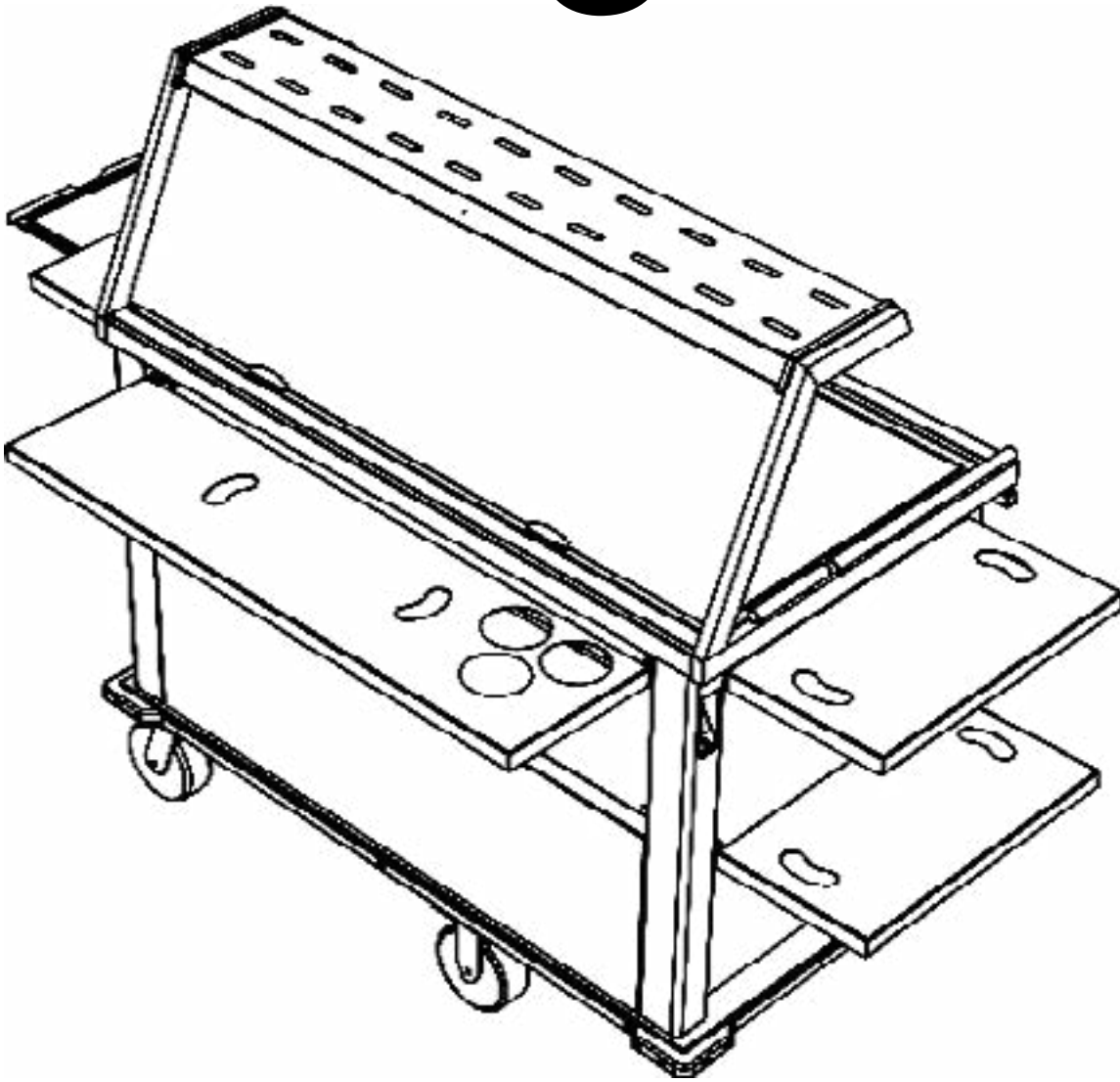


MOFFAT

Vgen



Operating & Service Manual





To ensure the best results from this unit please take the time to read and follow all safety, installation and maintenance guidelines carefully before proceeding to install. Keep this manual in a safe place for future consultation.



These appliances are marked in compliance with the relevant Low Voltage & EMC Directives. Voltage stated on unit data plate.



Warning! Please pay attention to sections of the manual displaying this symbol.



Warning! This unit's system is charged with a flammable refrigerant (R290).



Warning! Do not attempt to use a hose or water jet to clean this unit. For cleaning instructions, refer to section 6.

The appliance must only be used for the purpose it was designed for and may become unsafe if used for any other purpose. Operators should be trained. The room where this trolley is used must be dry, clean with temperatures between 3°C and 26°C and with a maximum relative humidity of 60%. This unit is for indoor use only and has an IPX4 rating.

Prior to ANY service calls please:

- Consult manual for basic fault-finding advice and information required to place the call
- Check warranty/maintenance terms and conditions

“If the supply cord is damaged, it must be replaced by the manufacturer, service agent or suitably qualified person”

Appliance must be disconnected from the power supply during cleaning, maintenance and part-replacement”.

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1: Installation

1. Carefully remove all packaging and plastic coatings from the appliance and dispose in a responsible manner.
2. Check for damage. Please note that in compliance with E&R Moffat warrant conditions, any defects must be reported within 3 days of delivery.
3. Ensure all shelves are in position.
4. Always ensure unit is clean before operation. For further details see section 6.
5. Place the appliance in its intended location - on a flat, level surface and apply trolley brakes.

2: Manoeuvring Trolley



Always ensure appliance has been unplugged and cable coiled safely. Push the trolley where possible, avoid pulling.

- Higher push forces and neutral body postures are assumed when pushing, as apposed to pulling. Pulling can limit the direction of travel vision, can twist the back and neck and require high forces at the shoulder.
- Pulling increases the risk of foot and ankle injury from the trolley riding up during transfers.
- Proper footwear should be worn.
- To ensure a good grip stand with the legs at shoulder width. Stagger legs to get the trolley in motion.



2: Manoeuvring Trolley

Model	Push (N)	Maintain (N)	Minimum Area Required to turn (m ²)
V1G & V1C	33	18	1.2
All V2 Models	44	24	1.6

1. For safety reasons during transport, place all the food inside the compartments.
2. Ensure that the power cables are secure and that the tray rail and side shelves are down.
3. Always push the Trolley using the “rails” at the control side of the Trolley. The swivel castors are located at this end and this gives maximum maneuverability.
4. Make sure all items on the trolley are well secured.
5. Always try to avoid collisions with obstacles, doors, walls and pedestrians.
6. Take care when moving through doorways and elevator doors.
7. Where possible lock elevator doors in the open position when loading on or off the elevator.
8. On arrival at the service point, position in an appropriate location do not cause to obstruction.
9. Apply the brakes. Plug in the power cable.

