

# MEDCO

medical refrigeration



## User and Maintenance Instruction Manual



MED890R

# Contents

<b>Contents</b>	<b>1</b>
<b>Technical Data</b>	<b>2</b>
<b>Safety Instructions</b>	<b>2</b>
<b>Installation Instructions</b>	<b>3</b>
<b>Operating Instructions</b>	<b>3</b>
<b>Essential Maintenance</b>	<b>4</b>
<b>Alarms</b>	<b>4</b>
<b>Airflow Diagram</b>	<b>5</b>
<b>Common Stacking Problems</b>	<b>6</b>
<b>Diagnosing a Problem</b>	<b>7</b>
<b>Warranty Policy</b>	<b>7</b>
<b>Additional Guidelines</b>	<b>7</b>
<b>Disposing Information</b>	<b>7</b>

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## Instructions for all MEDCO medical fridge models fitted with Danfoss Energy Saving Controller

Thank you for selecting a new **MEDCO** medical fridge. We have designed a premium quality product which incorporates the latest innovations in refrigeration technology to save energy and improve performance. Properly maintained, it is designed to give many years of reliable service.

Model no: MED890R	
Type: Upright Medical Fridge	
Total Volume: 700 Litres	
Voltage: 230V ac / 50Hz	H: 2020 mm
Mass: 149 kg	W: 890 mm
Charge: 300g R134a	D: 635 mm
SABS IEC 60335 - 2 - 90	Class: 5 (40C/40% RH)

Please read the following instructions carefully



**Do not connect the appliance to the mains supply until you have read the following information:**

### **Safety Instructions**

- ❖ Always disconnect the fridge from the mains before attempting any cleaning, maintenance or removing grill and / or the top electric cover.
- ❖ Should the supply cord be damaged, it must be replaced by the manufacturer, service agent or qualified refrigeration technician.
- ❖ Do not place or use any electrical appliance inside the storage compartment of the fridge. Do not store explosive substances such as aerosol cans with a flammable propellant in this fridge.
- ❖ This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the fridge by a person responsible for their safety.

- ❖ Lighting should only be replaced by the type and wattage as what is to be replaced. A LED tube may not be replaced with a fluorescent tube or visa/versa.
- ❖ Do not exceed the max 50kg weight limit per shelf.
- ❖ Do not use the fridge for anything other than for medical purposes.
- ❖ Do not cover the front or rear grill as this will cause malfunction and potential fire risk. Do not probe any openings.
- ❖ Do not overload the power supply. Always ensure that the power supply is sufficient for the power requirements of the fridge. These are stated on the front page 2 of this manual. If in doubt consult a qualified electrician. Never use extension leads or multi adapters.
- ❖ **The fridge must be earthed at all times.**
- ❖ Keep the fridge upright during transportation or when moving it to a different spot

### **Installation instructions**

- ❖ Unpack the fridge and be sure to dispose of the packaging in accordance with all local recycling laws and regulations. Please ensure that packaging is kept away from children.
- ❖ Remove the polystyrene/plastic support blocks carefully and gently place the fridge on the floor.\*\* *\*\*Refrigeration is delicate and may be damaged due to impact on the floor.*
- ❖ Position the fridge out of direct sunlight and as far as possible away from any other heat source.
- ❖ Remove the stoppers that have been installed on sliding door models for transportation.
- ❖ Unpack the grill and hook onto the two securing points, louvres facing down, at the front of the fridge base.
- ❖ The shelves are fitted by means of the shelf hooks supplied. Ensure they are properly anchored.
- ❖ The cabinet “breathes” through the front grill and the fridge can thus be installed with its back hard against a wall.
- ❖ The fridge must be perfectly level to ensure the doors will work properly. This is done by adjusting the levelling feet installed on the bottom of the base.
- ❖ Fridges can be installed within a cavity as long as the front grill is unobstructed.
- ❖ A minimum gap of 100mm must be allowed for at the top of the cabinet. The power socket must be accessible for disconnection from the power supply without having to move the fridge.
- ❖ The fridge is fitted with a High/Low temperature. The alarm will sound 5 minutes after initial powerup until unit reaches temperature.
- ❖ **Obstructing the front grill will invalidate the guarantee.**

### **Operating Instructions**

- ❖ The fridge must be loaded in such a way the internal air vents are not blocked and cold air is allowed to circulate the contents freely. Failure to do so will cause cooling problems and invalidate the guarantee.
- ❖ On sliding doors, a small catch is installed at the top back of the right-hand door that latches into the left door allowing the doors to remain open for loading.
- ❖ Once loaded release the catch and the doors will close.
- ❖ Never attempt to use the fridge with the doors open and **avoid leaving the door open for lengthy periods.**
- ❖ Electrical efficiency is important and for this reason, no electrical elements to counter condensation are fitted.
- ❖ The fridge will evaporate condensate water from a drip tray in the compressor compartment and no external drainage is required.
- ❖ The fridge’s electronic controller has been factory set to run between 2 - 8 Centigrade (set point 3.5°C) and alteration is not recommended or required.

