

# INSTRUCTION MANUAL



## Congratulations!

You acquired a product developed with high quality. To achieve its full benefit and guarantee its perfect functioning, read this manual with attention.

## COMMERCIAL FREEZER FOR COMMERCIAL USE

**Models:** HFSL142, HFSL216, HFSL311, HFSL411, HFSL503, HFSL550, HFSL131i, HFSL201i, HFSL293i, HFSL388i, HFSL476i, HFSL510i, HFED216, HFED311, HFED411 and HFED503.

## 1. SAFETY

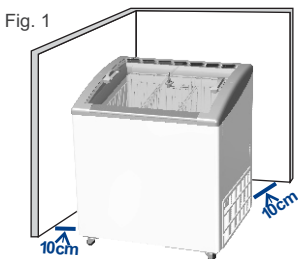
This equipment is not intended for people (including children) with reduced physical, sensory or mental capabilities, or by people lacking experience and knowledge, unless instructed to use the product or under supervision of a person responsible for their safety. It is recommended that children are monitored to ensure that they are not playing with the product.

- Keep all vents on the equipment compartment or building structure free from obstructions.
- Do not use mechanical devices or other means to accelerate the defrosting process other than the ones recommended by the manufacturer.
- Do not damage the cooling circuit.
- Do not use electrical devices inside the food storage compartments, except the ones recommended by the manufacturer.

Our equipment was designed for temperature class 7 = 35°C and relative humidity of 75%.

**⚠Warning:** Do not store medicines or explosive substances, such as aerosol cans with flammable propellant inside the equipment.

The equipment must be installed at an appropriate location that allows appropriate ventilation of the cooling unit, with a minimum air circulation gap of 10 cm (see Fig. 1).



- If the equipment power cord is damaged, it

shall be replaced by the manufacturer, by an authorized agent or by a qualified person in order to avoid risk.

## 2. DISPOSAL ORIENTATION

Committed to the environment, FRICON S/A uses in its products the pentane cycle expander, which does not affect the ozone layer and has little effect on the greenhouse effect.

### **⚠Attention:**

This product cannot be treated as household waste. See instructions:

Save instruction manual for future consultation and preserve the sales invoice for the product.

**Packaging:** They are made from recyclable materials. Try to differentiate them: plastic, paper, cardboard and send them to recycling companies.

**Equipment:** Send your old product to recycling companies, where they can be handled correctly in a way that will not harm the environment.

## 3. UNPACKING AND HANDLING

- Keep the purchase invoice, as it will be needed if you need to use the technical assistance services. Also do not remove the identification tag from the equipment, it contains essential information in case repairs are needed.
- Carefully read this operation and maintenance manual, and make it available to other people responsible for handling and using the equipment.
- Before installing and operating the equipment, observe the statutory provisions in force.

**△ Attention:**

**To protect the refrigeration equipment against damage, only transport and store in the appropriate usage position. Non compliance with this instructions voids the warranty.**

- Before unpacking the equipment, perform a visual inspection to detect eventual shipping damage. Check for loose parts, dents, fluid leakage, etc.
- Before discarding the packaging materials, check for possible loose accessories.
- If you detect shipping damage, contact the Fricon Customer Service Department.

**Attention**

- Damaged equipment may cause electric shocks; NEVER connect damaged equipment to the power grid.

Inform eventual damages immediately to **FRICON**. For the remaining cases, the **FRICON** contractual conditions apply.

## 4. INSTALLATION

**△ Attention:**

If the equipment is delivered with a protective film, remove it before using the equipment.

Install the equipment in the horizontal position.

**a) Premises**

- We do not recommend installation in rooms with high relative humidity. Ex: laundries.
- Avoid direct sunlight and heat sources such as: ovens, stoves, greenhouses or other heat radiators.
- Install on a level floor. This avoids noise and damage to the compressor .

- The equipment should be completely dry before connecting to the power supply grid.
- This equipment is designed to work in the ideal condition, at room temperature of 35 ° C and 75% relative humidity.

**b) Connection in the Electrical Network**

- Make sure the power supply voltage corresponds to that of the product. Note: The power supply voltage of the product is identified on the power cable of the product.

**△ Attention:** Never use an adapters, T or an extension cords to connect the equipment to the outlet, this practice may cause a voltage drops, a burnout of the product, and an increase in the consumption of electrical power, as well as a risk of a short circuit that could cause a fire.