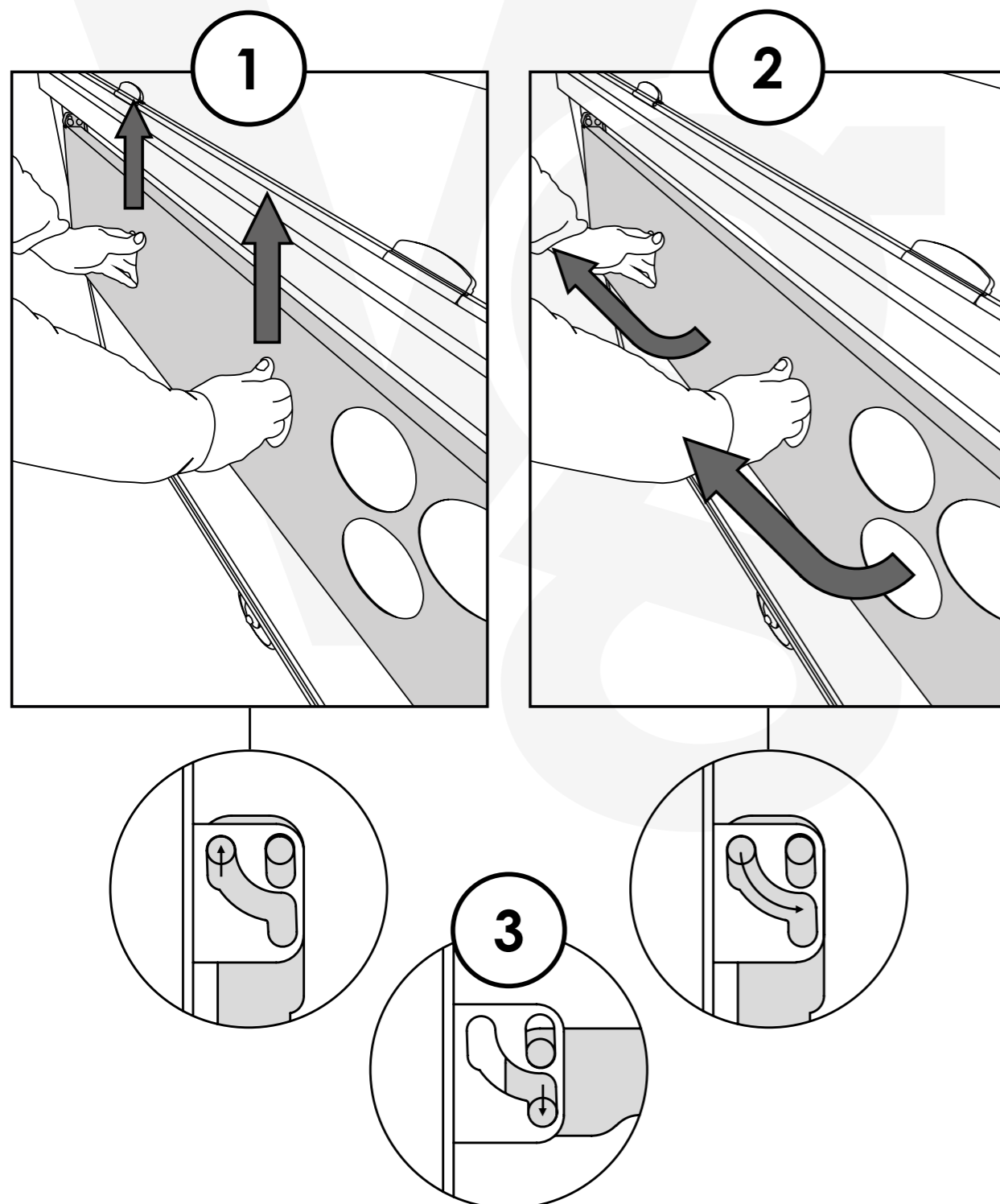
3: Trayslide



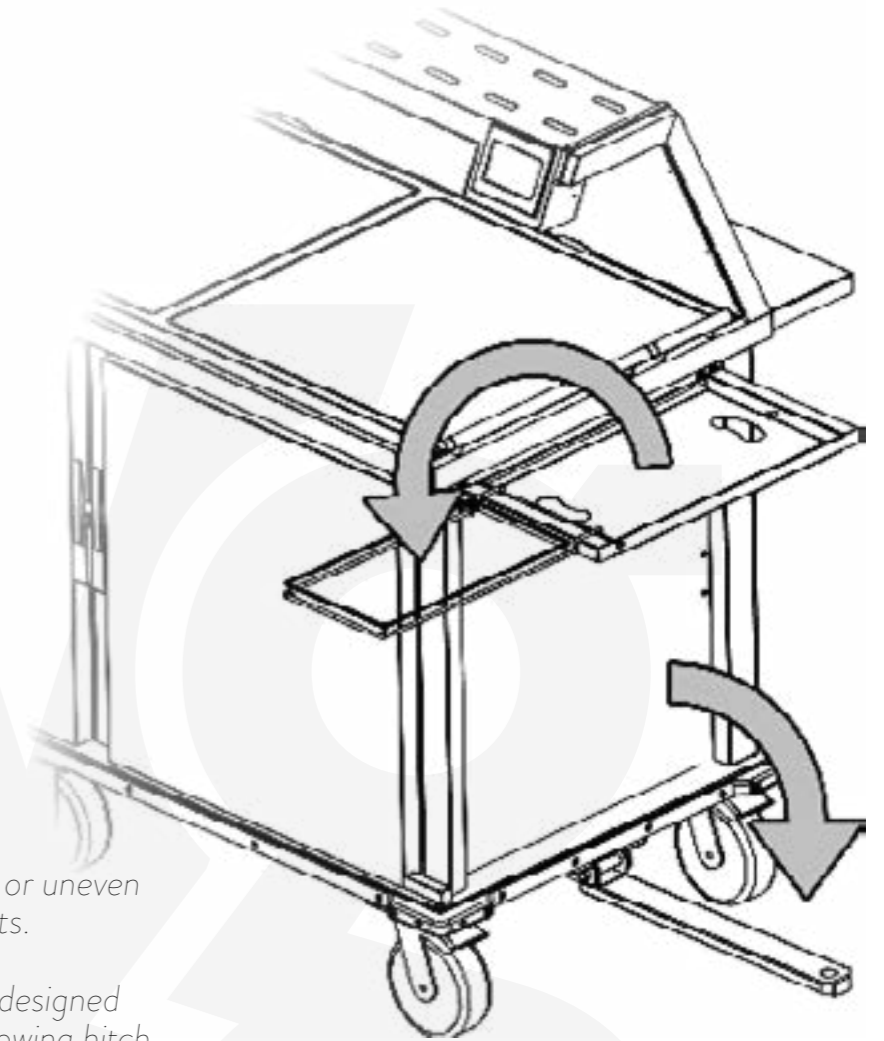
Please note: Some accessories or options are factory fit only and may not be possible to retrofit.

2.1: Folding Trayslide & End Shelves

Please ensure care is taken when operating the trayslide. Please lift/lower using the cut out provided and take care not trap the mains cable. Trayslide and end shelves should be lowered when mobile.



4: End shelf and waste bag



5: Towing

- Do not tow outside or over rough or uneven surfaces, including expansion joints.
- The towing attachment has been designed to be used in conjunction with a towing hitch.
- A maximum of two trolleys at a time can be towed at a maximum speed of 4km/2.5 miles per hour.
- The cassette dolly can also be fitted with a tow bar.
- Align the front of the trolley with the rear of the towing hitch.
- Lower and locate the tow arm ring onto the towing pin of the towing hitch.
- Secure the safety pin on the towing hitch.
- Reduce speed when negotiating corners and inclines.
- When uncoupling, ensure the floor is flat and even.
- Remove the safety pin. Press the tow bar down, swing it sideways to the upright position and set free.

6: Operating Lights Guide



Flashing red indicates oven doors are open.

Keep doors closed when possible.



Green indicates that the unit is in use. Meaning either a regeneration, pre-heat, boost or cleaning cycle is currently in process.

Flashing green indicates cycle is over. Buzzer will also sound.



Blue indicates oven is not being used.

Where specified, the refrigerator will still be in use if not switched off.

7: Operating modes

Cook, Re-heat, Hold Hot, Hold Chilled, Transport, Serve.

This is a sophisticated trolley with many options for use, designed primarily for the health care and education sector, for bulk food regeneration of chilled or frozen food.

Cook Fresh

Use in the same way as a traditional convection oven by setting time and temperature.

Cook Chill

Re-heat chilled bulk food, Set at 140°C for 70min. Load the food, evenly spaced through the oven to give a good airflow throughout the oven.

Cook Frozen

Oven is normally pre-heated for approximately 20 minutes. Re-heat frozen bulk food, Set at 190°C for 90min, Load the food, evenly spaced through the oven to give a good airflow throughout the oven.

Hot Holding

After the regeneration cycle food can be held warm for an extended period.

Hot Chilled

Some models have a separate fridge. Some models have an oven with Chillogen compatibility.

Chillogen (5 in 1: Rapid chill, hold chilled, regenerate, transport and hold hot)

The Chillogen system turns the fridge compartment into a re-gen oven. No need to manually handle meals from one unit into another. The food is then regenerated to a suitable temperature and can hold warm until ready to serve.

Transport

Load up and move to the regen station, cook and serve.

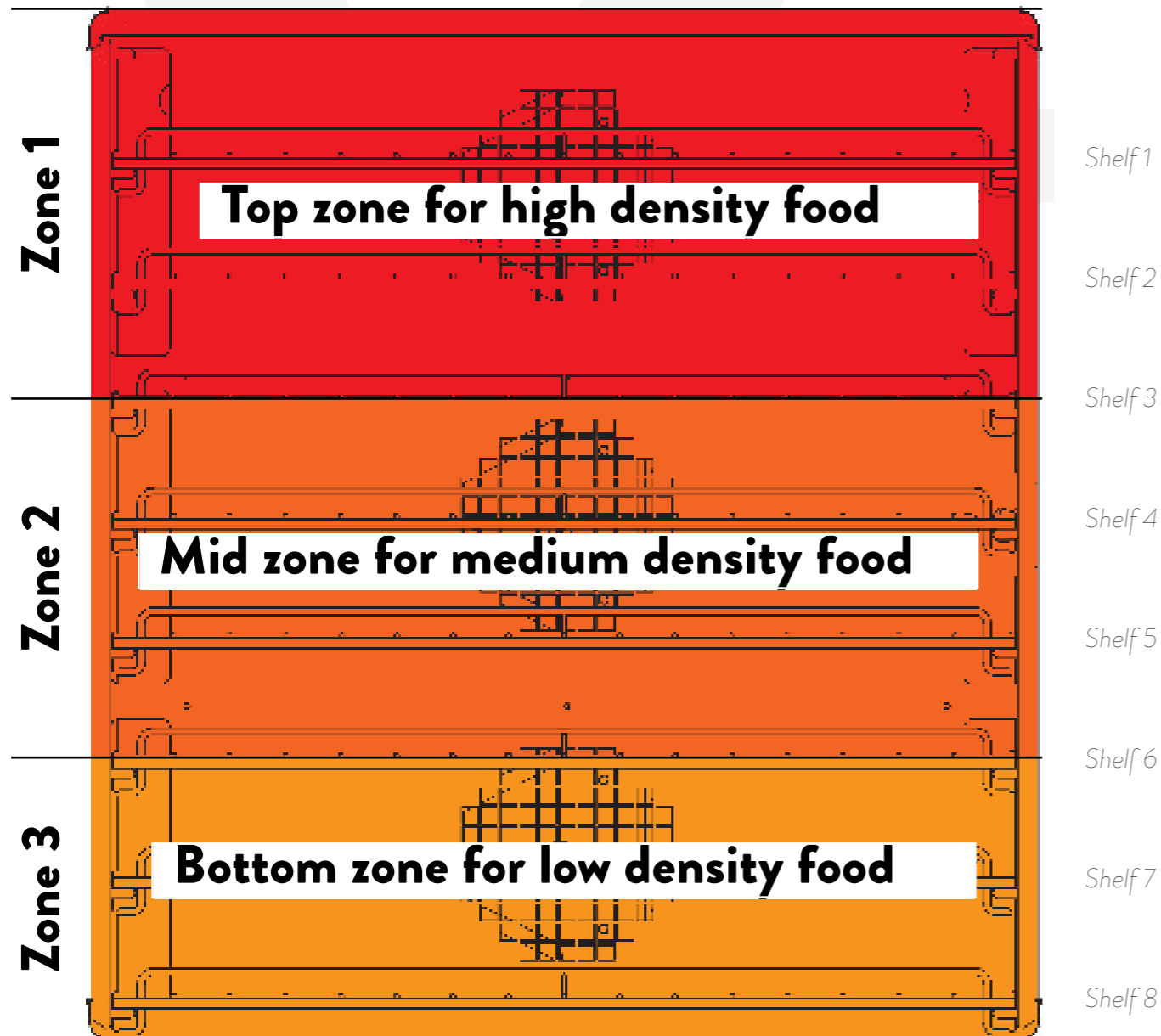
Serve

The trollies are fitted with a hot serving area with over head gantry, LED illumination and a full front transparent screen. The hot surface is self regulating at around 95°C

8: Recommended Use of Oven



Recommended that the top zone is used if reduced load is required. Avoid using lower shelves when possible.



8: Recommended Use of Oven



Some plastic food packs / trays can melt in temperatures above 140°C. When using this type of container, the cook temperatures must not be set above 140°C, additionally a longer cook time must be allowed for, approximately 10 minutes should be added to the standard time.

Chilled Food

Suggested time 60-70 minutes.

Frozen Food

Suggested time 90-100 minutes.

Suggested temperature for Zone 1 (top) 140°C

Suggested temperature for Zone 1 (top) at 190°C

High-density food
Main course and
startch products etc.

