



VARIO-THERM

Install Instructions

Meal Delivery System

F1H, F1V, F2HH, F2HR, F2VR, F2HRP

Read these instructions before install.

DATE PURCHASED:

MODEL NUMBER:

SERIAL NUMBER:

DEALER:

SERVICE PROVIDER:

T101066

Rev No 6
Published: 2/2/24

Dear Customer

Thank you for choosing Falcon Foodservice Equipment.

This manual can be downloaded from www.falconfoodservice.com or scan here:



IMPORTANT: Please keep this manual for future reference.

Falcon Foodservice Equipment

HEAD OFFICE

Wallace View, Hillfoots Road, Stirling. FK9 5PY. Scotland.
Phone: 01786 455200



WEEE Directive Registration No. WEEE/DC0059TT/PRO

At end of appliance life, dispose of appliance and any replacement parts in a safe manner, via a licensed waste handler. Appliances are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

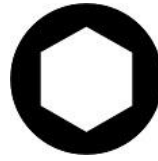
SYMBOLS



SCREWDRIVER



SPANNER



ALLEN KEY



GREASE



WARNING



FLAMMABLE
MATERIAL



- This appliance may be discoloured due to testing.
- These instructions are only valid if the country code appears on the appliance. If the code does not appear on the appliance, refer to the technical instructions for adapting the appliance to the conditions for use in that country.
- Installation must meet national or local regulations. Attention must be paid to safety (installation & use) regulations, health and safety at work act, local and national building regulations, fire precautions act.
- To prevent shocks, this appliance must be earthed.
- Do not flash test, this appliance is unsuitable for the insulation resistance or flash test section of the portable appliance test (PAT).
- This appliance should only be plugged into a type A rated R.C.D. socket.
- This appliance has been UKCA/CE marked based on compliance with the relevant Electrical and Electromagnetic Compatibility (EMC) Regulations/Directives for the voltages stated on the data plate.
- This equipment must only be used by trained and competent persons.
- The responsible person(s) must instruct the operators of the correct operation and maintenance of the appliance.
- Unless otherwise stated, parts which have been protected by the manufacturer must not be adjusted.
- To obtain maximum performance from this unit regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing in accordance with SFG20 Maintenance Schedules and as a minimum, after 2,500 hours of use, or annually, whichever comes first and that a maintenance contract be arranged with an appointed service contact. Visits may then be made at agreed intervals to carry out adjustments and repairs.
- Check that no damage has occurred to the appliance or supply cord and plug during transit. If damage has occurred, do not use this appliance.
- Ensure the supply cord is routed free from the appliance to avoid damage.
- As a minimum, we would also advise that the appliance cable & plug are inspected daily. Check for damage to the plug housing, pins and the mains cable is secured to plug with no wires showing.
- If the supply cord is damaged it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid hazard.
- Always unplug the supply cord before attempting to move the appliance.
- This appliance is for indoor use only.
- The appliance and its accessible parts become hot during use. Care should be taken to avoid touching heating elements. Children less than 8 years of age shall be kept away unless continuously supervised.
- No recommendations in this document override the risk assessments or policies of the establishment where the appliance is in use.
- Maximum load per oven / fridge shelf = 5 kg (maximum of 40kg per chamber)



**REFRIGERANT R290 (CARE 40, PROPANE).
ONLY ENGINEERS WHO HAVE BEEN TRAINED IN THE SAFE
HANDLING AND USE OF HYDROCARBON (HC) REFRIGERANTS
SHOULD WORK ON THIS SYSTEM**

- Work on this system in a well-ventilated area or outside.
- Use a local leak detector to indicate if there is hydrocarbon in the air around the system before and during work on the system (place at a low level - HC's are heavier than air).
- Ensure there are no sources of ignition (flames or sparking electrical components within 3m (10 feet) or your work area).
- If replacing components, use like for like replacements.
- Take great care when brazing to ensure all HC has been removed from the system.
- If glands are used ensure that they are fitted correctly and tightly sealed.
- Keep ventilation openings in the appliance enclosure or in the structure clear of obstruction.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- **Condenser and fans must be checked regular for signs of dust build up and cleared accordingly. Failure to do so may invalidate warranty.**

Training and competence

To help ensure the safe use of this appliance there is a requirement for you to provide whatever information, instruction, training, and supervision as is necessary to ensure, so far as is reasonably practicable, the health and safety of all users.

