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## OPERATING MANUAL FOR MODULAR COLDROOMS

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### IMPORTANT INFORMATION (PLEASE RETAIN THIS DOCUMENT)

This Manual covers the operation and routine maintenance requirements for the following Williams Refrigeration products:

#### Modular Coldrooms

Please read this Manual carefully before using the appliance.

Provided the instructions in this Operating Manual are read and implemented correctly, the optimum performance and reliability of your equipment should be maintained.

We assume the installer, user and service provider are appropriately trained, skilled and competent to properly and safely carry out the work, and will use the necessary safety equipment, and take the necessary precautions required of their intended work.

#### General Regulations Declaration of Conformity:



Refrigerant Designation	Global Warming Potential
HFC - R134a	1430
HFC - R404a	3922
HFC - R452a	2140

#### CFC Free Refrigerant

Williams Refrigeration declares that all products manufactured by Williams Refrigeration comply with the directives applicable to those products, and those products are therefore declared to be in conformity with the provisions of the legislation.

Model No.: .....

Serial No.: .....



## IMPORTANT SAFETY INFORMATION

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**Warning:**

Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.



**Warning:**

Do not use electrical appliances inside the food storage compartments of this appliance.



**Warning:**

Keep ventilation openings of the appliance enclosure or the structure of built in equipment, clear of obstruction.



**Warning:**

Do not use mechanical devices or other means to accelerate the defrosting process.



**Warning:**

Do not damage the refrigerant circuit, i.e. pipe work or components.

## ELECTRICAL



The appliance must be disconnected from its power source during cleaning; when maintenance and the replacement of parts is required, the equipment must be safely disconnected and isolated from the power supply using a lock-off system at the isolation device.



It is advised that the electrical supply to the equipment is protected by an appropriately selected Residual Current Device (RCD) with a rating no greater than 30mA.



If the supply cord is damaged, it must be replaced by a service engineer or other qualified person. Only the supply cord supplied by Williams Refrigeration must be used.



Fixed wiring appliances (those not supplied with a plug) shall incorporate a switch disconnector to meet the specification of IEC 60947; this is to be installed within the fixed wiring installation in accordance to the local wiring rules / regulation to provide all pole disconnection of the power supply.

# INSTALLATION

## REMOVAL OF REDUNDANT APPLIANCES

Refrigeration appliances contain refrigerant and gases in their insulation and must be disposed of professionally by a licensed waste management contractor.

Please ensure that old or redundant refrigeration appliances are disposed of safely and legally.

## UNPACKING

This is to be carried out by the installer, who will remove all interior and exterior packaging and accessories.

## INSTALLATION

The intended site for the coldroom should be level to facilitate accurate erection and to ensure correct operation of self-closing doors and proper drainage of condensate from the evaporator. If a freezer room is to be installed the provision needs to be made for a 90mm floor.

An appropriate assessment should be undertaken by the user to avoid risk of slips, trips and other potential Health & Safety risks. Consideration should be given to non-slip floor coverings or mats. These can be provided by Williams Refrigeration.

## MAINS CONNECTION

**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.**

Great care must be exercised at all times when installing, operating, or servicing this appliance.

The installation of a fixed appliance 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 necessary requirements to the local electrical wiring regulations and any electrical safety guidelines.

All appliances rely upon a suitable connection to earth to ensure safe operation. If in doubt, contact a qualified, skilled, and competent electrician before using the appliance.

**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 modular 'made-to-measure' coldroom will have been properly connected to the mains electrical supply during assembly and installation. All necessary electrical components will be supplied. If you ever decide to relocate the coldroom, consult a qualified electrician.

## LOCKING FACILITY

On models with locking facility it is recommended that the key be removed from the lock during normal working use and stored in a safe place. It is possible for the key to be damaged or knocked if left in the lock. This could result in having a new lock fitted.

Removing the key from the lock will also prevent the possibility of accidental locking while the door is open. This will prevent the door closing properly and cause the interior temperature to rise, this may result in loss of food in that condition.

## DOOR RELEASE MECHANISM

All users should familiarise themselves with how to use the internal door release before operating the room. Try the release whilst the door is in the open position.

Regular checks and maintenance of the release is essential to ensure it is working correctly and prevent accidents.

Before entering the room, ensure that someone knows you are there and how long you plan to be in there.

If you become trapped inside:

- **DO NOT PANIC**, an emergency internal release device is fitted to this Williams room.
- Located on the door, at handle level, positioned to the left of the right hand side. (Opposite the door hinge).