**△ Attention:** It is imperative that the main power supply has adequate grounding for the use of the product. The cables of the outlet where your product will be connected must be made of copper and have a minimum crossection of 4 mm. Have an electrician evaluate the power supply before turning on the power. This action is essential for your safety, the safety of your employees and clients, as well as of the general public.

- If the power cord is damaged, it must be replaced by the manufacturer or authorized agent or qualified person to avoid risk.

**△ Attention:** In countries that use plugs type A and C (in which the ground cable is separated from the power cable), install the ground cable before handling; this must be performed by a qualified professional.

- Check if the voltage variation in the power

supply is in accordance with the following table.

Tension	Min	Max
120 V - 50 Hz / 60 Hz	114 V	140 V
220 V - 50 Hz / 60 Hz	198 V	242 V

If the voltage is outside the limits or there is a fluctuation, it is recommended to use a voltage stabilizer according to the table below:

Models of equipments	Automatic Tension Regulator
HFED216, HFSL142, HFSL131i, HFSL510i or HFSL550	500 V.A
HFED311, HFED411 HFSL216 or HFSL201i	750 V.A
HFED503, HFSL311, HFSL411, HFSL293i or HFSL388i	1.000 V.A
HFSL503 or HFSL476i	1.500 V.A

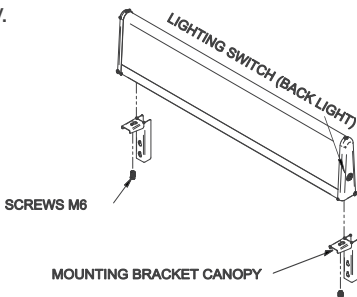
### Lighting activation

Equipment with internal lighting (straight or curved glass lids). A local on / off switch at the rear of the equipment.

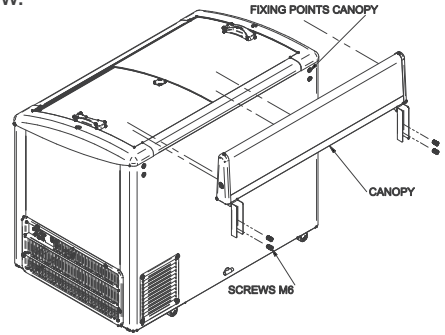
### CANOPY INSTALLATION

For equipment with a canopy, follow the instructions below to install it on the equipment.

- Remove the canopy from inside the equipment and unpack it.
- Attach the canopy bracket to the canopy with the M6 screws that are shipped with the canopy.



Then, fix the canopy to the cabinet using the 4 remaining M6 screws as shown in the image below.



## 5. TEMPERATURE REGULATION

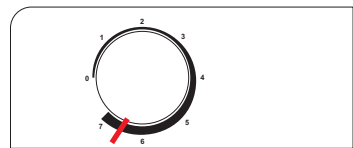
**Before filling your equipment, read the "use and supply" section of this manual.**

When the temperature controller is thermostatic electromechanical, the control panel will be located on the side ventilation grid as shown in Fig.2.

Fig. 2



Control panel (Thermostat)



Recommended position for thermostat

For ideal temperature performance, the thermostat must be set to position 6,5 (as per fig. 2) in case it is necessary to change the temperature, please follow the instructions

below:

To adjust the thermostat, turn the thermostat (rotary knob)

Position 0 - Equipment off;

Position 1 - Warmer temperature regulation;

Position 7 - Cooler temperature regulation;

**Operating Temperature range for HFSL line equipment:** -22 °C to -18 °C.

This model of equipment allows it to be used only for the preservation of products already frozen, such as: Ice cream, Pizzas, Meat, Fish, Poultry and etc.

When the temperature controller is electronic, the control panel will be located on the front of the equipment.

Electronic control panel

Adjust the equipment to the desired temperature by pressing the keys as shown in the image below:



For the equipment to perform satisfactorily, keep it in the temperature range for which it was designed.

**Operating Temperature range for HFED line equipment:**

• **Refrigerator mode:** +8 °C to 0 °C.

This mode of the HFED equipment allows it to be used only as a refrigerator, used for cooling drinks and food.

• **Freezer mode:** -18 °C to -22 °C.

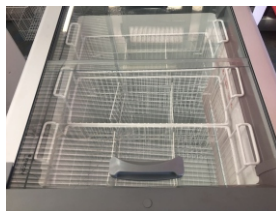
In this HFED mode, the equipment can only be used to preserve already frozen products, such as: Ice Cream, Pizzas, Meat, Fish, Poultry, etc.