For further help and information on training and competence we would refer you to the Health and Safety Executive website; www.hse.gov.uk document ref: health and safety training INDG345. International customers should default to the health and safety guidelines provided by your government body.

Risk assessment

As part of managing the health and safety of your business you must control any risks identified in your commercial kitchen. To do this you need to think about what might cause harm to people and decide whether you are taking reasonable steps to prevent that harm. This is known as risk assessment. It is important to consider the environment around the product as well as the product itself. For example, oil or food spills will present a significant risk so users so the need to immediately clean up such spills must be reflected in staff training.

For further help and information on risk assessments we would refer you to you the Health and Safety Executive website; www.hse.gov.uk document ref: risk assessment INDG163. International customers should default to the health and safety guidelines provided by your government body.

Electrical Safety and Advice Regarding Supplementary Electrical Protection

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

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

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

We recommend: -

- **Supplementary electrical protection with the use of a type 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 recognized that there may be locations of increased risk of electric 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 30mA.
- Supplementary protective equipotential bonding; and
- Reduction of maximum fault clearance time.

The provision of RCDs and supplementary bonding must be specified by the host organization'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

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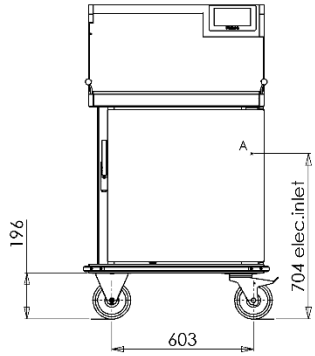
1.0 APPLIANCE INFORMATION

 Falcon Foodservice Equipment 	STD	MODEL	SERIAL NO.		
			IP RATING		
	REFRIGERANT		GAS WEIGHT		Kg
	CO2 EQUIVALENT		GWP		
	RATED ELECTRIC INPUTS	kw	VOLTS	Hz	EXT FUSE A
		kw			EXT FUSE A
	PHASE LOADINGS	L1	L2	L3	LoRa FREQUENCY MHz
		L1			WiFi FREQUENCY GHz

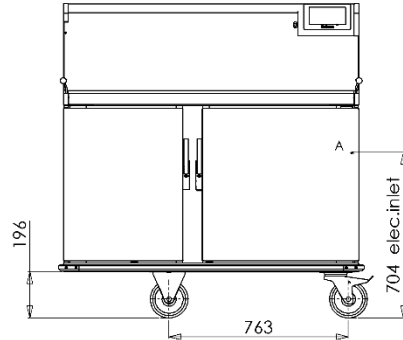
- A - Serial No
- B - Model No
- C – Refrigerant Gas
- D – CO2 Equivalent
- E – Gas Weight
- F – Global Warming Potential
- G - Electrical Rating
- H - Total Electrical Power
- I - Electrical Phase Loading
- J – LoRa Frequency
- K – Wi-Fi Frequency

