OPERATING MANUAL FOR GEM MULTIDECK DISPLAY CABINETS

IMPORTANT INFORMATION (PLEASE RETAIN THIS DOCUMENT)
This Manual covers the installation, operation and routine maintenance requirements for the following Williams Refrigeration products:

R-Series / M-Series
A refrigerated display cabinet is designed to maintain the temperature of pre-chilled produce within the temperature range set out below.

Please read this Manual carefully before connecting 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.

Improper installation, maintenance or repair may put the user at considerable risk.

GEM Temperature Range | GEM Climate Class | GEM dB(A)
---|---|---
+3°C(37°F) / +5°C (41°F) | 3M2* | 70

*Models with a product code suffix ‘MT’ are classified in product Class 3M1.

General Regulations
Declaration of Conformity & TUV Registered:

Refrigerant Designation | Global Warming Potential
---|---
HFC - R404a | 3922
HFC/HFO - R452a | 2140 (Not TUV Certified)
HC - R290 | 3

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

Model No.: .................................................................
Serial No.: ...............................................................
KEY SAFETY CONSIDERATIONS

• The Maximum evenly distributed shelf load weights are:
  - Glass: 20kg
  - Metal: 40kg

• Only fit a new light tube of the same specification and wattage.

• Please note the further safety advice in respect of the movement, maintenance and safe disposal of this appliance.

• Appliances can be equipped with a remote condensing unit. Sizing, selection and installation of the remote condensing unit must be undertaken by a competent and qualified refrigeration engineer.
**IMPORTANT SAFETY INFORMATION**

**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.
IMPORTANT REFRIGERATION AWARENESS FOR SYSTEMS CHARGED WITH FLAMMABLE REFRIGERANTS

WARNING

SYSTEM CHARGED WITH FLAMMABLE REFRIGERANT

REFRIGERANT: R290 (REFRIGERANT GRADE PROPANE ONLY)
Ensure all operatives are aware the appliance contains an environmentally friendly but flammable refrigerant.

Technical Safety and Advice
All appliances are only to be installed by persons who are appropriately trained, skilled and competent to properly and safely carry out the work, and serviced by qualified engineers for the handling of hydrocarbon refrigerants

Ensure procedures are adhered to in the following Operating Manual.

Should a suspected leak become apparent, immediately evacuate the area and remotely switch off the cabinet.

DO NOT remove the plug from the socket as this could act as a source of ignition. Leaking refrigerant may ignite and cause injuries.

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

Contact Williams Refrigeration on +44 (0) 1553 817 000, stating the suspected fault.
INSTALLATION

SAFE REMOVAL & DISPOSAL 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. It is recommended that doors are removed prior to disposal in order to ensure safety.

UNPACKING
Care should be taken during the unpacking process as the appliance could be temporarily unstable. Installation and unpacking should only be undertaken by a competent person.

Remove all external and interior packing and accessories. Ensure all such material is disposed of safely.

Check that no damage has occurred to the appliance, the tubing of the refrigeration system, power cable and plug top during transit. If damage has occurred do not use the appliance.

We recommend that prior to use, the appliance is cleaned with a mild soap solution and then wiped dry.

VENTILATION
The appliance should be installed in a dry place, avoiding direct exposure to sunlight and sources of heat or draughts including air currents such as radiators, fans, air conditioning units and doors etc. It is essential to ensure that the room in which the equipment is installed is adequately ventilated.

Multidecks generate a considerable amount of heat and, if operated in a small unventilated room will quickly cause the room temperature to become excessive. This could cause the motor to overheat and possibly damage the compressor. At the very least, such an installation will cause the unit to use an excessive amount of electricity.

In addition to ventilation in a room, please ensure, if positioned against a wall, there is a clearance at the back of the appliance of at least 80mm for the condensing unit to operate effectively and efficiently.

REMOTE REFRIGERATION SYSTEMS
Appliances can be equipped with a remote condensing unit. Sizing, selection and installation of the remote condensing unit must be undertaken by a competent and qualified refrigeration engineer.

A separate power supply is needed for the remote condensing unit.

CASTORS & ADJUSTABLE POSITIONING FEET
The appliance should stand level to ensure the correct operation.

The appliance is fitted with castors as standard. When the appliance has been positioned please ensure the adjustable feet are fixed in position into the rear of the base frame.

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.