## 6. UTILIZATION AND SUPPLY

• Check that the equipment is included in the power supply.

• Before switching on the equipment, clean the inside with a damp cloth and mild soap.

**NOTE:** The perfect functioning of the equipment is only possible with the hanging baskets in the figure below, specially developed for this standard. (in the case of HFSL equipment).



Hanging baskets with dividers

- Keep the product working for 4 hours before placing the products for the first time.
- Never place hot food directly into the product. Let them cool to room temperature.
- Do not refreeze foods that have already been defrosted.
- Store food in small portions. This makes possible the full use of each portion. After all, the defrosted food cannot be frozen again.
- Distribute food so that these are in direct contact with the inner walls.
- Always complement the load by placing it on the bottom. The colder ones should be at the top. In this way, you avoid the total emptying of the product.
- Pack all food to be preserved or cooled, in non-toxic polyethylene bag, foil or also in suitable plastic containers.
- Avoid leaving the lids open. With this you avoid the excessive formation of ice inside.
- Avoid placing towels on top of the product. Therefore, there is a risk that the seal will be

damaged.

- When placing more food, avoid blocking the circulation of cold air, always leaving space between the bottom walls and food.
- Avoid opening the product when there is no power.
- Do not make technical amendments to the equipment. Otherwise, there is the risk of an injury or electric shock.
- Don't drill the equipment.

**⚠ Attention:** Do not store medication or explosive substances, such as aerosol cans with flammable propellant in this product.

For product using the R290 Freezing Gas, please follow the instructions below:

- Keep all ventilation openings in the product compartment or in the building structure free from obstruction.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Do not damage the freezing circuit.
- Do not use electrical products inside food storage compartments, unless they are of the type recommended by the manufacturer. If there is a need for maintenance, it must be performed by a trained professional from the authorized service network in order to avoid possible ignition risks due to incorrect parts or reduced service.

Componente parts replacement:  
The component parts shall be replaced with similar components

MERCOFRICON S/A reserves the right, without prior notice, to change any features specifications, partial or general of its products, do as minimize the risk of possible ignition due to incorrect parts or improper service.

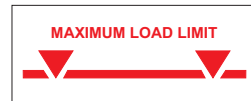
## 7. FREEZING CAPACITY

The following table informs how many liters of food can be frozen efficiently per day.

MODEL	FREEZING CAPACITY (liters)
HFSL 142	5
HFSL 216	7
HFSL 311	12
HFSL 411	16
HFSL 503	20
HFSL 550	23,6
HFSL 131i	4,5
HFSL 201i	7
HFSL 293i	10
HFSL 388i	13,5
HFSL 476i	17
HFSL 510i	22,5

## 8. LOAD LINE

Never overload the equipment and do not exceed the load line.



By placing products above this line, Fricon does not guarantee that the equipment reaches the proper temperature for the products.

## 9. DEFROSTING AND CLEANING

By placing products above this line, Fricon does not guarantee that the equipment reaches the proper temperature for the products.

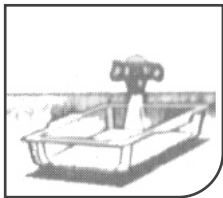
Defrost the equipment whenever the ice sheet reaches about 1cm thick in the evaporator area (internal sides of the equipment) by following the instructions below (while the ice cover is 0.5 cm, no defrosting is required).

For extended shutdown, also follow the steps below:

- One day before removing the defrost, turn the thermostat to the maximum position (7) so that the products reach the lowest possible temperature.
- Switch off the product by removing the plug from the wall outlet.
- place food inside another refrigerator freezer or cooler.
- Keep the product open during defrosting.
- Use plastic spatulas to scrape the ice.

**Important:**

- Never use metal and sharp objects to scrape ice. They may damage the product.
- For drainage, just locate the drain as shown in Fig. Below, place a container to deposit the water, preventing it from spreading on the floor, open the drain cover located inside the equipment where the defrost water will be deposited.



- In equipment with straight glass covers, the drain is located at the front. For curved glass cover devices, the drain is at the rear
- After defrosting, wash the equipment with a cloth moistened with sodium bicarbonate solution and warm water (1 tablespoon for each liter of water). After cleaning, dry it carefully and replace the cover to avoid water leakage on the floor during the operation of the equipment.
- Turn on the equipment and replace the food keeping the maximum position of the thermostat (7) and / or the " Super " button activated for 24 hours.
- Then return to the normal operating

position.