1.1 DIMENSIONS / CONNECTION LOCATIONS

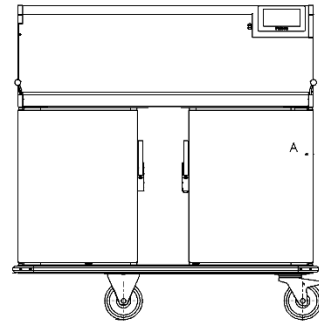
**F1H
F1V**



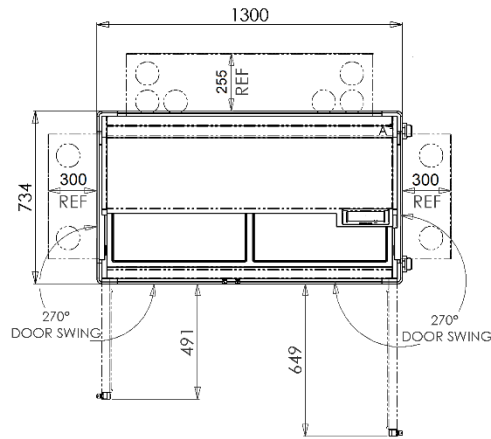
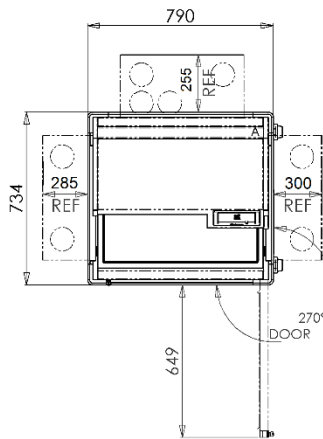
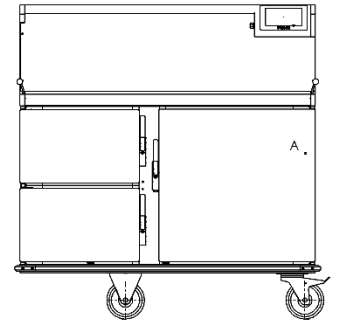
**F2HR
F2VR**



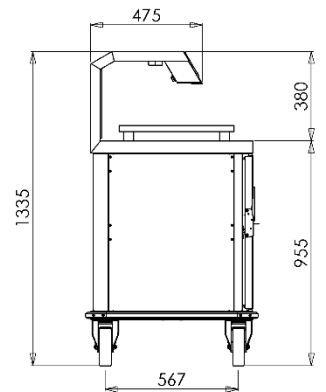
F2HH



F2HRP



A = ELECTRICAL INLET
TRAYSLIDE + END SHELF
SHOWN FOR REF ONLY
(FACTORY FITTED ACCESSORY)



1.2 APPLIANCE WEIGHT TABLE

APPLIANCE	UNIT WEIGHT (kg)	PACKED WEIGHT (kg)
F1H	116	138
F1V	116	138
F2HH	178	203
F2HR	178	203
F2HRP	187	212
F2VR	178	203

1.3 TECHNICAL DATA TABLE

SINGLE PHASE 13AMP SINGLE SUPPLY

		CURRENT	POWER
MODEL	PHASE	ACTUAL (A) @ 230V	(kW) @ 230V
F1H	L	13	3
F1V	L	13	3
F2HR	L	13	3
F2HRP	L	13	3
F2VR	L	13	3

SINGLE PHASE 13AMP DUAL SUPPLY

		CURRENT	POWER
MODEL	PHASE	ACTUAL (A) @ 230V	(kW) @ 230V
F2HH	L	13	3
	L	13	3

SINGLE PHASE 16AMP SINGLE SUPPLY

		CURRENT	POWER
MODEL	PHASE	ACTUAL (A) @ 230V	(kW) @ 230V
F1H	L	16	3.68
F1V	L	16	3.68
F2HR	L	16	3.68
F2HRP	L	16	3.68
F2VR	L	16	3.68

SINGLE PHASE 16AMP DUAL SUPPLY

		CURRENT	POWER
MODEL	PHASE	ACTUAL (A) @ 230V	(kW) @ 230V
F2HH	L	16	3.68
	L	16	3.68



IF ANY CURRENT IS OUT WITH THESE TOLERANCES, THE CAUSE MUST BE INVESTIGATED AND RECTIFIED.

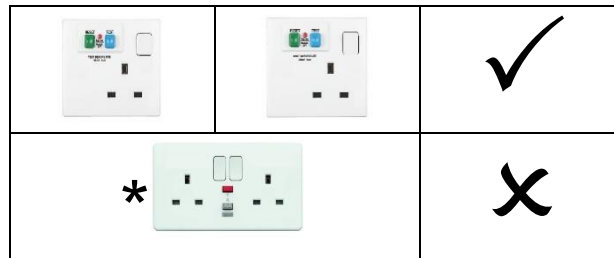
THIS APPLIANCE MUST BE EARTHED

2.0 WHEN PLUGGING IN

2.1 DUAL SUPPLY & RCD REQUIREMENTS



Warning: On dual supply models do not plug both supplies into adaptor, extension lead or 1x13amp double socket. Ensure both supplies are separate.



