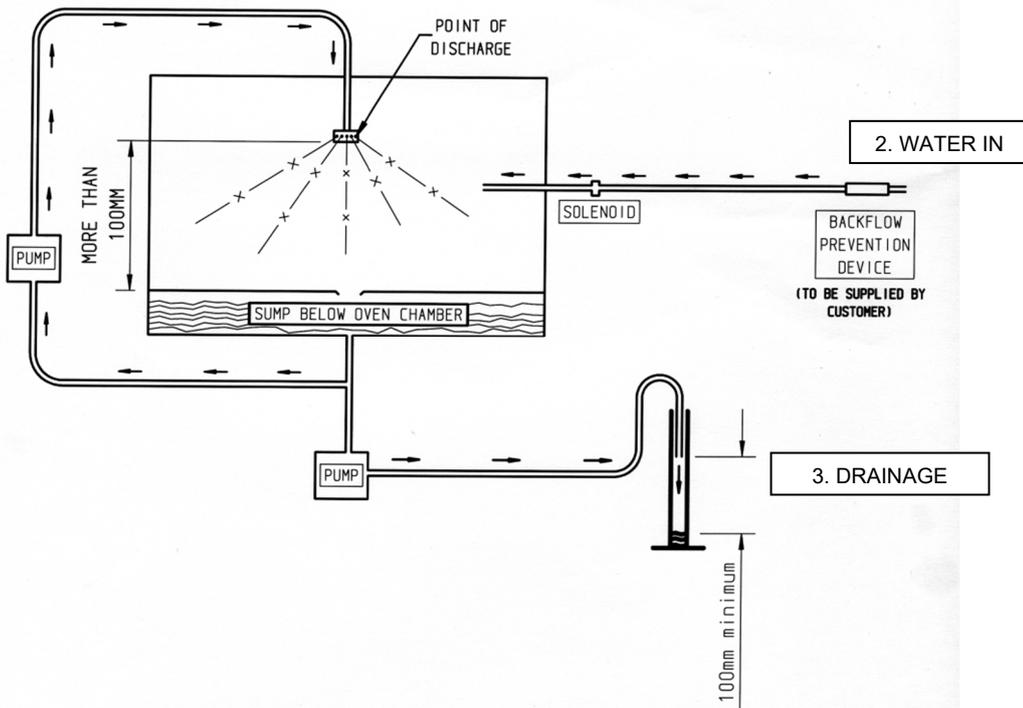
1. It is the customers' sole responsibility to arrange adequate ventilation and it should be sufficient to ensure water does not condense on or around the oven. A 50mm gap is recommended at the sides and rear of this oven and 250mm above.
2. Chimneys and evacuation ducts fitted above mono ovens should be insulated to stop condensate flowing back into the oven.
3. **Water connection** should be to a suitable clean 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. In the UK a backflow prevention device must be fitted.



OVEN WATER CONNECTION AT REAR

WASH WATER SYSTEM SCHEMATIC



OVEN DRAINAGE CONNECTION AT REAR

4. **Drainage** must be available. Push the end of the drain hose on to the outlet tube and ensure it is on as far as it will go. This must be connected to a drain via a standpipe or be connected to a drainage pipe that does not allow a flow-back into the machine.
5. In the interests of hygiene, we strongly recommend that before using the oven for the first time the inside of the oven and all accessories are thoroughly cleaned with a cloth soaked in warm soapy water. Although the utmost care is taken during assembly and pre-delivery inspection, there is always a possibility of contaminating the first bake if this is not done.

6. Ensure that the locking castors on the base are locked into position.
7. **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 the MONO product warranty.

NOTE

- 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.

BEFORE USE

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 pre-delivery inspection, there is always a possibility of residue contaminating the first bake if this is not done.

OPENING DOOR

The door will not open unless power is connected to the oven.
If the door does not open at first, push fully shut and it will then open.

Note

The door is locked shut and it is not possible to open it during the wash cycle.

5. ISOLATION

ELECTRICITY SUPPLY

To stop the oven in an emergency.
Switch off electricity supply at the wall isolator.

WATER SUPPLY

The water supply should be shut off at the nearest shut-off point.

6. CLEANING INSTRUCTIONS



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

DAILY

- Sweep any debris (after it has been allowed to cool) onto removable oven 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. Do not wash the control screen but wipe with a damp cloth only.
- Run the clean cycle if required. (Be aware that this takes some time to complete).
SEE PAGE 27

IMPORTANT:

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

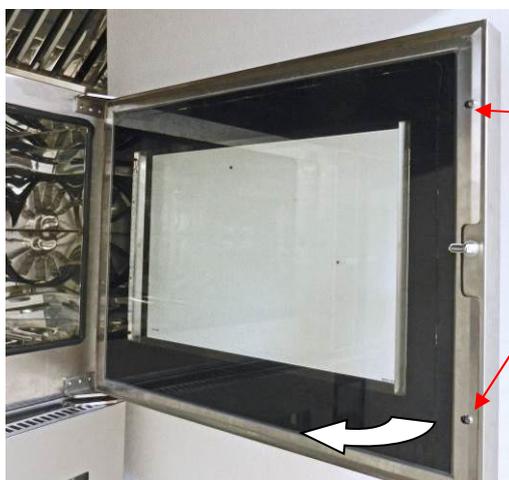
DOOR GLASS CLEANING

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 wiped clean or if needed use a suitable glass cleaner.

Ensure that the screws are replaced securely.



Remove these screws
to release inner glass
for cleaning

7. IDEAL OPERATING CONDITIONS

- Room should be allowed for the door to open and for the operation of the cassette loader if being used. There should be enough room to allow for easy loading and unloading of products so that people cannot come in contact with hot surfaces.
- Racks should be available to allow trays of cooked products to cool safely.
- Oven gloves should be available and used 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 and 250mm above.
- Chimneys and evacuation ducts fitted above mono ovens should be insulated to stop condensate flowing back into the oven.

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)**

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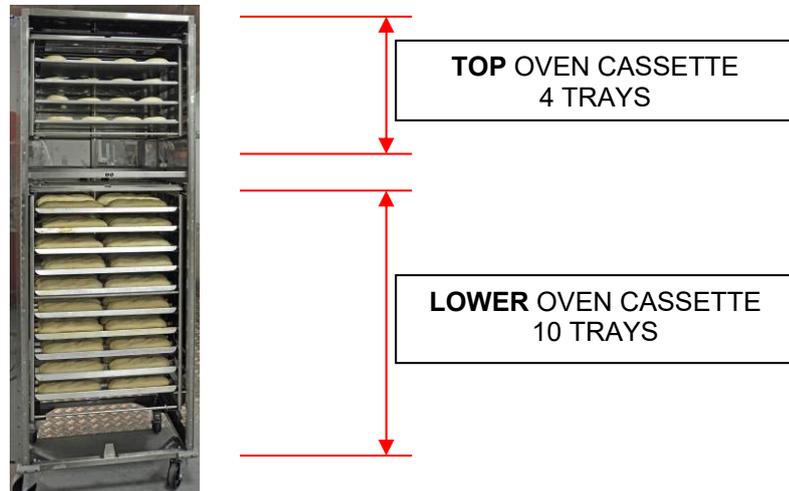
For example, above this temperature motors are not satisfactorily cooled, contactor efficiency is seriously impaired and electronic components shut down. It is the customers' sole responsibility to arrange for adequate ventilation.

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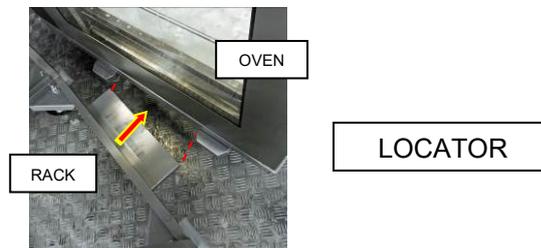
8. OPERATION

LOADING THE OVEN IF CASSETTE SYSTEM IS FITTED

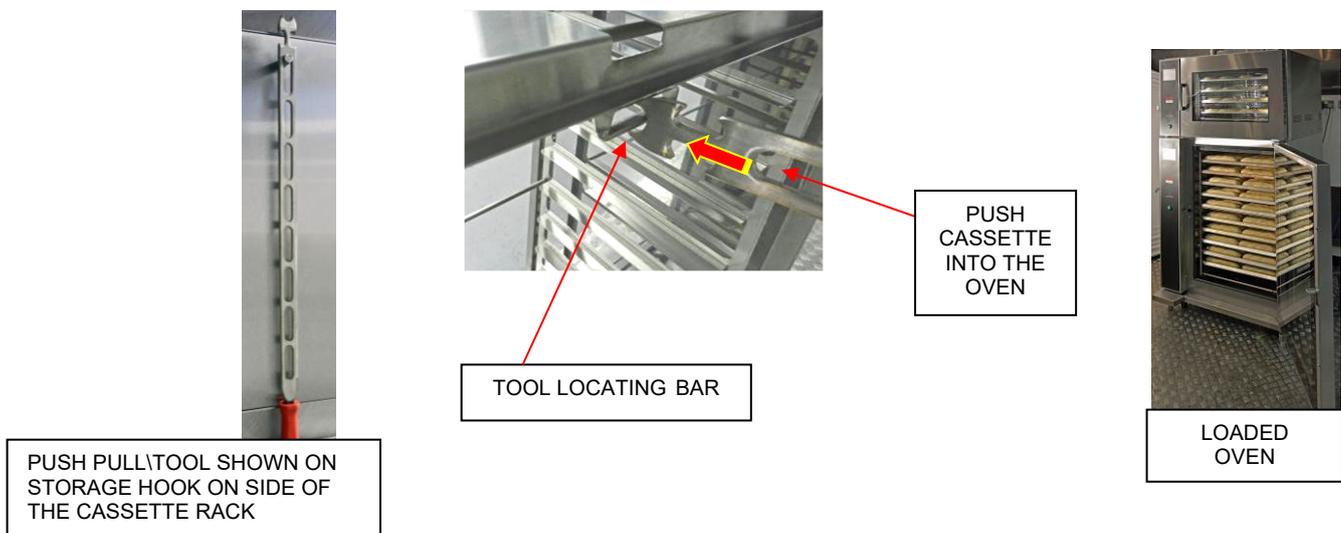
Slide full trays onto runners in the cassette holding rack at positions required.



When the oven is up to temperature and ready to bake, open the door(s) and push loaded rack up to oven using the central locator on the bottom front edge to give the correct positioning.



Using the push-pull tool, push the cassette into the oven as far as it will go.

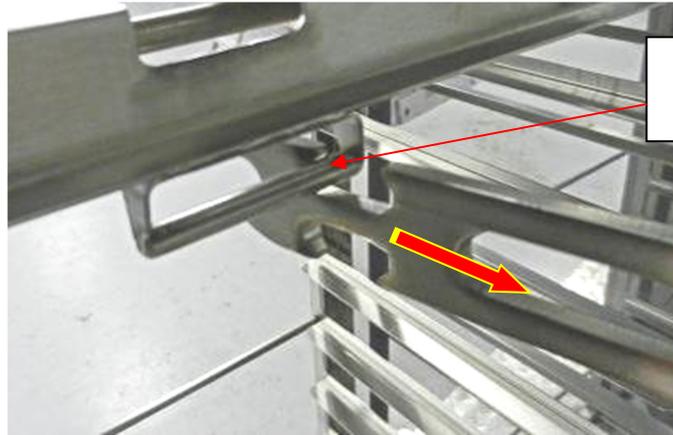


To stop heat escaping, pull the rack away from the oven and close the oven door as soon as possible.

UNLOADING THE OVEN

When the bake is over, stop the oven and open the door required, the rack can now be placed back into position.

Hold the rack in place and using the push-pull tool provided hooked onto the bar on the cassette; unload the oven by pulling the cassette out of the oven and back into the rack. Remember the trays and rack will be hot.



PULL THE CASSETTE OUT OF THE OVEN WITH THE TOOL SUPPLIED, HOOKED ONTO THE BAR ON THE CASSETTE

Move the rack away from the oven and close the door to stop heat loss.

Using oven gloves transfer the hot trays to a cooling rack.

The cassette is then ready to be loaded with more products.

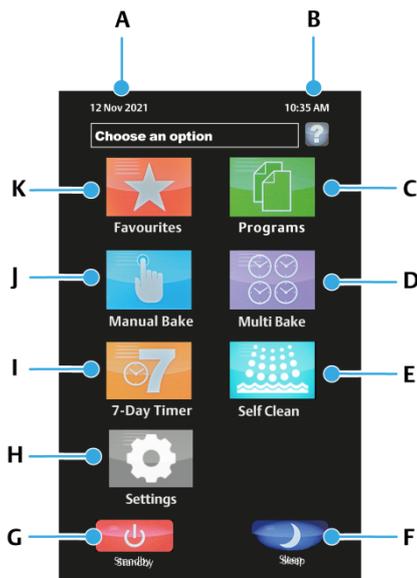
9. TOUCHSCREEN OPERATIONS

Operations are performed by touching an area of the screen, bringing up the next information panel or activating a function.



CAUTION ■ Do not use excessive force to operate the touchscreen panel.

Figure 1: Main screen



Callout	Function	Purpose of the function
A	Date	It shows the current date.
B	Time	It shows the current time.
C	Programs	Access to saved baking recipe programs. Creation of programs.
D	Multi Bake	Creation of up to four simultaneous bakes with different timings.
E	Self Clean	Wash programs – see page 31
F	Sleep	Sleep mode.
G	Standby	Standby mode.
H	Settings	Access to oven settings.
I	7-Day Timer	Create an oven on/off schedule for every day of the week.
J	Manual Bake	Baking using manual controls.
K	Favourites	Easy selection of most frequently used baking recipe programs.

NOTE: The images are for illustration purposes and may differ from your oven.

BASIC OPERATION

ALL OPERATIONS ARE ACTIVATED BY TOUCHING AREAS ON THE SCREEN.

DO NOT USE EXCESSIVE FORCE.

