

ECO Connect Plus Static Rack Oven

EN Quick Start Guide



Product Version

- FG165 (Electric)
- ECO Connect+ touchscreen
- Variable fan speed
- Standard racks only
- UK specifications



Product Serial Number

Manual Revisions

Revision	Publication Date	Author	Description
A24	25-Mar-2024	CD	First edition.
B24	18-Dec-2024	CD	Changed safety messages to specify RCD Type 'B'.
			Updated Declaration of Conformity certificate
A25	09-Feb-2025	CD	Added JAN-2025 cable statement to the new electrical section.
			Added Thank You page.
			Added Dimensional Drawing.
			Added Electrical Supply details to the Installation section.

Thank you

Thank you for purchasing **MONO's ECO Connect Plus Static Rack Oven**.

Before using your new oven for the very first time, please read and familiarise yourself with the contents of this Quick Start Guide and keep it handy for future reference.

If you have any queries regarding your oven, please contact MONO Equipment directly:

- +44 (0)1792 561234
- sales@monoequip.com
- spares@monoequip.com
- techsupport@monoequip.com

We wish you the very best of success with your new professional Static Rack Oven.




Happy baking!

The MONO Team



Safety Symbols

The following safety symbols are used throughout this user manual (available electronically at [MonoEquip.com](https://www.monoequip.com)). Before using your new equipment, read the user manual carefully and pay special attention to information marked with the following symbols.

	DANGER	■ Indicates an immediate hazard with a high risk which, if not avoided, will result in death or serious physical injury.
	WARNING	■ Indicates a potential hazard with a medium risk which, if not avoided, could result in death or serious physical injury.
	CAUTION	■ Indicates a hazard with a low risk which, if not avoided, could result in minor or moderate physical injury.

Electrical Safety Notice

Advice regarding supplementary electrical protection

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

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

The electrical installation and connections should meet the mandatory requirements of the local electrical wiring regulations and any 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 the following: 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 include:

- 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.



WARNING

- The supply to this machine must be protected by a 30mA-rated Type 'B' Residual Current Device (RCD).
- Always fit a wall-mountable isolator switch to isolate the oven from the electrical supply completely. The isolator must be visible, labelled as an emergency shutdown device, and easily accessible.

Water Leak Safety Notice

**WARNING**

Take action immediately to get a water leak fixed and prevent death or serious injury from electrocution.

It is essential to regularly check for any signs of a water leak from an oven installation. If there is evidence of a water leak, do not ignore it. Immediately report it to a manager or as applicable to your organisation.

Furthermore:

- Disconnect or completely isolate the oven from the electrical supply.
- Place an out-of-service notice on the oven.
- Contact your oven supplier or MONO Equipment for technical assistance.

Ovens must be maintained and serviced at appropriate intervals to ensure the oven operates at optimum levels.

Declaration of Conformity Certificate



Declaration of Conformity



We the manufacturer:

MONO EQUIPMENT

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

Machine:

FG Code:

Serial No:

Hereby declare that this machine conforms with and complies with the following directives:

- The Machine Directive 2006/42/EC
- The Low Voltage Directive 2014/35/EC
- The Electromagnetic Compatibility Directive 2014/30/EU Incorporating Standards EN 55014-1:2017/A11:2022 & EN 55014-2:1997+A1:2001+A2:2008
- The General Safety of Machinery and Food Processing Standards
- Materials and Articles Intended to Come into Contact with Food – Regulation (EC) No. 1935/2004
- Good Manufacturing Practices (GMP) for Materials Intended to Come into Contact with Food
- Regulation (EC) No. 2023/2006

A technical construction file for this machine is retained at MONO Equipment

MONO Equipment is a business name of **AFE Group Ltd** Registered in England No. 3872673

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Mr Craig Petherbridge
Quality & Compliance Manager

Mr Alex Davies
Engineering Manager

QD 001

Dated 01/11/2022

1. Introduction

1.1. The MONO ECO Connect Plus Static Rack Oven

Thank you for purchasing this MONO ECO Connect Plus Static Rack Oven.

The information in this quick start guide should get your purchase up and running without any problems. There is a complete Installation and Operating Manual available at [MonoEquip.com](https://www.monoequip.com). If you have a problem with your purchase, see [Section 7 on page 26](#) for how to get assistance from MONO Equipment.

Figure 1.1: ECO Connect Plus Static Rack Oven Features



- A. Glass-fronted door
- B. Access ramp
- C. Touchscreen control panel (see [Section 4 on page 14](#))
- D. Main isolator switch (see [Section 2.2 on page 10](#))

2. Safety

2.1. Oven safety

Only fully trained and authorised persons are permitted to do any work on the oven. Qualified electricians must carry out all electrical repairs and maintenance. Always disconnect or completely isolate the power supply before starting any maintenance or cleaning work on the oven.

A responsible Bakery Manager or Supervisor must carry out daily safety checks. Bakery staff must not, under any circumstances, remove covers or panels to access any internal parts of the oven.

**WARNING**

- Before using the oven:
 - Check that all covers, panels, and cabling are secure.
 - Visually examine the oven for obvious damage/signs of tampering.
 - If the oven is damaged, malfunctioning, or missing parts:
 - Stop using it.
 - Do not attempt any repairs to the oven.
 - Contact MONO Equipment for technical assistance.
 - Never operate the oven with any covers or panels removed.
 - All utility connections to the oven must comply with the statutory requirements of the country.
 - Ensure this User Manual is read thoroughly before operating the oven. Operate and maintain the oven only as described in this user manual.
-