We recommend supplementary electrical protection with the use of a 30mA residual current device (RCD)

Before and after each use, it is good practice to inspect your appliance for any signs of physical damage – should you find anything, please report this to the appropriate onsite person who will then take the necessary action.

As a minimum, we would also advise that the appliance cable & plug are inspected daily. Check for damage to the plug housing, and pins, and the mains cable is secured to the plug with no wires showing.

When checking the plug and cable the wall socket should also be inspected for damage, discoloration, or cracks. If there is any damage to the plug, mains cable, or socket the appliance **MUST NOT** be used and it should be reported immediately to the maintenance team/ responsible person, who should then notify the Technical Care Team.

Never plug both supplies into an adaptor, extension lead, or a standard 13A double socket. Always ensure both supplies are separate. Do not plug any other appliance along with this appliance into a double socket.

Only use Falcon-approved spare parts, including the 13A plug.

For more information on maintaining your appliance scan the QR code below.

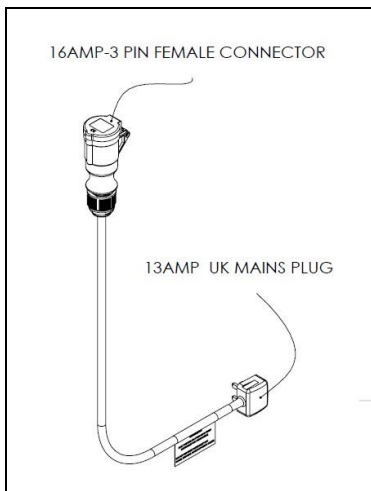


2.2 16A SUPPLY



When a trolley with a 16A commando plug fitted needs to be plugged into a 13A supply, use the 16A to 13A adaptor lead, as shown below.

NOTE: ONLY USE THE ADAPTOR LEAD WHEN THE TROLLEY IS IN HOLD MODE. DO NOT USE WHEN THE TROLLEY IS IN COOK PRE-HEAT, BOOST OR CLEAN MODE.



2.3 MANOEUVRING THE TROLLEY



TAKE CARE WHEN MOVING AN APPLIANCE FITTED WITH CASTORS.

- Check that the Trolley is unplugged before moving, and the cable is stored safely.
- Pushing from the plug side is the preferred method of moving the trolley, pulling the trolley should be kept to a minimum and only when pushing is impractical.
- Proper footwear should be worn.
- Ensure tray slide and side shelves are down.
- Ensure all items on the trolley are well secured within the chambers.
- Due care and attention must be paid during movement to avoid collisions.
- Take care when manoeuvring through doors and into lifts, lock open lift doors if possible.
- Once the destination has been reached, ensure that the trolley is not blocking any gangways, doorways, or fire exits. Ensure the supply cord will not create a trip hazard. Apply the foot brakes on the castors. Plug the Trolley in.
- Do not overload the appliance.
- Mobile units may build up a static charge, this is not a fault and the charge will be discharged when the appliance is plugged in.

2.4 COMMISSIONING

Before plugging in:

- i. Ensure all packaging has been removed and disposed of responsibly.
- ii. If required wipe clean the unit as per section 5 in the user manual.
- iii. Check the appliance is free from damage.
- iv. Ensure the appliance is on a flat surface and the brakes have been applied.
- v. Ensure all shelves and dividers are in position.

When turning the appliance on:

- vi. Plug the appliance into a suitable mains supply (**as outlined in section 2.1**) and carry out the following operation:
- vii. Turn on the mains power supply.
- viii. The appliance comes with an option for an automatic self-check procedure. If activated this will begin when the appliance is switched on. If not proceed to **section 2.4 for details.**


Note: If the option is enabled the unit will cycle through the self-check when first attached to the mains supply (Once per day). This checks elements, compressor, hotplate, buzzer, and cycles through WRGB LEDs on the Gantry to ensure all working within designated parameters.