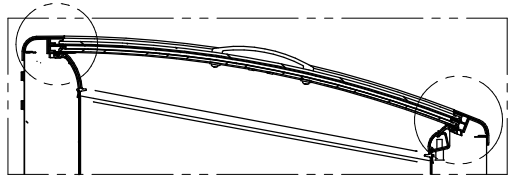
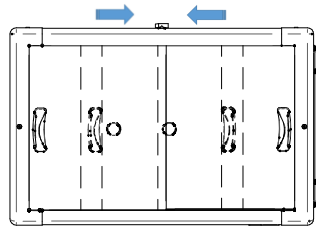
- Never use detergents, abrasives, steel wool or cleaning brushes.

**GLASS CLEANING**

All the equipment of the Fricon horizontal family with glass lids has low-e glass (Low-E), where it is necessary to be careful.

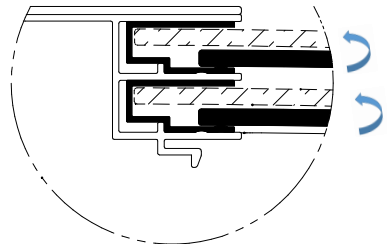
**Slide both covers to the center of the equipment.**

**OPEN GLASS COVERS**

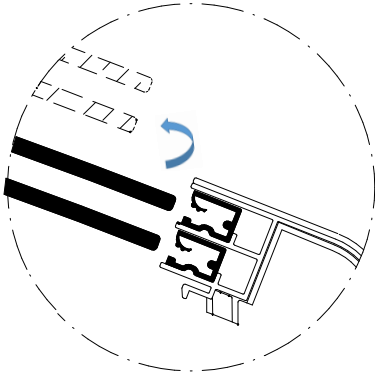


Side view of the equipment

Lift the glass to fit it in the upper housing of the profile as shown in the image below:



When fitting the glass to the upper profile (as shown above), it will come out of the lower profile (as shown below) for total removal.



#### CLEANING TIME:

- Window cleaning can only be done with the equipment turned off.

#### DETERGENTS:

- Caps with low-emissivity protection can only be cleaned with a cotton cloth slightly moistened with clean water and neutral pH.

#### IMPORTANT

- The application of any type of detergent is not allowed, aiming that the low emissive coating may be damaged.
- The use of abrasive micro fiber cloths, squeegees, or spongy cloths is prohibited.
- Products that have glass covers are designed to withstand a maximum temperature and humidity of 32 ° C and 65% RH without condensation. At higher temperatures or humidity there is the possibility of condensation in the glass. In environments without adequate lighting or in the night period, the occurrence of condensation is also greater, once the glass uses ambient lighting for heating and dissipation of condensation. In these cases, we suggest drying the external surface of the glass when opening the establishment to improve the visibility of the products.



## EQUIPMENT ACCOMPANYING LABEL

EQUIPMENT FOR COMMERCIAL USE



**01** **MERCOFRICON/SA**  
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e-mail: mercofricon@fricon.com.br (BRASIL)