High-density food
Main course and
startch products etc.

Suggested temperature for Zone 2 (middle) at 120°C

Suggested temperature for Zone 2 (middle) at 170°C

Medium-density food
Hot-sweets, gravies, sauces etc.

Medium-density food
Hot-sweets, gravies, sauces etc.



Suggested temperature for Zone 3 (bottom) at 100°C

Suggested temperature for Zone 3 (bottom) at 150°C

Low-density food
Puree' meals, vegetables, soups etc.


Low-density food
Puree' meals, vegetables, soups etc.

9: General Operation

1. Plug in appliance and establish power.
The stand-by screen will now be displayed.
2. Select  to enter the main Screen
3. Press the  to enter the options menu

A prompt to enter a password will be displayed, the default password is 1234. It is recommended that this is restricted and kept safe by the responsible person on site.

Descriptions of cook programming operation will be on a following page

4. Press  to enter the settings menu
5. The temperature and times for each mode can be adjusted here, the defaults are:

Boost Temp-----160°C
 Boost Time-----10m
 Pre-Heat Temp-----160°C
 Pre-Heat Time-----30m
 Hold Temp-----90°C
 Fridge Offset-----3°C
 Automatic Hot top-----Off
 Trolley ID Number-----0
 HACCP Value -----85°C
 Element Control-----Mode A



Automatic Hot Top

Automatic hot top sets whether the hot top will activate 10 minutes before the end of the timer i.e. On a 90-minute timer, the hot top will activate on minute 80. When set off the hot top can be manually activated at any time, excluding pre-heat. It is not recommended to activate the hot top until close to the end of the cook cycle.

Probe Calibration

Probe Calibration allows an offset to be added to the HACCP probe.

9: General Operation



Time/Date

Time/Date allows changing of the time and date.

Element Control

Element Control mode sets how the energy is distributed between the elements.

Set Password

Set password allows changing of the password.
Master password is 1963

6. Once the setting menu temperatures and times have been set, the main screen buttons can be tested for operation. Pressing Boost, Hold or Pre-Heat will begin heating the oven to the temperatures set and both Boost and Pre-Heat will begin a timer countdown. Hold will display 0min, this is because it is an infinite hold.



7. When Automatic Hot Top is Off, the hot top can be operated by pressing the hot top on the screen.




When active, the graphic will change to red.



The quartz gantry (if fitted) will also illuminate when the hot top is switched on.

While the hot top is active, all zones of the oven will still receive energy when required, if all zones are requesting heat at the same time, the energy will be reduced to each zone.

8. The LED light can be activated by pressing the light icon  (Excluding quartz gantry models)

9. The Cleaning button will enter cleaning mode. Cleaning is described on page 29



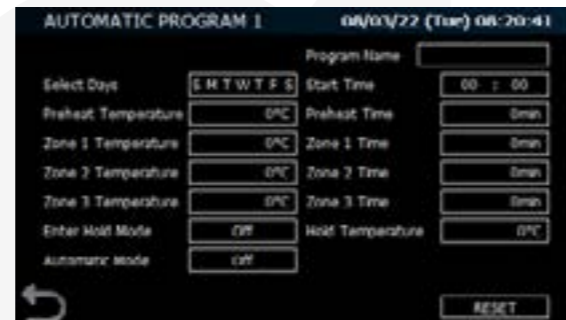
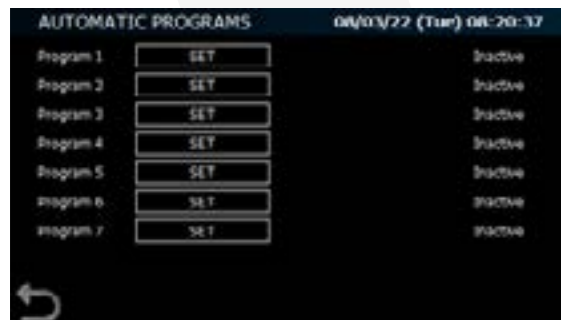
9: General Operation

10. Automatic Cook 24/7 Programming

From the options screen, entering Automatic will allow the programming of 7 timers

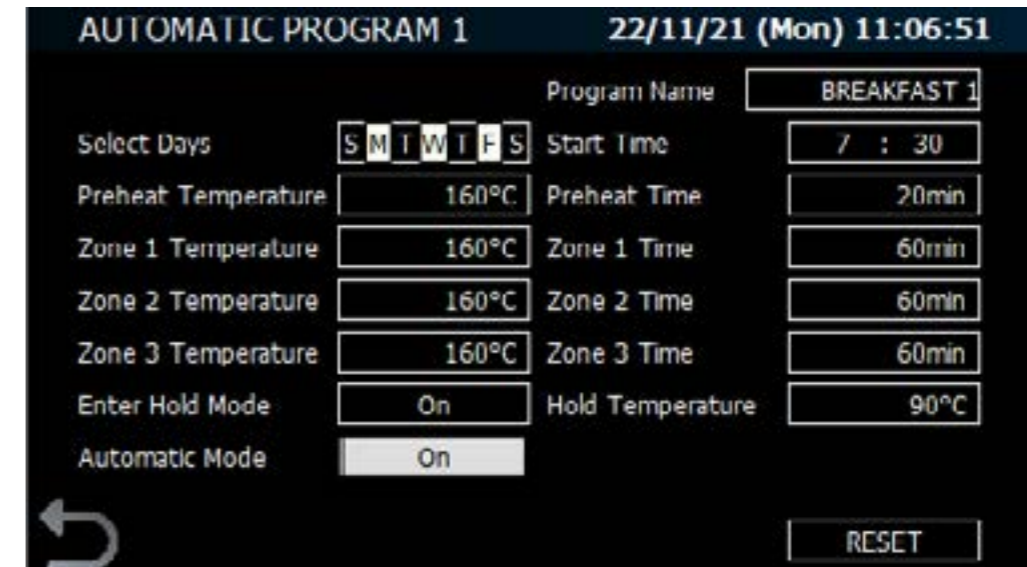
Each of these timers can be set for any time of day, any day of the week.

Select **SET** on any program to open the programming screen for it.



9: General Operation

Example



For example, the above program has been named **BREAKFAST 1**.

It is set to have food inserted Monday, Wednesday, and Friday, at 07:30

The preheat is set to 20 minutes, which means that at 07:10 the oven will begin to heat up to 160°C.

Once the preheat has finished, the buzzer will sound, the screen will indicate that the food is to be placed into the oven and that a button is to be pressed to begin the cook.

While the oven is waiting for the operator to open the door to enter the food, it will maintain 160°C.

Once the food is in, the door is closed and the operator presses the button, the cook will begin and continue for the time stated.

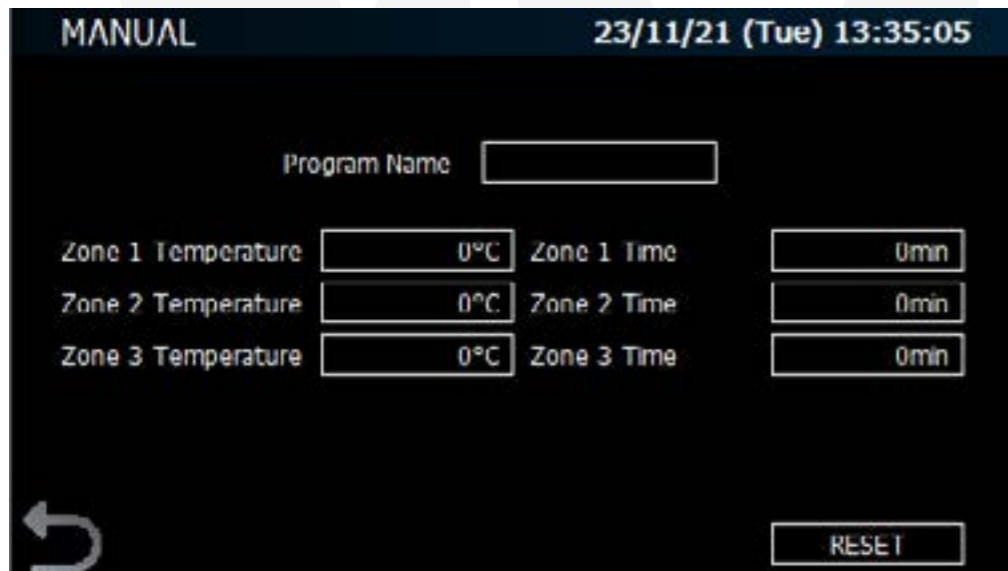
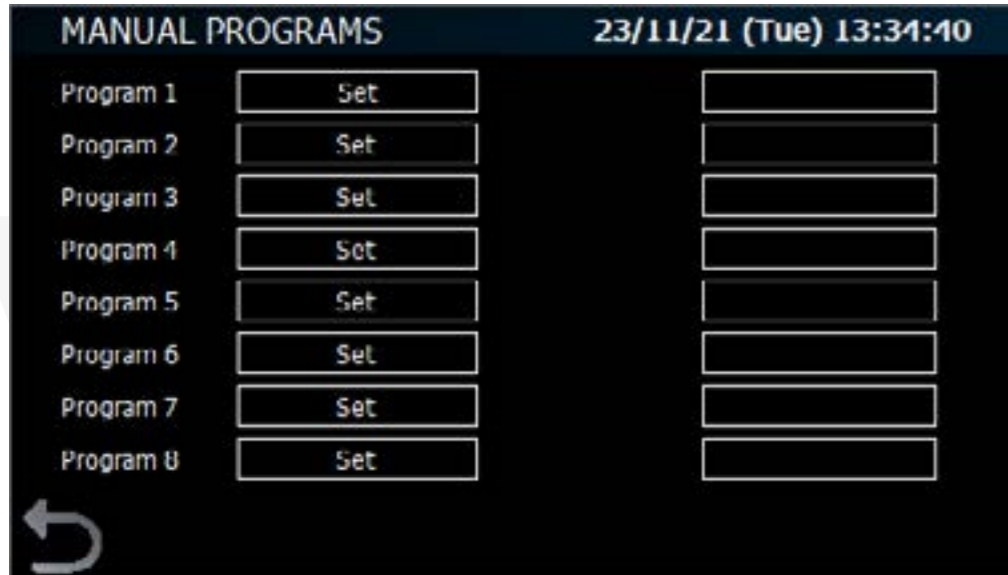
Once the 60 minutes is complete, the oven will enter hold mode and maintain 90°C until the operator presses the button on screen to stop.