### **Light Control**

- ❖ To turn the lights On/Off, briefly press the light button on the bottom left on the controller.

### **Cleaning:**

- ❖ The fridge should be cleaned periodically with a non-abrasive cleaner and damp cloth.
- ❖ Never use abrasive powders or scouring materials to clean the refrigerator.
- ❖ On sliding door models, the doors may be removed for ease of access. Move the right door to the fully open position. Pull bottom of the door slightly and tilt towards you. Move the door back to the closed position and gently lift the door out of the runner. The same will apply for the left door and refitting will be the reverse of the above.

### **Essential Maintenance:**

- ❖ Before any monthly or weekly maintenance and/or repair work, the fridge must be disconnected from the mains supply.

### **Daily**

- ❖ Check compartment temperature is within acceptable range (2°C to 8°C)

### **Weekly**

- ❖ Wipe clean the inside of the refrigerator
- ❖ Wipe clean refrigerator door seals

### **Monthly**

- ❖ Check that the condenser is clean and air is free to move over the condenser/compressor compartment. In dusty environments cleaning should be done more often. The condenser looks like a radiator with a fan attached to it and is located behind the grill at the bottom of the fridge.
- ❖ Carefully clean the left side (air intake) of the condenser with a soft brush or vacuum cleaner.
- ❖ To remove the grill, lift each end slightly and then pull towards you.
- ❖ Before replacing the grill, please check that the fan is clear from obstructions and the drain pipe is discharging into the drip tray.
- ❖ **Failure to keep the condenser clean will invalidate the guarantee.**

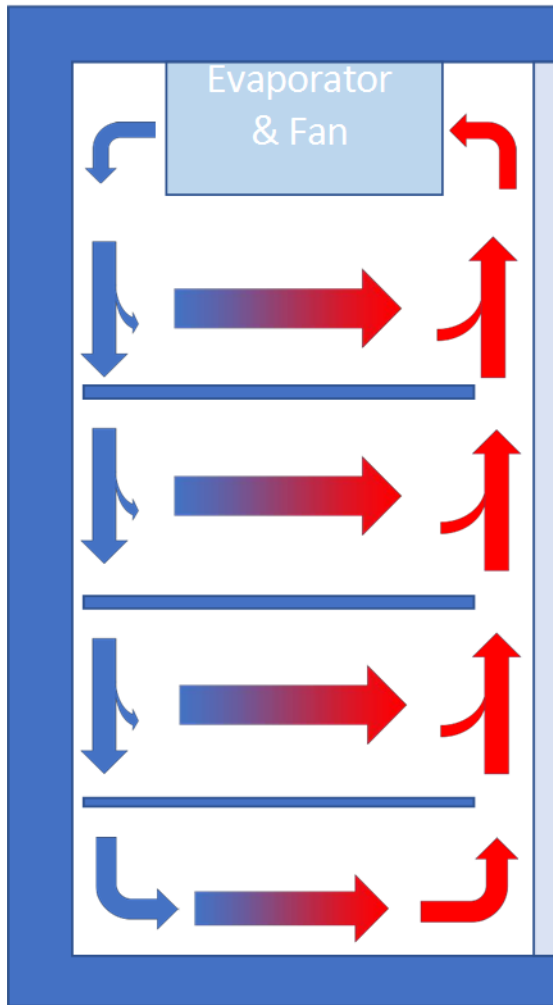
### **Replacing light tubes:**

- ❖ Before replacing the light tubes make sure the appliance is switched off and disconnected from the mains supply.
- ❖ Remove the light covers by gently pulling them outward.
- ❖ Gently pull the connectors from the tube ends and replace with the same type and dimensional tube.
- ❖ Reconnect the push on connectors and refit the covers and / or push the tubes into the clips.