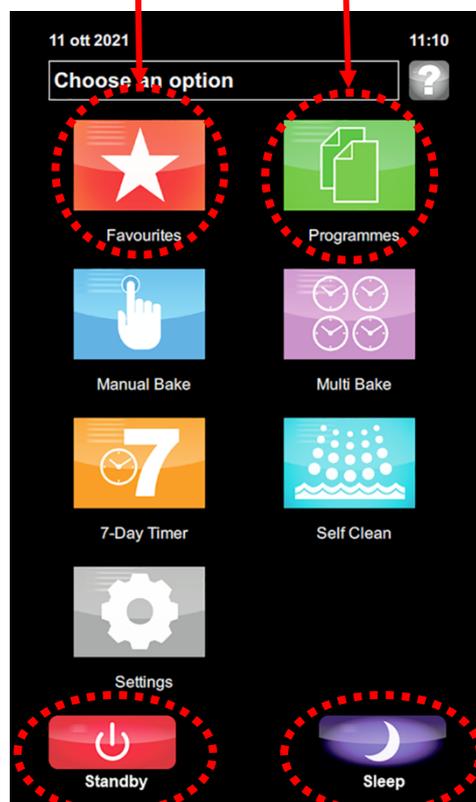
(THE PRESSURE REQUIRED TO OPERATE THE PANEL CAN BE ALTERED IN THE SETTINGS SECTION)

To open the door touch the lock icon on the screen and allow the door to unlock then pull the door open.

To close the door, just push shut and the door lock will take over and lock the door.

Do not restrict the unlocking by holding the door as this will cause the door lock to malfunction. If this happens and the lock icon has turned gold, press it between one and three times until the problem is cleared.

TOUCH THE SCREEN ON THE AREA YOU REQUIRE TO ACTIVATE



STANDBY
THE OVEN TURNS OFF.

TOUCH THE SCREEN TO GO BACK TO THE OPTION SCREEN ABOVE.



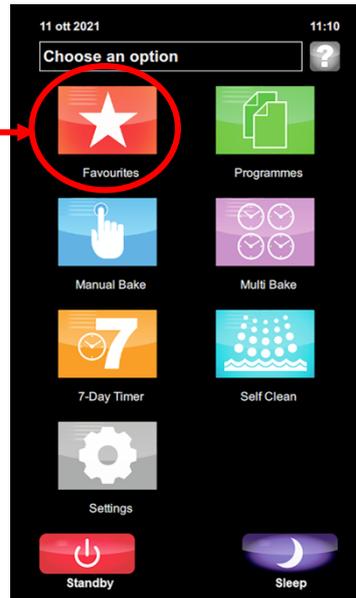
SLEEP
THE OVEN STAYS AT 100°C AND HEATS TO LAST PROGRAM TEMPERATURE WHEN THE SCREEN IS TOUCHED.

OPTION SCREEN ABOVE THEN SHOWS.

9-1. BAKING USING “FAVOURITES” MENU

TOUCH TO OPEN THE FAVOURITES SELECT SCREEN

1



OPTION SCREEN

TOUCH THE NAME OR NUMBER OF THE PRODUCT REQUIRED

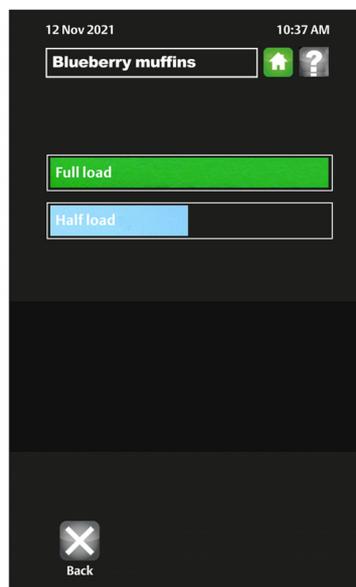
2



SELECT SCREEN

TOUCH THE “FULL LOAD” OR “HALF LOAD” AS REQUIRED

3



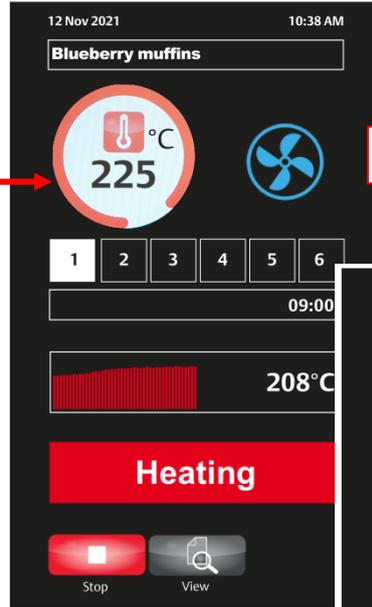
LOAD SCREEN

TO RETURN TO THE PREVIOUS SCREEN TOUCH THE “BACK” BUTTON AT ANY TIME

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.



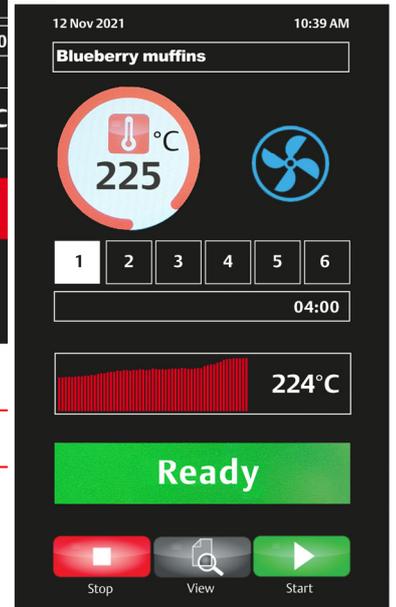
HEATING SCREEN

WHEN OVEN IS AT THE CORRECT TEMPERATURE THE “READY” SCREEN WILL SHOW.

4

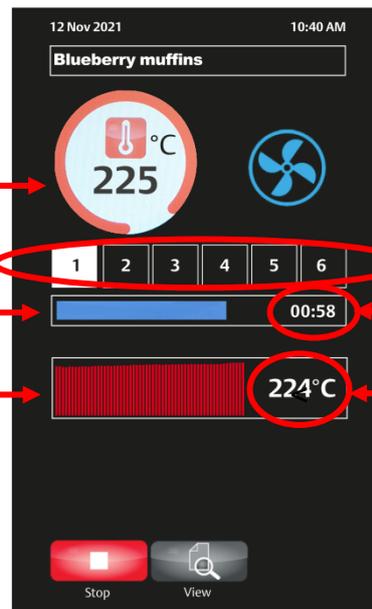
1. OPEN DOOR AND LOAD PRODUCT.
2. CLOSE THE DOOR FULLY.
3. TOUCH “START”

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



READY SCREEN

BAKE IN PROGRESS SCREEN
THIS SCREEN WILL SHOW WHILE THE PRODUCT IS BAKING



BAKE PHASE (WHEN USED)

SET TEMPERATURE

BAKE TIME PROGRESS

TEMPERATURE PROFILE BAR

BAKE TIME LEFT

ACTUAL OVEN TEMPERATURE

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

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.

TO KEEP THE OVEN BAKING FOR EXTRA MINUTES, THE "+ 2 MIN" BUTTON CAN BE TOUCHED. (THIS TIME CAN BE ALTERED IN THE SET-UP MENU)

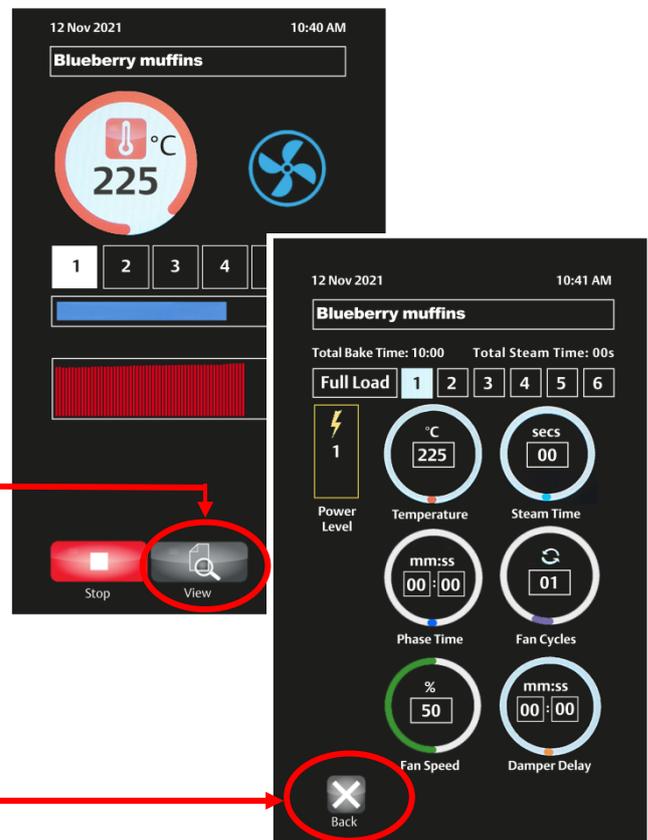


BAKE OVER SCREEN

TOUCHING "VIEW" BUTTON DURING A BAKE

TOUCHING "VIEW" BUTTON DURING A BAKE WILL SHOW THE SETTINGS FOR THE BAKE IN PROGRESS.

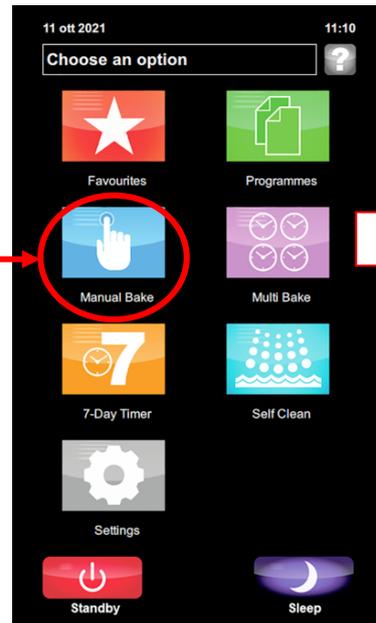
TOUCH "BACK" TO GO BACK TO THE PREVIOUS SCREEN.



VIEW SCREEN

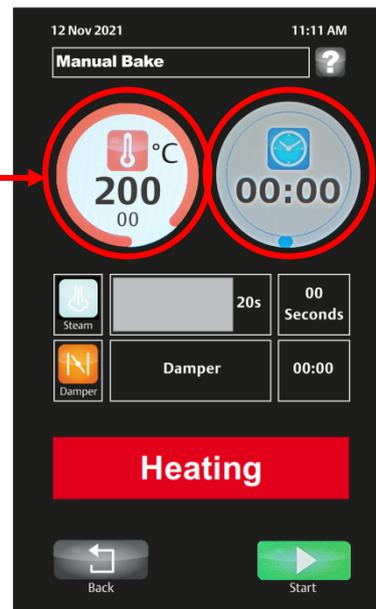
9-2. BAKING USING “MANUAL” MENU

**PRESS TO OPEN
MANUAL BAKE
SCREEN** **1**



OPTION SCREEN

SET BAKE TEMPERATURE
TOUCH TEMPERATURE ON THE SCREEN
TO ACTIVATE THE KEYBOARD SCREEN.
KEY IN REQUIRED TEMPERATURE AND
TOUCH “OK” **2**



**MANUAL BAKE
SCREEN**

SET BAKE TIME
TOUCH TIME ON THE SCREEN TO
ACTIVATE THE KEYBOARD SCREEN.
KEY IN REQUIRED TIME AND
TOUCH “OK” **3**

NOTE:
TIME DOES NOT HAVE TO BE SET IN MANUAL MODE. (ONLY TEMPERATURE). WHEN START IS TOUCHED WITH NO TIME SET, THE TIME WILL COUNT UP INSTEAD OF DOWN. TOUCH STOP TO FINISH THE BAKE.

MANUAL BAKE SCREEN 2

4

USE STEAM (IF REQUIRED)

TOUCH AND HOLD FOR THE AMOUNT OF TIME STEAM IS REQUIRED.
(THIS CAN BE USED BEFORE OR DURING THE BAKE)



5

USE DAMPER (IF REQUIRED)

TOUCH TO OPEN THE DAMPER.
(SYMBOL GOES GREEN)

TOUCH TO CLOSE THE DAMPER.
(SYMBOL GOES RED)

CANCEL

TOUCH AT ANYTIME TO GO BACK TO THE SETTING SCREEN.