Option	Description
Program name	Allows entry of an easily identifiable name up to 15 characters in length
Select days	Opens a new window where the required days of the week can be selected
Start Time	Selects the Hour and Minute that the food should be entered
Preheat Temperature	Sets the temperature that the oven will preheat to before the cook time
Preheat Time	Sets the time before the Start Time that the preheat will begin
Zone Temperatures	Sets the temperatures for each zone
Zone Times	Sets the time for each zone
Enter Hold Mode	Enables after cook hold mode
Hold Temperature	Sets the Hold temperature
Automatic Mode	Setting this to On enables the program
RESET	Clears all data entered except the Program Name

9: General Operation

11. Pre-Set Cook Programming

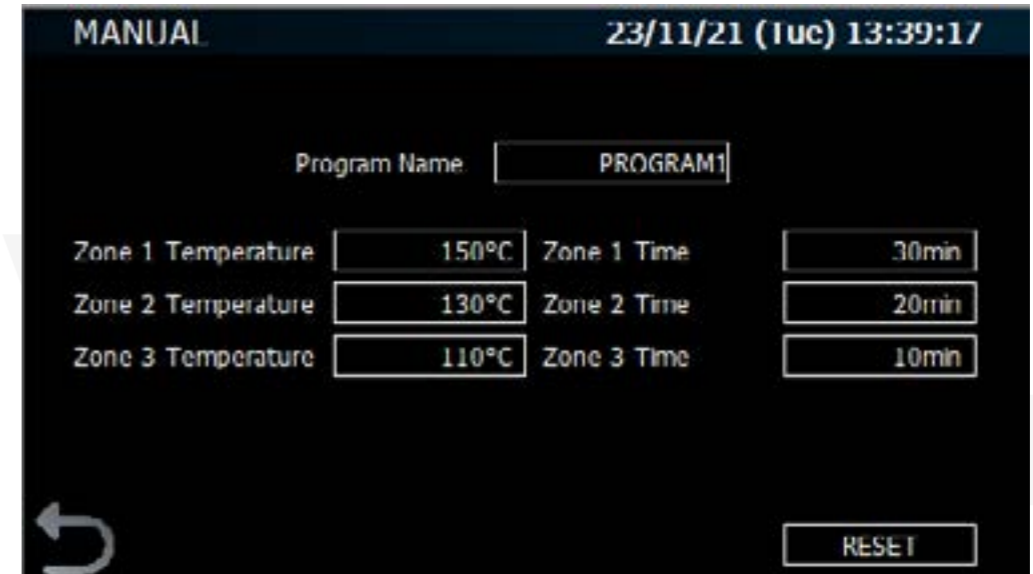
Select **SET** on any of these programs will open the respective programs settings menu



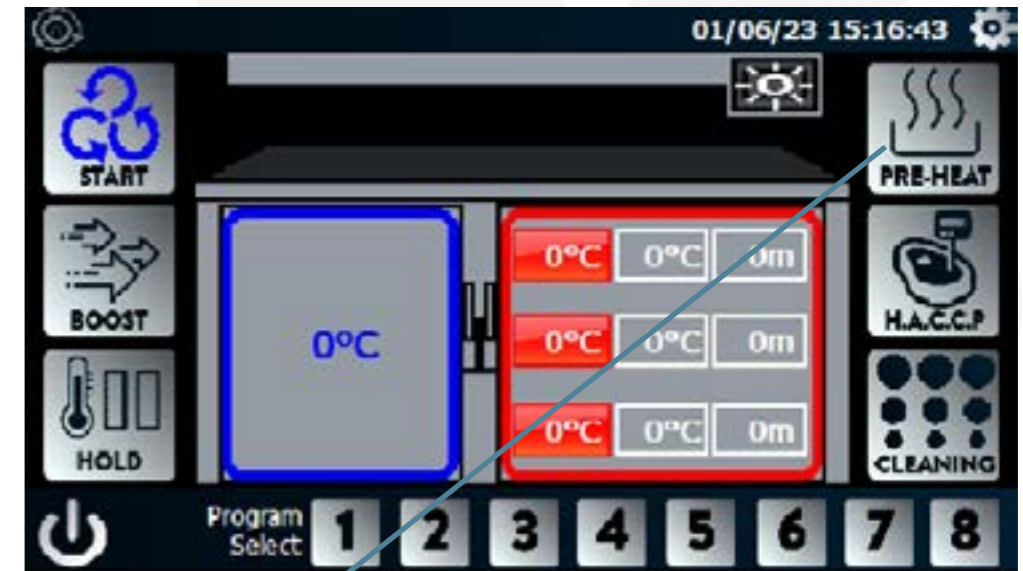
Option	Description
Program name	Allows entry of an easily identifiable name up to 15 characters in length
Zone Temperatures	Sets the temperatures for each zone
Zone Times	Sets the time for each zone
RESET	Clears all data entered except the Program Name

9: General Operation

Example



Return to the **REGEN SCREEN** and press the number corresponding to the program you want; this will begin the regen cycle.

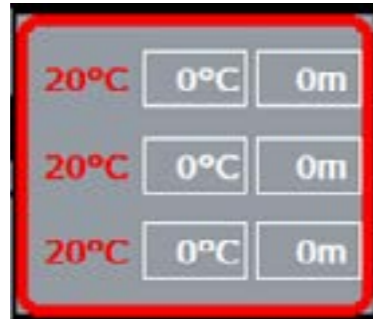


If a **pre-heat** is required prior to the manual program, press pre-heat, and wait for it to finish before selecting the program.

9: General Operation

12. Manual Cook Programming

To regen without a program, touch the time and temperatures corresponding to the zones and enter the desired values.



Entering a time and temperature in the top zone will populate the other two zones with the same values.

Zones 2 and 3 can then be altered if required.

Start the regeneration by pressing




13. End of Cycle Alert

After the pre-heat, boost or regen cycles – in programmed or manual operation – the buzzer will sound, and an alert will show notifying the user. This alert can be used to cancel the buzzer.

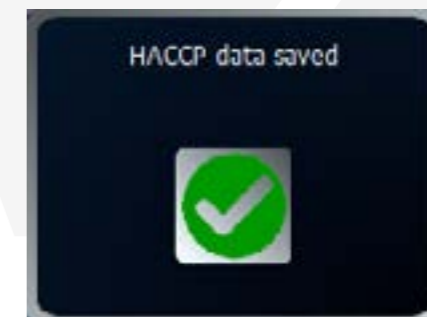
9: General Operation





14. HACCP

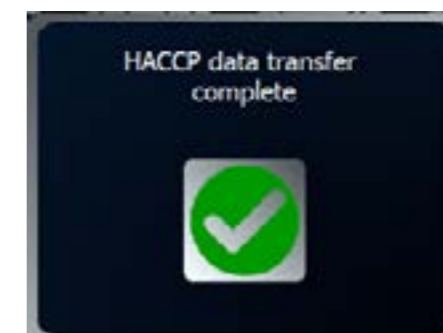
Pressing  will enter the H.A.C.C.P screen. This screen allows the logging of food temperatures.






- » Insert the probe into the food being measured.
- » Press the button best corresponding to the food measured
- » The recorded temperature of the chossed food will be saved to the data logger,
- » This action is confirmed by the pop-up window showing.



- » Press the  to confirm the window and move onto the next food.
- » Once all the food has been measured, insert a USB key
- » The  button will change to 
- » This confirms that the USB has been detected.
- » Once this  has been pressed a window confirming this will popup



10: Chillogen models: V1C & V2CR

1. From the Main Screen touch the  button to activate Chillogen mode
2. Press the  button to activate the cooling.
(Note that this function will only work if the chamber is below 40°C)
3. Touch the  to return to the Main Screen.



- » The Chillogen Screen allows the oven chamber to be used as a fridge.
- » If the oven chamber is above 40°C an error will display, and the start button will be inhibited.
- » To begin using the oven chamber as a fridge, allow the oven to cool down below 40°C
- » Press START, this button will change to show the current temperature.
- » Pressing the temperature will stop the cooling.
- » Pressing the return button will allow the fridge to continue to function while the Main Screen can be used to prepare for using the oven again.

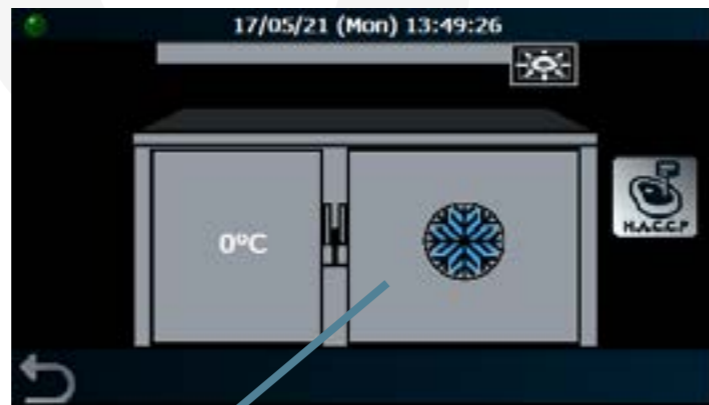
Using START, BOOST, PRE-HEAT or HOLD will immediately end the cooling cycle.

VG1C



Touch here to return to the previous screen.

VG2CR



To enable Chillogen fridge touch here.