## CONTROLLER

- Push the round(luminous) handle firmly in and the door will open, even if locked.
- IF THE DOOR FAILS TO OPEN, then there may be an obstruction to the release. Twist and rotate the release handle and then push it very firmly in to the door. Repeat as necessary. Use the full weight of your body to aid you.
- Be cautious of items, which may have fallen and obstructed the door opening outside of the room.
- In the unlikely event that you are still unable to exit the room, activate the internal '**Person Trapped Alarm**' switch, if fitted.

### VENTILATION

It is essential to ensure that the room in which the equipment is installed is adequately ventilated. The condensing unit and fans generate considerable amounts of heat and if operated in unventilated spaces, especially in warm weather, will quickly cause the ambient temperature to rise to excessive temperatures. This can cause motor and compressor overheating and possible damage to windings.

At the very least such installations will cause the coldroom to use an excessive amount of electricity and have an impact on its performance.

### THERMOMETER

The controller measures in either Centigrade or Fahrenheit for the thermometer display. The thermometer should be checked daily to ensure that the equipment is maintaining the correct temperature.

## CONTROLLER

### CONTROL PANELS

There are three main electrical control panels:

- TF1-15 (1.5HP compressor power / Max 2250W electric defrost load) 220-240/50-60Hz 1Ph.
- TF1-25 (2.5HP compressor power / Max 3000W electric defrost load) 220-240/50-60Hz 1Ph.
- TF2-40 (4.0HP compressor power / Max 3000W electric defrost load) 380-415/50-60Hz 3Ph.

There are many alternative versions based around the above main control panels that allow us to cater for a number of system arrangements and accessory requirements.

### CONTROLLER





 Info / Setpoint button.


 Manual defrost / Decrease button.

 Thermostat output

 Fan output

 Defrost output

 Alarm

 Increase button

 Exit / Stand-by button.

## Standby

If **"OFF"** is displayed, then this indicates the room is on standby. To switch the room on/off standby, press and hold the stand-by button for 3 seconds.

## Temperature set point

To adjust the room temperature set point;

- Press the **"i"** button to display the set point value.
- Keeping the **"i"** button pressed, use the **"▲"** and **"▼"** buttons to adjust the value.
- Releasing the **"i"** buttons stores the new value.

## Information menu

It is possible to display more temperature information, such as maximum and minimum temperatures by accessing the information menu. This can be viewed by pressing the **"i"** button, and releasing. Using the **"▲"** and **"▼"** buttons the following information can be displayed;

- **"t1"**: Probe 1 (air) instantaneous temperature.
- **"t2"**: Probe 2 (evaporator) instantaneous temperature.
- **"th1"**: Maximum probe 1 recorded temperature.
- **"tL1"**: Minimum probe 1 recorded temperature.

Whilst accessing the information menu, it is possible to reset the **"th1"** or **"tL1"** recorded values as follows;

- First select either **"th1"** or **"tL1"** to reset using the **"▲"** and **"▼"** buttons.
- Display the value to reset by pressing the **"i"** button.
- While keeping the **"i"** button pressed, press the **"x"** button to reset the value.

To exit the information menu, either wait 10 seconds, or press the **"x"** button.

## Alarms

An alarm is reported via the display through the flashing of an abbreviation indicating its cause:

- **"HI"**: Room high temperature alarm.
- **"LO"**: Room low temperature alarm.
- **"DO"**: Door open alarm.
- **"CL"**: Condenser cleaning warning (if enabled).
- **"E1"**: Failure of probe T1 (Air).
- **"E2"**: Failure of probe T2 (Evaporator).

## GENERAL PRODUCE MODELS

These models are designed to operate at +1°C/+4°C (34°F/39°F).

## FRESH MEAT MODELS

These models are designed to operate at -2°C/+2°C (28°F/36°F).

## FROZEN FOOD STORAGE MODELS

These models are designed to operate at -18°C/-22°C (0°F/-8°F).

(The temperature can be adjusted by setting the thermostat via electronic controller).

## DEFROST OPERATION

The controller will instigate an automatic defrost cycle. The refrigeration system is turned off whilst the electric defrost system is switched on. This defrosts the evaporator coil. The operation raises the temperature of the coldroom slightly for a short period but does not affect the stored product.

When defrost is in progress, the defrost indicator on the control panel will become illuminated and **"DEF"** is displayed until the defrost cycle has finished.

A manual defrost can be activated by pressing and holding the **"▼"** button on the controller for 2 seconds.