6

START

TOUCH "START" TO START BAKE

7

TOUCH "STOP" WHEN END OF BAKE BUZZER SOUNDS OR WHEN REQUIRED IF NO TIME WAS ENTERED

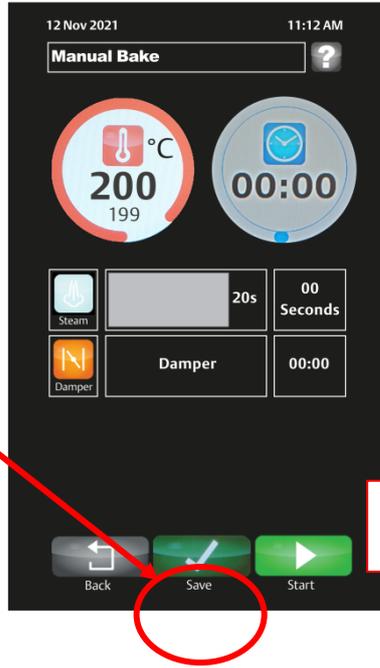


SAVE "MANUAL" PROGRAM, IF REQUIRED

NOTE: MANUAL PROGRAMS CAN ONLY BE SAVED IF NO TIME WAS ENTERED AT THE BEGINNING OF THE BAKE

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

7

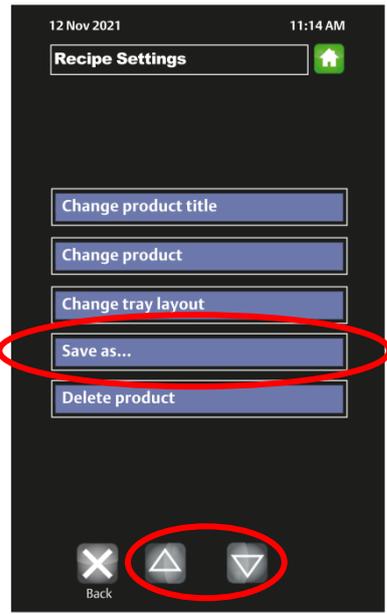


ENTER THE PASSWORD

8

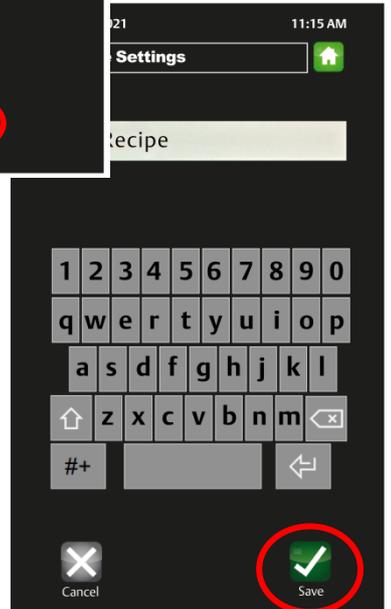
TOUCH "SAVE AS" OR PAGE DOWN AND THEN TOUCH "ADD TO FAVOURITES"

9



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

10

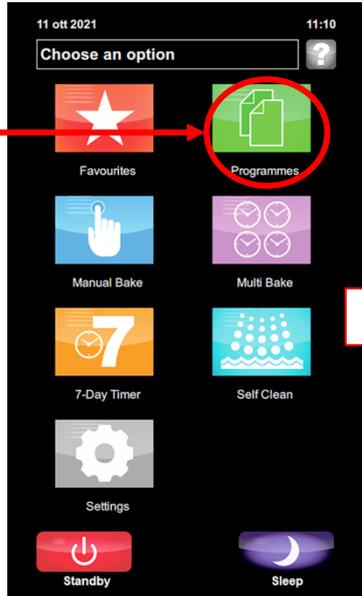


NOTE: In manual mode, only one operation of the steam or damper is saved.

9-3. BAKING USING “PROGRAMMES”

TOUCH TO OPEN “CATEGORY” or “PROGRAM CHOICE” SCREEN

1

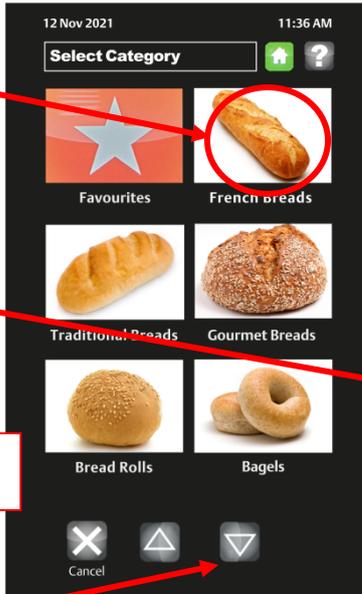


OPTION SCREEN

NOTE:
 THERE ARE TWO VERSIONS OF THE FIRMWARE. THE OVEN CAN BE FACTORY SET TO SHOW EITHER:
 1. A **PICTORIAL** VERSION GIVING CHOICES OF PRODUCT CATERGORIES.
 2. A **NUMERICAL** VERSION THAT SHOWS RANGES OF PROGRAM NUMBERS.

TOUCH THE TYPE OF PRODUCT (PICTORIAL) OR A PROGRAM RANGE (NUMERIC).

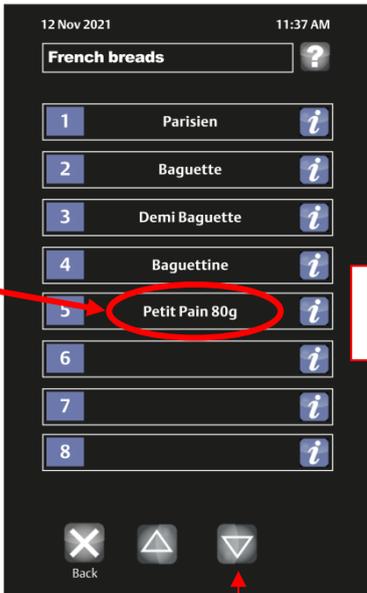
2



CATEGORY SCREEN (PICTORIAL)

TOUCH THE NAME OR NUMBER OF THE PRODUCT REQUIRED

3



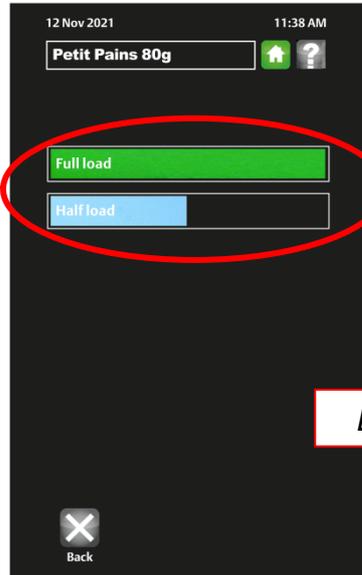
SELECT SCREEN

MORE SCREENS (IF AVAILABLE)

MORE PRODUCTS (IF AVAILABLE)

TOUCH THE “FULL LOAD” OR “HALF LOAD” AS REQUIRED

4



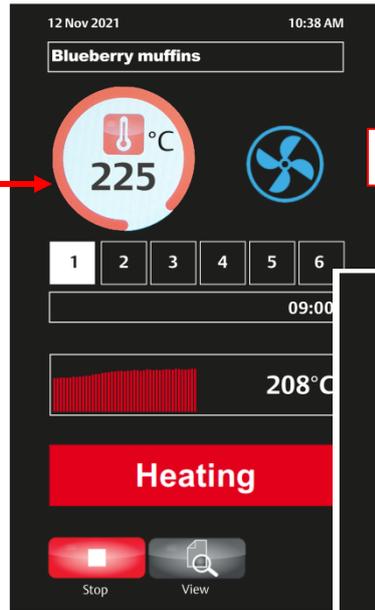
LOAD SCREEN

TOUCH THE “BACK” BUTTON AT ANY TIME TO RETURN TO THE PREVIOUS SCREEN

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.



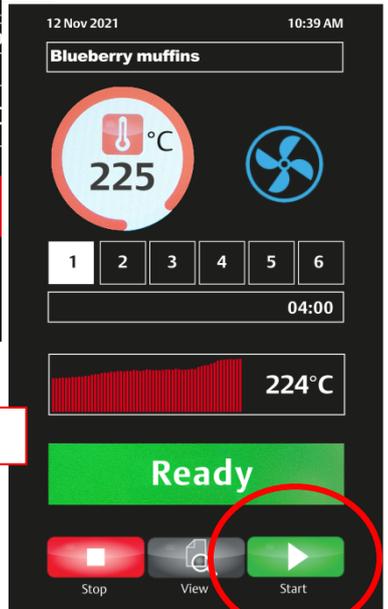
HEATING SCREEN

WHEN OVEN IS AT THE CORRECT TEMPERATURE THE “READY” SCREEN WILL SHOW.

5

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



READY SCREEN



BAKE IN PROGRESS SCREEN
THIS SCREEN WILL SHOW WHILE THE PRODUCT IS BAKING



SET TEMPERATURE

BAKE PHASE (WHEN USED)

BAKE TIME PROGRESS

BAKE TIME LEFT

TEMPERATURE PROFILE BAR

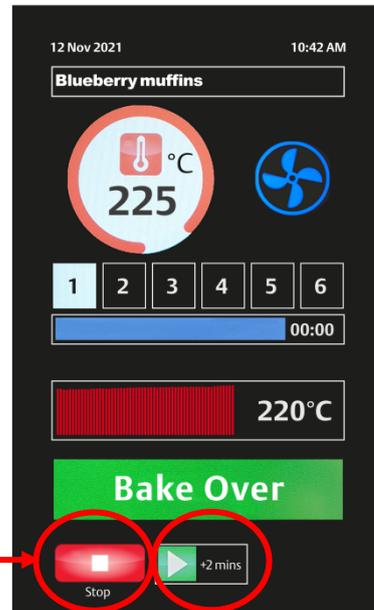
ACTUAL OVEN TEMPERATURE

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.

6

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.

TO KEEP THE OVEN BAKING FOR EXTRA MINUTES, THE "+ 2 MIN" BUTTON CAN BE TOUCHED. (THIS TIME CAN BE ALTERED IN THE SET-UP MENU)

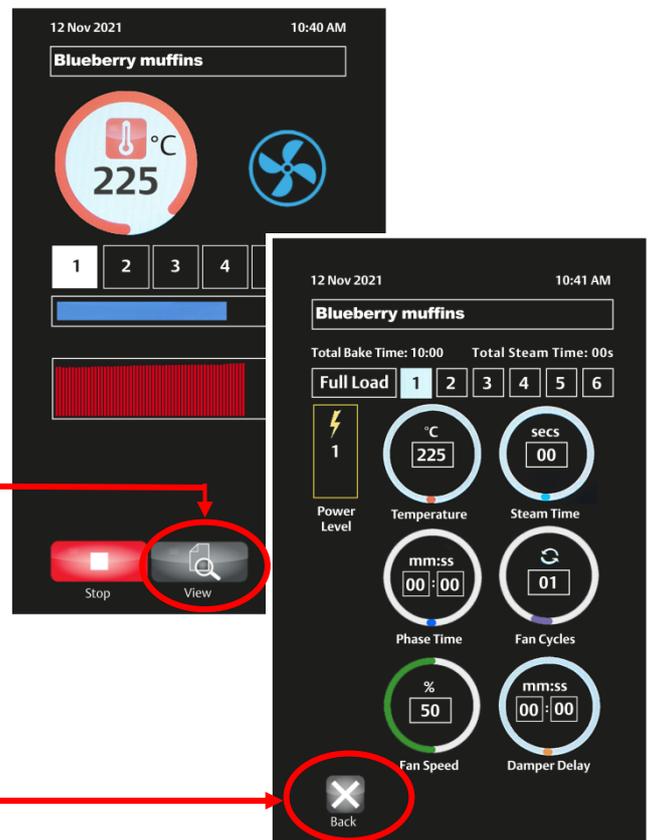


BAKE OVER SCREEN

TOUCHING "VIEW" BUTTON DURING BAKE

TOUCHING "VIEW" BUTTON DURING A BAKE WILL SHOW THE SETTINGS FOR THE BAKE IN PROGRESS.

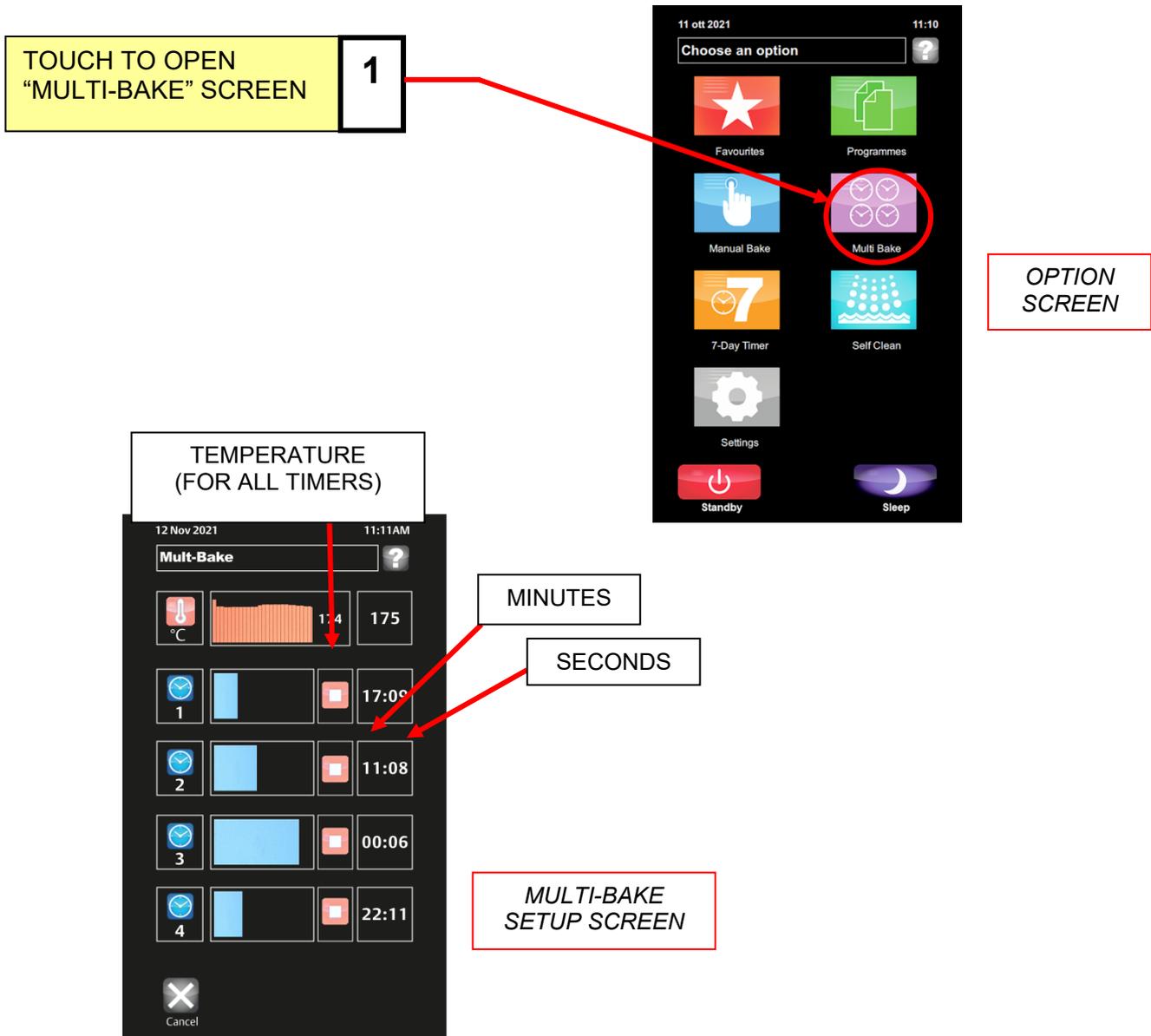
TOUCH "BACK" TO GO BACK TO THE PREVIOUS SCREEN.