- ix. The appliance should be in Manual mode if not **see section 2.5 for details.**
- x. Check oven is working, **see section 2.6 for details.**

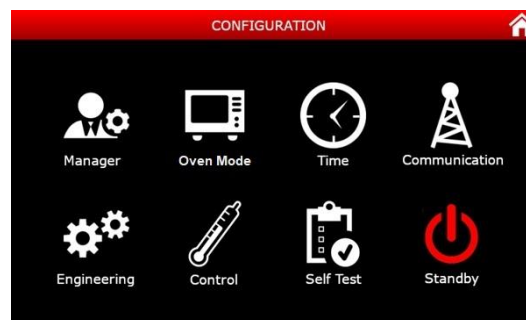
2.5 SELF-TEST

To run the self-test function follow the steps in this section.



2.5.1 To access configuration on main screen above, touch the cogs icon  on the trolley controller screen.

2.5.2 Screen will be displayed as below, touch the self-test  icon



2.5.3 Enter Self-Test Pin <2555> <ENT> to confirm.

The Self-test screen will be displayed as below.

Item	Maximum	Minimum	Result
Right Top Heater	6.8	5.0	0.0
Right Mid Heater	6.8	5.0	0.0
Right Bot Heater	6.8	5.0	0.0
Left Top Heater	6.8	5.0	0.0
Left Mid Heater	6.8	5.0	0.0
Left Bot Heater	6.8	5.0	0.0
Hotplate	2.8	1.5	0.0
Compressor	2.5	1.1	0.0

Values will vary depending on model.

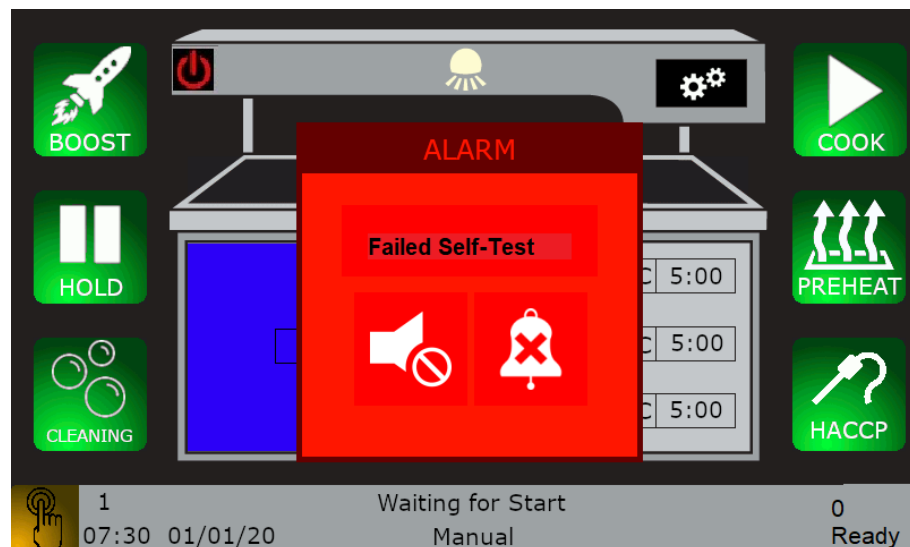
2.5.4 Touch the “Test now” icon  as shown on the above screen.

2.5.5 The self-test diagnostics will start to run and the display will return to the home screen showing the tests being carried out on the message bar. As shown below.



On completion 'Self-test finished' appears on the message bar.

If any test fails, the screen below will be shown and a buzzer will sound. To cancel the buzzer, press the bell icon.



2.5.6 To view the results, repeat steps 2.5.1 to 2.5.3. The screen below will be shown. Failed results will be shown in red text. Passed in green.

If any "Results" are highlighted in red (see image below) consult the fault finding section in the Service manual.

If the fault persists, contact a qualified engineer to investigate the cause.