11: Model: V1G

Main Screen

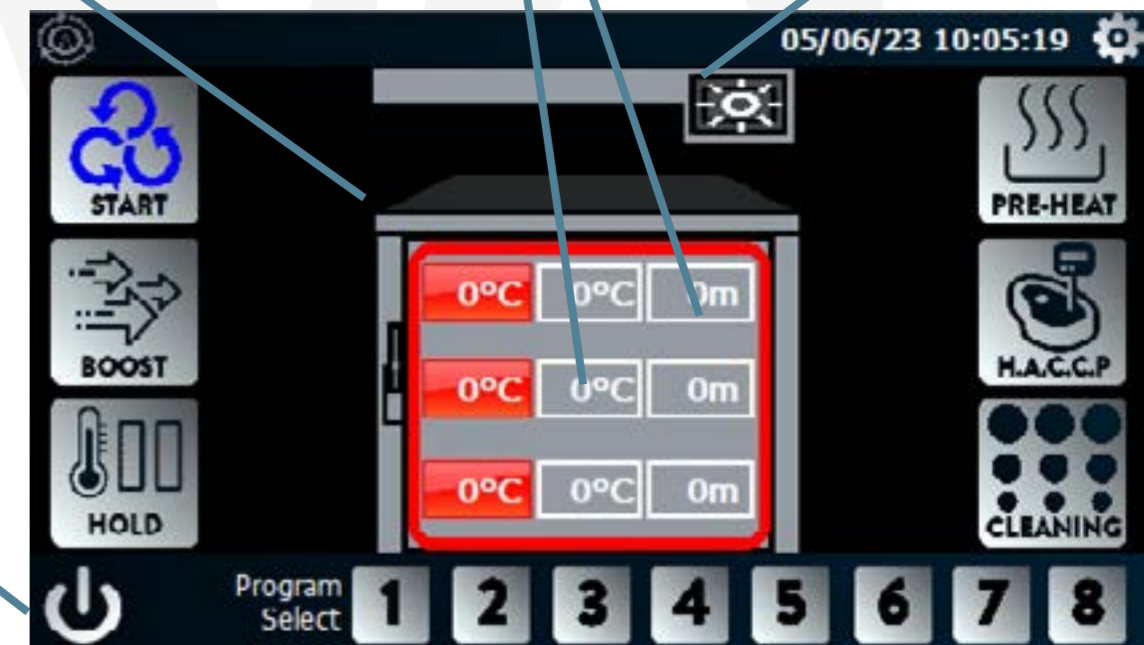
The Main Screen allows the user to regenerate and cook food. The BOOST can be used if the food is not quite ready. PRE-HEAT will heat the oven to the temperature in the Settings Screen for the time set. HOLD can be used if the food needs to be kept hot for a while. H.A.C.C.P is explained on page 14.

Touch these to manually enter a time and temperature to each zone.
Entering a time into the top two will populate every zone with the entered values.
Zones 2 and 3 can then be changed independently if required.

Touch here to activate the hotplate.

Touch here to return to activate the light.

Touch here to return to the Standby Screen.



Programs set in the Programming Screen can be called by pressing any of the 8 buttons. Selecting a program will cancel any manually entered temperatures and times, or previously selected programs. Depending on what the program is called the name will be shown under program active. remaining time will also be shown, program can be cancelled by selecting stop exactly the same as regen.



12: Model: V2GR

Main Screen

The Main Screen allows the user to regenerate and cook food.

The BOOST can be used if the food is not quite ready.

PRE-HEAT will heat the oven to the temperature in the Settings Screen for the time set.

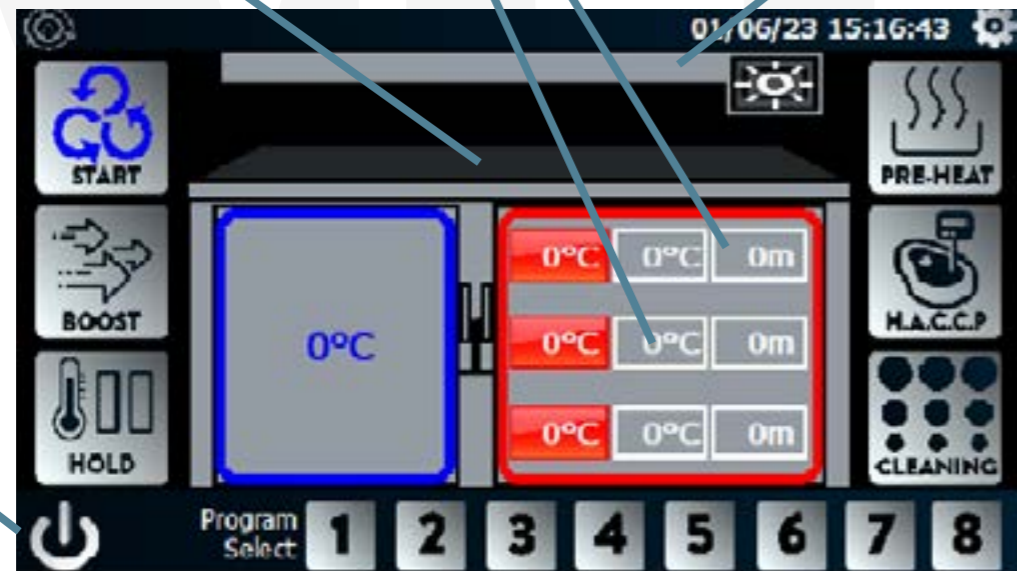
HOLD can be used if the food needs to be kept hot for a while.

H.A.C.C.P is explained on page 14.

Touch these to manually enter a time and temperature to each zone.
Entering a time into the top two will populate every zone with the entered values.
Zones 2 and 3 can then be changed independently if required.

Touch here to activate the hotplate.

Touch here to return to activate the light.



Touch here to return to the Standby Screen.

Programs set in the Programming Screen can be called by pressing any of the 8 buttons. Selecting a program will cancel any manually entered temperatures and times, or previously selected programs. Depending on what the program is called the name will be shown under program active. remaining time will also be shown, program can be cancelled by selecting stop exactly the same as regen.



13: Model: V2GPR

Main Screen

The Main Screen allows the user to regenerate and cook food.

The BOOST can be used if the food is not quite ready.

PRE-HEAT will heat the oven to the temperature in the Settings Screen for the time set.

HOLD can be used if the food needs to be kept hot for a while.

H.A.C.C.P is explained on page 14.

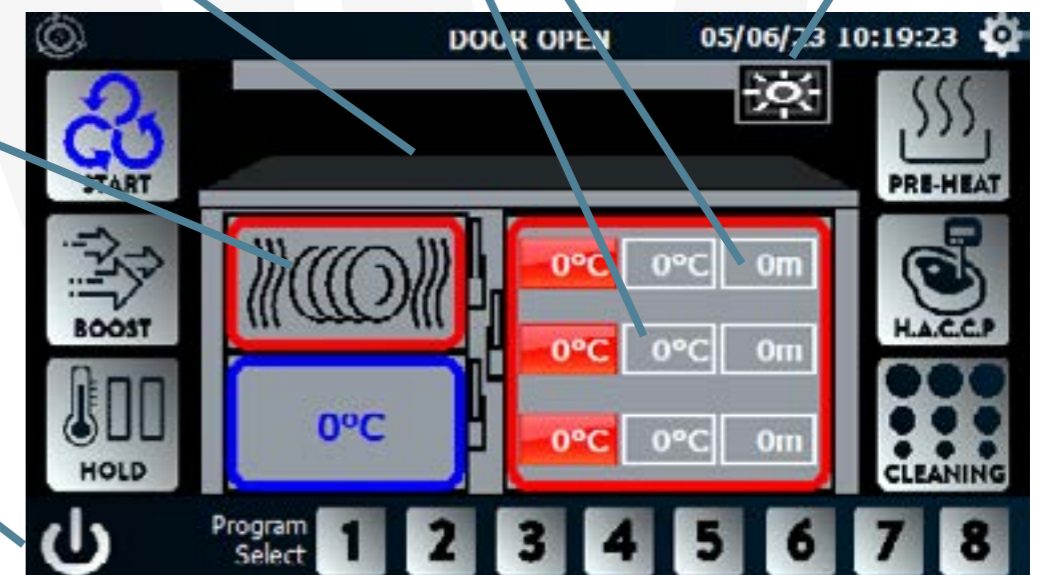
Touch these to manually enter a time and temperature to each zone.
Entering a time into the top two will populate every zone with the entered values.
Zones 2 and 3 can then be changed independently if required.

Touch here to activate the hotplate.

Touch here to return to activate the light.

Touch here to activate the platewarmer.

Touch here to return to the Standby Screen.



Programs set in the Programming Screen can be called by pressing any of the 8 buttons. Selecting a program will cancel any manually entered temperatures and times, or previously selected programs. Depending on what the program is called the name will be shown under program active. remaining time will also be shown, program can be cancelled by selecting stop exactly the same as regen.



14: Model: V2GG

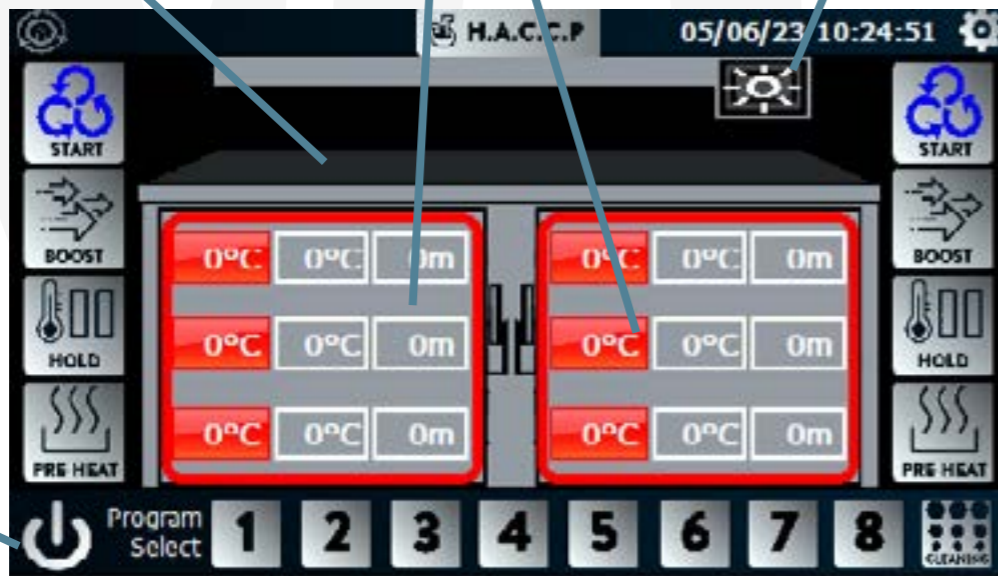
Main Screen

The Main Screen allows the user to regenerate and cook food.
 The BOOST can be used if the food is not quite ready.
 PRE-HEAT will heat the oven to the temperature in the Settings Screen for the time set.
 HOLD can be used if the food needs to be kept hot for a while.
 H.A.C.C.P is explained on page 14.

Touch these to manually enter a time and temperature to each zone.
 Entering a time into the top two will populate every zone with the entered values.
 Zones 2 and 3 can then be changed independently if required.

Touch here to activate the hotplate.

Touch here to return to activate the light.



Touch here to return to the Standby Screen.