**WARNING**

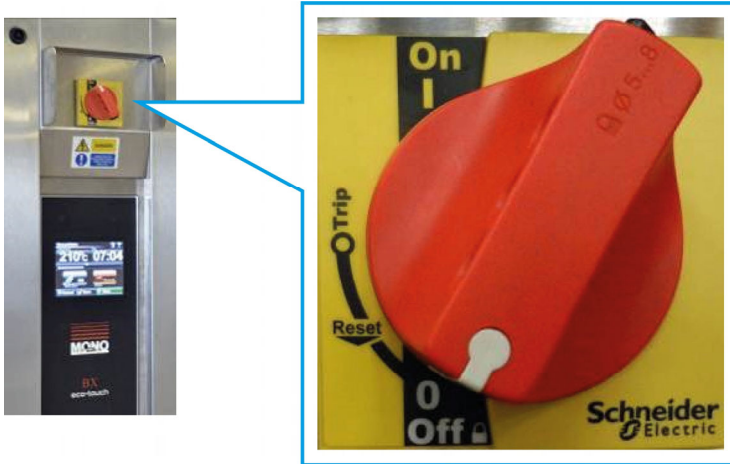
- An electrical socket must be protected by a 30mA-rated Type 'B' Residual Current Device (RCD) before installation and commissioning of the oven.
 - There should always be a local disconnection switch for any person to isolate the electrical power in an emergency. The disconnection switch must be visible, labelled as an emergency shutdown device, and easily accessible.
 - Check the electrical requirements on the oven's information plate before plugging in the power cable and turning the power on for the first time. Contact MONO Equipment if the electrical ratings are incorrect for your site.
 - Before installation, it is recommended that a qualified and competent electrician first tests the electrical outlet (power socket) for electrical safety.
 - Always ensure your hands are dry before touching any electrical components, including cables, switches, and plugs.
-

**CAUTION**

- Be aware of hot surfaces:
 - Do not touch the oven door with bare skin.
 - Always use oven gloves when loading or unloading the oven.
 - Allow time for the oven to cool completely before cleaning it.
 - While baking (and for some time after use), touching the oven door or the surrounding panels is not advisable because of conducted heat.
- When removing products from the oven, ensure the following:
 - Tins are knocked out and stored directly onto a tin storage trolley or rack. Do not leave hot tins on the floor or tables.
 - Trays are put into a rack and then wheeled to a safe cooling area.
- Fully train operatives before they use the machine. Anyone undergoing training must be under direct supervision of someone experienced.
- Ensure there are no trip hazards around the oven, e.g. trailing cables.
- Check that the floor around the oven is not slippery, e.g. no liquid spills.
- Do not store items on top of or behind the oven.
- Never climb onto the roof of the oven.
- Only use the oven for baking bread, pastries, and cakes. Contact MONO Equipment for other product-baking machines.
- No unauthorised modifications to the oven are permitted.

2.2. Isolating the oven from the electrical supply

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



WARNING



Always disconnect the oven from the consumer power supply if working on the electrical box and panel. Some components stay electrically energised even after the main isolator is in the 0 (OFF) position.

3. Installation

3.1. Positioning the oven

- The ECO Connect Plus Static Rack Oven is designed to operate as a freestanding unit and must not be bolted down or fixed to the floor in any way.
- The floor beneath the oven must be:
 - hard, smooth, and level (ideally, concrete)
 - clear of any obstructions, and
 - a minimum thickness of 150 mm (6 inches)
- Allow room for servicing and general maintenance such as cleaning.
- The foundation must be flush with the overall bakery floor because racks are wheeled up a ramp into the baking chamber. The ramp is supplied with the oven.
- A minimum headroom clearance of 3 metres (180 inches) between the floor and the bakery ceiling is required at all times.
- If not selected when ordering the oven, an extraction hood should be placed above the oven to disperse excess steam and heat that could adversely affect the bakery ceiling and ambient temperature.

3.2. Water supply

- Connect the ECO Connect Plus Static Rack Oven to a suitable water supply **after** checking pipes are flushed out to remove all foreign bodies, i.e. flux or solder. Each oven is supplied with a 1 metre, flexible hose with ¾-inch BSP connections at both ends.
- It is the responsibility of the customer to install and maintain:
 - an adequate supply to the oven which complies with local and national water regulations.
 - an efficient water-softening device to protect the supply to the oven in a hard-water area.
 - protection against back-flow in the supply.
- No drain is required unless fitting a condenser.
- A water conditioning unit is recommended.
- See the **ECO Connect Plus Static Rack Oven [Installation and Operation Manual](#)** for minimum water supply requirements.

3.3. Ventilation

It is the customers' sole responsibility to arrange for adequate ventilation. Ventilation should be sufficient to ensure water does not condense on or around the oven.

- Allow a 50 mm (2-inch) gap at the sides and rear of this oven for air flow.
- Chimneys and evacuation ducts fitted above MONO ovens should be insulated.

3.4. Electrical supply

WARNING

- Check that the electrical data on the oven’s nameplate. Contact MONO Equipment if there is a mismatch between the nameplate information and the mains supply at the site.
- The oven must be connected to the mains supply using the factory-fitted mains plug and cable and a 30mA-rated Type ‘B’ Residual Current Device (RCD).
- The RCD is a safety device, which automatically switches off the supply if an earth fault develops. Test the RCD upon completion of the installation and quarterly for the lifetime of the oven.
- A qualified electrician must carry out all electrical work in accordance with national and local regulations.

Power supply

See [Table 3.1](#) for supply options.



The supply to this machine must be protected by a 30mA-rated Type ‘B’ Residual Current Device (RCD) prior to installation and commissioning.

