

MEDI GUARD

User Manual

MEDIGUARD MG 44



Please read this user manual carefully before using the product and please keep it properly for future reference!

To ensure safety, the package of product shall be removed completely before use!

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Caution

Warning: Flammable refrigerant is adopted for the product.

WARNING: The packaging base at the bottom of this series of products must be removed before use.

WARNING: When moving this series of products, take care that the bottom foot does not touch the power cord.

WARNING: The bottom front wheel brake of this series of products needs to be locked after moving to the designated position.

WARNING: This series of products need to be left to stand for 12 hours before initial power-up.

WARNING: When this series of products are just connected to the power supply, do not immediately put the items in to it. After running for a period of time, when the temperature inside the Pharmacy Refrigerator drops to the set temperature, then put the items in batches.

Note: A single batch of items put into the Pharmacy Refrigerator cannot exceed 1/4 of the volume. WARNING: Keep all ventilation openings in the enclosure or, in the structure for building-in, clear of obstruction.

WARNING: Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.

WARNING: Do not damage the refrigerant circuit.

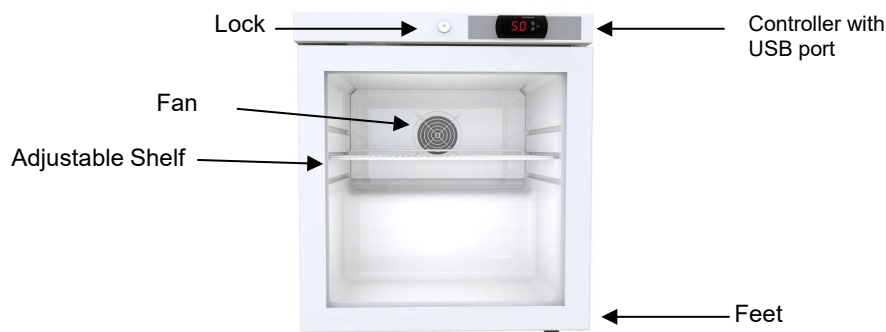
For equipment that use flammable insulation blowing gases, the instructions shall include information regarding disposal of the equipment.

Refrigerant and cyclopentane foaming material used for the appliance are flammable. Therefore, when the appliance is scrapped, it shall be kept away from any fire source and be recovered by a special recovering company with corresponding a qualification other than being disposed of by combustion, so as to prevent damage to the environment or any other harm.

IMPORTANT: Flammable gas and refrigerant used. It is the consumer's responsibility to comply with Federal and Local regulations when disposing of this product.

1. PRODUCT OVERVIEW

This product is intended used in:
This product can be used to store medicines, vaccines, reagents, and materials that need to be stored at 2~8°C

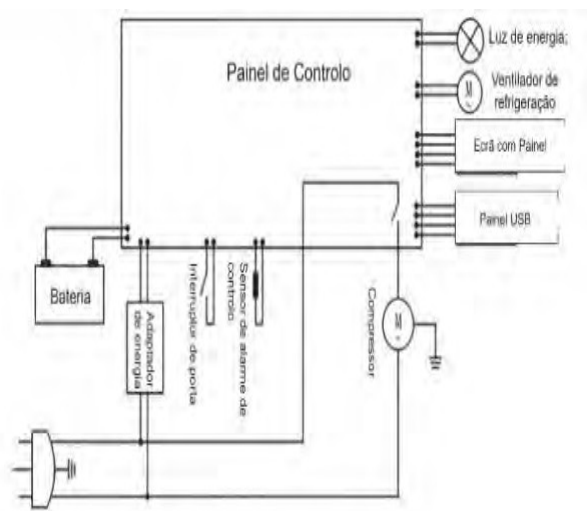


*All images in this instruction manual are for indication only; please refer to your individual unit for details.