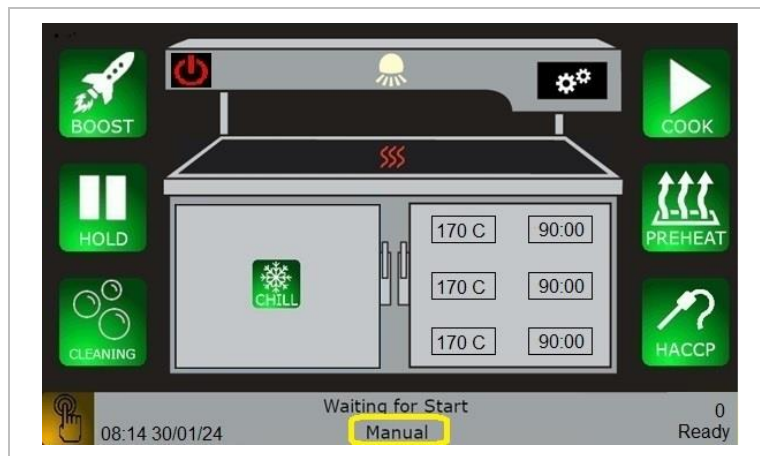



Item	Maximum	Minimum	Result
Right Top Heater	6.8	5.0	4.0
Right Mid Heater	6.8	5.0	5.5
Right Bot Heater	6.8	5.0	5.5
Left Top Heater	6.8	5.0	5.5
Left Mid Heater	6.8	5.0	5.5
Left Bot Heater	6.8	5.0	2.4
Hotplate	2.8	1.5	2.4
Compressor	2.5	1.1	2.0

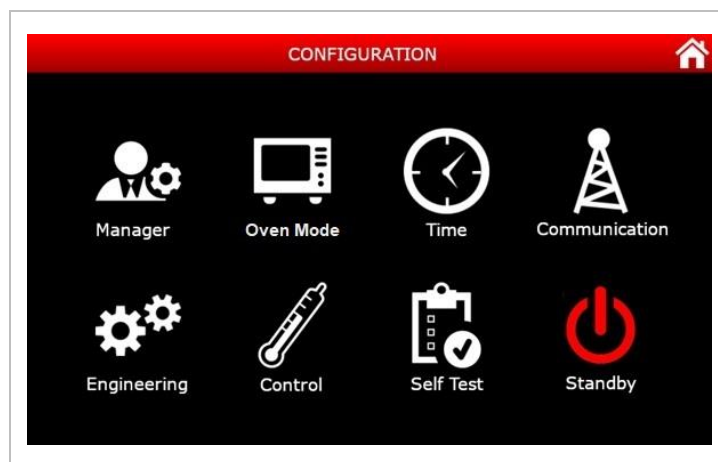
At the bottom of the screen, there are three buttons: 'Test Now' (with a checkmark icon), 'Complete', and 'Back' (with a left arrow icon).