Power cable

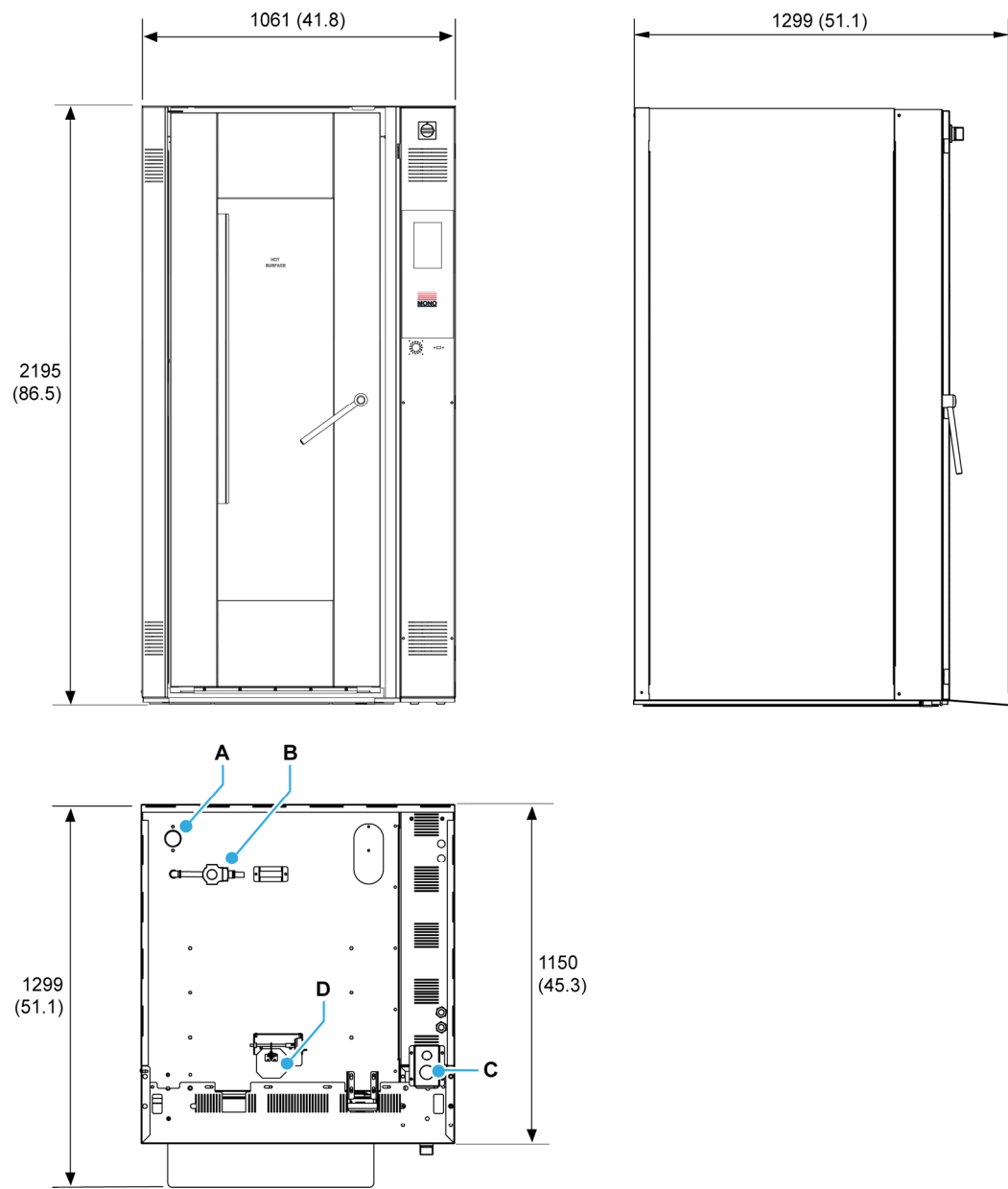
A power cable is not supplied with the oven. The customer is to supply the power cable in accordance with the appropriate regulations.
(See [Figure 3.2](#) for the electrical inlet location).

Table 3.1: Single supply specifications

Oven version	Voltage	Phase	Current	Total Power
Standard	415 Vac (50 Hz)	Three-phase+N+E	39 Amps per phase	28 kW ⁽¹⁾

(1) Heating output is 27 kW

Figure 3.2: Left-Hand (LH) Static Rack Oven dimensions



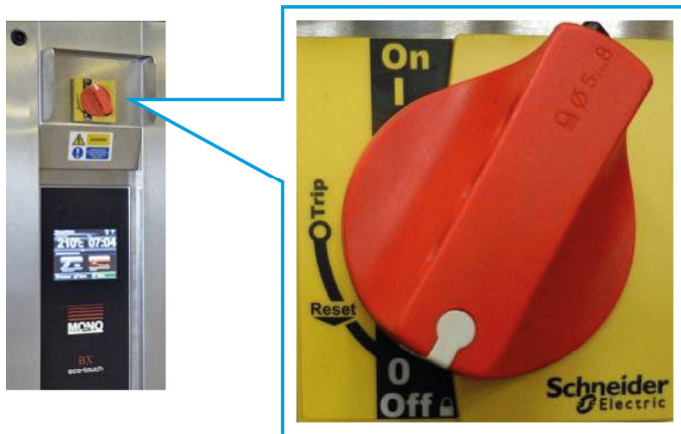
- | | | | |
|---------------------|-----------------------|----------------|----------------|
| A. Electrical inlet | B. Oven pressure vent | C. Water inlet | D. Oven damper |
|---------------------|-----------------------|----------------|----------------|

Dimensions are in mm (inches) unless otherwise stated. All references to "LH" ovens mean that the main door is hinged on the left and the touchscreen control panel is on the right. Conversely, for "RH" ovens, the main door is hinged on the right and the touchscreen is on the left.

4. Touchscreen Operations

4.1. Starting and operating using ready-made programs

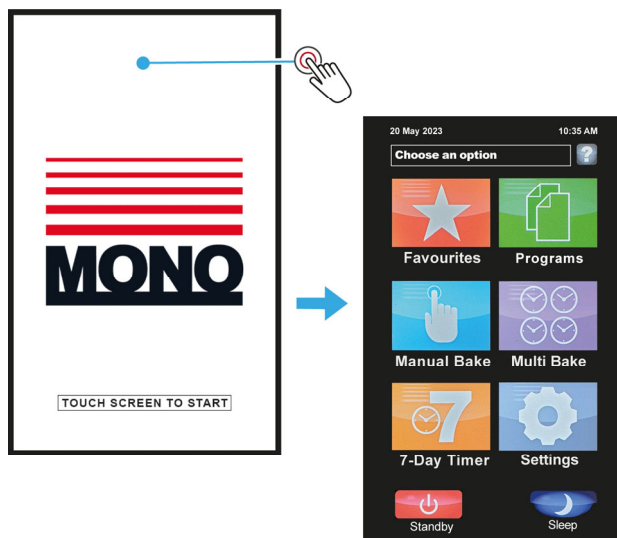
1. Ensure the power and water supplies are safely connected to the oven.
2. If the display is off, turn the main isolator switch on the oven to the "1" (ON) position.
 - Wait while the oven goes through the start-up sequence.