## HI-LO ALARM

The modular coldroom controller features a built in audio/visual Hi-Lo alarm. If the temperature within the room exceeds the factory set alarm temperature and duration the control will display a temperature alarm and activate a sounder. The alarm can be cancelled by pressing the **"i"** button.

## PROBE FAIL SAFE FEATURE

The coldroom controllers feature a special fail-safe condition. In the event of a temperature probe failure the compressor will not continue in normal sequence.

Instead the compressor will switch to a five minute cycle, which it cycles on for five minutes then off for five minutes. The normal compressor cycle will be restored upon the repair of the probe fault. This feature is designed to avoid the compressor overheating and preserve the temperature of the food within the cabinet.

# APPLIANCE ROUTINE MAINTENANCE / CLEANING

## ROUTINE MAINTENANCE

**Safely disconnect the appliance from the power supply before cleaning, servicing or undertaking general maintenance.**

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.

Do not attempt to undertake maintenance on the internal evaporator, fan unit or remote guards. Service and maintenance should only be undertaken by suitably qualified, trained and competent engineers.

Check that the inner door release operates properly, this should be undertaken in the door open position. Gently rotate the release handle from side to side to ensure there are no obstructions and lubricated if necessary. If fitted, the person trapped Alarm and lights should be regularly checked for correct operation daily.

For efficient operation, do not overload the compartment or restrict airflow. Do not block air chute with shelving or product. Ensure shelves are loaded safely. Do not obstruct the doorway or switches.

## PERIODIC TESTING OF THE RCD

This installation, or part of it, is protected by a device which automatically switches off the supply if an earth fault develops. Test quarterly by pressing the button marked 'T' or 'Test'. The device should switch off the supply and should then be switched on to restore the supply. If the device does not switch off the supply when the button is pressed, seek expert advice.

## CLEANING

Always wear appropriate personal protective equipment (PPE) when cleaning the appliance. Care should be taken for parts with possible sharp edges.

Stainless steel is naturally corrosion-proof and needs no additional protective coating to maintain its gloss and usability for a long time.

Abrasive or corrosive cleaning agents should never be used. These can damage surfaces and cause corrosion. They include:

- Cleaners containing chloride

- Bleaches containing hypochlorite (if accidentally spilled on stainless steel, rinse off with water immediately and thoroughly)
- Silver polish

If the cabinet exterior is looked after correctly it will retain an "as new" finish for many years. A damp cloth is usually sufficient for wiping away light dirt, food debris and finger marks and normal day to day cleaning should be carried out with a soft cloth and soapy water.

Dry thoroughly afterwards and where possible remove all racking, shelving and drawer fittings to aid the process.

Kitchen fats, oils and greases can also cause brown spots or staining to appear on the stainless steel surface.

For stainless steel with visible polishing grains, clean the steel with the grain - not against the grain. When water has been used for cleaning or rinsing, wipe the surface dry to prevent water from drying and forming watermarks, especially in areas with hard water. Avoid this type of watermark by using distilled water.

For tougher spots, creamy polishes like CIF original cream can be effective. Light pressure should be used when cleaning with the grain. The cleaning process should be repeated in order to prevent any dirt becoming lodged in the surface grain again.

CIF original cream cleaner can also be used for wiping off water spots and can alleviate discoloration. Remove this type of residue by rinsing with clean, preferably distilled water and wipe away any remaining streaks of polish or watermarks.

Tough grease or oil marks can also be removed using denatured alcohol or acetone. There is no risk of corroding stainless steel by using such solvents. For ease of use limit the amount of solvent used. Wash more than once using a pure solvent on a clean soft rag until all traces of the greasy residue are removed.

### **Specialist Stainless Steel Cleaners - Non food contact surfaces only**

Innosoft B570 is a special deep cleaner that is suitable for the intensive cleaning of contaminated stainless steel surfaces, and removes stains and oxides in a single operation.

Innoclean B580 completely removes any residues

left after the use of Innosoft B570 and passivates the surface which helps to prevent further corrosion.

### CONDENSER CLEANING

#### Isolate the coldroom from the electrical supply.

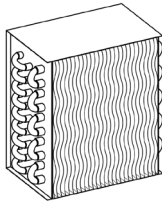
Regular maintenance should be carried out on a regular basis by competent / trained personnel. The condenser is part of the refrigeration unit and is located on the roof of the coldroom and requires cleaning approximately four times per year.

On rooms that are supplied with remote condenser units, the coil is located in the condensing unit box.

If your room has been supplied with refrigeration equipment by another supplier, the location may be different and you should consult your installation contractor to confirm its location.

Brush fins vertically with a stiff brush, taking care not to damage them or to push dirt / dust further in, and then vacuum away.