VIEW SCREEN

9-4. 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 OK.

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

Touch minutes and set by using the keypad. Enter the value required and touch OK.

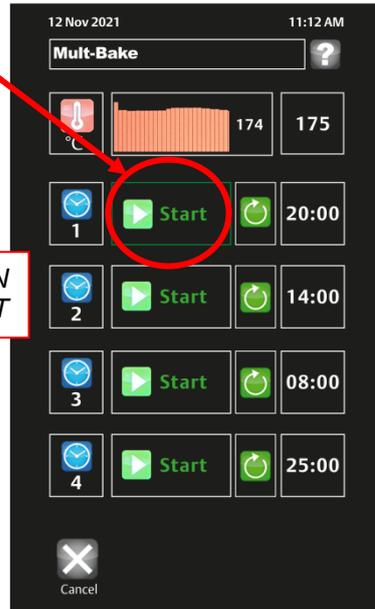
Touch seconds and set by using the keypad. Enter the value required and touch OK.

2

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

3

MULTI-BAKE SETUP SCREEN SHOWING FOUR TIMERS SET

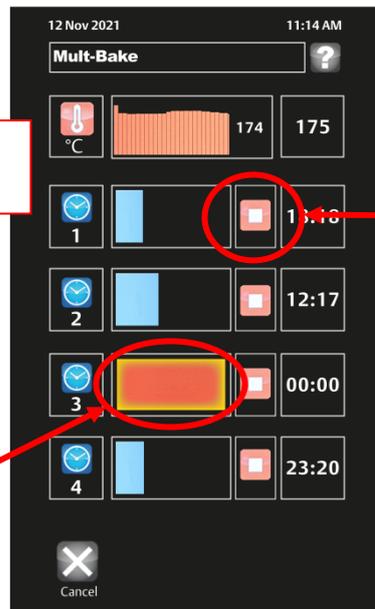


MULTI-BAKE SETUP SCREEN WITH FOUR TIMERS RUNNING

TOUCH TO STOP A TIMER

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

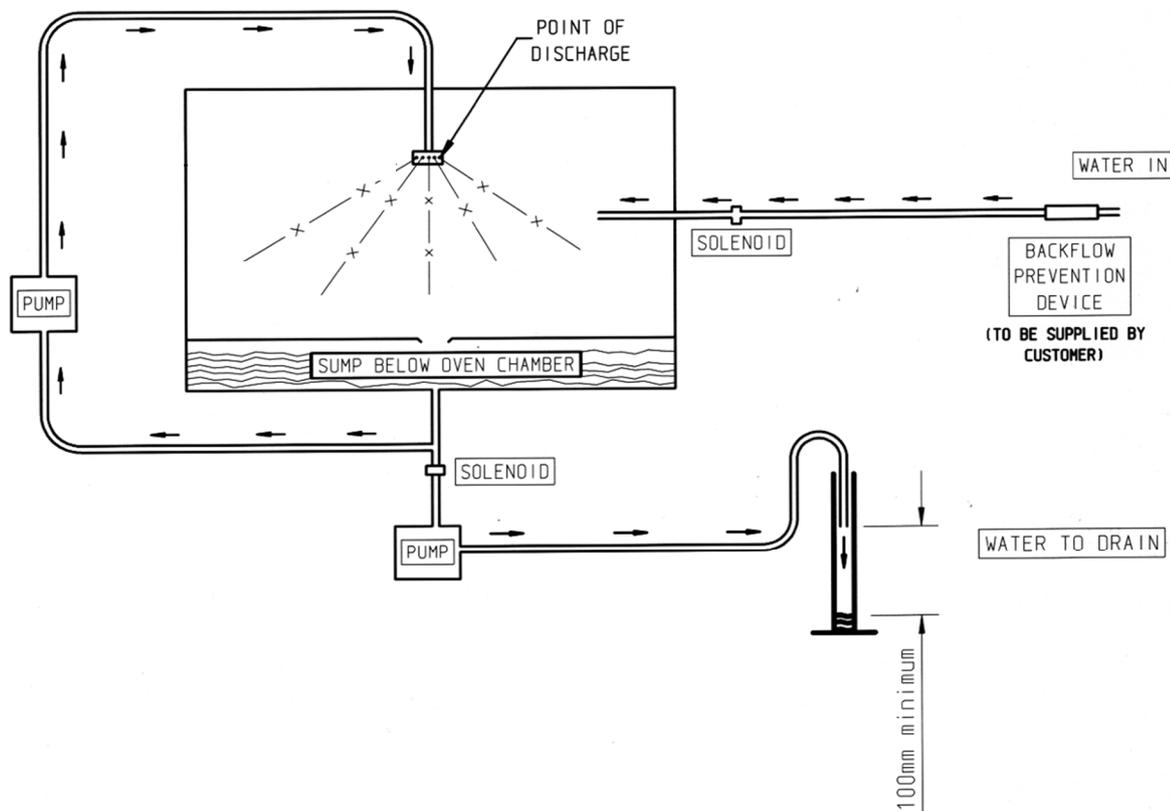
4



9-5. USING THE WASH CYCLE

THE WASH OPERATION

Do not insert anything aluminium when using the wash cycle.
The cleaners will damage the item and possibly clog up the wash system



1. When the wash cycle is required, the oven cools to the wash cycle temperature (80 degrees) as part of the chosen program – Opening the door for some time before a wash program is selected will speed up the wash time. (The actual wash cycle will not start until this temperature is reached).
2. A “Power Max Plus” cleaning cartridge is screwed into the locator on the rack cassette.



“Power Max Plus”

To order a box of 10 cleaning cartridges, simply contact our Spares Department and quote the following code: **A900-30-030**

3. Water enters the chamber and gets heated by the element and slow-moving fan up to the required temperature.
4. The cleaning solution now in the sump is pumped up through the spray nozzle and is spread around the chamber by the action of the fan. The oven is then left to soak.
5. The scrubbing program then starts which is where the cleaning fluid is recycled through the spray nozzle and the fan pulses giving a cleaning action. This can be set at light, medium or heavy.
6. After the scrub cycle, the oven drains and is left to soak again.
7. After a while the oven is flushed with clean water and rinsing agent and then heated to allow the interior to dry.
8. After a period of time a message will appear on the screen to say the oven is ready for use. The cleaning cartridge should be removed before baking is started. (The oven will remind you to do this).

TO OPERATE THE WASH CYCLE

Do not insert anything aluminium when using the wash cycle.

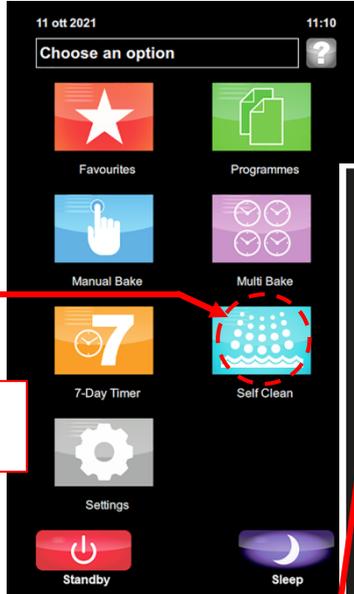
The cleaners will damage the item and possibly clog up the wash system

NOTE When the wash cycle is required, the oven cools to the wash cycle temperature (80 degrees) as part of the chosen program – Opening the door for some time before a wash program is selected will speed up the wash time. (The actual wash cycle will not start until this temperature is reached).

Ensure that the water supply is on and that the door is closed properly

TOUCH TO OPEN "SELF CLEAN" SCREEN **1**

OPTION SCREEN



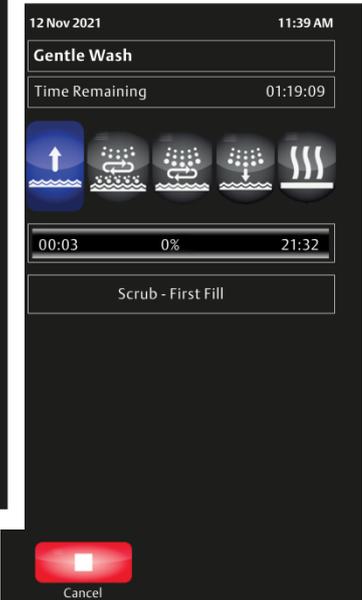
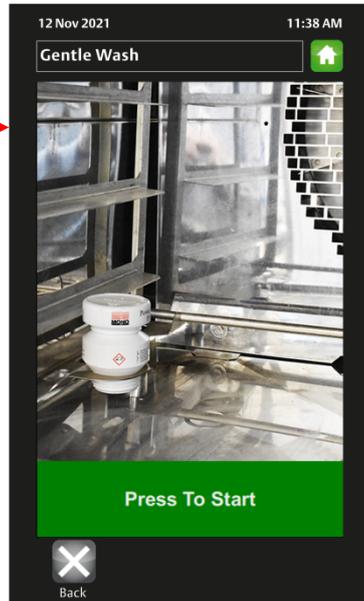
TOUCH THE TYPE OF WASH REQUIRED **2**



WASH CHOICES AVAILABLE

Hot Flush	= Fill, drain, dry (no detergent)
Gentle Wash	= Fill, 6 x wash, rinse, final rinse, dry.
Standard Wash	= Fill, 10 x wash, rinse, final rinse, dry
Power Wash	= Fill, 14 x wash, rinse, final rinse, dry
Custom Wash	= Settings adjustable to meet users requirements

TOUCH START AND FOLLOW THE INSTRUCTIONS ON SCREEN FOR EACH WASH TYPE **3**



DURING THE WASH, AN INFORMATION SCREEN INFORMS OF WHAT IS HAPPENING IN THE CLEAN CYCLE

- 4. After the cooling part of the wash program, the oven will instruct the user to insert a “Power Max Plus” cleaning cartridge. This must be screwed into the locator on the rack tray-cassette or at the rear of a non-cassette oven. This will not be required if the hot flush program is used.

 **SAFETY INFORMATION**
Care should be taken when handling cleaning cartridges. Do not break open or use damaged cleaning cartridges. Store cleaning cartridges in original packaging.



Power Max Plus cleaning cartridge

To order a box of 10 cartridges, simply contact our Spares Department and quote the following code:
A900-30-030



Unscrew and remove the protection cap.
Do not try to puncture the wax plug.



Locator hole on the rack-cassette

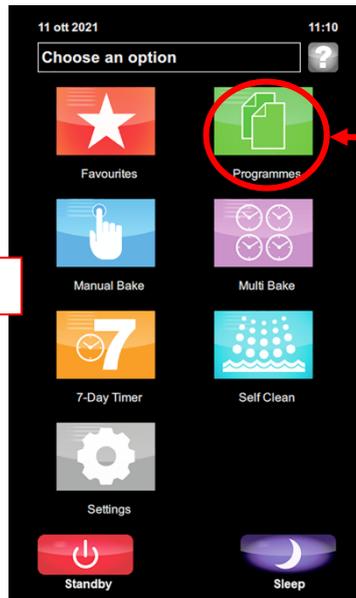
Locator hole at rear of oven without cassette system



Screw cartridge face down into locator hole, firmly.

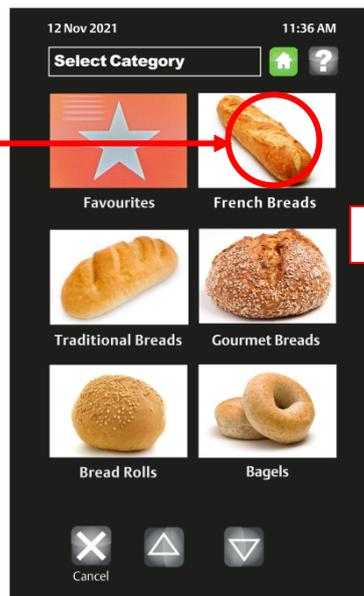


9-6. CREATING A PROGRAM



1 TOUCH TO OPEN "CATEGORY" SCREEN

OPTION SCREEN



TOUCH THE TYPE OF PRODUCT WANTED AND THE "SELECT" SCREEN OPENS

2

CATEGORY SCREEN

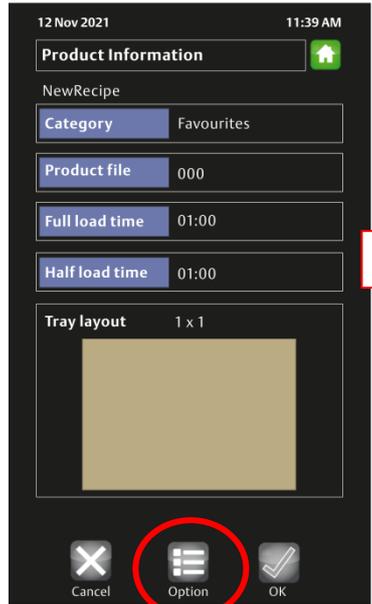


SELECT SCREEN

TOUCH THE DOWN ARROW UNTIL A BLANK PROGRAM IS REACHED.