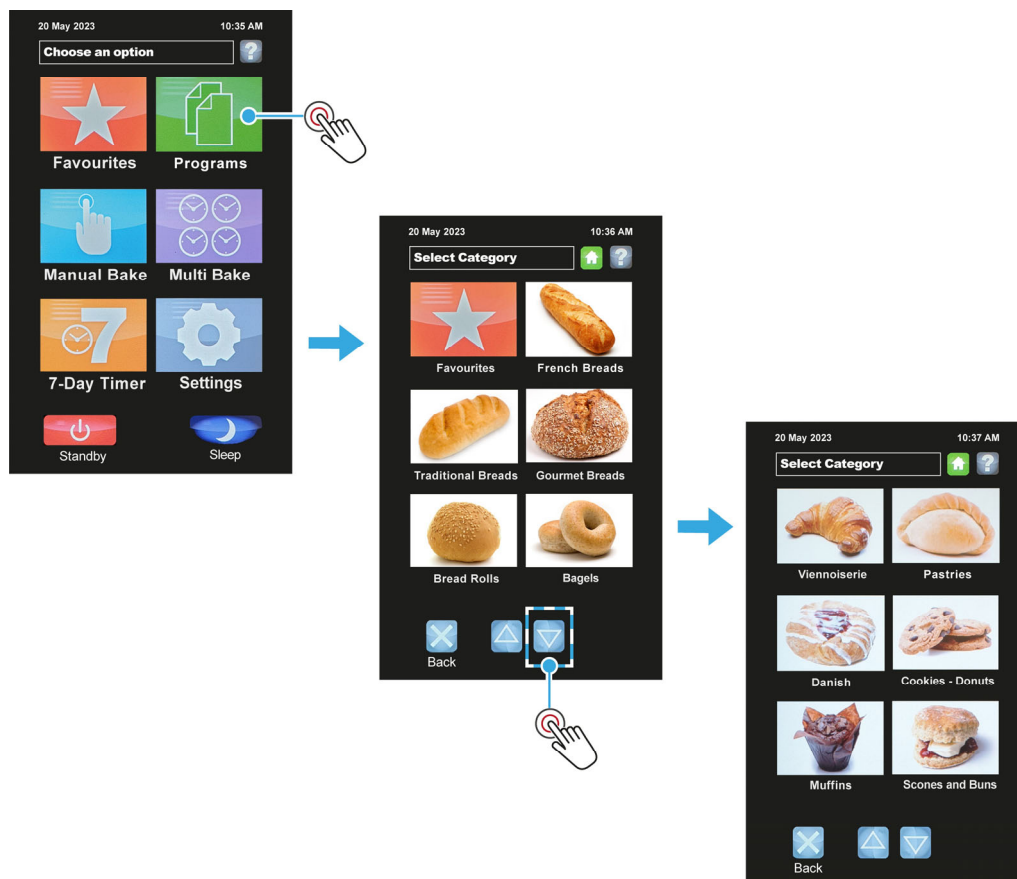
NOTE

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

3. When the start-screen (wallpaper) appears, touch the screen anywhere to start operating the oven.



4. Touch the **Programs** tile on the **Choose an option** screen.

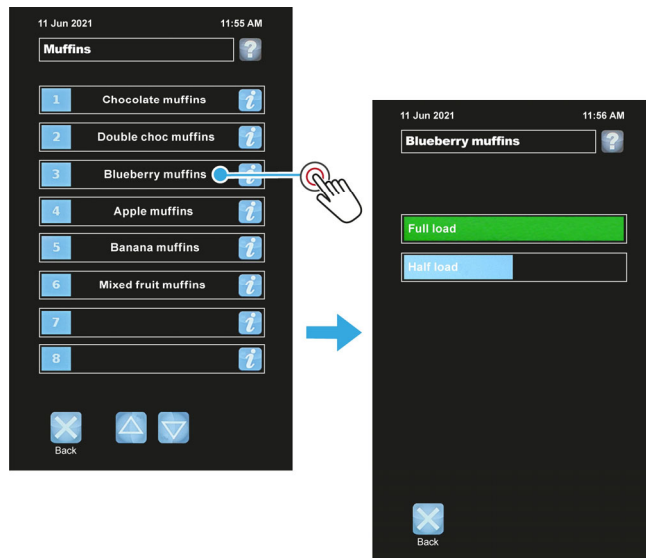


5. Select a product category.
- Touch the scroll up and down buttons to change category pages.
 - The **Back** button returns the display to show the **Choose an option** screen.
 - Touch the tile of a product type you require (e.g., muffins).
 - A list of recipes then displays for that product type.

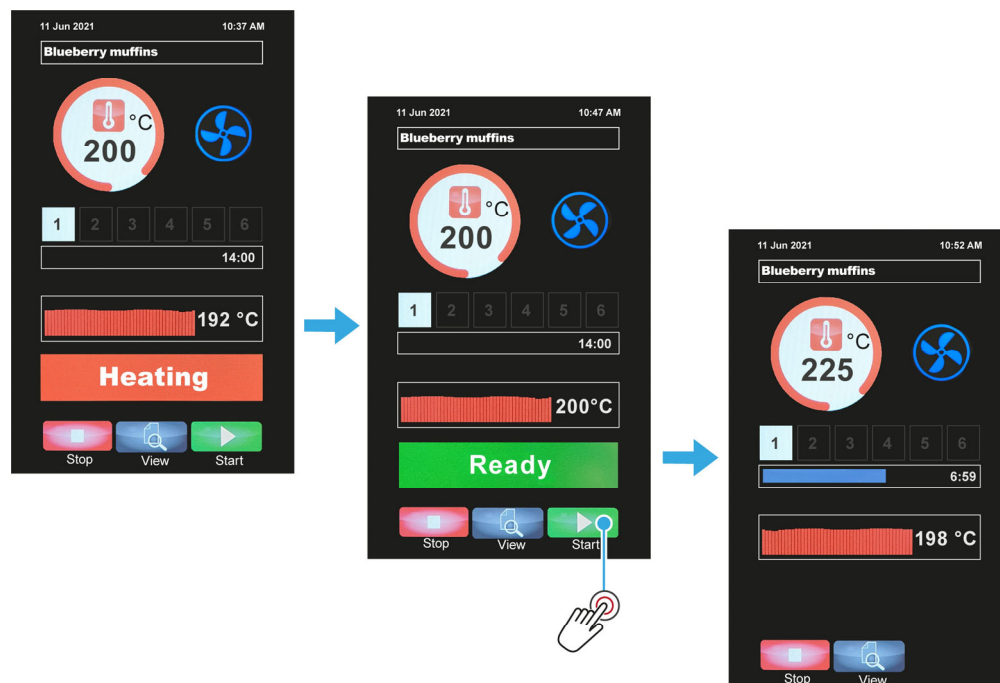
NOTE

- Tiles show a product group image or a program number group, depending on how the oven was factory configured. See the complete **ECO Connect Plus Static Rack Oven Installation and Operation Manual** for how to do updates using the USB drive (if supported).