Programs set in the Programming Screen can be called by pressing any of the 8 buttons. Selecting a program will cancel any manually entered temperatures and times, or previously selected programs. Depending on what the program is called the name will be shown under program active. remaining time will also be shown, program can be cancelled by selecting stop exactly the same as regen.



15: Model: V1C

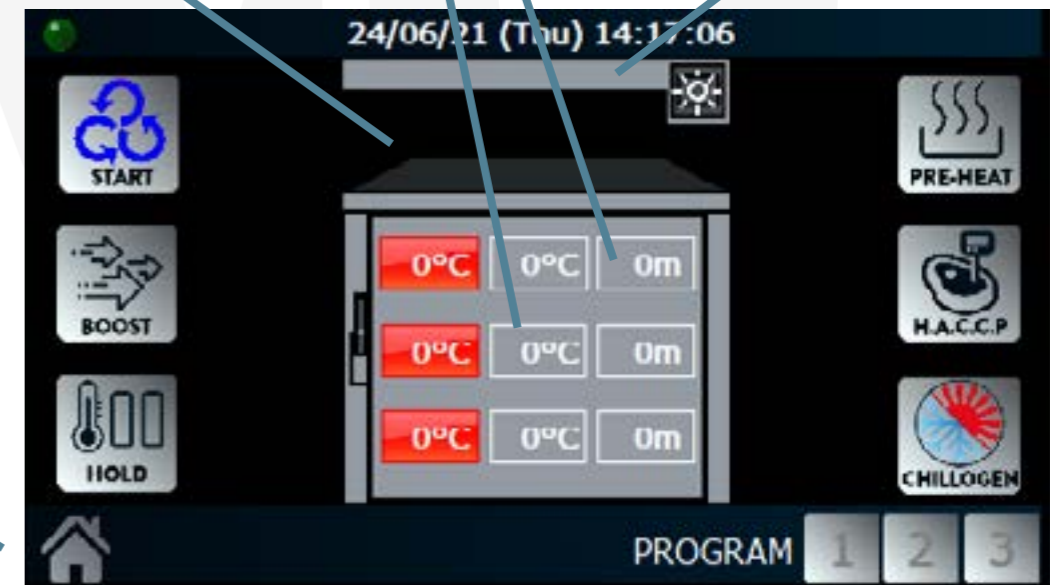
Main Screen

The Main Screen allows the user to regenerate and cook food.
 The BOOST can be used if the food is not quite ready.
 PRE-HEAT will heat the oven to the temperature in the Settings Screen for the time set.
 HOLD can be used if the food needs to be kept hot for a while.
 H.A.C.C.P is explained on page 14.

Touch these to manually enter a time and temperature to each zone.
 Entering a time into the top two will populate every zone with the entered values.
 Zones 2 and 3 can then be changed independently if required.

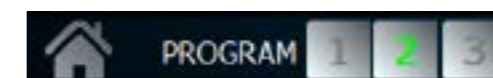
Touch here to activate the hotplate.

Touch here to return to activate the light.



Touch here to return to the Home Screen.

Programs set in the Programming Screen can be called by pressing any of the 3 buttons. The button will highlight as shown. Selecting a program will cancel any manually entered temperatures and times, or previously selected programs.



16: Cleaning



Do not use a water jet or pressure spray to clean this appliance. Ensure appliance is switched off & plugs are disconnected before cleaning.



Before attempting to clean the unit, please ensure that the Unit is isolated from the electric supply and allowed to cool down, with all food plates and other Dishes removed from the unit.

Do not use a water jet or pressure spray to clean this appliance.



1. Disconnect trolley from mains and wait until appliance has cooled.
2. Wipe clean using hot, soapy water and soft, non-abrasive cloth. Ensure that the stainless steel is wiped in straight strokes following the grain of the material.
3. Wipe dry using a clean cloth. Do not use scouring pads or abrasive cleaners of any type. Shelving and select inner panels can be removed to allow a deeper internal clean. Ensure all panels and fixings are replaced after cleaning operation.
4. Refrigeration compartment should be washed and then dried with a cloth after each service.
5. The chilled well has removable base sections for easy cleaning and maintenance. They should be removed periodically and the area beneath wiped clean.
6. The drain holes must also be kept clear from blockage.
7. Wipe down sneeze screen and glass top with a damp, clean cloth.
8. Finish by carefully drying with a soft dry cloth or Kitchen Towels.



Do not use scouring pads or abrasive cleaners of any type.

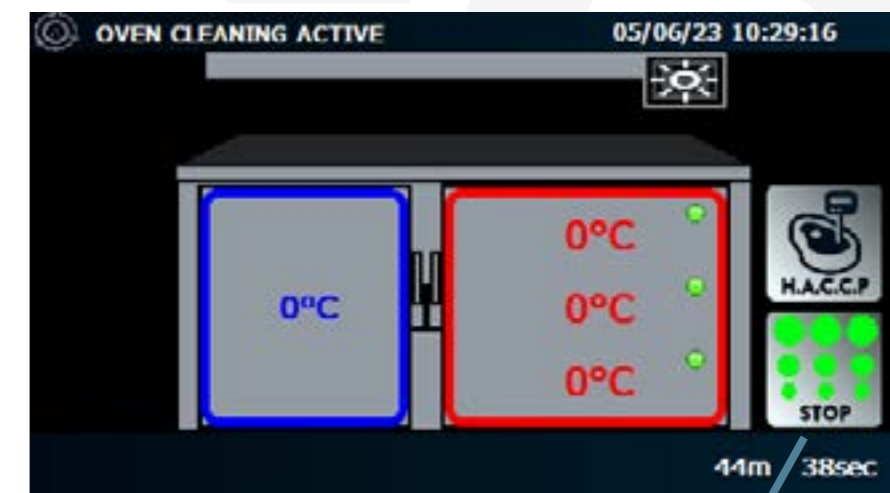
Do not use Solvents, bleach, Caustic Cleaners or biological powders on any surface.

17: Oven Cleaning Cycle

1. Put a pan in the oven. containing ½ litre/2 cups water and mild detergent. For V2GG models place a pan in both ovens.
2. Close the oven door(s) and from the home screen touch the  button to start the cleaning cycle.
3. The operating lights will now illuminate green to indicate the cycle has begun and is in process.
4. Screen will change to confirm selection (as shown below) and cleaning cycle will begin. The cleaning cycle parameters are preset to operate for 45-minutes at 90°C.
5. Once the time has ended the buzzer will sound and an alert will show notifying the user that the cooking cycle is finished. this alert can be used to cancel the buzzer.
6. Disconnect the trolley from the mains and wait until the oven has cooled down.
7. Open the oven door and remove the pan. Use great care as it can still contain some hot water.
8. Wear appropriate PPE and remove the deposits from the walls and chamber with a clean cloth.
9. To manually end the cleaning cycle at any time, touch the  to return to the home screen.



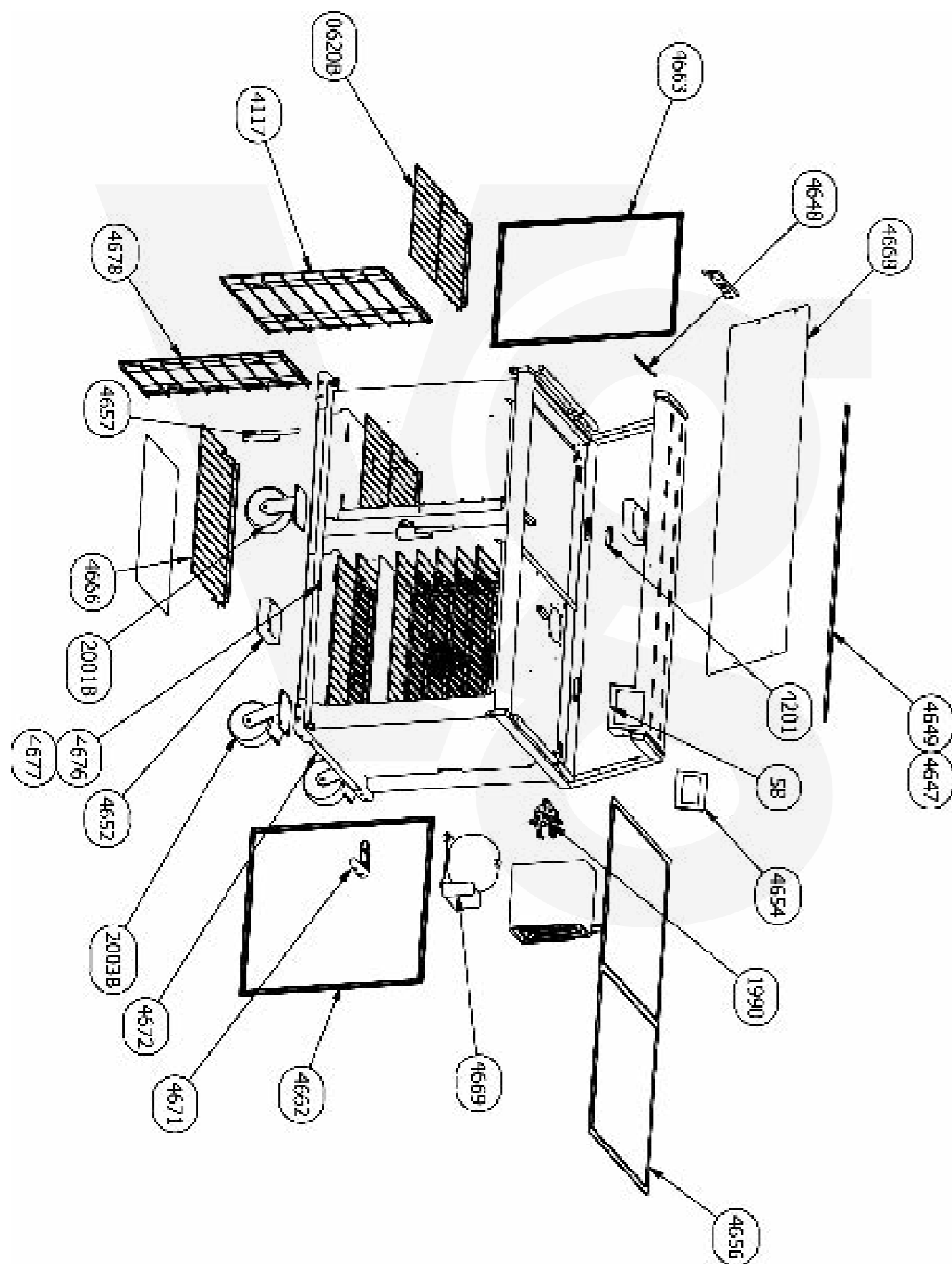
If automatic mode has been selected appliance will operate after clean cycle. Ensure oven is wiped clean.