For appliances fitted with a moulded plug for safety, ensure that the mains power cable is extended free from the refrigeration system to avoid entanglement. If a plug or mains cable requires replacement, contact the Williams Spares Office on +44(0)1553 817017.

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.

Do not block vents by stacking boxes on top or in front of the unit as this could affect performance and give rise to safety risk.
We recommend:

• Supplementary electrical protection with the use of a residual current device (RCD)
• Fixed wiring appliances incorporate a switch disconnector for purposes of safe isolation to meet the specification requirements of IEC 60947

If the appliance has been laid on its back or tipped, DO NOT switch on immediately. Leave in an upright position for at least 3 hours before switching on.

**SHELF / SLIDE FITTING**

Ensure all shelves are fitted so they are in contact with the back panel.

To adjust the position of the trayslides insert the ends into the vertical support with the ‘hooks’ pointing downwards and slot into position. Ensure trayslides are parallel and level after fitting.

**SHELF WEIGHT DISTRIBUTION**

Before loading, allow the appliance to reach its normal operating temperature.

When loading the appliance, please ensure that its load is equally distributed throughout and ensure a gap of 80mm between products and the shelf above, to ensure effective air circulation. (See Fig. 1)

The maximum evenly distributed shelf load weights are:

- Glass: 20kg
- Metal: 40kg

**LOCKING FACILITY**

On models with a locking facility, it is recommended that the key be removed from its lock during normal working use. This will prevent bending or breaking of the key which could result in the lock having to be replaced.

**NIGHT BLINDS AND ROLLER SHUTTERS**

To help conserve energy, maintain product temperature and conceal product from view during out of hours operation, a night blind or roller shutter can be selected.

**Night Blind**

The night blind is positioned by pulling down in a single smooth motion and hooked in place. To open the blind, pull it slightly down and release. The soft close mechanism will then slowly retract the blind into its upper location.

**Roller Shutters**

The roller shutter incorporates a lock to secure the Multideck when not in retail service. To operate the roller shutter pull down in a level and single motion. The roller shutter is retracted by being pushed upwards. Keys should be retained in a safe and secure location.

**SAFE STORAGE AND DISPLAY**

The appliance should not be used to store or display flammable or explosive substances including aerosols.

A refrigerated display cabinet is designed to hold the temperature of pre chilled and packaged foods and beverages. Please ensure produce is at its desired temperature before loading into the display cabinet.
SPACERS FIXING
Before positioning the Multideck be sure that the two spacers are fixed to the base.

1. CHASSIS

2. END

Standard cabinet

Roller shutter cabinet
CONTROLLER

CONTROLLER / DISPLAY
The display should be checked daily to ensure that the correct temperature is being maintained.

CONTROLLER

Switching on your appliance
Switch the appliance on by pressing and holding for 2 seconds the ON/OFF button.

We recommend the night blind or security shutter be used overnight or when the Multideck is not in use to save on electricity.

Key to Controls

**SET**  To display target set point; in programming mode to select a parameter or confirm an operation.

**(DEF)** To start a manual defrost.

**(UP)** To see the maximum stored temperature; in programming mode to browse the parameter code or increase the displayed value.

**(DOWN)** To see the minimum stored temperature; in programming mode to browse the parameter code or decrease the displayed value.

**ADJUSTING THE OPERATING TEMPERATURE**
To access the parameters press the “**SET**” key, then select the required parameter in the following sequence:

- Press the “**SET**” key to display its value
- Use the “**UP**” or “**DOWN**” keys to change its value
- Press “**SET**” to store the new value and move to the next parameter

**To exit:** If you press “**SET**”, “**fnc**” or a time of 15 seconds elapses, the last value displayed will be saved and the label “**SET**” will reappear on the display.

The set value is stored even when the procedure is exited by waiting for the time-out to expire. To adjust the operating temperatures, press and hold the “**SET**” key for more than 3 seconds, while the maximum or minimum temperature is displayed.

**NB:** All appliances are preset at the factory. However, conditions on site will vary compared with test conditions and it may be necessary to perform the above adjustments several times for a perfect temperature cycle.

**DEFROST OPERATION**
Push the “**DEF**” key for 2 seconds to activate a manual defrost.

- **dit**  Interval between defrost cycles: (0/250h). Determines the time interval between the beginning of the two defrost cycles.
- **dEt**  Length for defrost: (0/250mins) It sets the defrost duration
APPLIANCE ROUTINE MAINTENANCE / CLEANING

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

We recommend that you undertake regular preventative maintenance using a qualified service provider in order to get the best from your equipment.