6. Select a baking recipe.
 - a. Touch the baking recipe required (e.g., blueberry muffins).
 - b. If prompted, select **Full Load** or **Half Load** depending on the oven loading.
 - The half-load program reduces energy usage when the oven is not a fully loaded with product. Some experimentation is needed to establish the optimal settings for a half-load program.

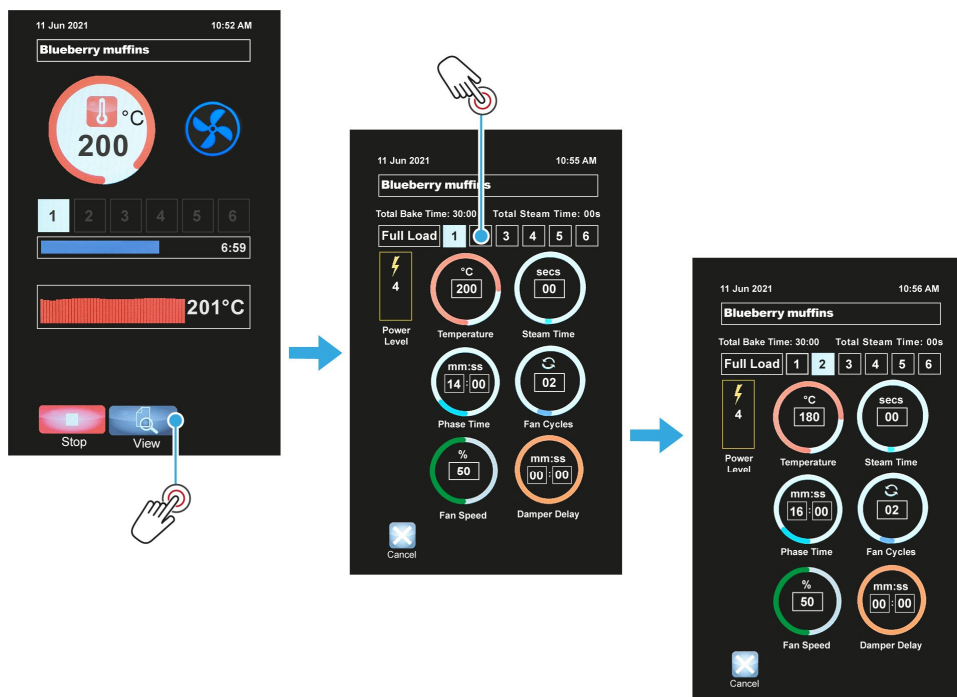


7. Wait while the oven heats-up to the temperature pre-set in the recipe program.
 - A **HEATING** message flashes on the screen.



8. Load the oven with products when **READY** flashes on the screen.
9. Touch **Start** to begin baking.

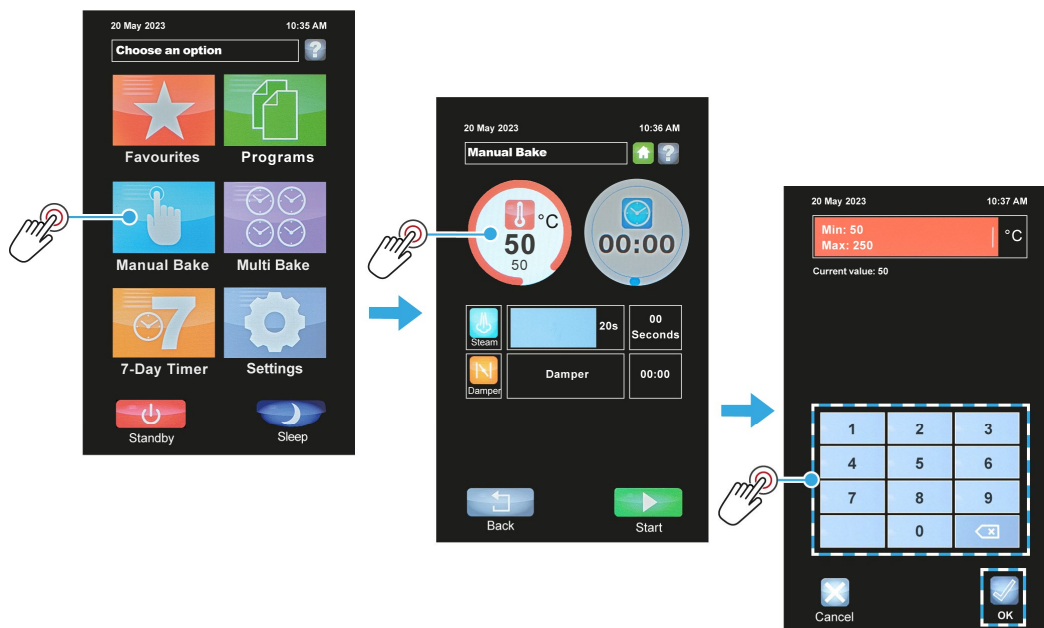
10. During a bake, two actions can be performed:
- Touch the **View** button to view settings during a bake.
 - Touch the numbered square (e.g., 2) to view the settings for different baking phases. The **Cancel** button displays the baking screen again for the present baking phase.

**NOTE**

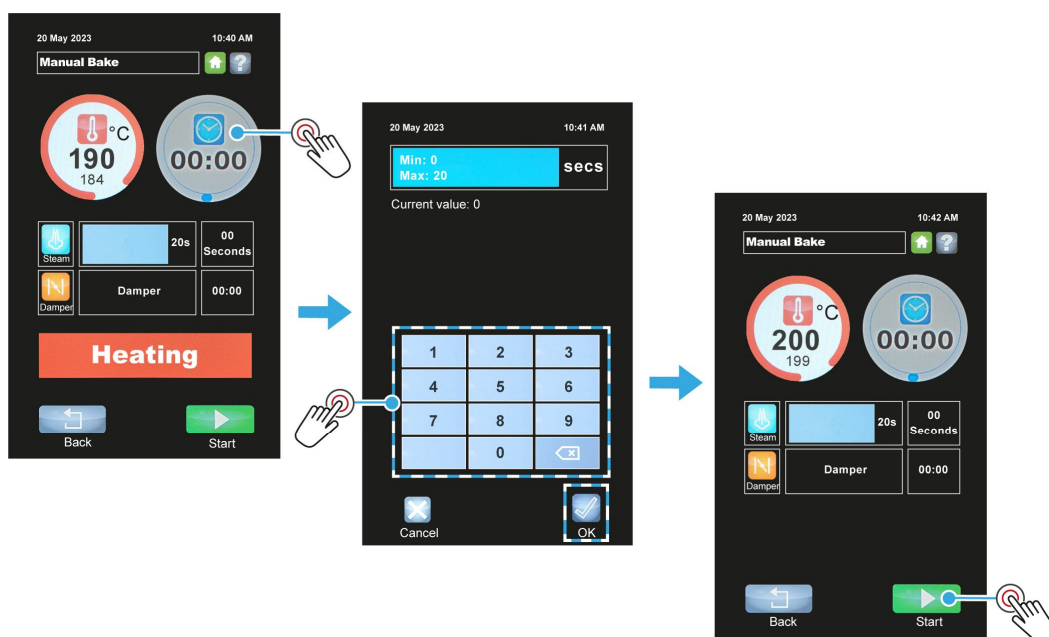
- The actual oven temperature fluctuates. It may briefly drop below, or rise above, the required temperature by a few degrees during baking. This is normal and not a malfunction of the oven.
- To minimise heat loss from the oven, do not leave the oven door open for longer than needed. The oven will automatically recover from the heat lost when the door is closed.