2. TECHNICAL SPECIFICATIONS

Name	Pharmacy Refrigerator
Model number	MG44
External dimensions (W×D×H) (mm)	480*460*585
Effective volume	44L
Door body	Transparent glass door
Refrigerant	R600a/25g
Illumination lamp	LED light
Rated supply voltage	220~240V/50Hz
Power consumption 24h	0.85w
Net weight (kg)	21
Electric shock resistance type	I
USB functions	With USB functions

Electrical schematic diagram



3. ENVIRONMENTAL CONDITIONS

This product is designed and operates safely according to the following conditions (based on IEC61010-1)

- 1) Indoors;
- 2) Height above sea level not more than 2,000m;
- 3) Ambient temperature between 10 and 32°C;
- 4) Maximum relative humidity of 65% at ambient temperature of 32°C; with increasing temperature maximum relative humidity linearly decreases.
- 5) The voltage of main power supply fluctuates within rated voltage $\pm 10\%$;
- 6) The range of voltage of other power supply specified by manufacturer;
- 7) Transient overvoltage meeting the equipment and installation grade (overvoltage grade) II ; for main
- 8) power supply, minimum grade and ordinary grade are Grade II ;
- 9) According to Pollution grade II in IEC60664.

4. TRANSPORTATION AND INSTALLATION

Transportation

- 1) The product should be transported with packing, the angle between the compartment body and the ground should be no less than 45°.
- 2) The product shall be lifted from the bottom and shall be handled with care to avoid damage.
- 3) The product transportation should avoid falling down, tread and collision.
- 4) It is strictly forbidden to force the door to avoid damage to the cabinet and components.

Installation

When selecting a position for your unit you should make sure the floor is flat and firm, and the room is well ventilated. Avoid locating your unit near a heat source or radiator. Also avoid direct sunlight as it may affect the operation of the whole machine. Extreme cold ambient temperatures may also cause the unit not to perform properly. This unit is not designed for use in a garage or outdoor installation. Do not drape the unit with any covering.

When installing the unit, ensure that 20 cm of free space is left at both sides, 15 cm at the rear and 20 cm at the top of the unit. This will allow cold air to circulate around the Pharmacy Refrigerator and improve the efficiency of the cooling process.

The Pharmacy Refrigerator is only for indoor use. Ambient temperature is within 16°C-32°C, and recommended temperature is within 18°C-25°C. If necessary, air-conditioning system should be used.

Environmental humidity: lower than 80%Rh.

Avoid heavy dust.

Avoid mechanical sway or vibration.

The altitude of working position of Pharmacy Refrigerator is lower than 2000 m.

Input voltage: between (220~240) $\pm 10\%$ V.

Ingress protection : IPX0

Over Voltage Category II

Pollution Degree 2

The Pharmacy Refrigerator is sensitive to ambient temperature. When installed in other environments than the one aforesaid, the Pharmacy Refrigerator can't operate normally. Please improve the environment before use.

It is prohibited to install the Pharmacy Refrigerator in an open environment. When the Pharmacy Refrigerator is wet by rain, it may cause electric leakage or electric shock.

5. USAGE AND CAUTIONS

If the product is used for the first time, or after handling, or if the product is cut off (including power cut) for more than 1 hour, it must be checked before use (or before power supply is used again) , It can only be used after inspection.

- 1) Standing at least 30 minutes before power on.
- 2) It is suggested to put $\frac{1}{4}$ of contents into the refrigerator at a time as to avoid overheating the unit and overworking the compressor. Failure to do so can cause problems within the unit.

- 3) After the product is moved, it must be left for more than 10 minutes before it can be connected to the power supply.
- 4) Check after power on, the inner temperature decline obviously after 30 minutes, after that, it could be used by customers.
- 5) Balance the temperature by air cooling circulation inside, guarantee the fan vent clear, proper place is needed to contribute to cold air ventilation and storage should not overcrowd.
- 6) If the environmental humidity is higher, the surface of door is easy to form condensation, use dry cloth to clean.
- 7) The load-bearing of each shelf is less than 15kg.
- 8) Please open or close the door with care, avoid overexertion which result in goods roll over, fall down or damage door gasket. **Make sure the door is closed** and keep the key into a place where children could not get it.
- 10) **The product is forbidden to store flammable, explosive and volatile goods. For example: alcohol, banana oil, gasoline and so on. It is also prohibited to store living things, flowers and other goods. A designated person should be responsible for usage, check and record the operating conditions every day for safe use.**
- 11) Please obey the manufacture's shelf life when store goods, so as to avoid out of date.
- 12) Before deposit items, please confirm whether the item is suitable for storing in 2 ~ 8 °C in the environment.