FIG 1.



**Warning:** Condenser blocking is the most common cause of equipment overload and failure - make sure that the condenser coil is kept free of dust and dirt and regularly checked.

Take care not to damage any electrical connections and cables during the removal and cleaning process.

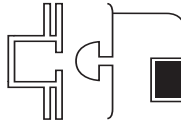
If there are further grease deposits remaining on the condenser call your Service Provide to carry out a full service.

**NOTE: Non-compliance may invalidate your Warranty.**

### CLEANING / REPLACING THE GASKET

Door gaskets should be checked and cleaned regularly and replaced if damaged. To clean the gasket, wipe with warm soapy water and a soft cloth, ensuring it is completely dry before closing the door.

**DO NOT** use a sharp knife to clean or scrape the gasket. Damaged gaskets do not seal correctly and can increase the amount of electricity consumed, seriously affecting the efficiency and performance of the appliance.



Damaged gaskets are easily replaced. Simply pull out the existing part and push the new gasket into the channel (gasket retainer) at the centre and work along, pushing gasket into channel.

### PANEL JOINTS

Inspect the panel joints when cleaning for any loss of mastic sealer or gaps appearing. Use warm soapy water to clean along the panel joints with a soft cloth. Do not use stiff brushes as they may cause damage to the sealant. Replace any missing sealant with silicon sealer (available from kitchen suppliers and DIY stores).

### BREAKDOWN

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 Williams Refrigeration or your appointed Service Provider.

In the event of a breakdown, please contact Williams Refrigeration or your Service Provider.

If the light on the coldroom is not working, isolate the supply and change the bulb, if this does not cure the problem, change the fuse located on the exterior at the bottom of the control panel. If problem consists call an engineer.

When calling, please advise model and serial number. This information can be found on the data plate inside the appliance. It should also be noted on the cover of this Manual. Please ensure that all redundant parts are disposed of safely and legally.

### **CHOOSING GENUINE SPARE PARTS**

Choosing the correct spare parts is vital to the ongoing running of your appliance - that's why Williams Refrigeration offer a comprehensive network of servicing, support and spare parts all available directly from Williams.

Our spare parts are exactly the same quality and standard as we use to build your appliance and have been rigorously checked, tested and inspected to ensure the very best quality and exact fit.

You can contact us directly for everything from fault diagnosis to parts selection and ordering. Simply provide the serial number of your appliance and we will do the rest to ensure you receive the right part first time.

**For further information please call our Spares Department on 01553 817017  
or email [spares@williams-refrigeration.co.uk](mailto:spares@williams-refrigeration.co.uk)**





## PARTS & LABOUR WARRANTY POLICY - UK ONLY

Our warranty applies to equipment manufactured by Williams Refrigeration and equipment bearing the Williams name plate and serial number identification tag.

We undertake, in conjunction with the supplying agent, distributor or representative, to repair free of charge during our standard business hours any such piece of equipment or part thereof used which is found to be faulty in either materials or workmanship subject to the further conditions below:-

### WARRANTY TERMS AND PRODUCTS COVERED

We offer a **24 months Warranty** from our original date of sale with the following Williams equipment:

1. Garnet / Zircon / Jade / Amber (stainless) / Mobile Heated/ Mobile Refrigerated.
2. Reach-in Blast Chillers / Reach-in Blast Chiller Freezers / Blast Chiller WTBC70.
3. Opal / Emerald / Onyx / Aztra / Salad Counters / UBC / Chef's Drawers / Fry Station Drawer.
4. Crystal Bakery Cabinets.
5. Meat Ageing Refrigerator.
6. Medi+ Cabinets.

We offer a **12 months Warranty** from our original date of sale for all other Williams equipment including:

1. All Modular Products (including coldrooms).
2. Remote Systems.
3. Bottle Coolers / Glass Froster.
4. GEM Multidecks (including heated) and merchandiser cases.
5. GEM product range.
6. Bottle Well / Meat Freezer Well.
7. Thermowell.
8. Non standard and other products.
9. Front of House display cases.
10. White Goods.

### WARRANTY TERMS

Our warranty is offered where the equipment has been installed correctly and has not been subject to misuse or abuse and is functioning correctly.

The equipment was purchased by the authorised supplying distributor direct from Williams Refrigeration and not through a wholesaler or other supplier whose warranty terms may be different.

The Warranty Policy shall be non-transferable.

Replacement of defective equipment can only be made with the approval of Williams Refrigeration.