3

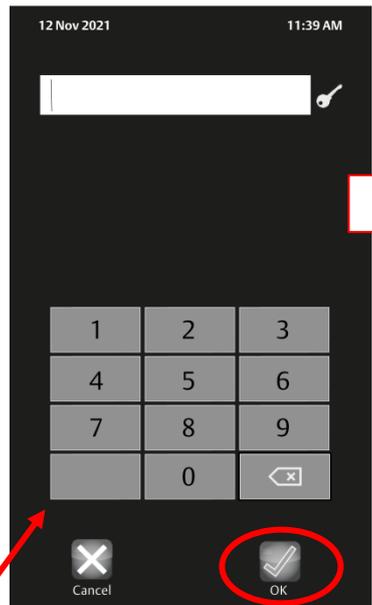
4 TOUCH "i" BUTTON NEXT TO THE BLANK PROGRAM TO OPEN NEXT SCREEN



INFORMATION SCREEN

TOUCH OPTION TO GO TO PASS CODE SCREEN

5



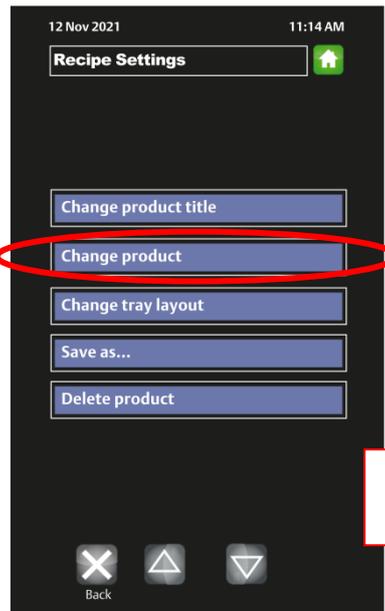
PASS CODE SCREEN

ENTER PASS CODE AND THEN TOUCH OK.
(DEFAULT CODE = 123456)

6

EDIT PRODUCT

TOUCH "CHANGE PRODUCT" 7



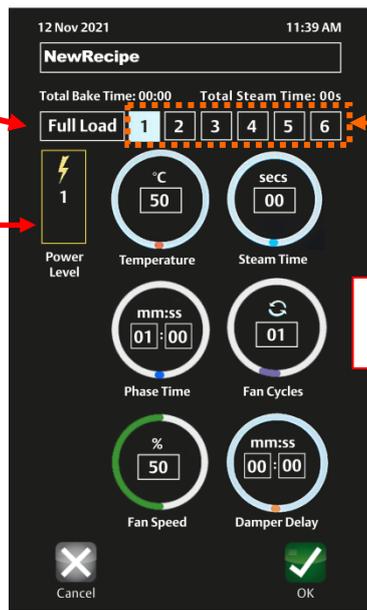
OPTION SCREEN

TOUCH EACH ITEM (E.G., TEMPERATURE) AND THEN CHANGE THE VALUE BY USING THE UP/DOWN ARROWS OR USE THE KEYPAD. WHEN SATISFIED WITH THE SETTINGS TOUCH "" AND YOU WILL BE ASKED IF YOU WANT TO SAVE THE EDITS. TOUCH "SAVE" OR "CANCEL" AND THE SCREEN WILL RETURN TO THE EDIT MENU.

8

LOAD TYPE
TOUCH "FULL LOAD" TO CHANGE TO "HALF LOAD" SETTINGS IF REQUIRED. PRESS AGAIN TO GO BACK TO "FULL LOAD"

POWER LEVEL

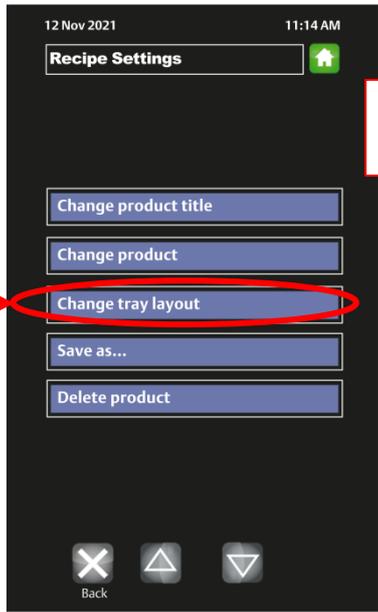


BAKE PHASE (IF REQUIRED)

VALUE CHANGE SCREEN

EDIT TRAY LAYOUT

TOUCH "CHANGE TRAY LAYOUT" 9



OPTION SCREEN

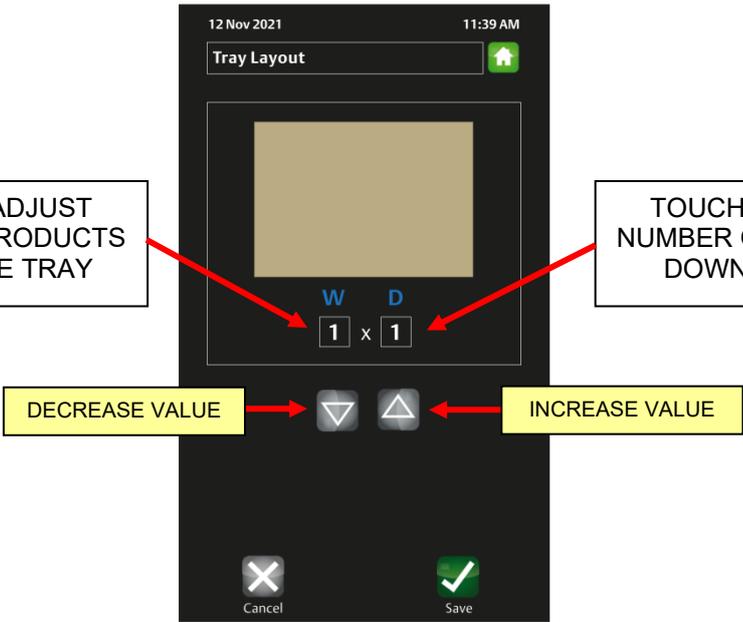
TOUCH EACH ITEM AND CHANGE THE VALUE BY USING THE UP/DOWN ARROWS OR USE THE KEYPAD. 10

WHEN SATISFIED WITH THE SETTINGS TOUCH "BACK" AND YOU WILL BE ASKED IF YOU WANT TO SAVE THE EDITS.

TOUCH "SAVE" OR "CANCEL" AND THE SCREEN WILL RETURN TO THE EDIT MENU.

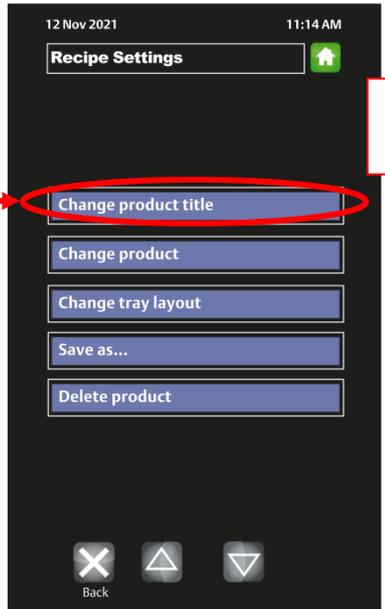
TOUCH TO ADJUST NUMBER OF PRODUCTS ACROSS THE TRAY

TOUCH TO ADJUST NUMBER OF PRODUCTS DOWN THE TRAY



EDIT PRODUCT TITLE

TOUCH
"EDIT PRODUCT TITLE" **11**



OPTION
SCREEN

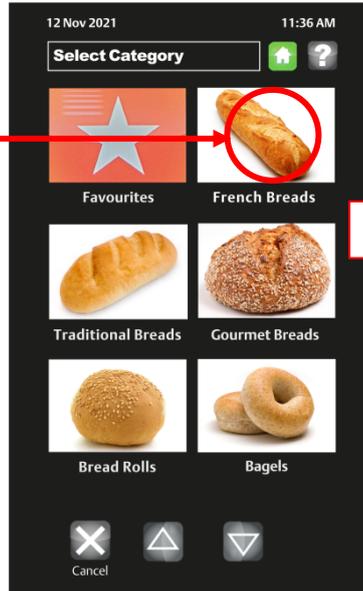
TYPE PRODUCT TITLE.
TOUCH "SAVE" AND TITLE
WILL BE SAVED **12**



ADD A PRODUCT TO THE FAVOURITES LIST

TOUCH THE TYPE OF PRODUCT WANTED AND THE "SELECT" SCREEN OPENS

1



CATEGORY SCREEN

SELECT SCREEN



2

TOUCH THE "i" (INFORMATION) BUTTON NEXT TO THE PRODUCT YOU WANT AS A FAVOURITE. THIS OPENS THE OPTION SCREEN.

SCROLL DOWN AND TOUCH "ADD TO FAVOURITES".

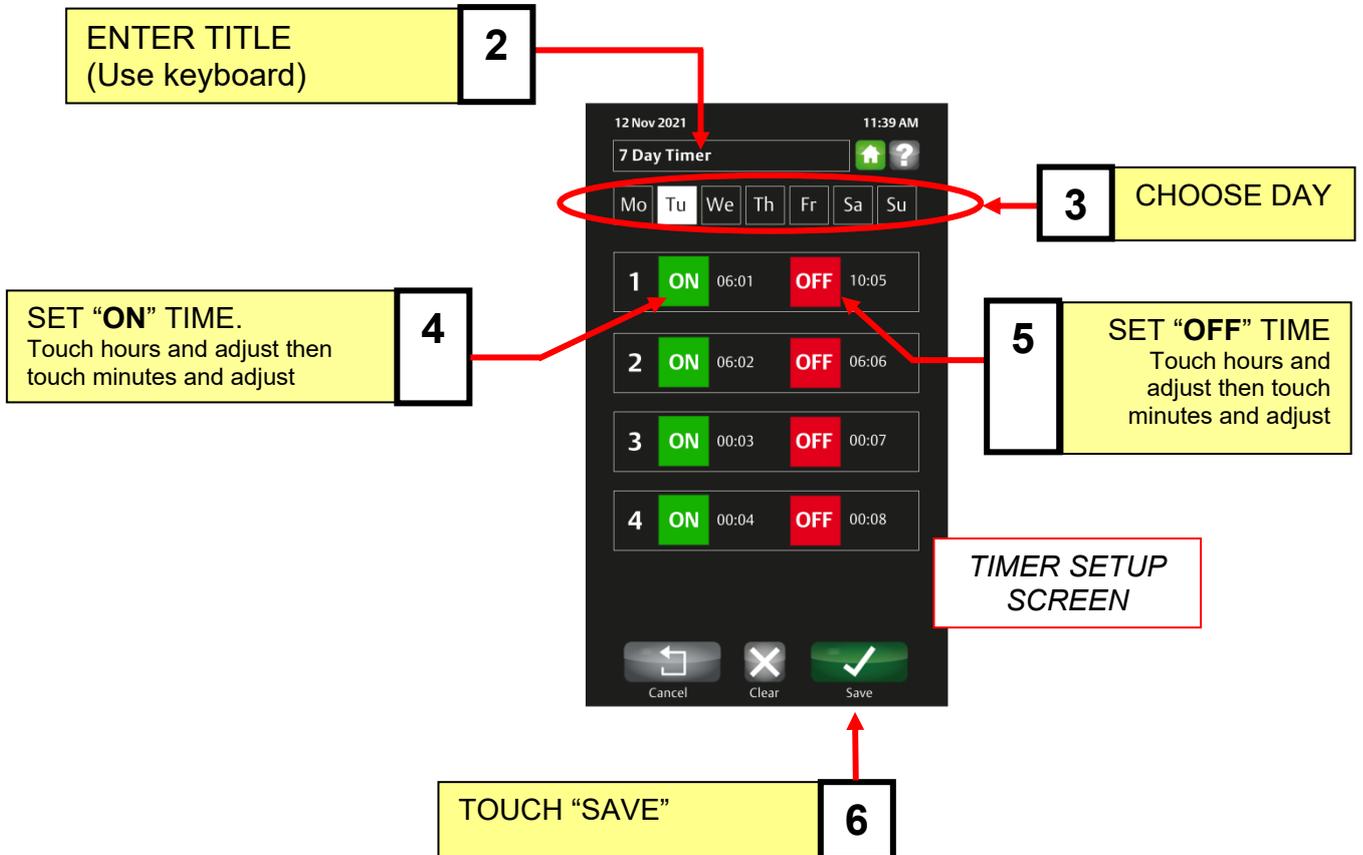
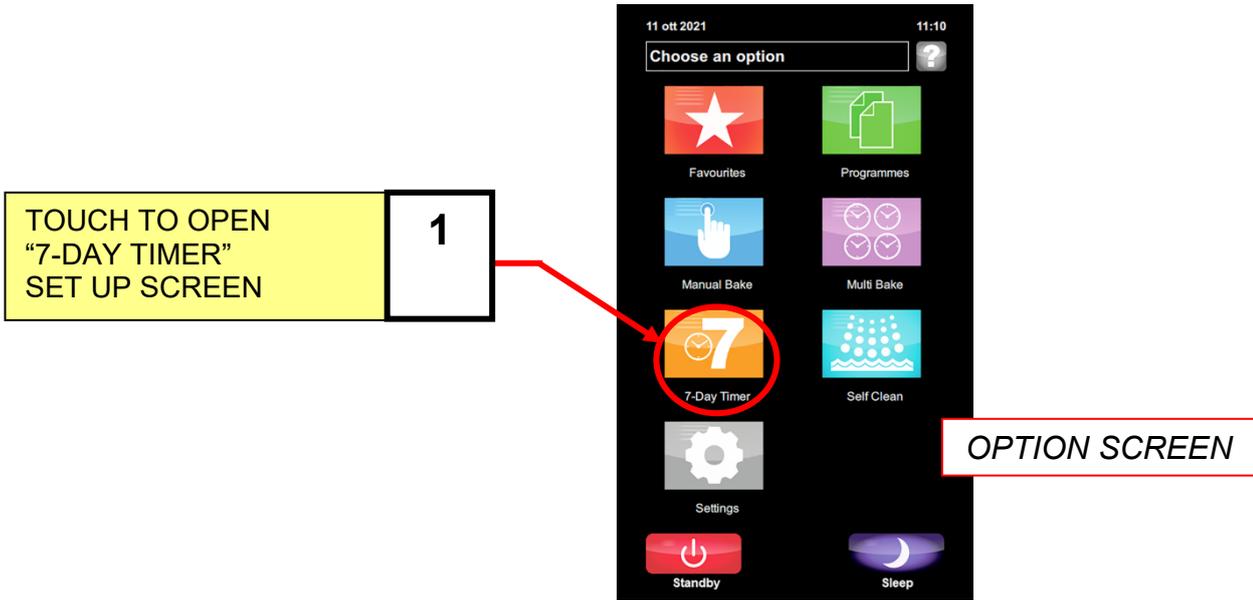
3