6. Cautions for safe use

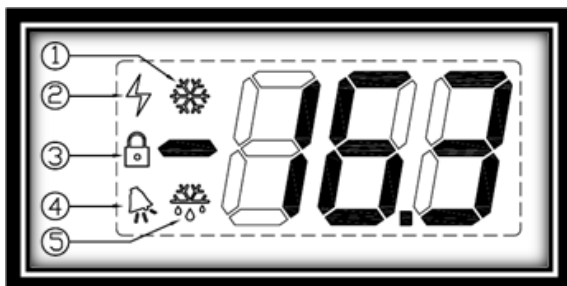
- 1) Plug unit into its own power outlet, avoid using extension leads and power packs.
- 2) The power voltage is required alternating between 187-242V, please equip with proper voltage stabilizer if the power is not suitable.
- 3) The product should be maintained frequently, cut off the electricity and guarantee the user's safety before maintenance. It is not allowed to use wet cloth to wash electric parts.
- 4) Never store or close to flammable, explosive and corrosive liquid or gas. Using in flammable gas environment is also forbidden.
- 5) The power supply should be continuously once come into use, **if power cut-off is needed, you should wait for at least 5 min before plugging in again to avoid damage to the compressor.**
- 6) Do not touch any live components, such as plugs, switches, etc., with wet hands to avoid electric shock.
- 7) Never damage or break power wire and plug, loose plug is also forbidden in case of fire or electric shock.
- 8) Wet hand is not allowed to touch evaporator once the product comes into use, in case of cryogenic burns.
- 9) Never put water container or weight in the top in case it might fall down or splash into electric parts causing electric shock or leakage.
- 10) Never climb the product in case of falling down. Don't lean on the door, in case storage fall down causing injury.
- 11) Close the door with care, in case of pressing fingers.
- 12) Never put hands into glass with strength, in case the glass is broken causing injury.
- 13) Never with hand to touch the fan, in case of hurt your fingers.

7. Maintenance and Cleaning

- 1) Please reduce the times of opening the door to avoid the temperature frequent changes inside.
- 2) Cut off the power before cleaning. With soft cloth and a little non-corrosive neutral cleaning detergent to wash the surface out and in, brush or acid-bases detergent are forbidden, so as to avoid damaging antirust coat. Dry cloth is needed after cleaning, organic solvent, boiled water and washing powder are forbidden to use.
- 3) Clean regularly with a damp cloth
- 4) Please do not put heavy or hot objects on the surface to avoid deformation.
- 5) Oil and dust are easy to stick to door gasket; therefore, warm water is needed to wash frequently in order to keep elasticity.
- 6) Unplug the power plug after use, with dry cloth to wash after cleaning up completely and open the door for 2-3 days.

8. Controller

- 1) Schematic diagram of the control panel



- 2) Indicator status description

The LCD display panel can show three digits, a minus sign, and five icons (Cooling, Power, Lock, Alarm and Defrost).

- ① Cooling Icon: Illuminates when cooling output is activated; flashes during cooling delay.
- ② Power Icon: Not in use at present.
- ③ Lock Icon: Not in use at present.
- ④ Alarm Icon: Flashes to alert users when the controller enters an alarm state.
- ⑤ Defrost Icon: Illuminates when the controller is in defrost mode.

Description of Display:

There are four buttons on the control panel, namely [], [], [] and Fn, for controller operation.

KEY FUNCTIONS

Normal Mode:

When  key is pressed, "SET" is displayed immediately. If pressed for more than 1 second, the set temperature value is displayed. Holding the key for more than 3 seconds allows access to the parameter menu.

Parameter Setting Mode:

Press  key to alternately display the parameter name and its value. If no key is pressed for more than 3 seconds, the parameter is saved, and the device exits the setting mode.