Any repair under warranty will only be carried out with the product in its position of operation or in a suitable location on the customer's premises. If the product has to be removed for security or any other reason, this will be subject to additional charge (may include hydrocarbon charged equipment).

Warranty work will be covered by Williams Refrigeration or by one of its appointed service agents between the hours of 8.00am and 5.00pm Monday to Friday. Any works undertaken outside of these hours are chargeable.

### RESPONSE TIME

We aim to respond to all warranty calls within 3 working days and will endeavour to respond next working day where practical.

### CLAIMS PROCEDURE

If a customer wishes to make a claim under the terms of this warranty, the following procedure should be observed:

1. Contact the supplying agent, representative or distributor.
2. Quote the equipment model, serial number and date of installation. The serial number is located on the product identification plate inside the cabinet, modular product door frame or similar location. It is recommended that operators should also record the serial number on the operating instruction booklet supplied with the product.
3. Contents risk and insurance responsibility remains at all times with the customer.

### EXCEPTIONS TO STANDARD WARRANTIES

1. The Standard warranty applies to equipment located in Mainland GB only and excludes locations subject to restricted or secure access, offshore and marine applications.

Additional time and travel charges may be applied to the following locations – Isle of Wight, Channel Islands, Isle of Man, Northern Ireland and Scottish Isles.

2. Any fault that is not reported within 10 working days of being discovered.
3. Service calls to equipment under warranty, or service calls made under chargeable arrangements will be carried out in accordance with standard conditions of sale. Unless otherwise specified, a maximum of 15 minutes of administrative time, not spent directly carrying out servicing work, is provided for within the supply. Any requirement for staff attending the call to spend greater time than 15 minutes due to administrative requirements, such as on waiting time or security clearance, or health and safety risk assessments, will be chargeable at our prevailing rate.

We reserve the right to apply Time Travel & Call out charges if no fault is found with the product or access is either restricted or denied to our attending engineer.

4. No claim shall exceed the original selling price.
5. Claims for Food and / or contents stored in the equipment supplied (including pharmaceutical or other items) and any consequential loss how so ever arising are excluded under our warranty terms.
6. Components including gaskets, doors, drawers, handles, shelves, tray slides, all internal fixings, plug and lead, connectors, the outer shell, castors / legs, food probes, refrigerant and blockages as well as consumable items such as (but not limited to) batteries, fuses, light bulbs, printer cartridges, keys, glass and paper roll.
7. Equipment manufactured to the customers' own design, Williams Refrigeration will not be liable for any defect, non performance or improper operation of the equipment arising from any drawing design or specification supplied by the customer, their representative or agent.
8. Second hand equipment.
9. The customer uses or installs the equipment in such a way that it exceeds its design envelope or operates the equipment at control parameters other than those provided as standard factory settings.
10. The customer fails to observe commonly accepted operating practices.

11. The customer has not properly cleaned or maintained the equipment or carried out necessary servicing, including cleaning of the condenser, in accordance with instructions, literature or directions issued by Williams Refrigeration. (Operating Instructions are supplied with all equipment but also available at [www.williams-refrigeration.co.uk](http://www.williams-refrigeration.co.uk)).
12. Equipment fails through improper installation by others, misuse, abuse, accidental damage, power loss or fluctuations, fire, flooding or acts of god.
13. Any third party item(s) connected to the equipment that may affect performance.
14. The customer permits persons other than those authorised by Williams Refrigeration to perform or affect repairs or adjustments to the equipment.
15. If authorised representatives of Williams Refrigeration are denied full and free rights of access to the equipment for inspection during normal business hours as previously stated.
16. If repairs are made using spare parts or replacement items not supplied or preauthorised by Williams Refrigeration.
17. The initial equipment supply date shall apply for warranty validity for the subsequent supply of replacement of parts or products.

### EXTENDED WARRANTY

Extended Warranty offers the opportunity to protect your equipment (subject to conditions outlined) for an additional period of up to 5 years inclusive of original warranty periods.

Should you require Extended Warranty, state on your order or notify the Dealer or Williams Sales Manager at the time of purchase and they will be able to arrange it for you.

To ensure your Extended Warranty Policy remains valid, at least one maintenance / service visit per year must take place in years 2, 3, 4 and 5.

**For further information or clarification please call 01553 817000 or email to [info@williams-refrigeration.co.uk](mailto:info@williams-refrigeration.co.uk) or write to Williams Refrigeration, Bryggen Road, King's Lynn, Norfolk, PE30 2HZ**



## Design Excellence : Cool Technology

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[www.williams-refrigeration.com](http://www.williams-refrigeration.com)

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