THE PRODUCT WILL NOW SHOW ON THE FAVOURITES LIST

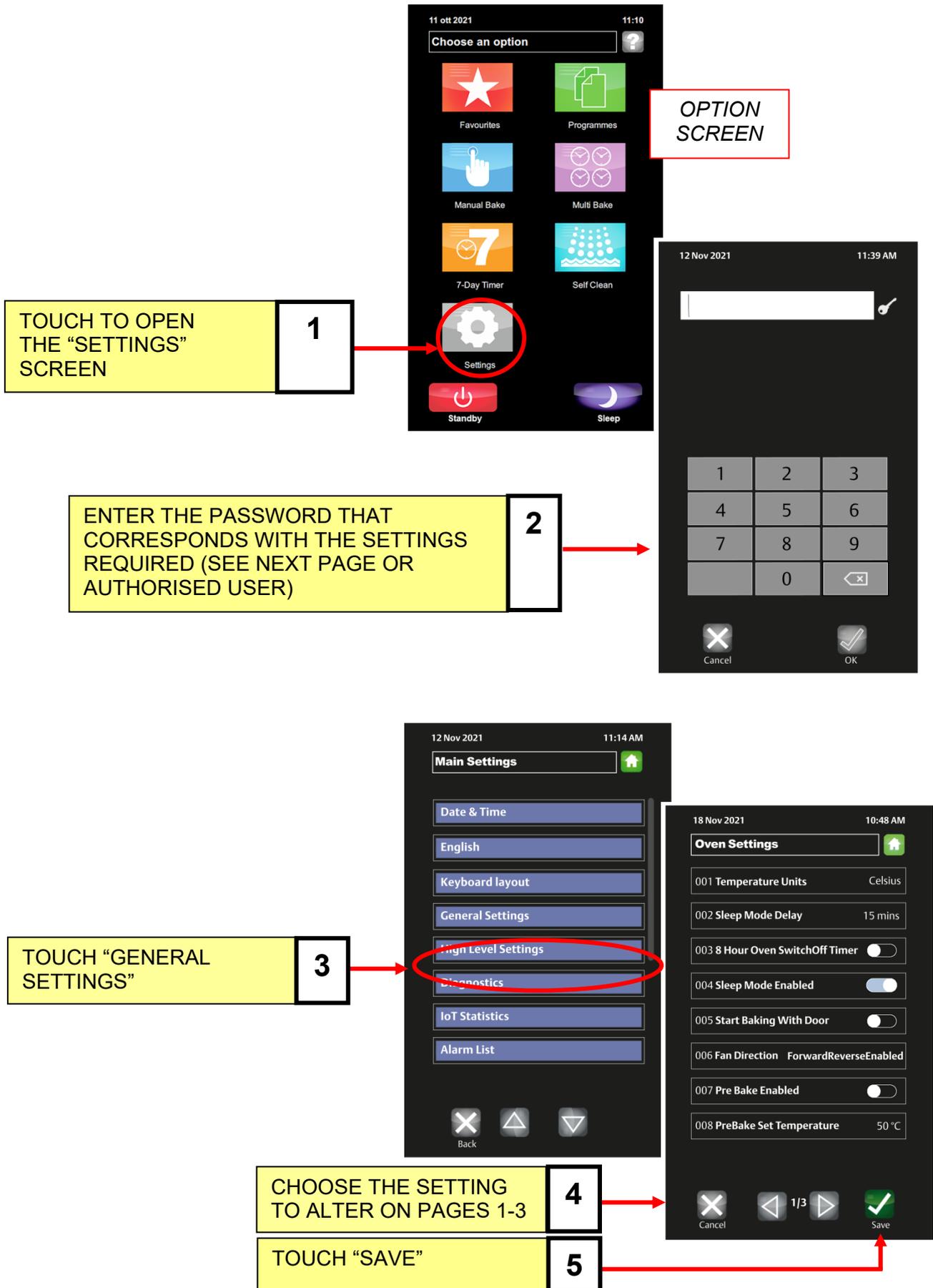


OPTION SCREEN

9-7. SETTING 7-DAY TIMER



9-8. SETTINGS



10. MAINTENANCE



**NOTE: BEFORE PERFORMING MAINTENANCE,
ISOLATE OVEN FROM MAINS SUPPLY.**



- WARNING**
- This appliance must be maintained at regular intervals. The frequency of maintenance will depend upon your specific use and location. The maximum service interval should be 12 months.
 - Service and maintenance should only be undertaken by suitably qualified, trained, and competent engineers.
 - You must immediately report any damage or defect arising with the appliance.
 - Unsafe equipment is dangerous. Do not use the appliance. Isolate the power supply and contact MONO or your appointed service agent.

- Check for frayed or bare cables.
 - **Do not** use the machine if frayed or bare cables are visible.
- Follow cleaning instructions (see **Cleaning** on page 14).

11. STEAM AND CLEANING SYSTEM MAINTENANCE

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

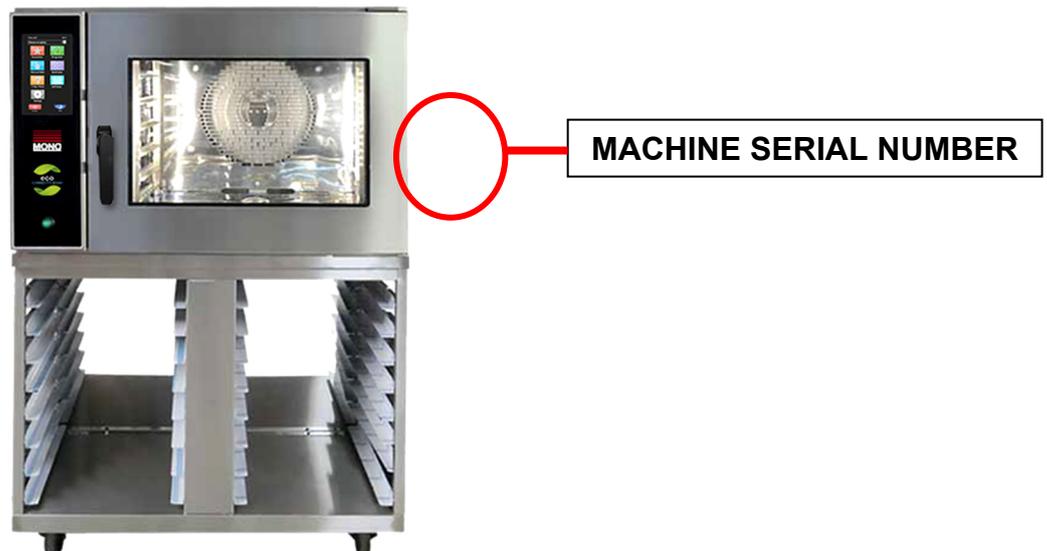
12. BULB REPLACEMENT

In the event of a light failure, please contact Mono service department as there are no customer replaceable parts

13. SERVICE AND SPARES

SERVICE

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



SPARES

When ordering the spares, contact the Spares Department. Please quote the **machine serial number**. This can be found on the silver information plate of the machine and on the front cover of this manual.

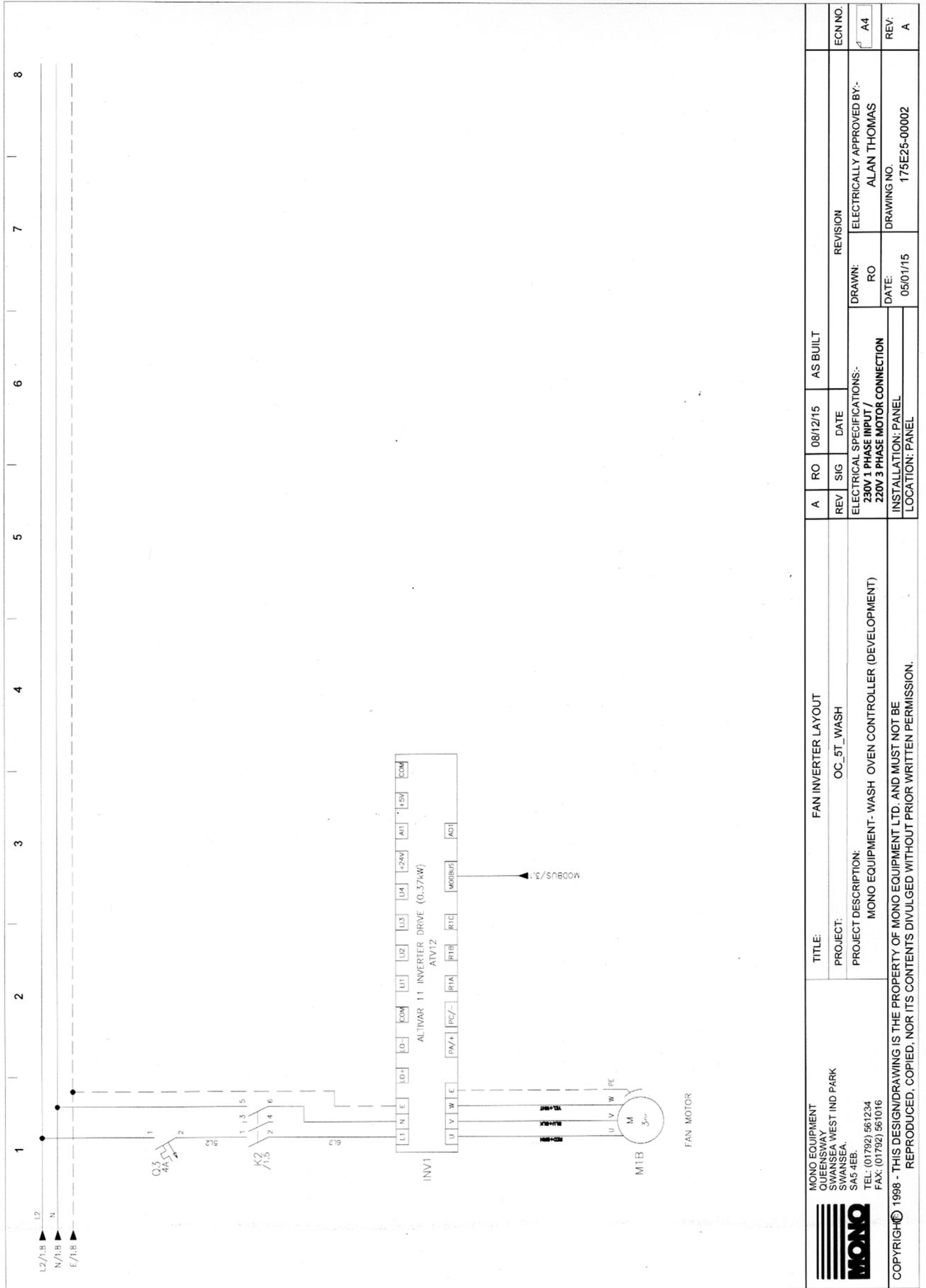
MONO Equipment Limited

Queensway, Swansea West Industrial Park, Swansea, SA5 4EB, United Kingdom

E-mail: spares@monoequip.com

Phone: +44/0 1792 564039

Spare Part Number	Spare Description
A900-30-030	Box of 10 Power Max Plus Cartridges for use with MONO Eco Connect+ Wash ovens