**FRICON**<sup>®</sup>

**02** Desc: **CONSERV HOR 510 PADRAO 11000**

**03** Cod: **HFSL510-11000**

**05** Volume: **510 L**

**04** Mod: **HFSL510i**

**06** Serie N.: **0123456789**

**Gases**

**07** Refrigerant gas: **R290**

**08** Expander: **03 - Cyclopentane**

**09** Amount: **135 g**

**Class**

**10** Temperature: **7**

**11** Elect. Insulation: **I**

**Rating**

**12** Defrost: **-**

**13** Lighting: **-**

**14** Low side pressure: **129 PSIG**

**17** Voltage Range: **120V ~ 60Hz**

**18** Current: **3,54 A**

**19** Consump (24h): **3,78 kWh**

**15** Equipment: **148 W**

**16** High side pressure: **293PSIG**



123456789123456



**20** Ref: **HFSL510-11I7XN**

**21** Fabricação: **28/09/2021**

1. Identifies the manufacturing unit.
2. Identifies the equipment description.
3. Identifies the product code.
4. Identifies the model of the purchased equipment.
5. Identifies the gross capacity (volume in liters) of the equipment.
6. Identifies the serial number of the equipment.
7. Identifies the refrigerant gas used in the equipment.
8. Identifies the expander used to expand the insulation foam (3 = cyclopentane).
9. Identifies the amount of freezing gas used in the freezing system of the equipment.
10. identifies the temperature class to which the equipment is intended.
11. Identifies the type of electrical insulation of the equipment.
12. Identifies the equipment's power during the defrost (when there is defrost by heated resistance).
13. Identifies the power of the illumination (when it exists in the equipment).
14. Identifies the equipment down pressure
15. Identifies the power consumed by the product in normal use<sup>1</sup>.
16. Identifies the high pressure of the equipment.
17. Identifies the voltage range for which the product is dimensioned.
18. Identifies the nominal current of the product when in normal use<sup>1</sup>.
19. Identifies the average power consumption in 24 hours when the product is in normal use.
20. Identifies the equipment reference code.
21. Date of manufacture of the equipment

<sup>1</sup>Electrical data as IEC 60335-2-89.

## WARRANTY INFORMATION

Dear valued Customer.

This equipment was designed, manufactured and tested within the best standards of technology and quality, in order to meet your needs, as this is our first objective. This equipment is guaranteed against any defect in material or workmanship that appears in the period of the contractual warranty contained in this certificate. The warranty services to be provided are restricted only to the replacement or free repair of defective parts, provided that, at the discretion of an accredited technician, it is found that there is a failure in normal conditions of use, during the term of the warranty, as provided for in the present certificate. The contractual guarantees become null and void if this equipment suffers damage caused by accidents, agents of nature, natural wear and tear of parts and components, abuse or in violation of the instructions for use provided in this manual, carelessness of the user in handling, or, in the case of showing signs of violation, adjustment or repair by labor not authorized by FRICON.

For equipments outside of Brazil, the warranty is offered according to negotiation and / or local legislation.

## TABLE OF POTENTIAL PROBLEMS AND POSSIBLE SOLUTIONS

Many times, you can identify any problem with your product. In the following table, if the same problems persist, please contact our customer service by e-mail: SAC.EXPORTACAO@MERCOFRICON.COM.BR you will find the list of the most common problems and their possible solutions:

Problem	Possible Cause	Procedures
<b>Freezer does not work / does not turn on</b>	Power is missing (check to turn on a lamp).	Do not open the cover. It will be necessary to shorten the equipment avoiding the loss of products.
	Very high or very low voltage (check the oscillation of the lamps of the residence).	Install an automatic voltage regulator with power not inferior recommended in section 2 INSTALLATION.
	Fuse blown or circuit breaker from the power input box disarmed.	Put it on or replace it.
	Defective power outlet (check connecting another device).	Replace / Repair outlet.
	Thermostat in the off position.	Adjust to the convenient position.
<b>Freezer does not freeze</b>	Excess/wrong distribution of food.	Redistribute food as instructed in this manual, respecting the load limit.
	High frequency of door opening.	Avoid opening the door unnecessarily.
	Device installed improperly.	See the "installation" section.
	Thermostat may not be in the proper position.	Check item "temperature regulation".
<b>Noise</b>	Product uneven in relation to the floor.	Try to level the product in relation to the floor or change the installation location.
	Product with the back side attached to the wall.	Take off the wall leaving 10 cm of space (see fig 1).
	Excessive noise at start of operation (When the unit is switched on after an idle period).	Try to level the product in relation to the floor or change the installation location.
<b>Equipment vibrating too much</b>	Equipment uneven in relation to the floor.	Try to level the equipment in relation to the floor or change the installation location. If the problem persists, please contact the customer service.
<b>Products are freezing</b>	Thermostat may not be set to the proper temperature for the product.	Check item 6 or 7 for thermostat temperature control.
<b>Equipment presenting water on the floor</b>	Equipment may be with drain cap badly fitted.	Check that the drain cap is properly fitted and if problem persists, please contact our customer service.
<b>Too much water forming on the outside of the glass lids.</b>	Thermostat may not be in the proper position.	Check items 4 and 5 on thermostat positioning.
	Equipment may not be in a humidity area compatible with which it was designed for.	Check whether the equipment is close to moisture generating sources (cranes, etc.) and change the location of it. Or check the relative humidity.
	Equipment may be with excessive amount of products (overloaded).	Check that the products inside the equipment are not exceeding the load line (check item 9).
<b>Lighting does not work.</b>	Burnt out LED or LED source.	Contact customer service.

## **MERCOFRICON S/A**

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## **ATTENTION**

ANY DOUBT OR ADDITIONAL  
INFORMATION, PLEASE  
CONTACT OUR LOCAL AGENT.