4.2. Manual bake (no program mode)

1. Touch the **Manual Bake** tile.
2. Set the baking temperature:
 - a. Touch the **Temperature** circle.
 - b. Key in the baking temperature, and then touch the **OK** button.





3. Set the baking time (if required):
 - a. Touch the **Timer** circle.
 - b. Key in the baking time required, and then touch the **OK** button.



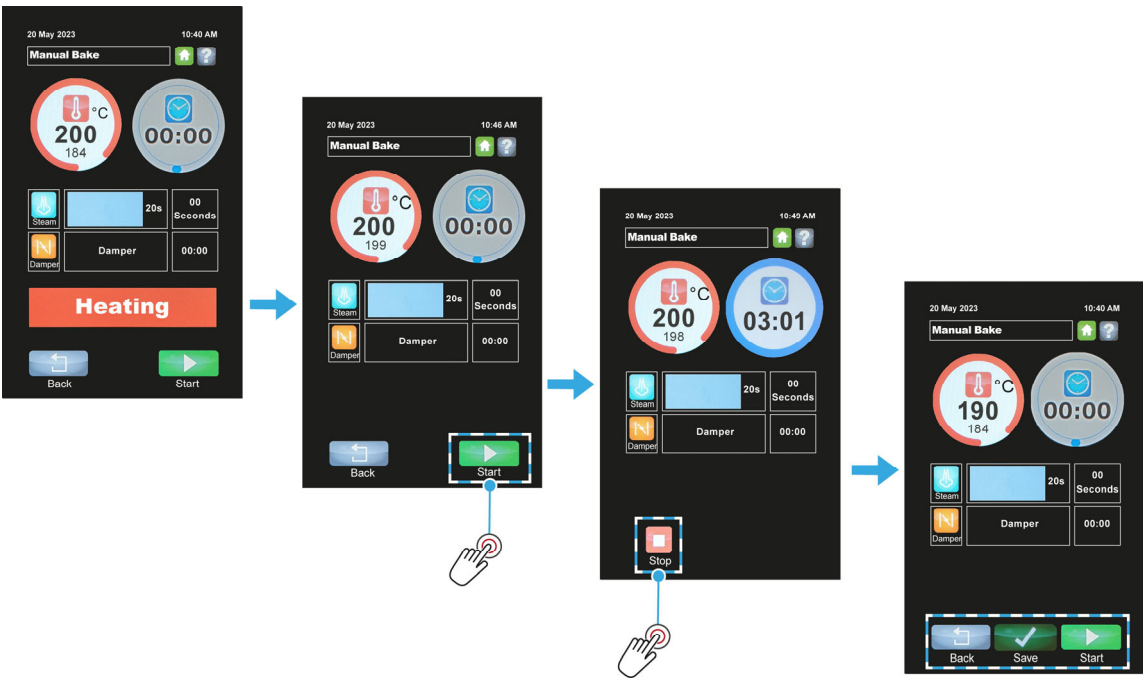
- 4. Load the oven with products and touch **Start**.
- 5. During the bake, use the **Steam** and **Damper** functions if needed (see [Table 4.1](#)).
- 6. When the timer is counting down and reaches **00:00**, a sounder is heard and a **BAKE OVER** message flashes on the screen. Touch **Stop** to silence the sounder.
- 7. Manual baking can be stopped at any time by touching **Stop**.

Table 4.1: Steam and Damper button functions

Button	Function	Purpose of the function
	Steam	After touching Start , touch the Steam button for the number of seconds wanted and release.
	Damper	Touch the Damper button to open the damper, and touch again to close. (The button changes colour when the damper is open).

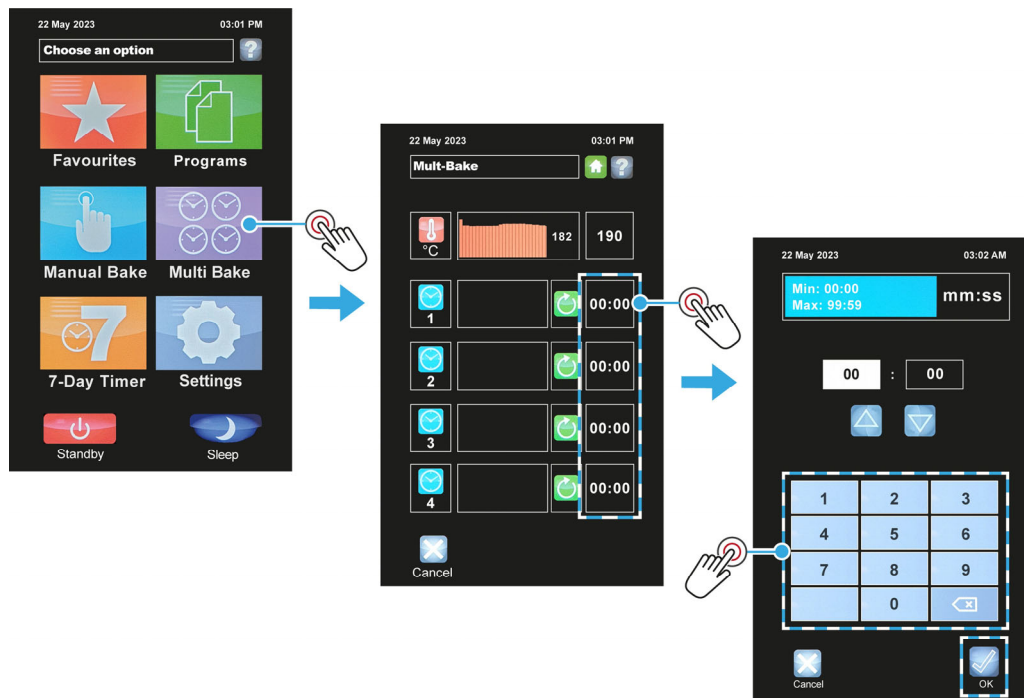
NOTE

- If no baking time is set and the **Start** button is touched, the timer counts upwards until the bake is stopped by pressing the **Stop** button. (While the screen shows a **HEATING** message, wait until the oven reaches temperature before touching **Start**).