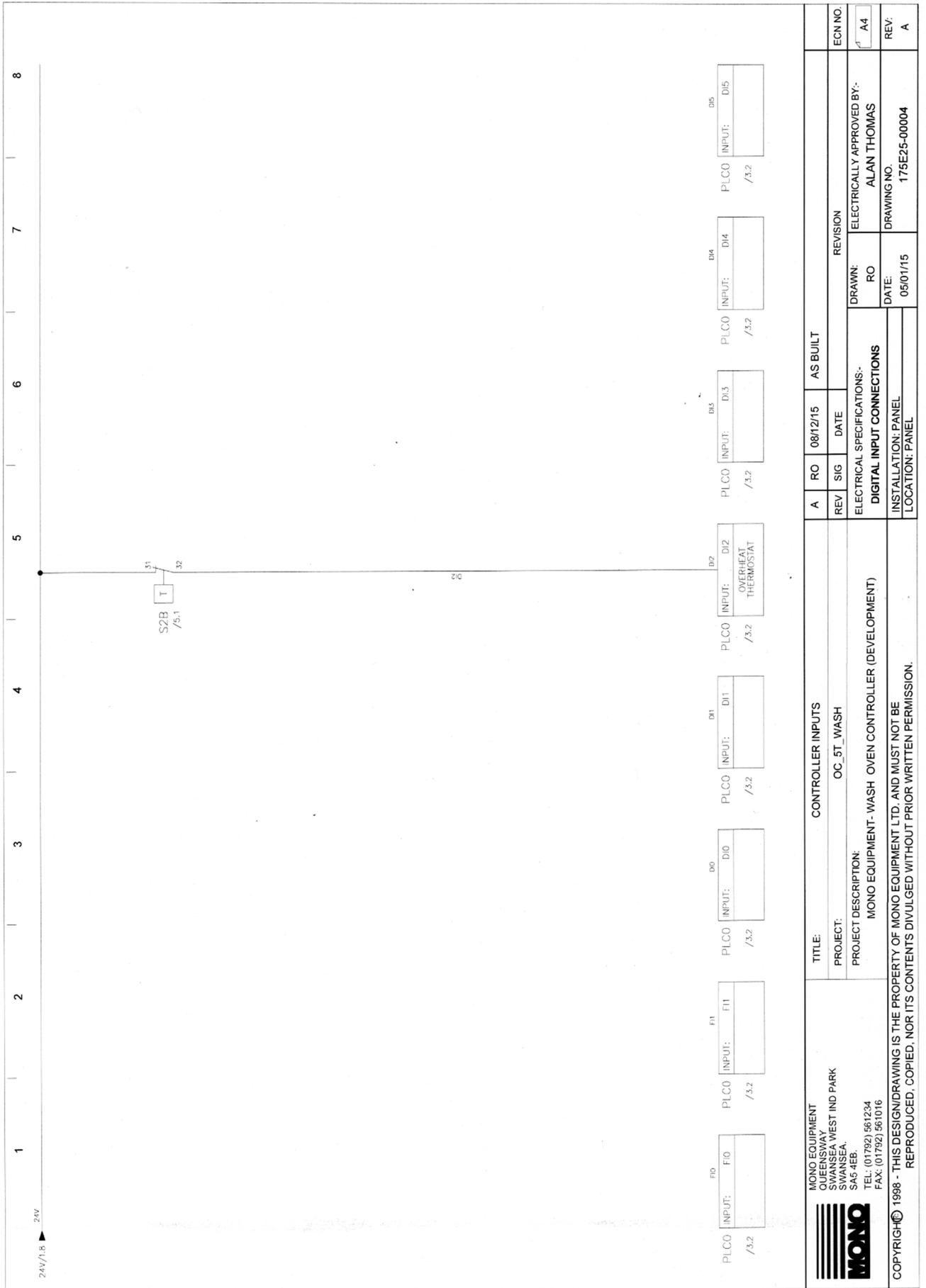


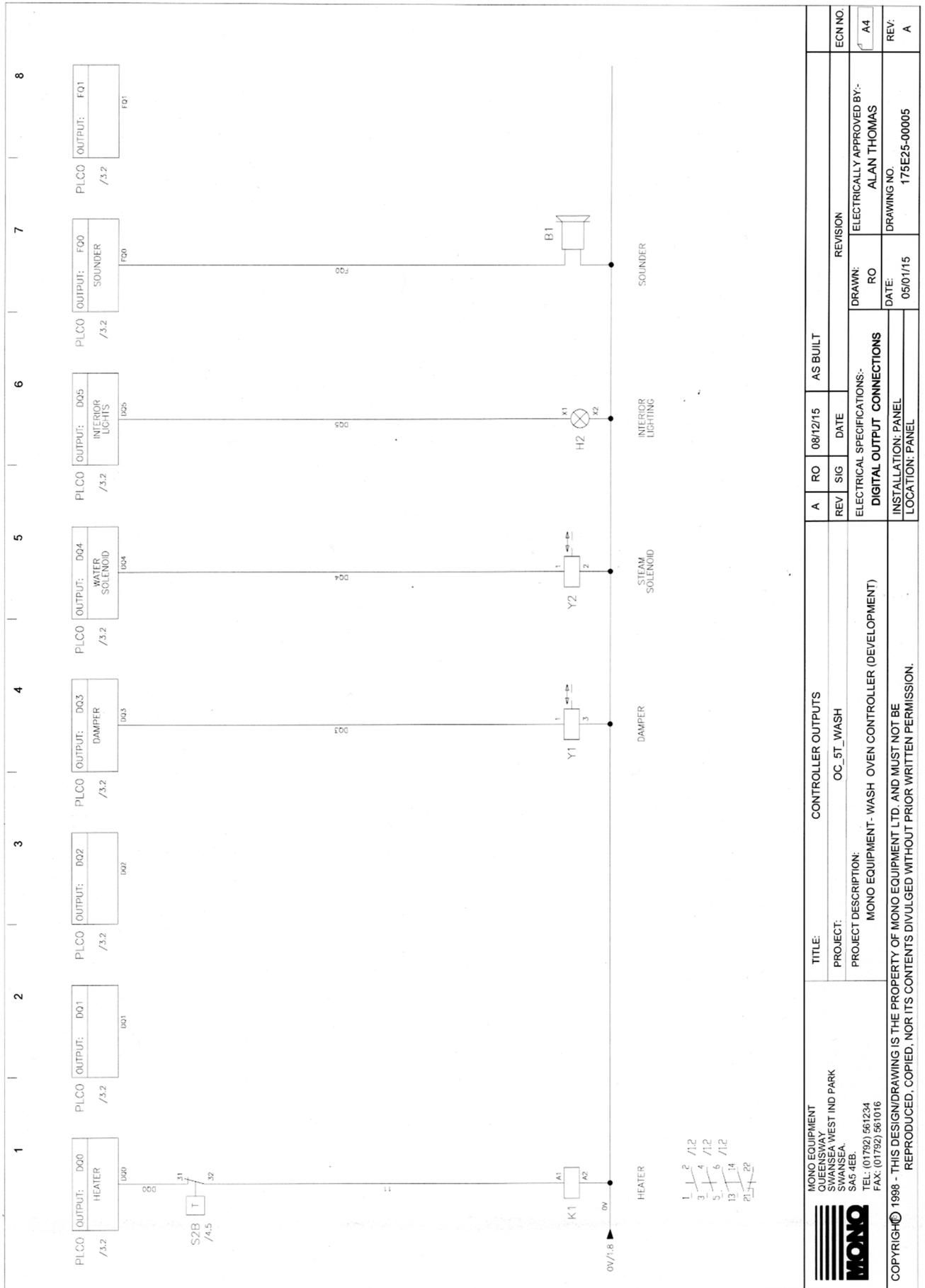
A		RO	08/12/15	AS BUILT	ECONO.	
REV	SIG	DATE	REVISION		ECONO.	
ELECTRICAL SPECIFICATIONS:-			DRAWN:		ELECTRICALLY APPROVED BY:-	
230V 1 PHASE INPUT /			RO		ALAN THOMAS	
220V 3 PHASE MOTOR CONNECTION			DATE:		DRAWING NO.	
INSTALLATION: PANEL			05/01/15		175E25-00002	
LOCATION: PANEL					REV: A	

MONO EQUIPMENT
 QUEENSWAY
 SWANSEA WEST IND PARK
 SWANSEA,
 SA5 4EB.
 TEL: (01792) 561234
 FAX: (01792) 561016

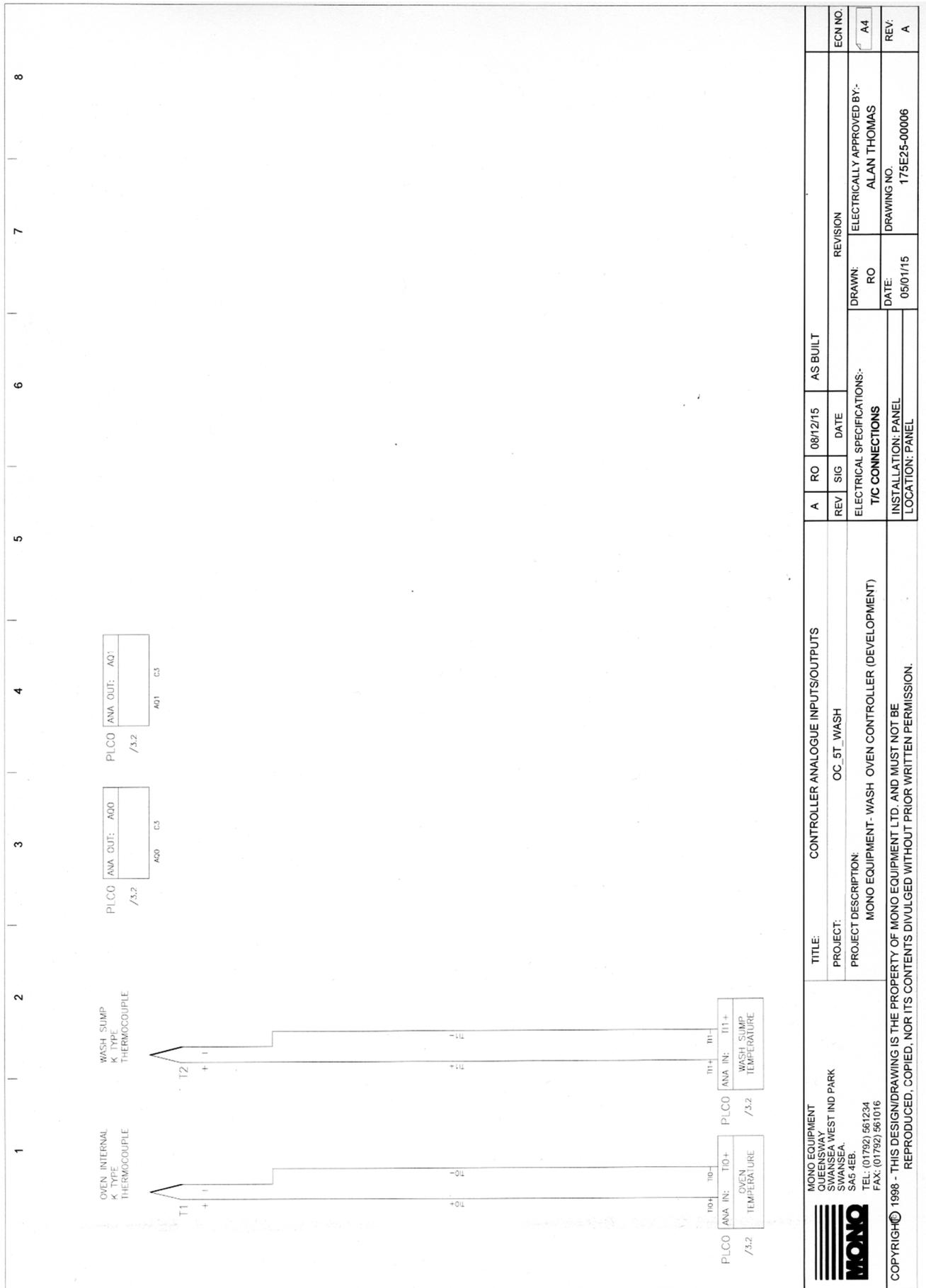
TITLE: FAN INVERTER LAYOUT
 PROJECT: OC_5T_WASH
 PROJECT DESCRIPTION:
 MONO EQUIPMENT- WASH OVEN CONTROLLER (DEVELOPMENT)

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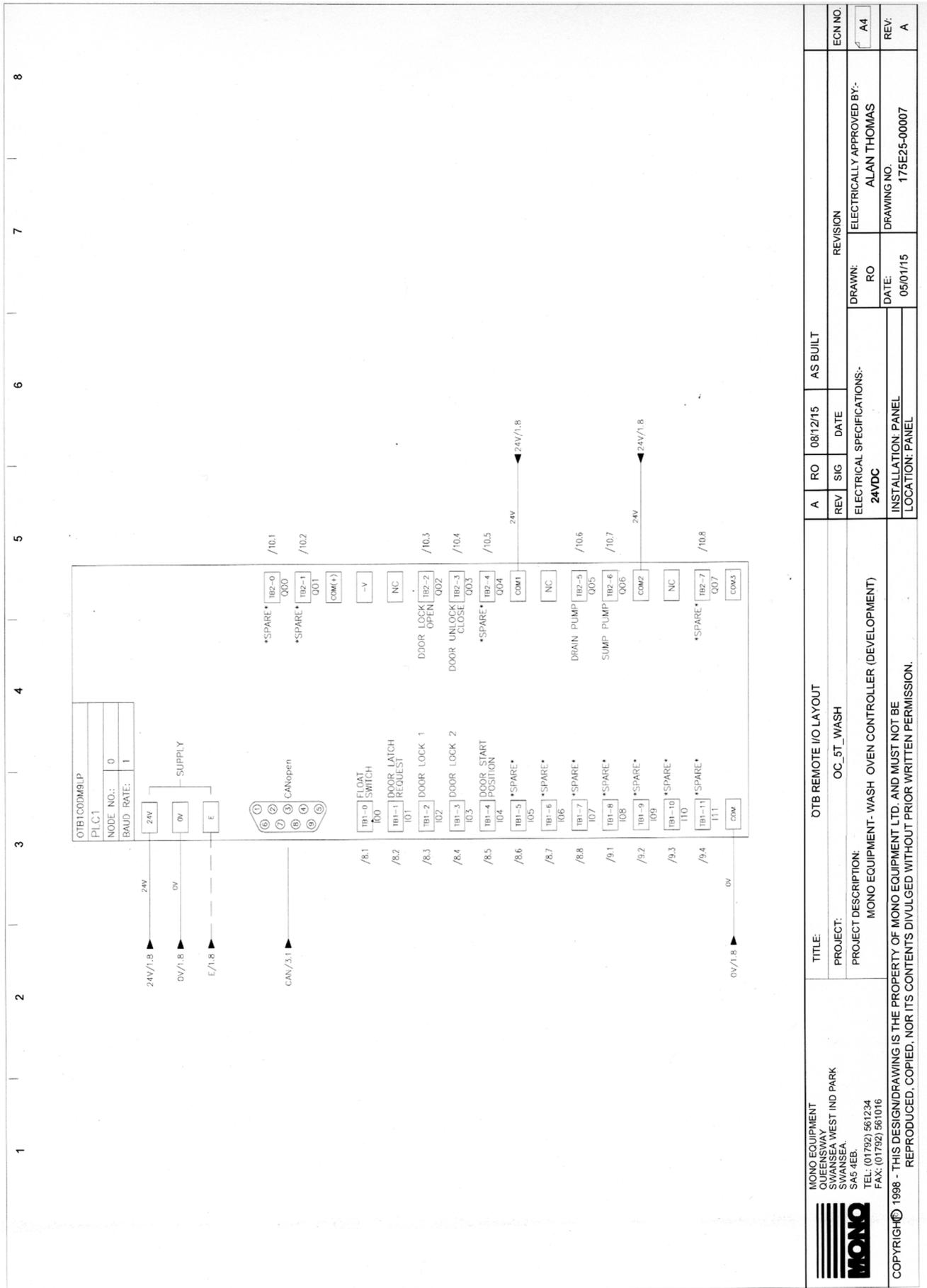