2.6 SET APPLIANCE TO MANUAL MODE

2.6.1 Ensure the appliance is in manual mode. (As below text circled in yellow):

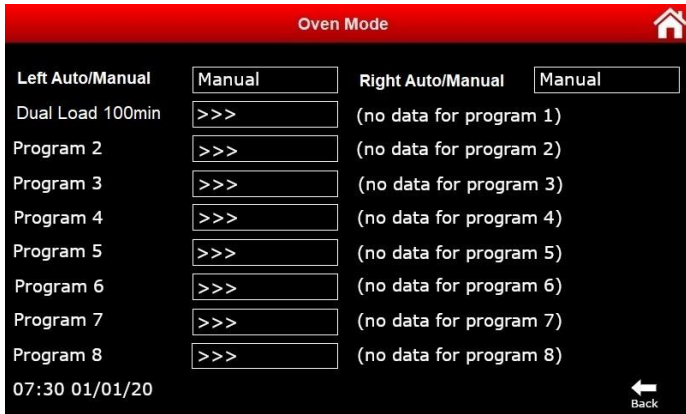


2.6.1 To set the appliance to manual mode touch the cogs icon  on the appliance controller screen.

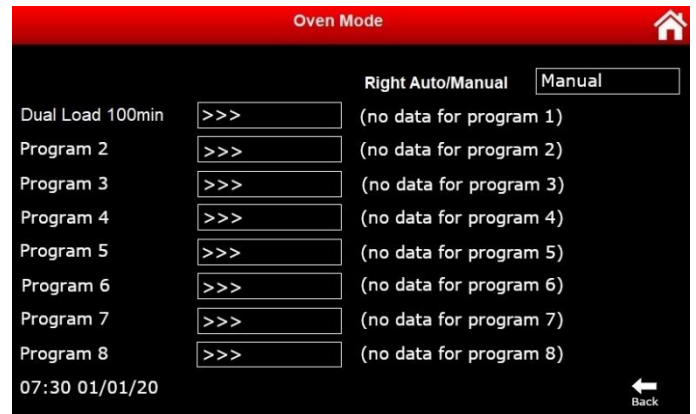


2.6.2 Access oven mode (manual/automatic) settings, touch the  icon on the configuration screen.

2.6.3 Use Manager PIN: <2555> to unlock and access.



F2HH Model Shown



F1H, F1V, F2HR, F2VR & F2HRP Models shown

The screen will be displayed either of the above depending on model.

- 2.6.4 To set the appliance to operate in manual mode change the top right-hand or left-hand box to “manual” as shown.


2.7 CHECK THE OVEN

- 2.7.1 Using an oven thermometer with a probe place the probe in the centre of the oven.
- 2.7.2 Set an oven temperature by touching the top value circled yellow as below. Please note this will cascade the same temperature in the other two zones.



- 2.7.3 Set oven time by touching top value, circled yellow as below, to the right of the oven temperature to 25mins.




- 2.7.4 Touching the **COOK**  icon will heat the oven to the set temperatures. The timer will countdown and the message bar will indicate actual food removal in real-time.

- 2.7.1 The screen will change to show that the oven is cooking. (Oven icon changes to magenta) The LED's on the gantry will change from **Green** to **Magenta**.

- 2.7.2 Let the oven heat up. Ensure the temperature begins to rise and stops at the set temperature.

- 2.7.3 Confirm the appliance is at temperature.

- 2.7.4 This mode will continue until the Stop  Icon is touched or if it completes its cycle.

When the cook cycle is complete. A display on the screen will indicate to the user to load food and The LED's on the gantry will change to flashing **Green** accompanied by a short buzzing sound to indicate that the timer has finished (if the buzzer is switched on).

- 2.7.5 To clear this message, open the door and close the door.

- 2.7.6 Switch oven(s) off by touching the stop button icon on the top right of the screen.

2.8 WHEN COMMISSIONING COMPLETE



PLEASE FILL OUT THE INFORMATION TABLE ON THE FRONT COVER OF THIS MANUAL AFTER COMMISSIONING.

3.0 SERVICING AND MAINTENANCE INFORMATION

SERVICE INFORMATION+

This unit carries an extensive mainland UK warranty. The warranty is in addition to and does not change your statutory or legal rights.

The warranty policy can be found on our website which details the conditions of the warranty and the exclusions.

<https://www.falconfoodservice.com/info-centre/policy>



Service calls to equipment under warranty will be carried out in accordance with the conditions of the sale.

Warranty calls can be made between 8:30 am and 5:00 pm on weekdays only.

To ensure your warranty enquiry is handled as efficiently as possible, ensure you have the following appliance information prior to calling us:

1. Model number – Found on the data plate. (Refer to page 8).
2. Serial number – Found on the data plate. (Refer to page 8).
3. Brief description of the issue.

To contact Falcon for a warranty issue dial (UK only) 01786 455 200 and select Warranty Issues from the menu.

MAINTENANCE CHECK



Regular servicing of the appliance should be undertaken to ensure correct operation, it is functioning as intended, and safe to use. We recommend servicing after 2,500 hours of use, or annually, whichever comes first.

Any maintenance schedule should be carried out in accordance with SFG20 Maintenance Schedules. Should any issues with the integrity of the components be identified these should be replaced. If the appliance is not considered safe the unit should be removed from service and the responsible person advised why the unit is not safe to use and what remedial action is needed. Contents of the maintenance schedule should be agreed upon with the maintenance provider.