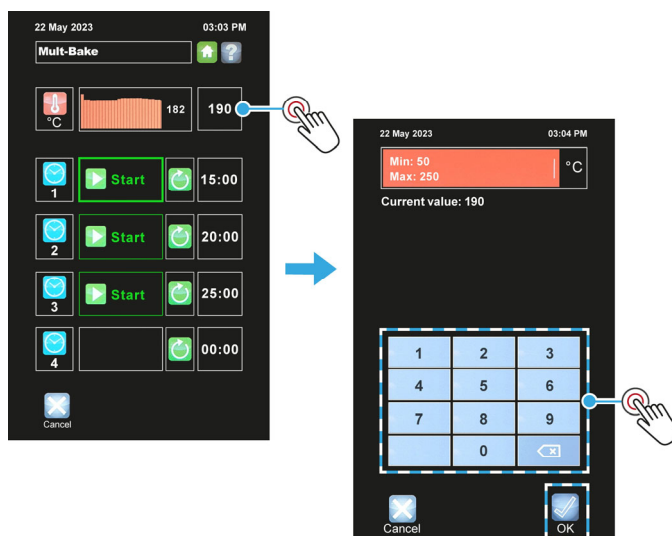


4.3. Multi Bake operation

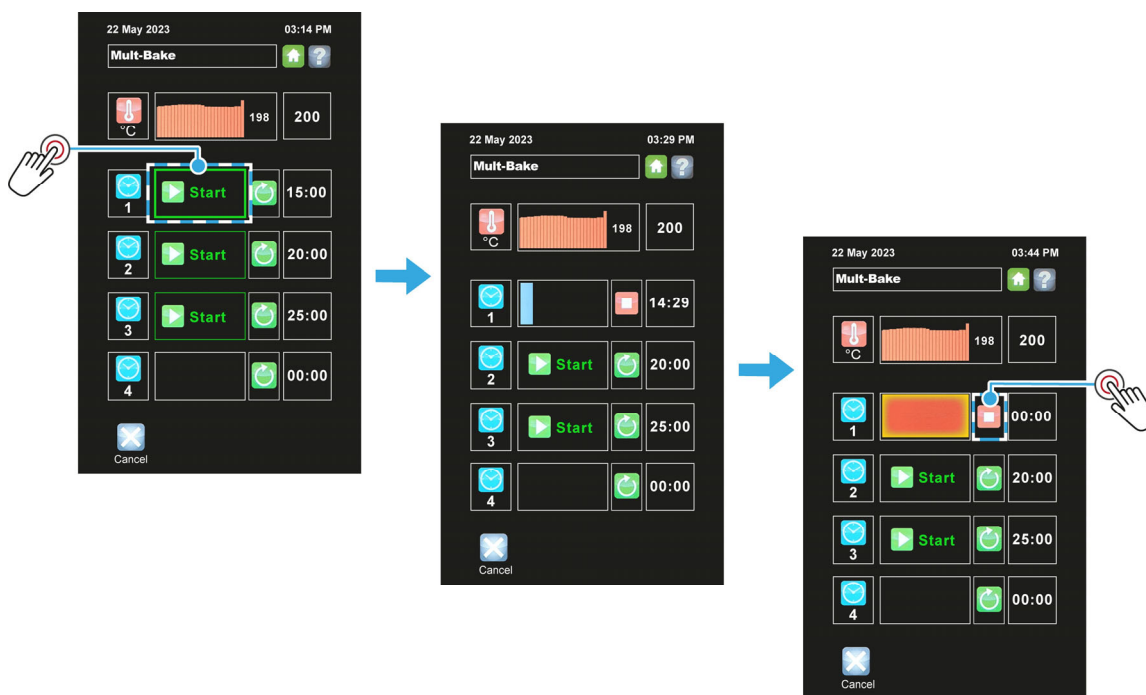
1. Touch the **Multi Bake** tile.
2. Set a timer:
 - a. Touch a time-setting box.
 - b. Adjust the bake time required using up and down keys, and then touch the **OK** button.
 - c. Repeat steps (a) and (b) to set up to four different bake time sequences, if required.



3. Set the temperature for the bakes:
 - a. Touch the heat-setting box, and then type in the temperature required.
 - b. Touch **OK** to confirm the temperature.

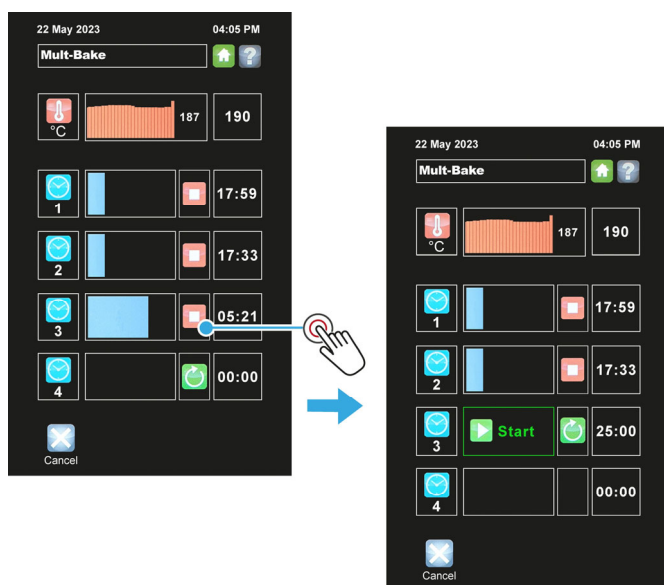


4. Load the oven and then when ready to start a bake:
 - a. Touch the **Start** button (next to the bake time required).
 - b. Wait for the bake to finish.
 - c. Touch the **Stop** button next to the **00:00** time.
 - d. The same multi-bake settings can now be used again by pressing the same **Start** button.