MONO EQUIPMENT QUEENSWAY SWANSEA WEST IND PARK SWANSEA, SA5 4EB. TEL: (01792) 561234 FAX: (01792) 561016		TITLE: CONTROLLER OUTPUTS PROJECT: OC_5T_WASH PROJECT DESCRIPTION: MONO EQUIPMENT- WASH OVEN CONTROLLER (DEVELOPMENT)		A RO 08/12/15 AS BUILT REV SIG DATE ELECTRICAL SPECIFICATIONS:- DRAWN: RO DATE: 05/01/15		ECN NO. A4 REV: A	
COPYRIGHT © 1998 - THIS DESIGN/DRAWING IS THE PROPERTY OF MONO EQUIPMENT LTD. AND MUST NOT BE REPRODUCED, COPIED, NOR ITS CONTENTS DIVULGED WITHOUT PRIOR WRITTEN PERMISSION.				INSTALLATION: PANEL LOCATION: PANEL		DRAWING NO. 175E25-00005	

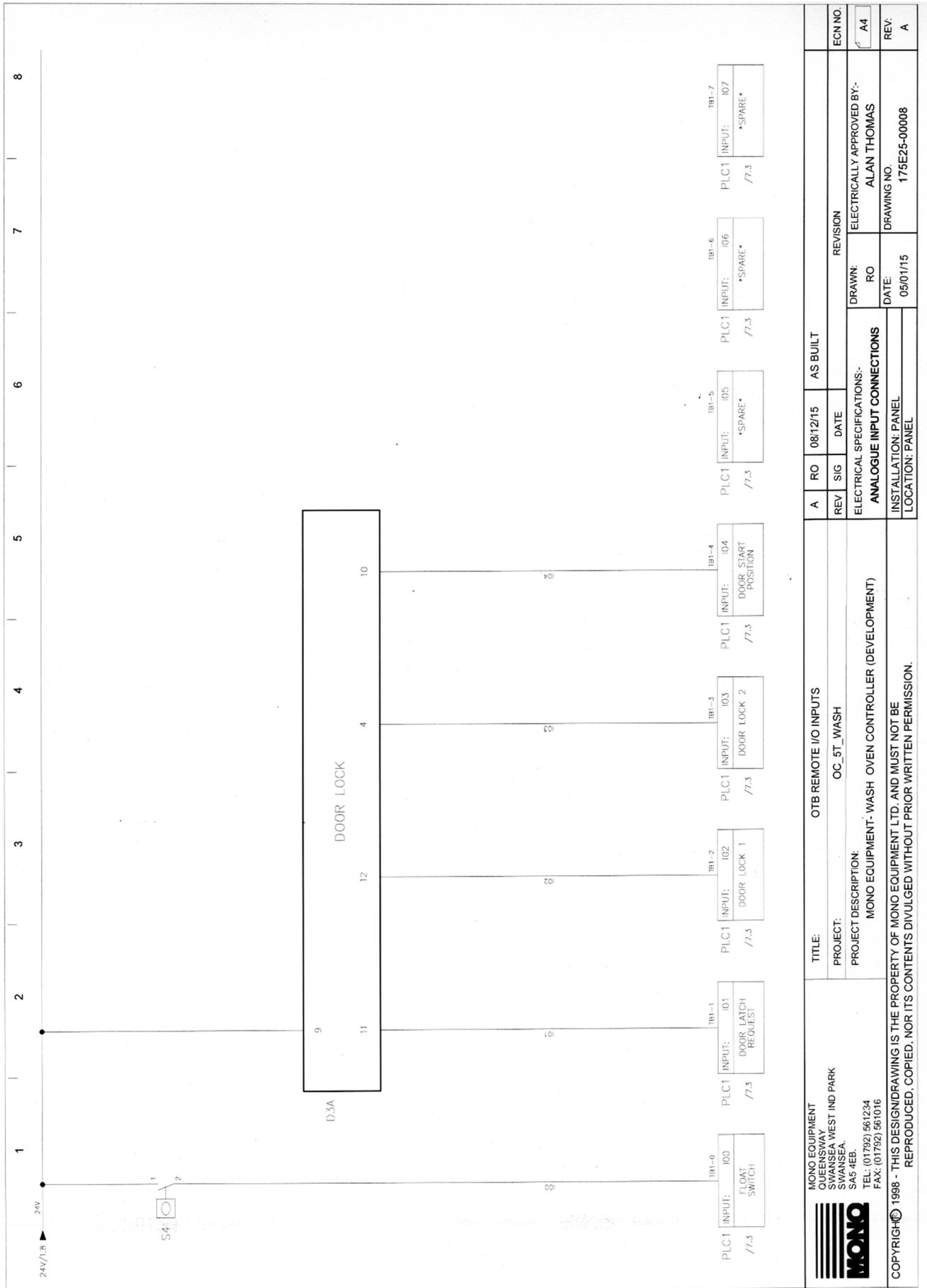


A		RO	08/12/15	AS BUILT	ECN NO.
REV	SIG	DATE	REVISION		A4
ELECTRICAL SPECIFICATIONS:-			DRAWN:	ELECTRICALLY APPROVED BY:-	
T/C CONNECTIONS			RO	ALAN THOMAS	
INSTALLATION: PANEL			DATE:	DRAWING NO.	
LOCATION: PANEL			08/01/15	175E25-00006	
TITLE: CONTROLLER ANALOGUE INPUTS/OUTPUTS					
PROJECT: OC_5T_WASH					
PROJECT DESCRIPTION:					
MONO EQUIPMENT - WASH OVEN CONTROLLER (DEVELOPMENT)					
MONO EQUIPMENT					
QUEENSWAY					
SWANSEA WEST IND PARK					
SWANSEA					
SA5 4EB.					
TEL: (01792) 561234					
FAX: (01792) 561016					
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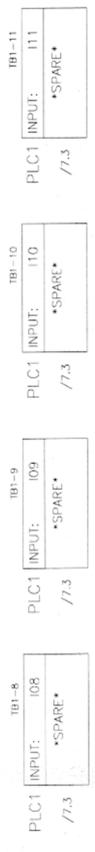
8
7
6
5
4
3
2
1

OTB1CODM9LP		PLC1		NODE NO.: 0		BAUD RATE: 1	
TITLE: OTB REMOTE I/O LAYOUT		AS BUILT		REVISION		ECN NO.	
PROJECT: OC_5T_WASH		DATE: 08/12/15		DRAWN: RO		ELECTRICALLY APPROVED BY: ALAN THOMAS	
PROJECT DESCRIPTION: MONO EQUIPMENT- WASH OVEN CONTROLLER (DEVELOPMENT)		ELECTRICAL SPECIFICATIONS: 24VDC		DATE: 05/01/15		DRAWING NO. 175E25-00007	
MONO EQUIPMENT QUEENSWAY SWANSEA WEST IND PARK SWANSEA, SA5 4EB. TEL: (01792) 561234 FAX: (01792) 561016		INSTALLATION PANEL LOCATION: PANEL		REV: A		REV: A	
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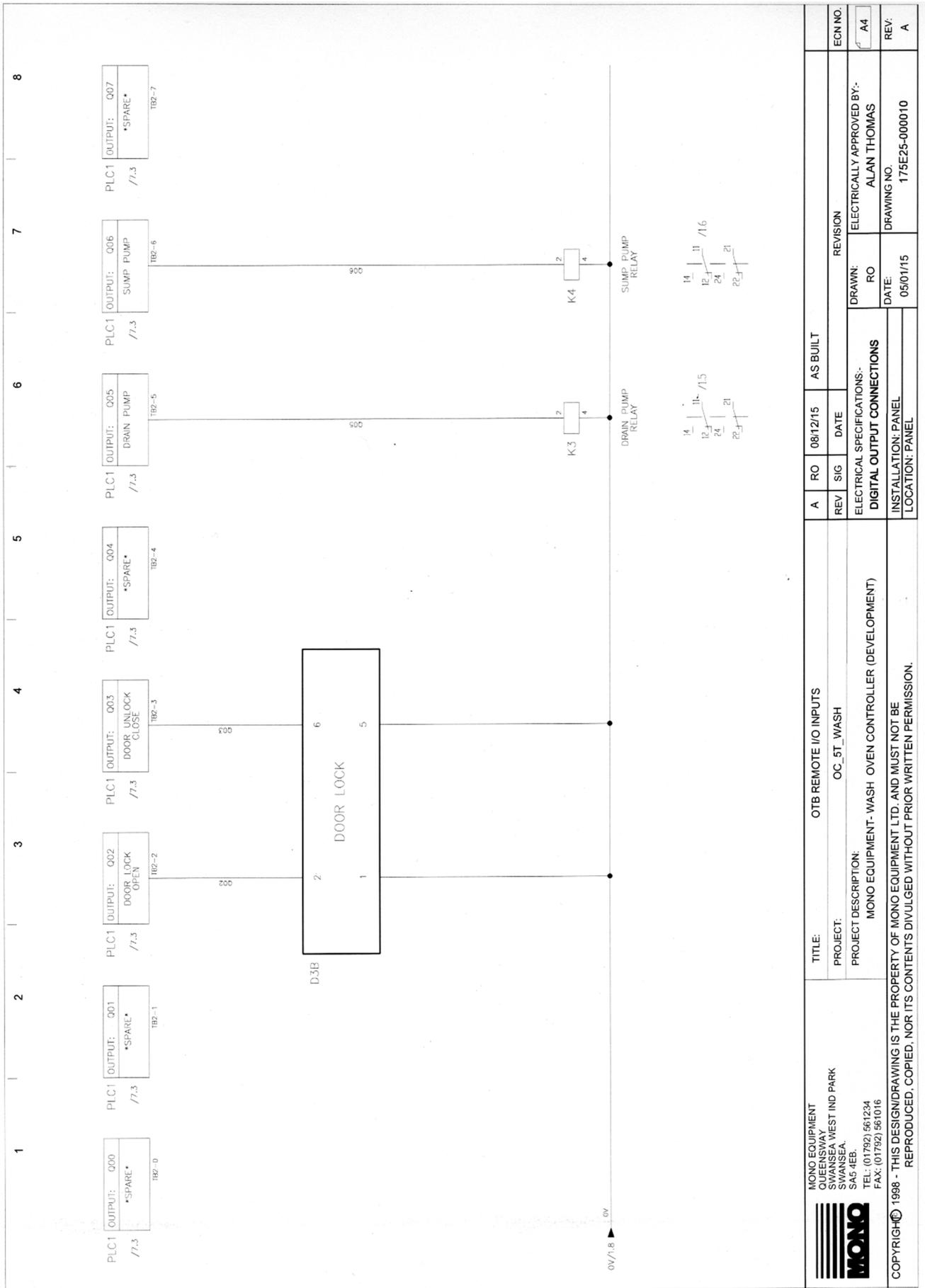


MONO EQUIPMENT QUEENSWAY SWANSEA WEST IND PARK SWANSEA, SA5 4EB. TEL: (01792) 561234 FAX: (01792) 561016		TITLE: OTB REMOTE I/O INPUTS		AS BUILT		ECN NO. A4
PROJECT: OC_5T_WASH		PROJECT DESCRIPTION: MONO EQUIPMENT- WASH OVEN CONTROLLER (DEVELOPMENT)		DRAWN: RO		ELECTRICALLY APPROVED BY:- ALAN THOMAS
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INSTALLATION: PANEL		LOCATION: PANEL		DRAWING NO. 175E25-00008		

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8



MONO EQUIPMENT QUEENSWAY SWANSEA WEST IND PARK SWANSEA, SA5 4EB. TEL: (01792) 561234 FAX: (01792) 561016		TITLE: OTB REMOTE I/O INPUTS PROJECT: OC_5T_WASH PROJECT DESCRIPTION: MONO EQUIPMENT- WASH OVEN CONTROLLER (DEVELOPMENT)		A REV:		08/12/15 DATE:		AS BUILT		REVISION		ECN NO. A4	
MONO		ELECTRICAL SPECIFICATIONS:- ANALOGUE INPUT CONNECTIONS		DRAWN: RO DATE: 05/01/15		ELECTRICALLY APPROVED BY:- ALAN THOMAS		DRAWING NO. 175E25-00009		REV: A		INSTALLATION: PANEL LOCATION: PANEL	
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MONO EQUIPMENT QUEENSWAY SWANSEA WEST IND PARK SWANSEA, SA5 4EB. TEL: (01792) 561234 FAX: (01792) 561016				INSTALLATION: PANEL LOCATION: PANEL				COPYRIGHT © 1998 - THIS DESIGN/DRAWING IS THE PROPERTY OF MONO EQUIPMENT LTD. AND MUST NOT BE REPRODUCED, COPIED, NOR ITS CONTENTS DIVULGED WITHOUT PRIOR WRITTEN PERMISSION.	

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PASSWORDS

DEPENDING ON WHICH PASSWORD IS USED THE FOLLOWING SETTINGS CAN BE ACCESSED:

- **Settings menu** _____
3142
General Settings – 2 pages
Diagnostics – 2 pages
123456
Edit product (Default, user configurable)
- **Advanced settings menu** _____
777460
654321 High level – oven settings (3 screens) (Default, user configurable)
Net
HMI
System
- **Alarms menu** _____
4321
Alarm - date, time and state logging
- **Testing options** _____
753951
Screen capture
I O diagnostics overlay
Advanced diagnostics
Enable diagnostics mode logging
Demo mode
- **Device management menu** _____
1793
Backup
Update
Restore
- **Customisation menu** _____
5678
Wallpaper
- **Manufacturers options** _____
561234
Reset to original settings
- **System event log** _____
789630
- **Wash settings Editor** _____
456852
4682 Abort wash

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.

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DESIGNED AND MANUFACTURED IN WALES BY:

MONO EQUIPMENT

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Swansea.
SA5 4EB UK

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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)