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

NB: Abrasive or corrosive materials / cleaners should never be used. This includes chlorine based chemical cleaners. These can damage surfaces and cause corrosion.

If the cabinet exterior is looked after correctly it will retain an “as new” finish for many years. Normal day to day cleaning should be carried out with a soft cloth and soapy water. If the product’s exterior has a stainless steel finish occasionally use a good stainless steel polish for protection. Do not wash the cabinet with a hose or spray. (Fig.2).

Shelving can be removed for easy cleaning, cabinet interior should be cleaned regularly with warm soapy water and a soft cloth.

Dry thoroughly afterwards.

FIG 2.

CONDENSER CLEANING
Regular maintenance should be carried out by competent / trained personnel. The condenser is part of the refrigeration unit and is located in the unit compartment and requires cleaning, approximately every two months.

To achieve access to the condenser you must remove the front grill. (Fig.3)

FIG 3.

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

Remember to reconnect the mains supply once finished.

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

NB: Non-compliance may invalidate your Warranty.

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

REPLACING THE LIGHTING LAMP
(HORIZONTAL ILLUMINATION)
• Disconnect the appliance from the electrical supply by unplugging it.
• Carefully remove the plastic lens cover to expose the light tube.
• Turn the light tube and remove it from the lamp holder.
• Fit the new lamp tube and carefully replace the plastic lens cover. Only fit a new light tube of the same specification and wattage.
• Reconnect the mains supply once finished.
• Safely handle and dispose of the redundant light tube.

REPLACING THE LIGHTING LAMP (VERTICAL ILLUMINATION)
• Disconnect the appliance from the electrical supply by unplugging it.
• Carefully remove the plastic lens cover to expose the light tube.
• Note and carefully remove the light tube from the two small support clips.
• Fit the new lamp tube with the two small support clips.
• Reconnect the mains supply once finished.
• Safely handle and dispose of the redundant light tube.

BREAKDOWN
In the event of a breakdown, please contact Williams Refrigeration or your Service Provider. When calling, please advise model and serial number. This information can be found on the data plate. It should also be noted on the cover of this Manual. Please ensure that all redundant parts are disposed of safely and legally.

TROUBLE SHOOTING INFORMATION

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<th>Action</th>
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<td>No power supply</td>
<td>Check fuse or power source</td>
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<tr>
<td></td>
<td></td>
<td>Ensure that the general switch is on</td>
</tr>
<tr>
<td>Cabinet not maintaining</td>
<td>1. Dirty condenser</td>
<td>Clean</td>
</tr>
<tr>
<td>temperature</td>
<td>2. Air circulation restricted</td>
<td>Remove restriction</td>
</tr>
<tr>
<td></td>
<td>3. Check that shelves and goods are properly</td>
<td></td>
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<tr>
<td></td>
<td>installed and loaded</td>
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<td></td>
<td>4. Check that the cabinet is not near draughts or</td>
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<td></td>
<td>heat sources</td>
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<td>5. Check that the air return or the air curtain is</td>
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WIRING DIAGRAM

Defrost by time

MODEL

Rtec

APPROVAL

REV. 0

01.11.2015

DIS. N° 72-05

Pb1

TTL

D.I.

230V

50Hz

IWC720

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APPROVAL DIS. N° 72-05

10 11

230V~

TTL

230V~

50Hz

1 2 3 4 5

8 9

Rtec

T

E

428

283

264

245

226

207

188

170

155

136

114

96

78

60

42

24

01

11

2015

15
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<tr>
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<th>Description</th>
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<td>A</td>
<td>SELF EVAPORATING SYSTEM FAN/FANS (CONDENSER VENTILATOR IF: MOD. 71 x 1, MOD. 71, 100, 120 GREENLOGIC X 1, MOD. 100 SCROLL X 1, MOD. 120, 150, 180 SCROLL x 2)</td>
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<td>B</td>
<td>EVAPORATOR FAN/FANS</td>
</tr>
<tr>
<td>C</td>
<td>SELF EVAPORATING SYSTEM RESISTANCE (STANDARD ON MOD. 71 AND MOD. 71, 100, 120 GREENLOGIC, OPTION ON OTHER MODELS)</td>
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<td>D</td>
<td>EVAPORATOR RESISTANCE (MT VERSION)</td>
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