### **Audible and Visual Alarms Indicator:**

1. If the compartment temperature rises above 8.0°C  
5 minutes after temperature rises above 8.0°C  
Visual alarm – immediate
2. If the compartment temperature falls below 2.0°C  
5 minutes after temperature drops below 2.0°C.  
Visual alarm – immediate
3. Door open.  
Visual and audible alarm – door open for more than 60 seconds

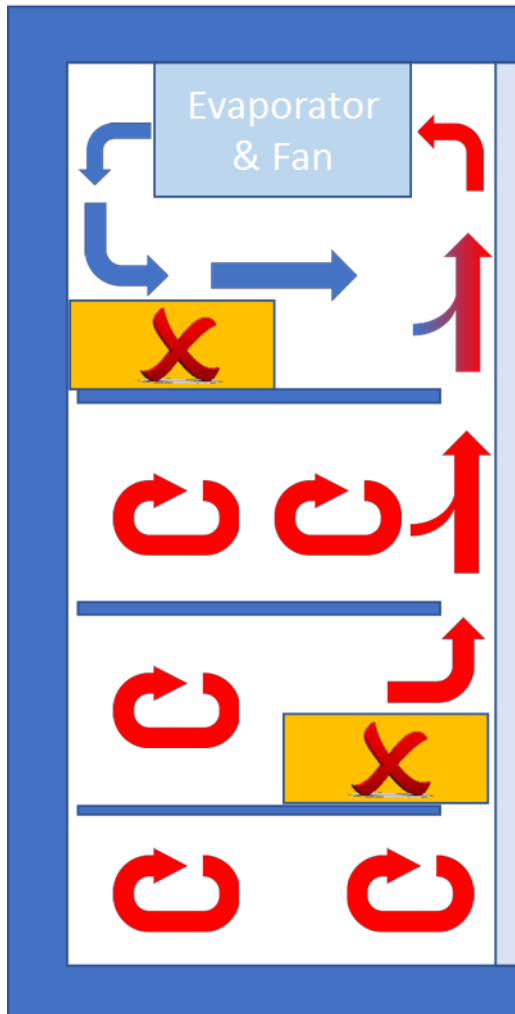
## Air Flow in a MEDCO Fridge



- The evaporator and fan at the top of the unit sucks in air from the front, cools it down and then blows it out the back of the evaporator
- This cold air is deflected down the back of the unit where it passes through the product in the fridge cooling it down
- The air then reaches the front of the cabinet by the door and is sucked up again for the process to start once more
- This warmer air passing over the door also helps to remove the “haze” that forms when you open the door of the unit

## Common Stocking problems

- If a solid object such as a box or tray is placed at the top of the fridge that blocks the airflow from going down the back it will short circuit the cycle
- This will mean that the air below the blockage will cool very slowly and will probably result in a poorly performing fridge with big temperature differentials, as well as large amounts of condensate build-up by the evaporator
- Items such as vials and bottled medication will not cause such a problem as the air travelling down the back of the cabinet will still pass by due to their shape.
- Boxes or trays should ideally be placed in the centre or towards the back of the fridge for optimum efficiency.



### **Diagnosing a problem**

- ❖ Fridge temperature is below 2°C - call a technician to check the fridge
- ❖ Fridge temperature is above 8°C then do the following;
  1. Check door is closed and sealing properly.
  2. Check compartment temperature with a portable, well calibrated thermometer.
  3. Check mains supply and the connection to mains.
  4. Check if the unit has been receiving the correct voltage
- ❖ If the 1, 3 and 4 are all in order, please move vaccines to a safe place and call a technician.

### **Warranty Policy**

- ❖ Kindly visit our page to access the warranty policy for your MEDCO Fridge:  
[www.zeromedical.co.za](http://www.zeromedical.co.za) and click on "Warranty."

### **Additional guidelines**

#### **Extended periods of non-use**

- ❖ Disconnect from the power supply.
- ❖ Remove all the products from the storage compartment.
- ❖ Thoroughly clean the fridge inside and outside. Leave the doors slightly open so that air can circulate freely. Use the stay open door catch on sliding doors for this purpose and a non-damaging item on the hinge doors

#### **Breakdown**

- ❖ Disconnect the fridge from the mains power supply. Please contact your dealer for advice and always insist on the use of genuine **MEDCO** spare parts.

### **Disposing of the fridge**



Disposing of a fridge at the end of its life cycle must be done in accordance with local rules and regulations. Please check with your local Authority for up-to-date information on safe and compliant recycling of the appliance.

- This symbol means that the product is classed as Electrical or Electronic Equipment and is covered by the European Union WEEE Regulations.
- You should take great care in disposing of any such products and **MUST NOT** under any circumstances dispose of it with your normal waste as they pose a great risk to your community if they are accidentally sent for disposal in a landfill.

**Thank you for choosing a MEDCO fridge manufactured under stringent supervision at our factory.**

If we can be of any further assistance or if you would like to know more about our product range, please do not hesitate to contact us; [www.zeromedical.co.za](http://www.zeromedical.co.za) or phone 010 207 1600. In Association with:

