



Refrigerator
for recreational vehicles
Freeline Slim 70-90-140

Installation and use instructions

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1. Safety

1.1 Before starting up the product

Carefully read all of the installation and use instructions. These contain important information for product installation, use, and maintenance.

The manufacturer cannot be held responsible for any damage or injury arising from improper and/or unreasonable use.

Keep all documents for future use or for the next owner, if applicable.

1.2 Technical safety

This product contains a small amount of R290 or R600a refrigerant (depending on model), an environmentally compatible gas, but it is flammable. During transport and installation of the product, be careful not to damage any part of the refrigeration circuit. Leaking refrigerant under pressure could cause eye inflammation.

In the event of damage

- keep the product away from flames or sources of ignition,
- ventilate the room for a few minutes,
- turn the product off and pull the plug,
- inform the authorized Customer Support Service.

To avoid the formation of a flammable mixture of gas and air, when there is a leak in the refrigeration circuit, the size of the room in which the product may be located depends on the amount of refrigerant used. Never turn the product on when there are signs of damage. If in doubt, please contact the Manufacturer.

If the power cable is damaged, it must be replaced by the manufacturer, the customer support service, or a person with similar qualifications and authorized by the Manufacturer.

Installations and repairs performed by untrained personnel may create significant danger for the user.

Repairs must be carried out by the manufacturer, the customer support service, or a person with similar qualifications and authorized by the Manufacturer.

Only original spare parts from the Manufacturer may be used. The manufacturer will only guarantee that the safety requirements are met when these parts are used.

A power cord extension must only be purchased from the customer support service.

1.3 Intended use

The product is designed for storing foods at low temperature and is only intended for use in recreational vehicles. The product is not suitable for any other use. Any use that does not comply with the indications in this manual is considered improper and dangerous.

ATTENTION



The manufacturer accepts no liability for damages or injuries caused by non-compliance with the provisions and instructions listed in this manual or by failure to comply with the safety and accident prevention provisions in the various countries.

This product must not be handled and/or used by children under 8 years of age and/or people with reduced physical, sensory and cognitive abilities, unless they are supervised and/or adequately instructed on its use by a person responsible for their safety and aware of all the possible risks involved.

1.4 Improper use

ATTENTION



The refrigerator is only suited to the storage and/or preservation of food products. Food products must be stored in their original packaging or in suitable containers. Do not consume food whose shelf life has expired, as it may cause illness.

ATTENTION



The purpose of the freezer product is only to keep already completely frozen food products frozen.

The refrigerator does not freeze unfrozen or partially frozen foods. When an unfrozen or partially frozen food product must be stored in the freezer, this is considered an improper use and may cause possible and unintentional thawing of the food product, which could lead to safety problems, illnesses, or injury if ingested.

Storing unfrozen or partially frozen foods in the freezer may impact the quality of other frozen foods stored in the freezer.

Exposure to temperatures above the temperature range of the climate class for which the product was built, interruptions in the power supply and/or frequent opening of the freezer may influence the refrigerator's effectiveness and the quality of the freezer's contents.

ATTENTION



When medicines must be stored inside the appliance, make sure its cooling capacity meets the requirements for those drugs.

ATTENTION



The packaging elements (plastic bags, Styrofoam, etc.) Must not be left within reach of children or disabled individuals as it is potentially harmful.

ATTENTION



This product must not be handled and/or used by children under 8 years of age and/or people with reduced physical, sensory and cognitive abilities, unless they are supervised and/or adequately instructed on its use by a person responsible for their safety and aware of all the possible risks involved.

Keep the product and its power cable out of the reach of children under 8 years of age and prevent them from playing with the product (avoid the risk of entrapment and suffocation within it). Cleaning and maintenance intended to be carried out by the user must not be carried out by children without supervision.

ATTENTION



Keep children under 8 years of age away from the product or under constant supervision. Do not allow children to play with the product. Children could get trapped and suffocate. Do not allow children to clean or perform maintenance on the product without supervision.

ATTENTION



Do not use mechanical, electrical, or chemical methods to speed up defrosting, which must occur automatically. There is a risk of perforating the refrigerant circuit. Do not touch the internal cooling parts. There is a danger of burns or injury.

ATTENTION



Do not store the following in the product or near its electrical parts: spray cans based on flammable substances, explosive materials, electrical equipment, live animals. Spray cans containing flammable substances may leak gases that could ignite or cause explosions if they come into contact with the electrical parts.

Keep beverages with a high alcohol percentage closed and in a vertical position.

Avoid flames or sparks inside the product.

Avoid using electrical devices inside the product

1.5 List of hazards

DANGER

REFRIGERANT GAS

ATTENTION! During use, maintenance, and disposal of the product, pay attention to the symbol to the side: a similar symbol on an orange or yellow background is located on the back of the product (rear panel or compressor).



This symbol means there is a risk of fire. There are flammable materials in the refrigerant pipes and compressor. Make sure that this circuit has not been damaged during transport and/or installation and, in the event of damage (for example, in the rear serpentine) with refrigerant leaks, ventilate the room in which the product is located by opening a window.

Please keep any sources of ignition a safe distance away during use, maintenance, and disposal.

ATTENTION

REFRIGERANT

To avoid the formation of a flammable mixture of gas and air, when there is a leak in the refrigeration circuit, the size of the room in which the product may be located depends on the amount of refrigerant used. Never turn the product on when there are signs of damage. If in doubt, please contact the Manufacturer. The room must be greater than or equal to 1 m³ for each 8g of R290 or R600a refrigerant used inside the product. The amount of refrigerant present in the product is indicated on the identification plate.



DANGER

ELECTRICAL NETWORK

Always disconnect the power supply from the product before proceeding with any work on it to avoid damage and health hazards.



ATTENTION

AUTHORIZED TECHNICAL STAFF

Only technical personnel specialized in the electrical, hydraulic, and refrigeration fields can work on the product. All wiring and hydraulic components must comply with national and local laws (for the replacement of components, use only original spare parts certified by the Manufacturer).



1.6 Residual risks

The machine is safe in its operating conditions. However, there are residual risks, listed in the list of hazards, which are contained with a proper use of the product that follows the instructions in the use and maintenance manual.

2. General information

The use and maintenance manual is an integral and essential part of the product and must be delivered to the user. It is important that it is well guarded and carefully consulted as it contains specifications on the operation, maintenance, and safety of the product and of people and/or things that come into contact with it.

If in doubt regarding the instructions provided in the manual, contact the Manufacturer.

Any contractual and extra contractual liability of the Manufacturer is excluded for damages caused by errors in the use and installation of the product, or in any case by non-compliance with the instructions given by the Manufacturer.

IMPORTANT



The Manufacturer reserves the right to modify the product and the related technical documents without incurring into any obligation towards third parties. Furthermore, they do not assume responsibility for any errors or inaccuracies in the content of the present manual.

The present edition of the use and maintenance manual describes the characteristics of the standard product on the date on which this publication was licensed for printing.

2.1 Manufacturer's details

Indel Webasto Marine Srl

Via Montefeltro, 118/c - Secchiano
47863 - Novafeltria (RN) - ITALY
www.indelwebastomarine.com

The Manufacturer is available for any technical problem and when in need of spare parts.

When replacing product parts, the use of original spare parts is recommended. The Manufacturer declines all responsibility for any deterioration in the performance of the product or for damage caused to it due to the use of non-original parts.

IMPORTANT



This manual refers to the standard version of the product. Machines other than the standard version may have small differences not described in this manual.
Contact the manufacturer if in doubt.

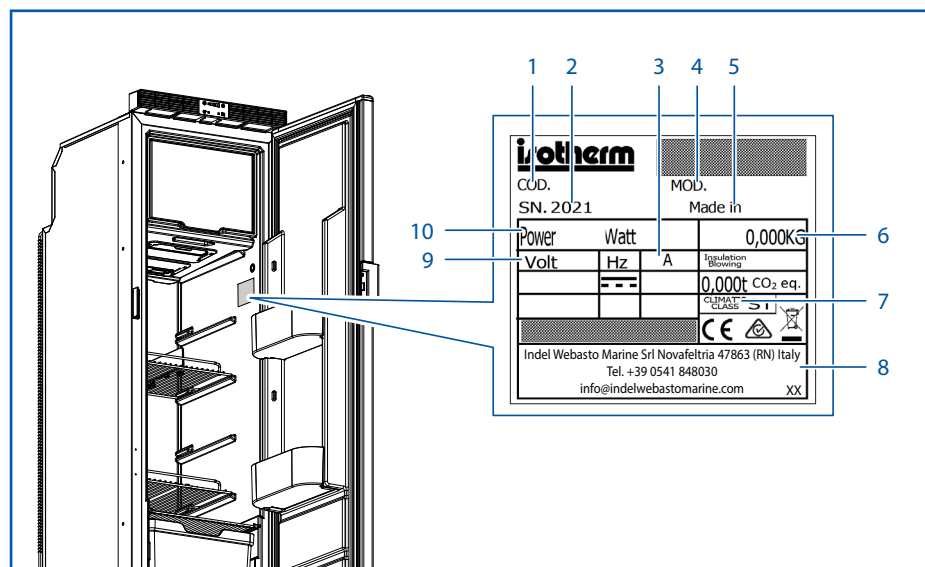
2.2 Product identification

The present manual refers to the following machine:

Refrigerator Freezer
Freeline Slim 70-90-140

Make sure that the product delivered to you is equipped with the identification plate shown below:

- 1) Code
- 2) Serial number
- 3) Rated current
- 4) Model
- 5) Country where manufactured
- 6) Gas type and quantity
- 7) Climate class
- 8) Manufacturer's details
- 9) Operating voltage
- 10) Rated power



This plate contains the model, the serial number, and all the technical data of the product necessary to request spare parts or to report technical problems to the Customer Service Center.

2.3 Consultation method

For better understanding of the material provided in this manual, the warnings and instructions that are considered critical or dangers are highlighted with the following symbols:

DANGER



Indicates information or a message that, if not strictly followed, may put the health and safety of the operators at serious risk.

ATTENTION



Indicates an information or precaution that must be observed to prevent operations that could damage the product.

IMPORTANT



Indicates important information that must be observed to prevent operations that could damage the product, or part of the test that is to be highlighted.

READING INSTRUCTIONS REQUIRED



This symbol means that the instructions must be read before starting up the product.

MANDATORY DISCONNECTION



This symbol means that the product must be immediately disconnected from power in the event of a failure.

COMPULSORY USE OF GLOVES



This symbol means that each operator must wear suitable protective gloves.

SHOES COMPULSORY



This symbols means that each operator is required to wear shoes that reduce the risk of injury.

2.4 Operator qualifications

In order to ensure that all operations performed on the product take place in safe conditions, the operators in charge must have the qualifications and requirements necessary to carry out the relative operations.

Operators are classified as follows:

USER



Unqualified operator, i.e. without specific skills, able to carry out only simple tasks, i.e. the use of the product through the use of the controls placed on it and the performance of simple cleaning operations, following the instructions in this manual during use of the product.

They cannot carry out interventions intended for the installer.

INSTALLER



Operator qualified to carry out complex operations such as installation or maintenance. This is an operator that has been adequately trained through specific activities.

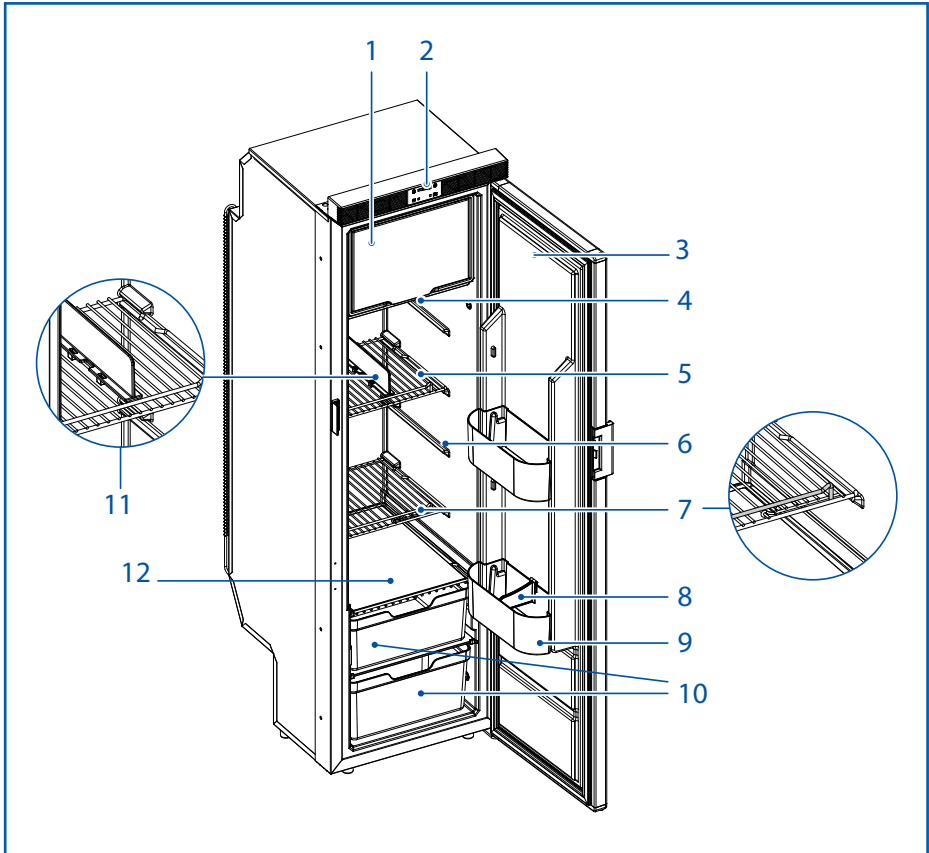
IMPORTANT



The pictograph placed at the beginning of each paragraph includes the person authorized to carry out the operations described.

3. Product description

3.1 Main components



- | | |
|---------------------------------|---------------------------------|
| 1) Freezer door | 8) Separator for bottles/jars |
| 2) Control panel | 9) Bins |
| 3) Refrigerator door | 10) Fruit/Vegetable compartment |
| 4) Condensation collection tray | 11) Separator |
| 5) Grille | 12) Glass shelf |
| 6) Guide | |
| 7) Food lock shelf | |

3.2 Technical specifications

Model	Total capacity (L)	Climate class	Compressor	Refrigerant gas	CI bus
FL70	70	T	BDN50K	R600a	YES
FL90	90	T	BDN50K	R600a	YES
FL140	140	ST	BD80CN	R290	YES

3.3 Energy consumption

Model	Lamp type	Power supply (V)	Instantaneous consumption 12/24Vdc (A)	Instantaneous consumption 12/24Vdc (W)	Average consumption at 25°C (Wh/24h)*
FL70	Led	12/24	3,5/1,7	40	290
FL90	Led	12/24	3,5/1,7	40	340
FL140	Led	12/24	6,0/3,0	70	450

IMPORTANT (*)



Average consumption is measured with internal temperature +5°C and outside temperature +25°C. Average consumption is influenced considerably by the way the product is used and the type of ventilation.

3.4 Dimensions and weight

Model	Weight (Kg)	Width (mm) [W]	Height (mm) [H]	Depth (mm) [D]	Cut-Out (mm) W:H
FL70	20	418	820	410*	420:822
FL90	22	418	973	445*	420:975
FL140	38	418	1380	471*	420:1382

NOTES:

(*) Add 40mm for door dimension

4. Installation



The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

ATTENTION



Do not damage the pipes in the refrigerant circuits, spraying refrigerant could damage eyesight. In the event of damage to the product, immediately inform the supplier before proceeding with the hookup.

ATTENTION



If the power cable is damaged, it must be replaced by the Manufacturer, Service, or qualified personnel.
Install the product in a dry location, protected from sprays of water. The electrical parts **MUST NOT** be exposed to rain and/or sprays of water.

ATTENTION



Install the product away from gas tanks or LPG systems.

ATTENTION



The product must be installed in an area that is accessible for maintenance, if necessary. The compartment where live parts are located and the condenser/compressor unit must only be able to be opened voluntarily and not directly accessible.

ATTENTION



The compressor/condenser installation area must be made of a material that is resistant to the flame test with needle set forth in EN 603335---1, or more than 5 cm away from electrical and/or electronic parts.

ATTENTION



If there is a battery charger present, it must be connected to the battery and not directly to the product.

ATTENTION



The product must be protected from indirect contact according to the Heavy Current Regulations.

ATTENTION



Do not touch any damaged or uninsulated electrical wires when plugged into power.

ATTENTION



The product is suitable for installation in recreational vehicles only.
Not suitable for boats.

4.1 Inspections and packaging removal



The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

After removing the packaging, check all the parts for any transport damage.

In the event of a dispute, contact the supplier where the product was purchased or our customer support service.

IMPORTANT



The product and accessories are wrapped with buffer materials or attached with adhesive tape to prevent movement of movable parts during transport: remove them all before installation. Always transport the product in the upright position.

IMPORTANT



The packaging protected the product from transport damage. All materials used are compatible with the environment and recyclable. Please contribute: dispose of the packaging according to environmental standards. Request information on current disposal methods from your specialized dealer or your local administration.

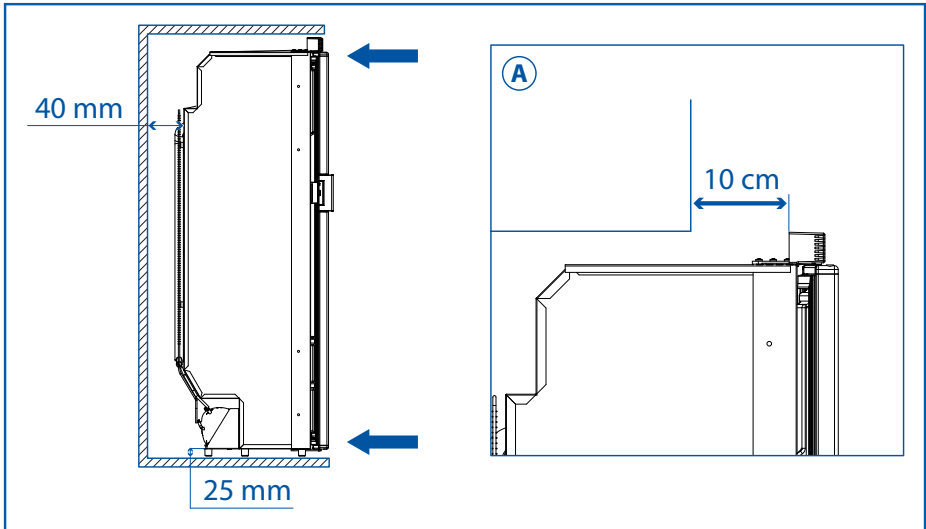
4.2 Positioning



The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

The product was designed and created for recessed installation and conforms to standard dimensions. The product must always be kept in a vertical position, with the rubber feet on the compressor on the bottom. The compressor can operate at an inclination of up to 30°. At a greater inclination, the compressor may become damaged.

- 1) Install the product in a stable cabinet, respecting the ventilation spaces shown in the figure;
- 2) Place the product partially in the cabinet, leaving 10 cm of space at the top (see detail A);
- 3) Connect the power supply connector to the 12 or 24 V outlet on the vehicle;
- 4) Slide the product into the cabinet.



NOTE



Follow the instructions in section 4.2 accordingly.

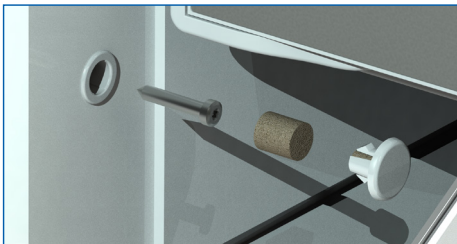
4.3 “Easy Fix” installation



The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

The product is installed in the housing using the Easy Fix system. This system has four special pre-drilled points inside the case for simple and effective installation that is not visible from the outside.

Always block the product so it cannot tilt/slide forward when pulling out the drawer or in the event of sudden vehicle movements. Anchor the product in at least 2 mounting points, as set forth in EN 60335-2-24.



1. Attach the product with screws, using the predefined positions in the housing:
2. Use the white plugs for closing.

IMPORTANT



Make sure the panelling on the furniture is able to support the stress created by the installation of the product.

4.4 Electrical connection



The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

When connecting to the vehicle's electrical system, proceed as follows:

- Before starting up the product, make sure the operating and/or battery voltage correspond to the data on the plate.
- Connect the product directly to the battery or main switch and make sure the system is equipped with an electrical device to protect the circuit from surges.

IMPORTANT



Avoid connecting via the vehicle's electrical panel as this may cause drops in voltage.

- Insert a fuse upstream from the product (see table below). Connect the red cable to the positive pole on the electrical system and the black one to the negative pole. Use a pressed lug that is suited the size of the cable.
- A separate switch must be mounted upstream of the product to disconnect the power cables simultaneously.

Model	12Vdc	24Vdc
FREELINE SLIM 70	15A	15A
FREELINE SLIM 90	15A	15A
FREELINE SLIM 140	15A	7.5A

ATTENTION



If there is a battery charger present, it must be connected to the battery and not directly to the product.

4.4.1 Size of the electric cords

Always use cords with an adequate section. The minimum sections are shown in the table below.

Section mm ²	AWG Section	Max 12V cable length mt/ft	Max 24V cable length mt/ft
2.5	12	2.5/8	5/16
4	12	4/13	8/26

6	10	6/20	12/39
10	8	10/33	20/66

4.5 Ventilation



The operations indicated in this section must be performed by a qualified installer.

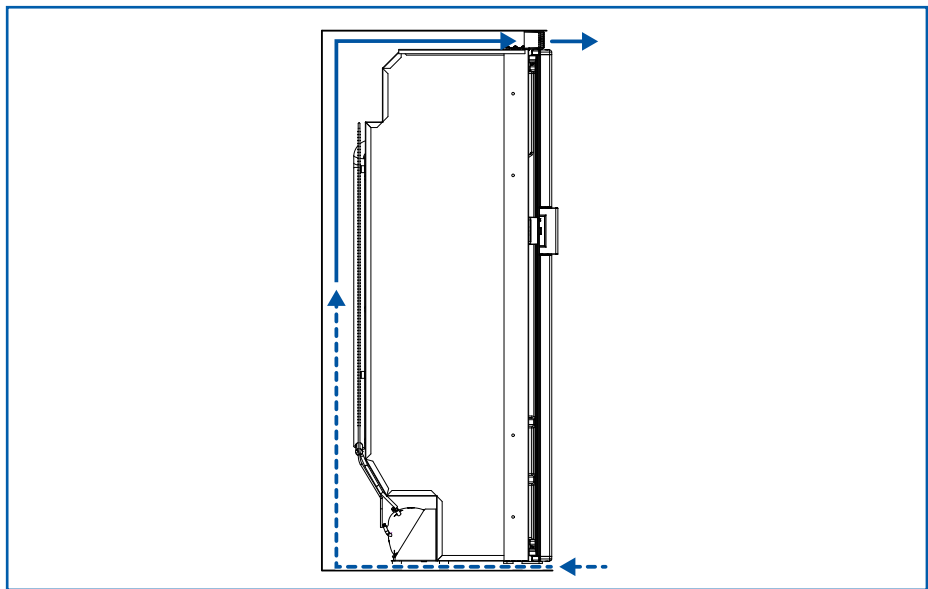
To avoid cutting risks, always use appropriate PPE (personal protective equipment).

The product's performance depends on the proper ventilation. Ventilation is through the front vents on the product. The cold air enters through the lower vent on the front and passes through the upper vent. Here it cools the refrigerant system. The hot air comes out through the upper vent.

ATTENTION



Do not block the upper and lower vents.



4.6 Door panel installation



The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

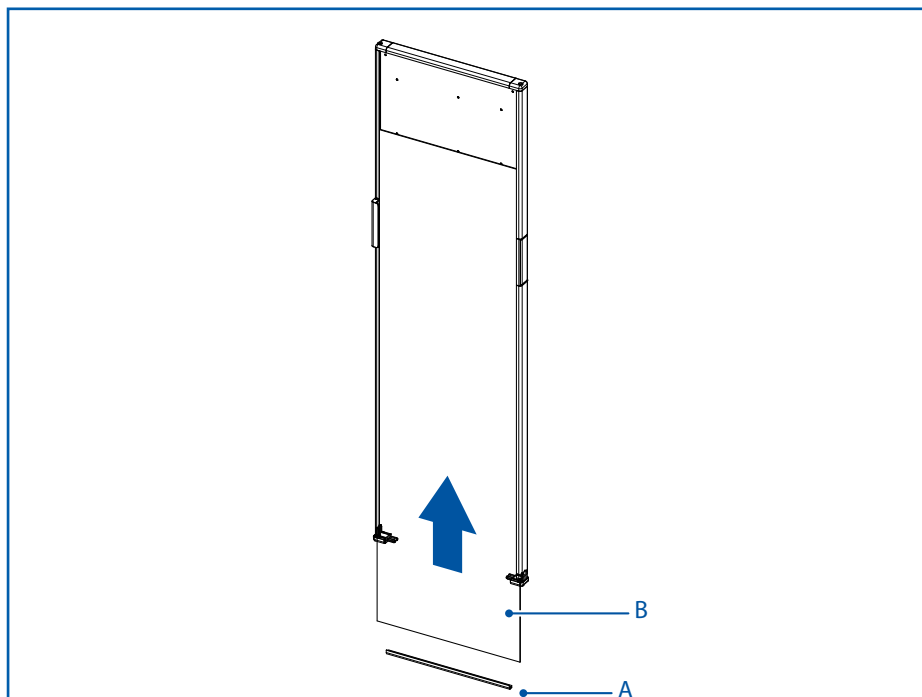
To match the product to the interior, a door panel may be installed, as indicated below.

IMPORTANT



The door panel must be mounted before installing the product.

- 1) Remove the door from the hinges (see section 4.7 a pagina 19);
- 2) Remove the lower panel stop (A), gently extracting it;
- 3) Remove the panel by sliding it gently out of its housing;
- 4) Insert the new panel (B) in the door frame;
- 5) Reset the lower stop (A).



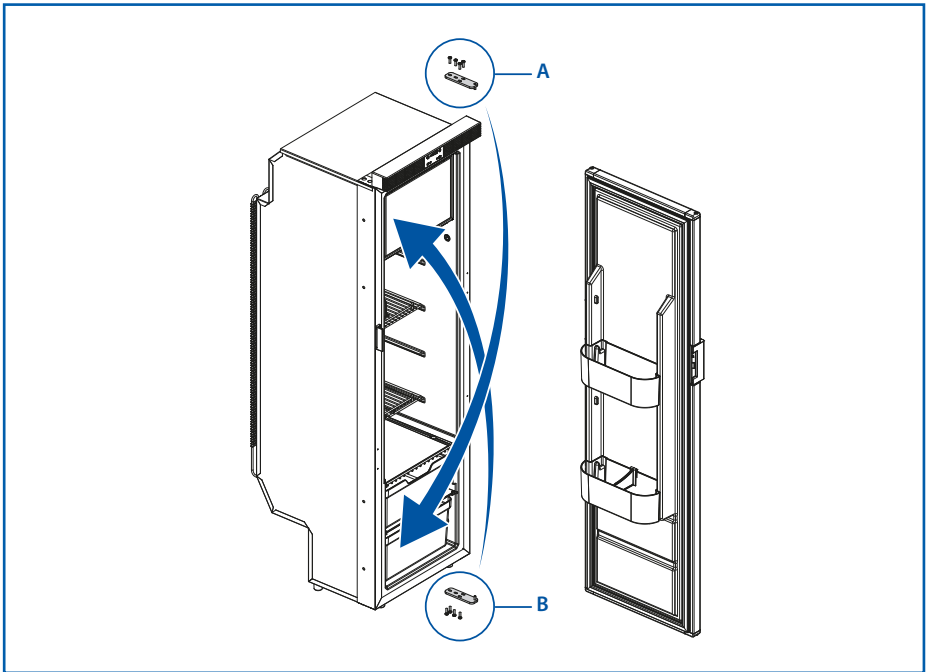
4.7 Door inversion



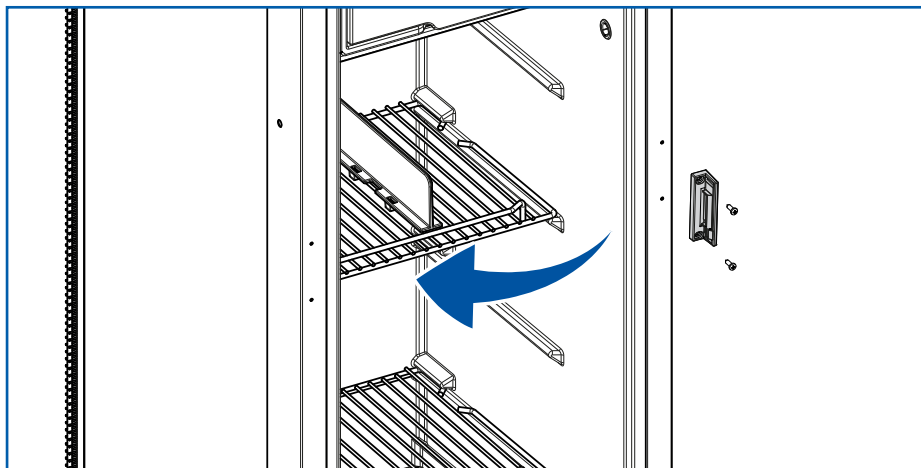
The operations indicated in this section must be performed by a qualified installer. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