Touch here to return to Regen Screen and end the cleaning cycle.



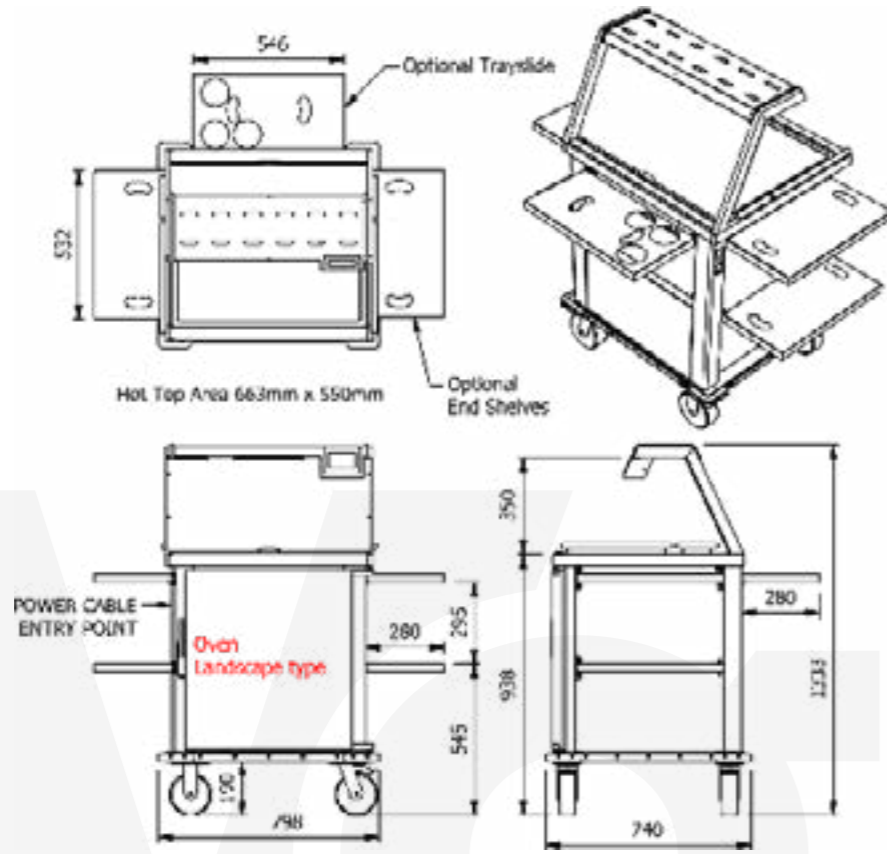
Only factory approved parts should be used in the appliance. Failure to do so may affect the safety and performance of the product.



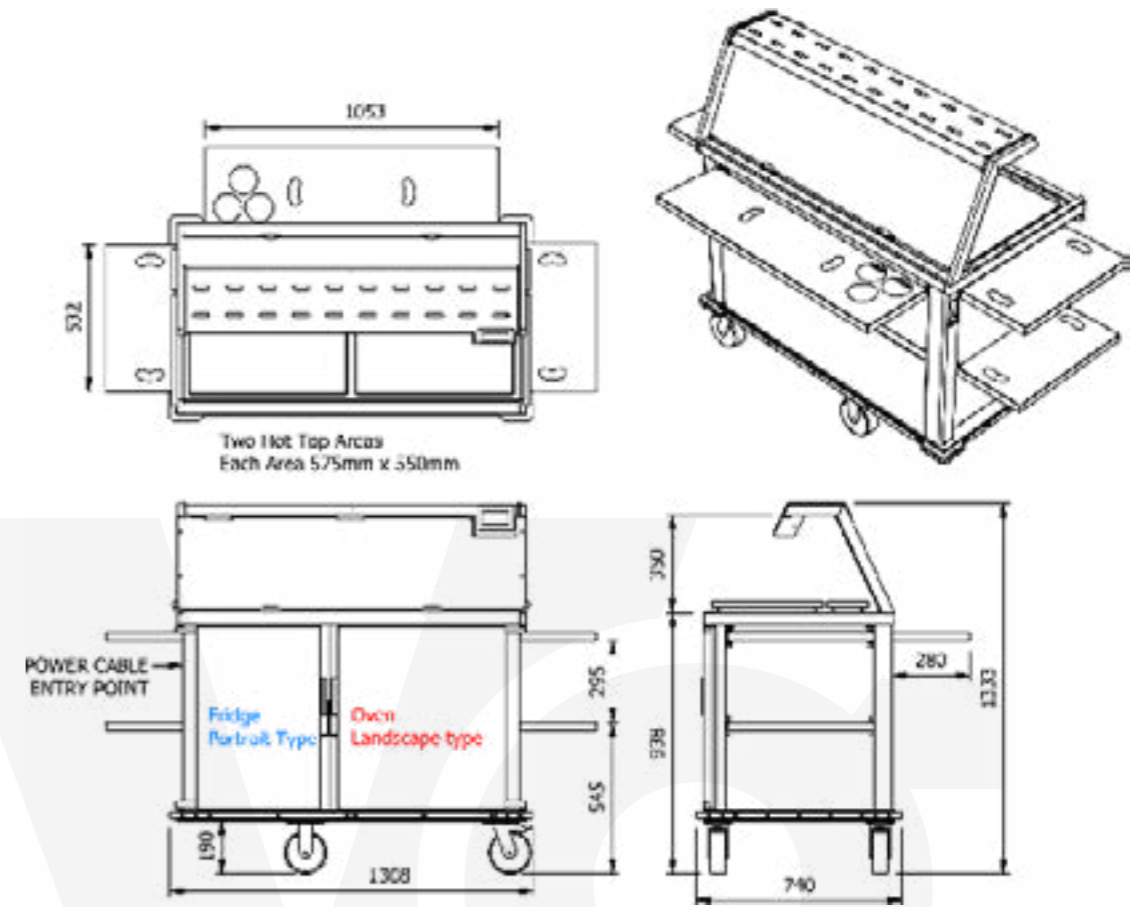
18: Spare Parts List

Part Number	Description
2001B	Caster 160mm Swivel
2003B	Castor 160mm Fixed
3863	Circular Element 1.5kw
10392	Circular Element 0.9kw
2700	Circular Element 0.5kw
1741D	Cord Set
4023	Cable Gland
4201	Glass Saddle
2905	Food Probe
4652	EC Acial Fan AC
1990	Fan Motor
1011A	Motor Impellar
1110	Type K Thermocouple
1382	M4x1655 Thumb Screw
4678	Rod Shelf Support Landscape
4657	Door Catch
4656	Glass Hot Plate
4662	VGen Type C Gasket Landscape Red
4668	Front Screen
4671	Bumper Corner
4672	Bumper Straight
4653	PLC Kit
4654	Touchscreen Controller/HMLI PLC
4666	Landscape Shelves
4648	Colour LED Lights
4649	LED Diffuser
4647	LED Lights
4680	PSU 24 Volts
4646	Solid State Relays 16amp
4645	Solid State Relays 10amp
4676	Door Sensor
4677	Door Sensor Magnet
0620B	Portrait Shelves
4117	Rod Shelf Support Portrait
4663	VGen Type C Gasket Blue
4669	RS90 Compressor - NEK68181U (523w)
4673	USB Socket

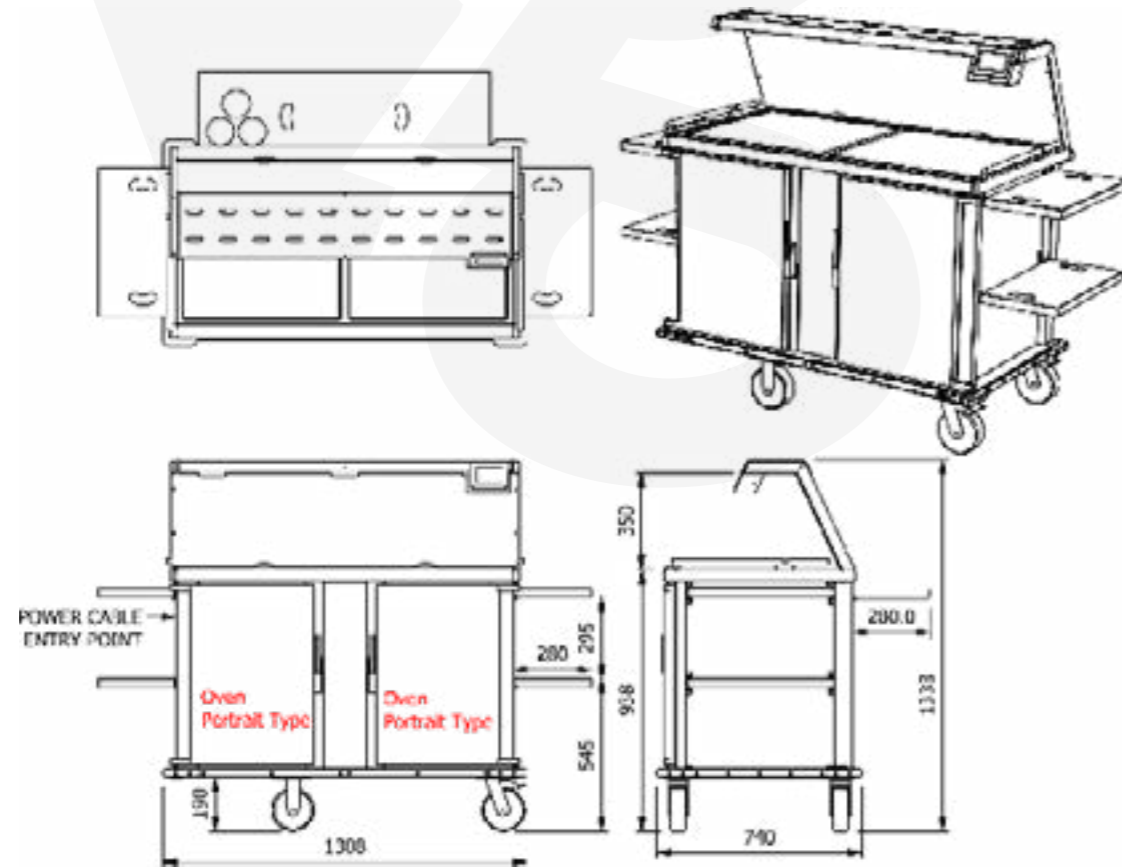
V1G:



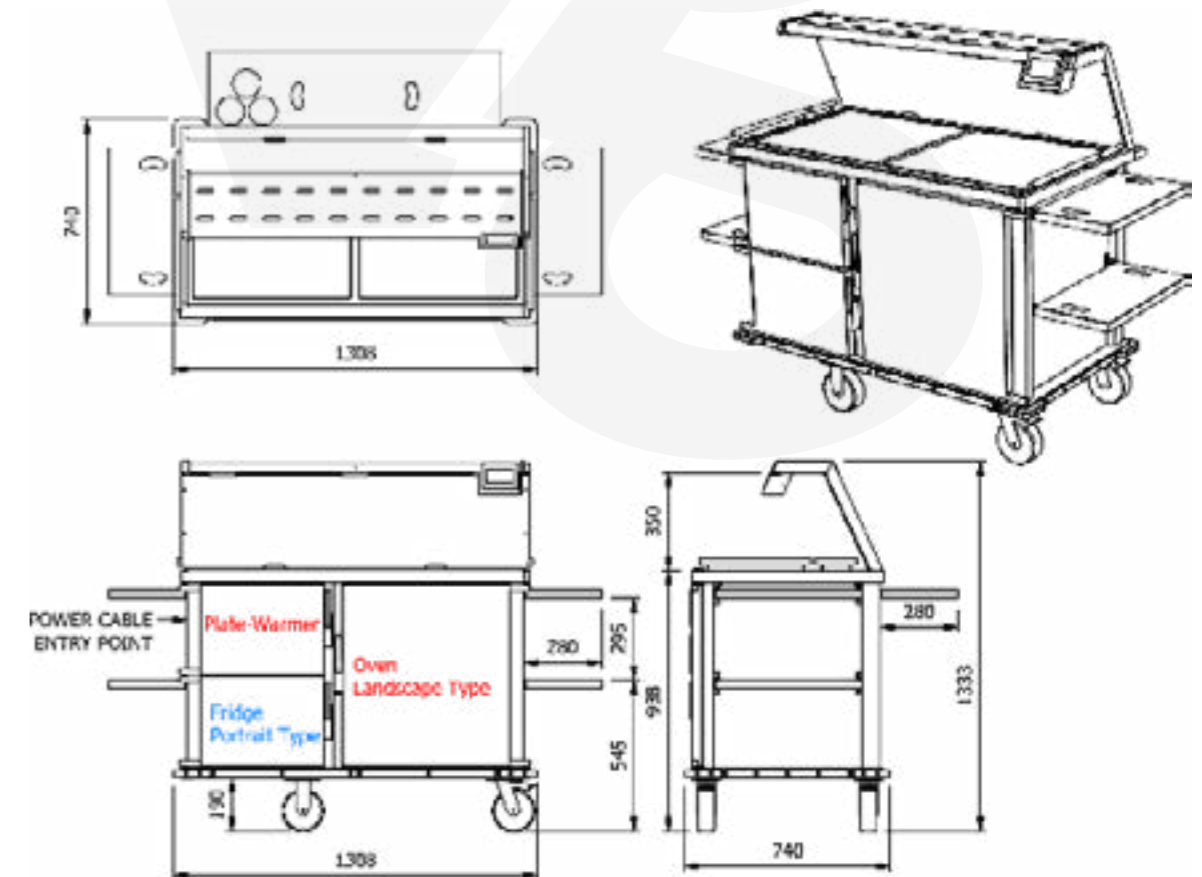
V2GR:



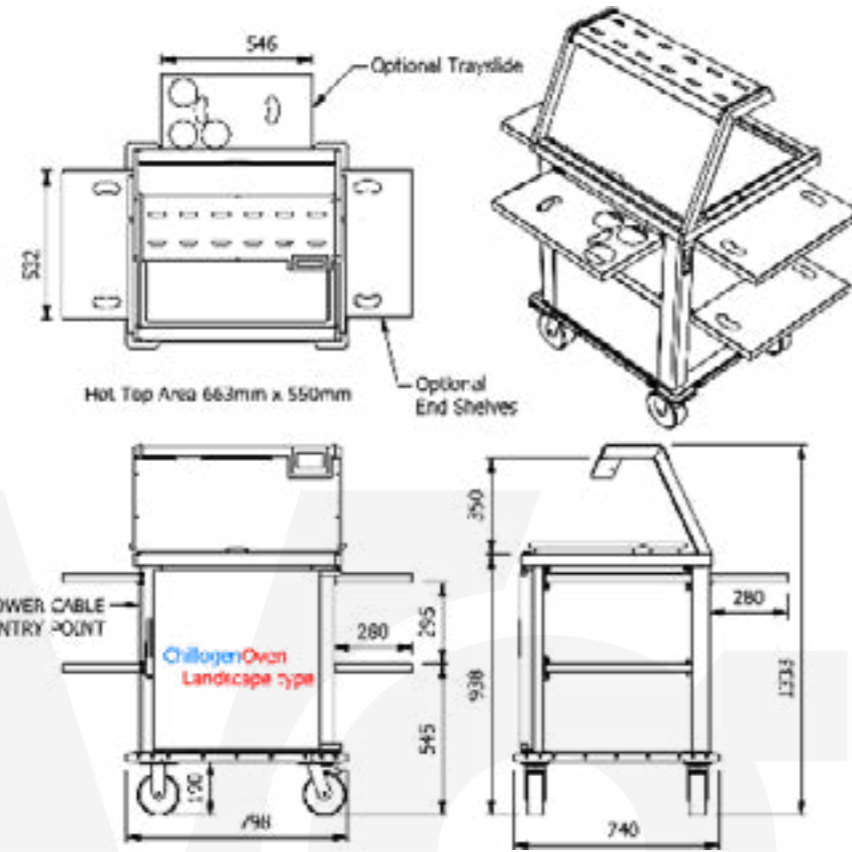
V2GG:



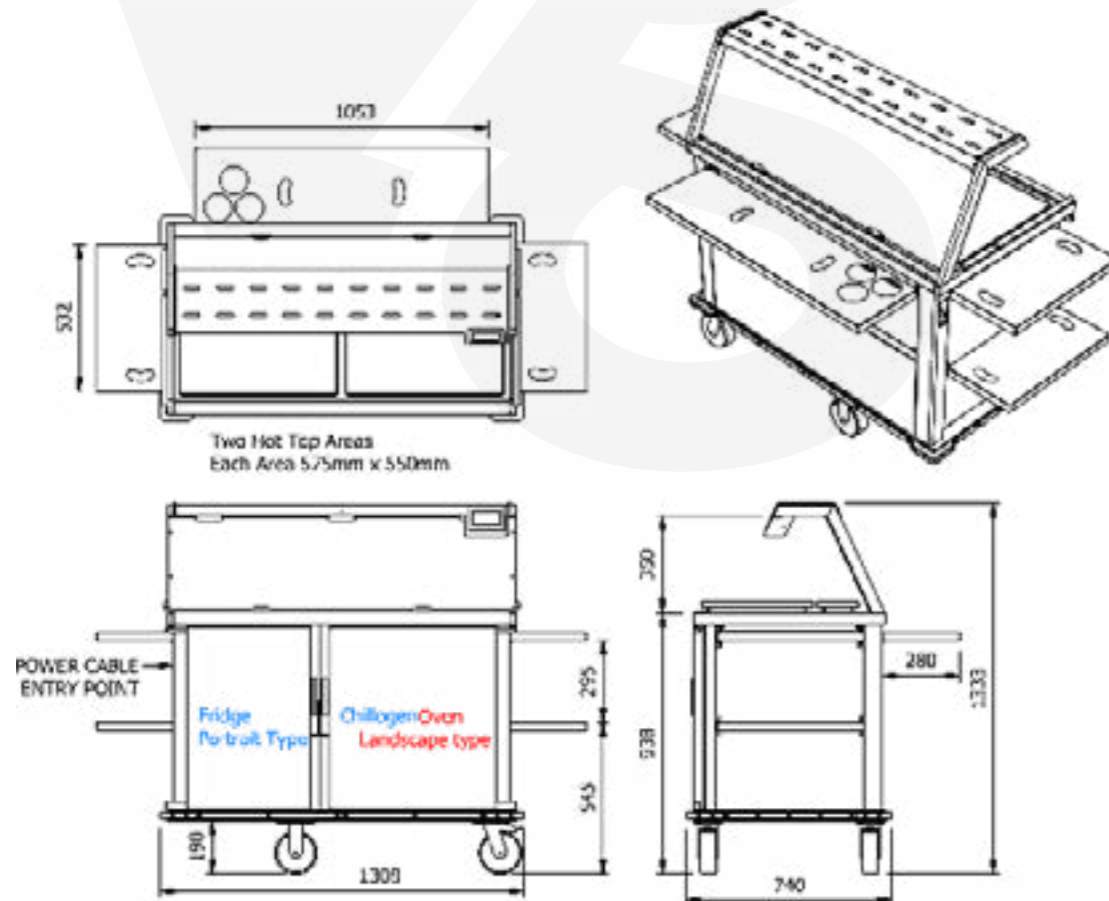
V2GPR:



V1C:



V2CR:



19: Electrical Specification



THIS APPLIANCE MUST BE EARTHED!

DAMAGED CABLES MUST BE REPLACED BY A SUITABLY QUALIFIED PERSON!

	Rating (kW)	Supply Voltage	Amps per Phase
V1G	2.9	230V N~	L1 - 13A
V2GG	5.8	230V N~	L1 - 32A
V2GPR	2.9	230V N~	L1 - 13A
V2GR	2.9	230V N~	L1 - 13A
V1C	2.9	230V N~	L1 - 13A
V2CR	2.9	230V N~	L1 - 13A

	1 Phase Cable	3 Phase Cable
Live (L1)	Brown	Brown
L2	X	Black
L3	X	Grey
Neutral	Blue	Blue
Earth	Yellow & Green (Striped)	Yellow & Green (Striped)

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E&R Moffat website for further information:*