When setting the target temperature, pressing  key saves the configuration.

Special Functions:

Reset: Simultaneously pressing  and  during power-up restores the default settings, and the display will show "CF".

Alarm Mute: When the buzzer is sounding, pressing  will mute/disable the current alarm.

Press  and the  simultaneously, check highest Temperature record in 24-hour.

Press  and the  simultaneously, check lowest Temperature record in 24-hour.

KEY FUNCTIONS

Reset: Simultaneously pressing  and  during power-up restores the default settings, and the display will show "CF".

Parameter Setting Mode: In this mode,  is used to navigate to the next parameter or to increase the parameter value.

Temperature Setting:

When setting the target temperature, pressing  increases the set temperature value.

Storage Module Functions:

Time Setting: When the storage module is connected, press and hold  together with  for 3 seconds to view and set the storage module's time.

Clear Data: When the storage module is connected, press and hold  together with the Fn key for 5 seconds to clear the storage module data; the display will show "CLr".

KEY FUNCTIONS

Parameter Setting Mode:

In this mode,  is used to navigate to the previous parameter or to decrease the parameter value.

Temperature Setting:

When setting the target temperature, pressing  decreases the set temperature value.

4 Fn Key

In the powered-off state, pressing and holding Fn for 5 seconds will completely shut down the controller.

1.3 I/O Description:

Relay Output: 16 A, 250 VAC, used for compressor control.

Power Supply: 230 VAC $\pm$ 10%.

Temperature Sensor: NTC sensor for measuring internal cabinet temperature.

4. Basic Information

Controller Dimensions: 77 mm $\times$ 35 mm $\times$ 80 mm

Mounting Method: DIN rail mounting (Cutout size: 71 mm $\times$ 29 mm)

Temperature Measurement Range: -50.0 $\sim$ 99.0 $^{\circ}$ C

Display Resolution: 0.1

Temperature Accuracy: ± 1 $^{\circ}$ C (@ -30 $\sim$ 50 $^{\circ}$ C)

Operating Environment: -20 $\sim$ 60 $^{\circ}$ C, 20% RH $\sim$ 90% RH (non-condensing)

Storage Environment: -30 $\sim$ 70 $^{\circ}$ C, 20% RH $\sim$ 90% RH (non-condensing)

Power Supply: 230 VAC $\pm$ 10%, 50/60 Hz

Power Consumption: < 3.6 VA

5. Power Failure Alarm

When the 230 VAC power supply is disconnected, the relay de-energizes, and the buzzer sounds once every 2 seconds for 2 minutes. The controller continues to display the temperature for 48 hours. The display backlight remains off after power failure.

4) Error code

Error codes	Description
E0	Sensor failure
EH	Sensor Temperature Excessive
EL	Sensor Temperature Insufficient
Lo	Low Temperature Alarm
Hi	High Temperature alarm
dor	Door ajar

Note: During high-temperature or low-temperature alarms, the alarm code (**Lo** or **Hi**) and the temperature value are displayed alternately.

When a sensor alarm occurs, the buzzer will sound. Pressing SET key will mute the current alarm, and the buzzer will stop sounding.

9. TROUBLE SHOOTING

Troubles	Reasons	Trouble shooting
Not cooling	The outlet has power, plug is not firm	Keep the plug firm
	The outlet has no power	Check the outlet and fuse
Alarm continued ringing	Goods with high temperature inside	The ring would disappear automatically after operating for a period.
	The door is not closed	Keep the door closed
Loud noise	The product is not stable	Change place or direction, add gaskets
	Refrigerant parts collision	Separation
Light is off	Switch is not open	Open the switch
	LED light is bad	Replace LED light
	LED light power failure	Replace LED light power
Refrigerant temperature is not enough	The door is not closed	Close the door in time and check the bracket extract or not
	Direct sunshine or close to heat source	Keep from heat source
	Too much storage and over crowded	Less storage

✘If the troubles mentioned above couldn't be solved, remove stock and call Euro Chill for support.