To change the direction the door opens, proceed as indicated:

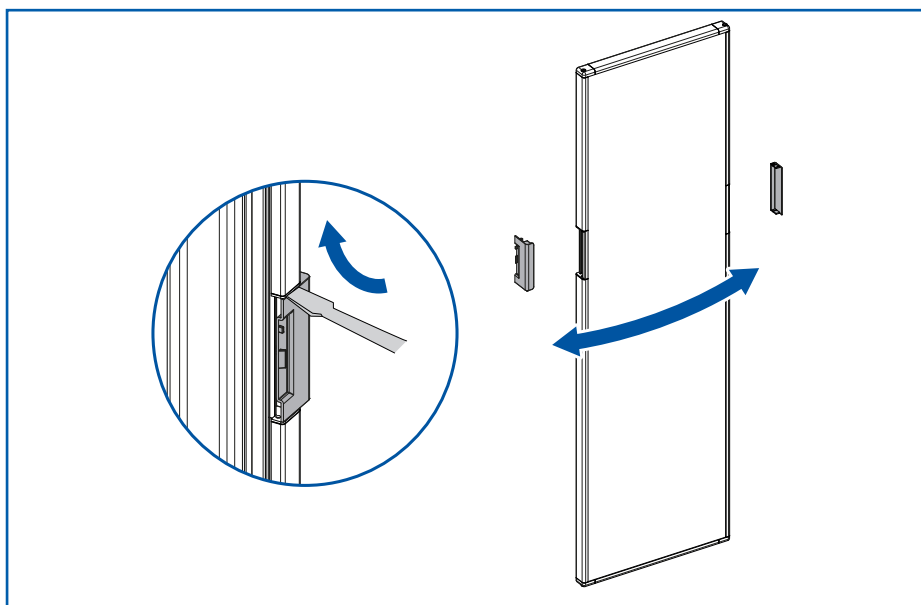
- 1) Unscrew the two door hinges (A and B);
- 2) Invert the upper hinge (A);
- 3) Install the door;
- 4) Invert the second hinge and attach the door.



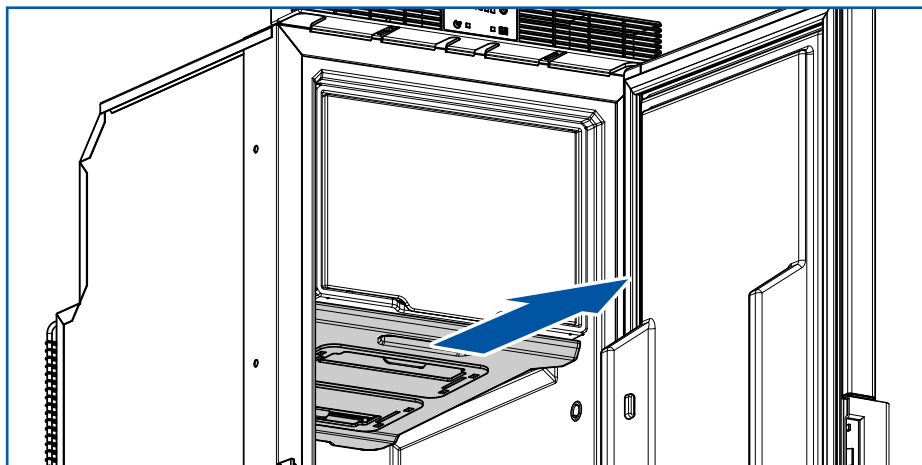
- 5) Move the refrigerator closure from one side to the other;



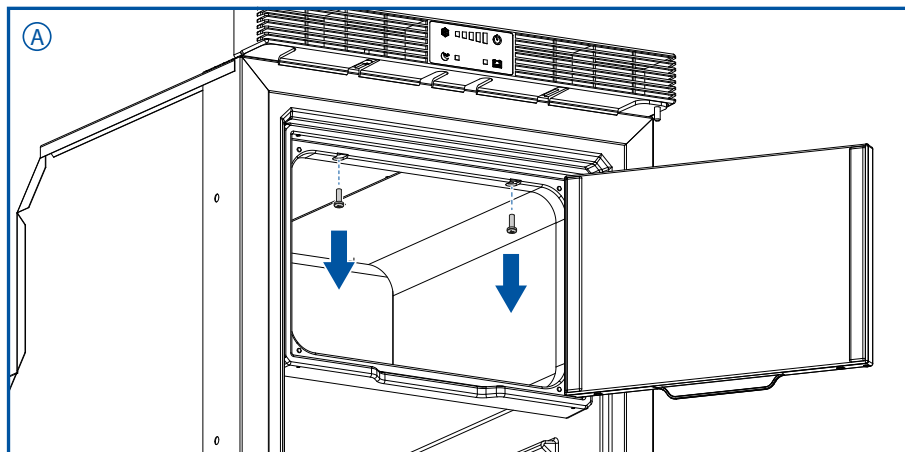
- 6) Move the handle from one side of the door to the other. To remove it, press lightly on the internal handle pin with a screwdriver (see figure), To replace it, lower the two internal pins and wedge it in its housing;



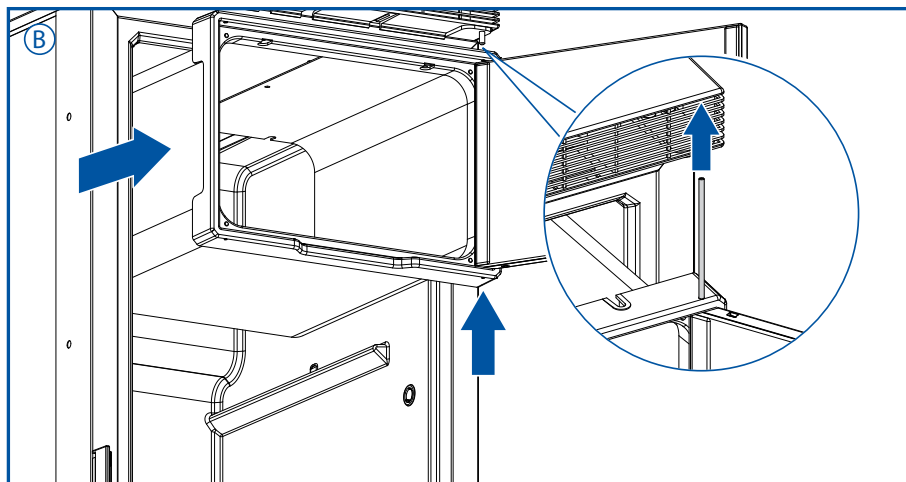
- 7) Remove the condensation collection tray;



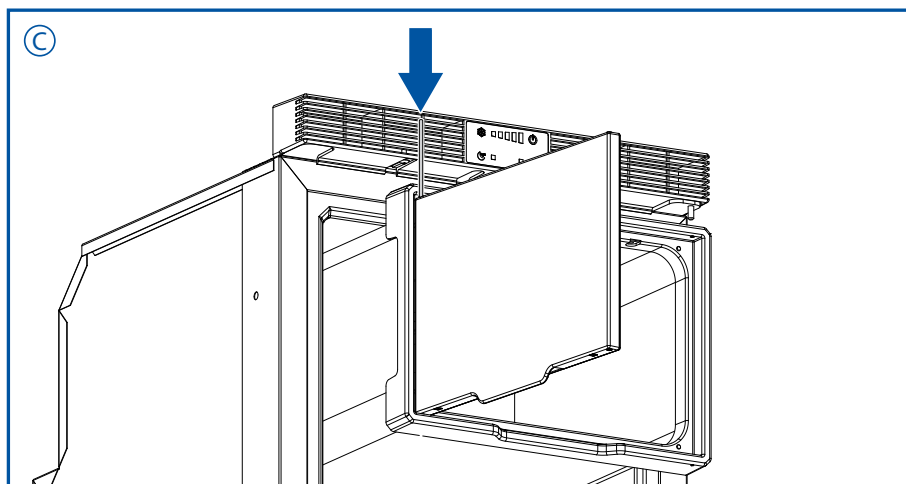
- 8) Remove the freezer compartment mounting screws;



- 9) Partially remove the freezer compartment and remove the door by pulling out its pin, using a slight pressure from the lower hole and sliding it from the upper hole (as shown in the figure);



- 10) Replace the door in the same manner on the other side.