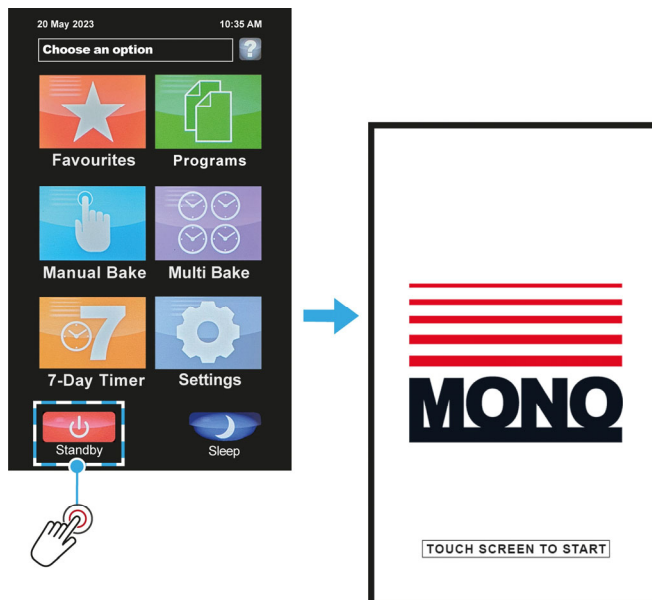
NOTE

- Touch the **Stop** button at any time to end a bake. The same multi-bake settings can be used again.



4.4. Putting the oven into Standby mode

The **Standby** button turns the oven off until the screen is touched again.



4.5. Putting the oven into Sleep mode

If enabled in the oven settings, the **Sleep** button instructs the oven to maintain temperature to a pre-set value.



5. Cleaning

5.1. Safety messages



WARNING

- Always disconnect or isolate the electrical supply and allow the oven to cool before cleaning.
- Be aware that the surfaces of the oven can remain hot for several hours. Wear protective gloves and appropriate clothing when cleaning.
- Do not remove any covers, panels, or pipe fittings for cleaning.
- Do not clean the oven while it is powered or operating.



CAUTION

- Clean the oven by following the daily and weekly tasks in this user manual.
- Use only a mild, chloride-free cleaning product on outside surfaces.
- Never use aggressive chemicals, i.e. solvents, thinners, etc.
- Take care that liquid does not enter the control panel or any of the other access covers/panels.
- Never spray the oven with water (or any kind of liquid) using a hose or pressure washer. Never use compressed-air jets on the oven.
- Care must be taken to not damage parts inside the oven.

5.2. Daily cleaning

Before undertaking this task, ensure the oven is disconnected or isolated from the electrical supply and that the oven and heating elements are completely cold.

Daily cleaning tasks

1. Sweep any debris out of the oven after it has been allowed to cool.
 - Cooling down could take several hours.
 - Use a vacuum cleaner if necessary, **but only when the oven is completely cold.**
2. Wipe the oven front, back and sides with a damp cloth.
3. Spot clean outside with a damp cloth, soaked in a solution of mild detergent and hot water.
 - Pay particular attention to ensure excess water is not applied near electrical panels.

5.3. Weekly cleaning

Before undertaking this task, ensure the oven is disconnected or isolated from the electrical supply and that the oven and heating elements are completely cold.

Weekly cleaning tasks

1. Complete the daily cleaning procedure.
2. Clean any burnt-on debris by scrubbing it with a stiff brush and, if necessary, a damp cloth.
3. Use a nylon brush to scrub the cabinet wheels (if fitted) with a mild detergent and hot water.
 - Using too much water eventually rusts the metalwork.

6. Maintenance

6.1. Safety messages

**WARNING**

- Always disconnect or isolate the electrical supply before starting any maintenance work on the oven.
 - Some components stay electrically energised even after the main isolator is in the 0 (OFF) position.
-

**WARNING**

- The ECO Connect Plus Static Rack Oven 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 and experienced persons (SQEP).
 - You must immediately report any damage or defect arising with the appliance.
 - Unsafe equipment is dangerous. Do not use the appliance. Isolate the electrical supply and contact MONO Equipment or your appointed service agent.
-

6.2. General maintenance

The following general maintenance is recommended:

- Check for any visible damage or signs of tampering.
 - Do not use the machine if it is clearly damaged, i.e. frayed or bare wires are visible.
 - Report the damage but do not attempt to make any repairs yourself.
- Follow the cleaning instructions in [Section 5 on page 23](#).

7. Service

If a fault arises, please do not hesitate to contact MONO Equipment's Service and Spares department. Be prepared to provide the Serial Number from the machine's information plate or the front page of this User Manual in all communications.

7.1. Contact information for customer services

MONO Equipment Limited

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SA5 4EB
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www.monoequip.com

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7.2. Further information

Visit MonoEquip.com for the latest versions of this user manual. Also find up-to-date information about all MONO's products.

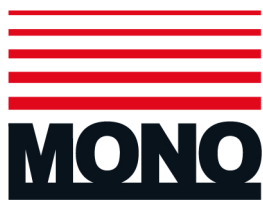
7.3. Environmental disposal

Dispose of the machinery with care when it comes to the end of its working life. Use the most environmentally-friendly manner possible by recycling or other means of disposal which complies with local regulations. Only dispose of the machine safely and legally. The Environmental Protection Act 1990 applies in the United Kingdom.

MONO Equipment is the leading designer and manufacturer of bakery equipment in the United Kingdom. This proud heritage of British craftsmanship, combined with a reputation for creating high-quality, innovative products, can be traced back to its origins in 1947.

All our bakery equipment is manufactured to the most stringent NQA ISO9001:2015 & NQA ISO14001:2015 standards and is crafted using the very latest, cutting-edge technology combined with the time-honoured skills of the master craftsman.

MONO Equipment truly excels in providing tailor-made solutions to a diverse range of clients, from the small independent artisan baker to the large retail chains found on every high street and in every out-of-town shopping centre. We can supply everything from a simple Food-2-Go cafe oven to the entire list of bakery equipment needed to set up a full scratch bakery.



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