✘It is forbidden to dismantle or maintain privately.

It is normal that the refrigerant inside could give out the sound of flow.

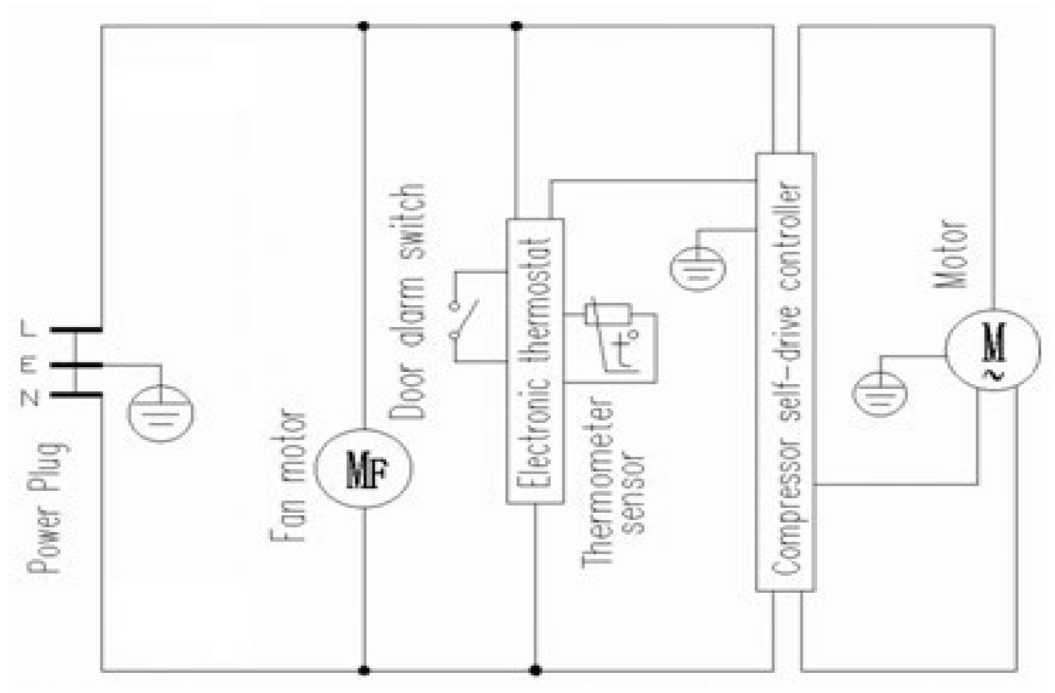
If the surroundings with high temperature or too wet, the door may form condensation. This is not unusual, especially in warmer months and can simply be wiped away with a towel or cloth.

12. Main technical parameters

Type	VC-5L42
Climate type	N、SN
Electric shock resistance	I
Refrigerant	R600a/25g
Storage temperature (°C)	2~8
Effective volume(L)	44
Rated voltage(V)	220~
Rated frequency(Hz)	50
Rated power input(W)	85
Net weight (kg)	21
Dimension(mm)	480*460*585

Note: Cooling speed measured under temperature 32°C. Volume is according to national standard.

11. CIRCUIT DIAGRAM



12 .PACKING LIST

Type	instructions	Shelf	keys
MG44	1	2	2

13. ELECTROMAGNETIC COMPATIBILITY

1. This product meets GB/T 18268.1-2010, Electric equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements.
2. This product is powered by single phase 3-wire system. The supply outlet has reliable earthing conductor to effective reduce electromagnetic interference.
3. The power cord is non shielded 3 x 0.75 mm 2 cord (meeting GB/T 5023-2008), and its maximum length does not exceed 3 m. Electromagnetic interference is negligible.
4. Before use of this product, please assess electromagnetic environment. Do not use this product near a strong radiation source, or it will not work normally.
5. This product is designed and tested as Class A equipment in GB4824. In a house, this product may cause wireless interference, and therefore need be protected.
6. Electromagnetic compatibility: This product normally works to reach and maintain the set temperature.

For service and support please contact us at sales@eurochill.com.au or on 1300 459 140