5. Operating instructions

ATTENTION



If you notice abnormal operation, first consult the “TROUBLESHOOTING” section further on in this manual. It will help you solve problems that are not due to failures and that can be remedied quickly.

In any other case, do **NOT** try to repair the product yourself; contact qualified personnel or your retailer. This will avoid possible damages or injury to yourself. Any unauthorized tampering will void the warranty.

Before using the product:

- Turn off the product;
- Make sure all packing materials were removed
- Thoroughly clean the inside of the product and its accessories with warm water and neutral soap, then dry completely with a cloth;
- Clean the outside of the product with a soft, damp cloth;
- Wait until the product is completely dry;
- Connect the product to the power supply as indicated in the specific paragraph.

5.1 Startup

To switch on the product:

- Press the on/off button and hold down for at least 3 seconds.

NOTE



After 10 seconds, the display shuts off and only the power light remains lit (1). The light indicates that the product is still in operation.

NOTE



For optimum performance, turn the product on 6 hours before placing products in it.

5.2 Functions

The product is equipped with a digital panel:






1. Power on/off button
2. Thermostat button
3. "Silent Night" button
4. "Smart Function" button

5.3 Temperature

adjustment

The refrigerator must be on to display the set temperature level.

- Press the  button once to show the set temperature level.
- Press the  button again to select the desired cooling level.
- Press the  button consecutively to select the temperature levels in sequence (from 1 to 5).

NOTE



The product's temperature and active operating time depend on the ambient temperature and battery conditions, the electric charge of other devices in the vehicle, the contents, and the frequency of use.

NOTE




When the vehicle is exposed to full sunlight, we strongly recommend activating adequate ventilation of the vehicle.

5.4 "Silent Night" function

"Silent Night" was designed to be used during periods when the product is used less, for example, during the night.

When this mode is active, the product reduces the noise level to increase the comfort level on board, modulating cooling based on energy availability.

- To activate the mode, press the  button.

The blue light next to the  button indicates that Silent Night mode has been activated.

- To disable this mode, press the  button.

NOTE



We do not recommend using Silent Night mode when the room temperature is above 32°C.

NOTE



Silent Night mode disables itself automatically 10 hours after activation.


NOTE





Silent Night mode may be activated simultaneously with the Smart function.

5.5 “Smart” Function

When this mode is active, the product continuously measures the amount of energy available, accumulating cold in foods during the periods in which it is in abundance and reducing the energy consumption when it is limited.

- To activate the mode, press the  button.

The blue light next to the  button indicates that Smart mode has been activated.

- To disable this mode, press the  button.

NOTE



We do not recommend using Smart mode when the external temperature is below 20°C.

NOTE








Smart mode may be activated simultaneously with the Silent Night function.

5.6 Battery protection level adjustment

The battery protection level defines the minimum voltage under which power to the product is interrupted.

To set the battery protection level, proceed as follows:

- with the product off, press and hold the “Silent Night” and “Smart” buttons for 3 seconds. This makes it possible to display/set the battery protection level.
- Each time the intensity button is pressed, another LED lights up until the maximum level is reached (5). Once at level 5, pressing it again starts over from level 1.
- To save the change, wait until the display stops flashing and turns off. Once restarted, the appliance will use the newly set values.

Levels	Values (V±0.3) for	
	Cut-in	Cut-out
	10.9	9.6
	21.3	22.7
	11.3	10.0
	23.4	22.0
	11.7	10.4
	24.2	22.8
	12.0	10.8
	25	23.6
	12.4	11.1
	25.7	24.3

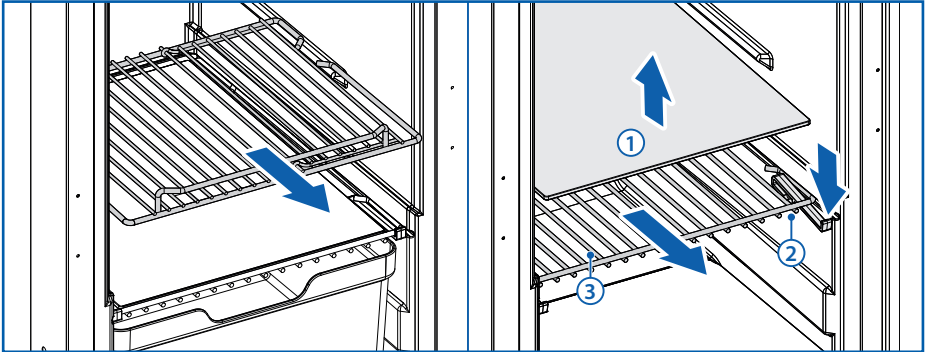
5.7 Recommendations for use

- If possible, turn on the appliance about 6 hours before adding products.
- Frequent opening of the appliance leads to greater power consumption.
- Adequate ventilation of the compressor and condenser significantly reduces power consumption.
- Never block the product’s ventilation system.
- The electrical system must be in excellent conditions. Check the batteries and their charge level regularly. Always use a starter battery separate from the motor.
- The compressor can operate at an inclination of up to 30°. Greater angles may cause permanent damage to the compressor.

5.8 Shelf organization

5.8.1 Grille positioning

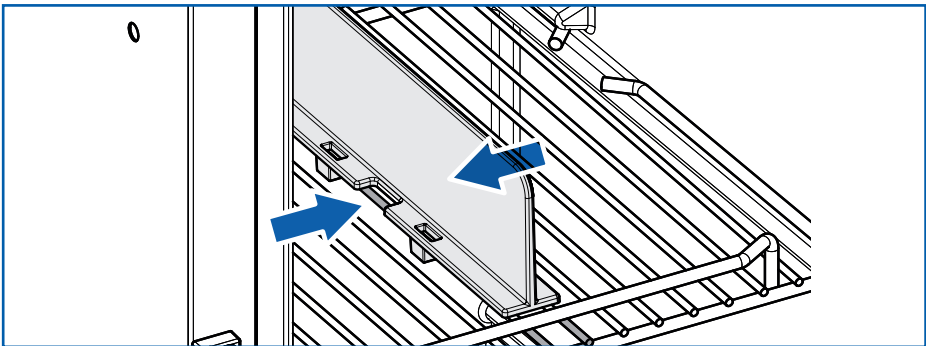
To organize the refrigerator compartment as desired, move the grilles as indicated in the figure.



5.8.2 Using the separators

The separators are provided with the product to limit the movement of foods during travel (see components 8 and 12 section 3.1 a pagina 11).

To move the shelf separator, use the two strips it rests on. Exert a small amount of pressure, as shown in the figure, and reposition the separator as desired.



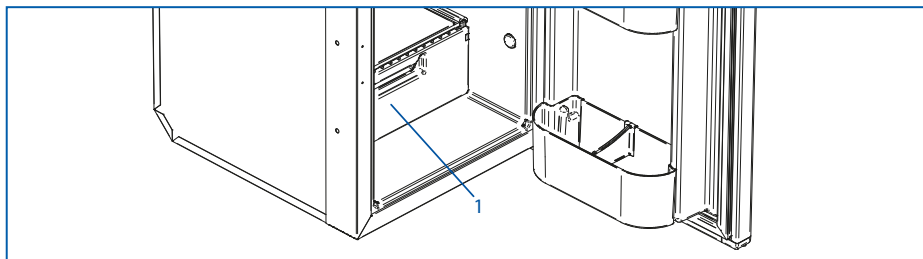
NOTE



Make sure no food inside the product can move while travelling.

5.8.3 Using the compartments (models FL70 and FL90)

Use the compartment (1) for fruit or vegetables.



5.8.4 Using the compartments (model FL140)

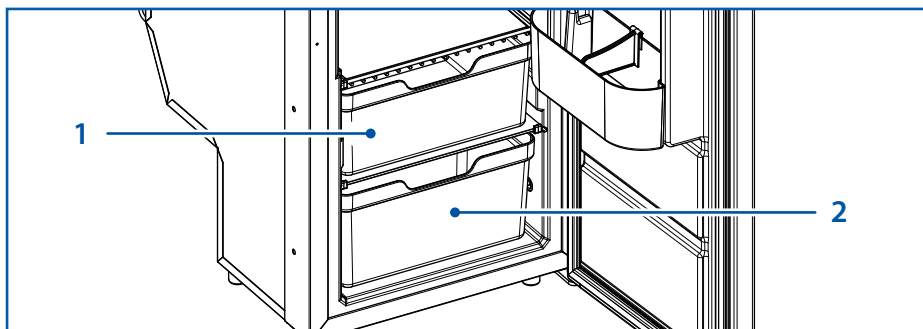
Use the lower compartment (2) for fruit.

Use the upper compartment (1) for vegetables.

NOTE



When the room temperature is 32°C or above, we recommend removing the glass shelf located above the upper compartment (see section 3.1 a pagina 11) to optimize cooling of the refrigeration compartment.



5.9 Condensation collection tray (models FL70 and FL90)

The condensation collection drip tray is designed to collect water drops that accumulate during normal use of the products.

To empty the condensate drip tray, read the relevant chapter (see "6.1.2 Emptying the condensate tray" a pagina 32).

NOTE



Check the condensation tray regularly and always empty it before travelling.

NOTE



(Only for FL70 model) To ensure proper function of the refrigerator and freezer compartments, keep the polystyrene insulation in place.

5.10 Smart Tray

The Smart Tray was designed to perform two functions: collect water drips that accumulate during normal use of the products and, through the use of its two windows, convey the cooling energy to boost the freezer or refrigerator compartment.

To empty the Smart Tray (see "6.1.2 Emptying the condensate tray" a pagina 32).

NOTE



Check the Smart Tray regularly and always empty it before travelling.

5.10.1 Cooling regulation

- To increase the cooling power of the freezer compartment, the windows on the drip tray may be closed (A).

NOTE



Only recommended if external temperatures are mild.

- To increase the cooling part of the refrigerator compartment, the windows on the drip tray may be opened (B).

NOTE

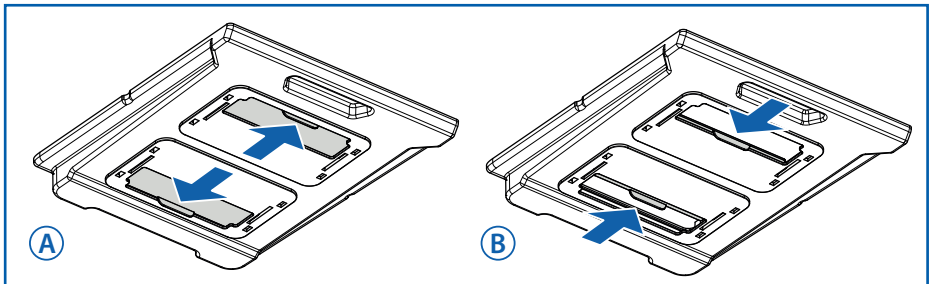


Recommended if external temperatures are high.

NOTE



When the room temperature is 25°C or above, we recommend opening the windows progressively to obtain the proper balance between the refrigerator and freezer compartments.



5.11 Shutting off and decommissioning

Turn the product off before defrosting or storing the vehicle

- Press the on/off button and hold down for 3 seconds. The light on the display will turn off.

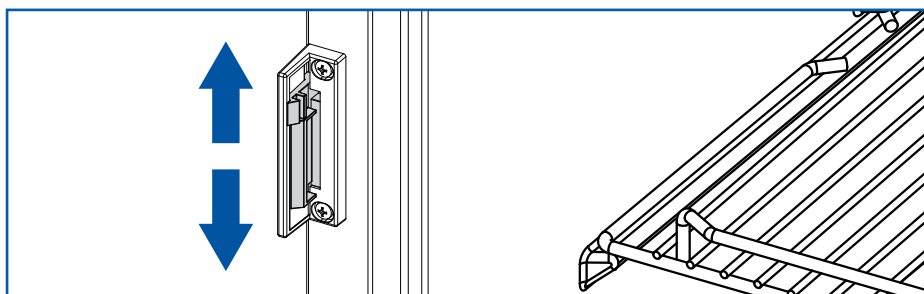
If the product will not be used for a long period of time:

- Empty the product;
- Completely defrost the product and remove the condensation that was formed to prevent damage to the product, electrical/mechanical components, and/or to prevent mould;
- Thoroughly clean the entire refrigerator.

While the product is not being used, keep the refrigerator and freezer doors open.

The product has a special door block system to set the door in ventilation position.

To set the door in ventilation position, use the door lock, pushing it up, for ventilation position, or down, for closing position, as shown in the figure.



NOTE



If the door opening direction is inverted, the door lock system will operate in the opposite sense.

6. Maintenance

This chapter contains the complete list of requirements and procedures related to maintenance of this appliance. Good maintenance calls for periodic interventions, which include various cleaning operations.

If you do not understand the information or procedures contained in this chapter, contact the Manufacturer for clarification before proceeding.

If maintenance of the appliance is carried in a manner that does not comply with the instructions provided, with non-original spare parts or without the manufacturer's written authorisation, or in any case, in such a way as to compromise its integrity or modify its characteristics, the manufacturer shall be relieved of any liability relating to the safety of individuals and machine malfunction.

Any unauthorized modification intervention invalidates the contractually defined warranty.

NOTE



Do not perform any intervention, modification, or repair of any kind other than those indicated in the present manual.

DANGER



Always disconnect the power supply from the product before proceeding with any work on it to avoid damage and health hazards.

6.1 Routine maintenance



The operations indicated in this section may be performed by the user. To avoid cutting risks, always use appropriate PPE (personal protective equipment).

6.1.1 Cleaning

For optimal performance, clean the product regularly:

- Turn off the product;
- Remove the shelves, compartments, removable tray, and drawers;
- Thoroughly clean the inside of the product and its accessories with warm water and neutral soap, then dry completely with a cloth;
- Clean the outside of the product with a soft, damp cloth;
- Wait until the product is completely dry;
- Switch the product back on.

ATTENTION



Do not use harsh detergents, abrasive metal sponges, or hard brushes. They could damage the product.

ATTENTION



Do not clean the product with harsh, caustic, or soda-based soap or detergents.

ATTENTION



Do not expose the product to water.

NOTE



The free parts of the product are not dishwasher safe.

NOTE

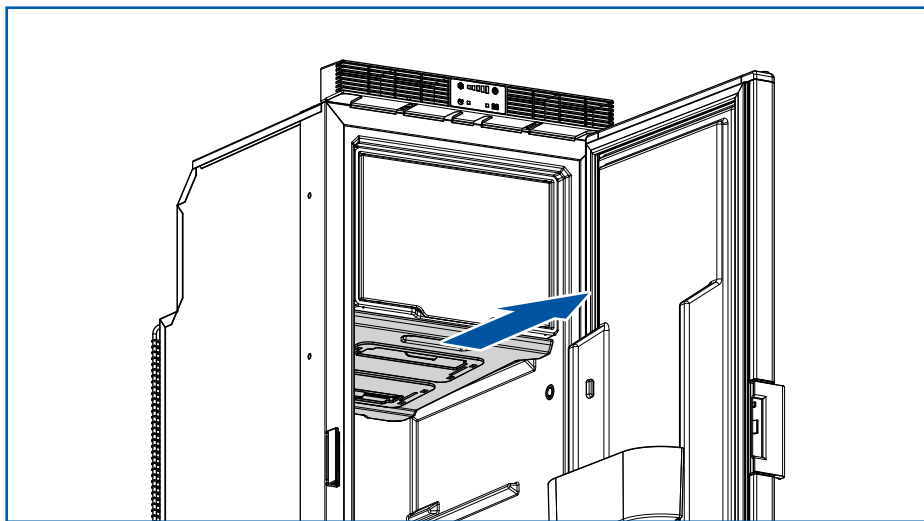


Dust below the product could block the air flow necessary for proper operation.
Therefore, frequently remove all dust located in this area using a vacuum, for example.

6.1.2 Emptying the condensate tray

Always keep the inside of the product clean and dry.

Remove the condensation from the condensate tray below the freezer compartment, as shown in the figure.



NOTE



Check the condensate tray regularly and always empty it before travelling.

6.1.3 Defrosting

Ice can accumulate in the freezer compartment and on the surface of the refrigerator compartment.

Always defrost the refrigerator when the frost layer is 3-4 mm or greater.

Otherwise, the product's performance may drop.

To defrost the product, proceed as follows:

- Remove all food;
- Turn off the product;
- Defrost when the products may remain as cool as possible outside of the appliance. Do not use sharp or pointy objects to remove the ice and frost from the walls, since the product could be damaged, causing refrigerant leaks.
- Remove, empty, and dry the drip tray under the evaporator. As needed, during defrosting, place a towel under the refrigerator to make it easier to collect the water.
- Only turn the product back on after it has been carefully defrosted, cleaned, and dried.

ATTENTION



Do not accelerate the defrosting process by forcing the removal of the ice layer with sharp objects or using a hair dryer or other electrical device.

6.2 Extraordinary maintenance



The operations indicated in this section must be performed by a qualified installer.

To avoid cutting risks, always use appropriate PPE (personal protective equipment).

Extraordinary maintenance interventions are those which are carried out following failures or malfunctions. These may involve the replacement of some components by specialized and authorized technical personnel.

ATTENTION



All extraordinary maintenance interventions must be carried out by technical personnel authorized by the Manufacturer.

7. Search for malfunction

All operations on electrical parts or connections and on the refrigerant circuit must be performed qualified and authorized personnel.

ATTENTION



Disconnect from power before any operation on the electrical parts or connections.

Problem	Possible cause	Intervention
The refrigerator does not cool, the compressor does not start.	Lack of power supply. Battery is in poor condition.	Make sure the electronic panel is receiving sufficient power and voltage; check the fuse. Make sure the internal light is working and the compressor is getting power. Check the wires, terminals, and connectors. Make sure the battery is recharging properly.
The compressor only makes short attempts to start.	Insufficient voltage or a voltage drop during the startup attempt activates the protection. Batteries drained.	Check wires and connections; remove any traces of oxidation or corrosion. Charge the batteries, turn on the engine, or collect the battery charger.
The compressor operates for a long time but cools insufficiently (reduced efficiency).	Insufficient ventilation, condenser overheating. Too much frost in the inside compartment that keeps the door from closing properly. Condenser blocked by dust	Check the installed state of the product. If possible, remove the product from the cabinet where it is installed. If the performance improves, make improvements to the ventilation system (see "4.5 Ventilation" a pagina 17). Defrost. Correct the position of the door and check the gasket. Thoroughly clean the entire refrigerator.
The fuse blew.	Wrong fuse. Electronic control unit failure	Check the fuse: see the table in section 4.4 a pagina 16. Replace the electronic control unit.

The compressor functions intermittently.	Low battery or faulty electric wires.	<p>Check the status of the wiring; look for loose connections, rust, or discolouration.</p> <p>If the wiring must be replaced, consult the manual for the proper sizing.</p> <p>If the wiring is in good condition, check the operation of the battery and replace if necessary.</p>
The compressor never stops (proper refrigerator performance)	<p>Room temperature higher than the product's climate class.</p> <p>Insufficient ventilation.</p>	<p>Check the room temperature with that of the product.</p> <p>Check the installation state of the product. If possible, remove the product from the cabinet where it is installed. If the performance improves, make improvements to the ventilation system.</p>
The freezer compartment is cold but the refrigerator part is not	<p>Insufficient ventilation</p> <p>Power supply is not continuous.</p>	<p>Check the installation state of the product. If possible, remove the product from the cabinet where it is installed. If the performance improves, make improvements to the ventilation system (see "4.5 Ventilation" a pagina 17).</p> <p>Check the conditions of the electrical connections and battery.</p>
Excessive ice on the evaporator.	Humidity seepage in the refrigerator.	<p>Check the gaskets on all four sides of the door. It must close perfectly on the cabinet. If the ice forms thicker on one side, the humidity is most likely seeping in from that side.</p> <p>Use a moderate heat source the shape the gasket in place. If the problem persists, replace the entire door.</p>
The compressor is louder than normal.	The compressor is not attached well to its support or it touches the wall.	<p>Make sure the screws on the compressor are tight and are not in contact with anything.</p> <p>The compressor vibrates and if something is in contact with it, the vibrations increase.</p>
Door/Drawer does not close properly.	Incorrect hinge position or deformed gasket.	<p>Check the position of the hinges and realign if necessary.</p> <p>Use a moderate heat source the shape the gasket in place.</p> <p>If the problem persists, replace the door.</p>

For more complex problems that required specialized assistance, contact the Webasto network or the Authorized Distributor.

7.1 Display Diagnosis

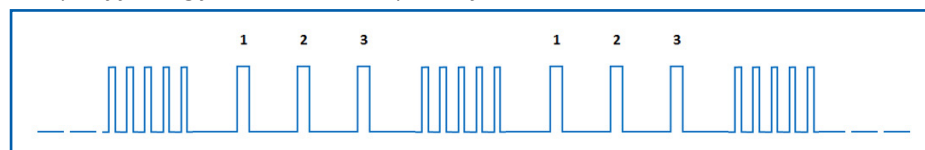
The display is equipped with a self-diagnostic system. If there are any malfunctions, the error will be shown on the display as follows:

- 5 quick flashes in sequence (1.5 sec) to signal that the product is in error status
- no. slow flashes (see table below) to signal the type of error

The error signal sequence will be repeated until the system is restored.

All 5 LEDs will flash during the error signal.

Example of flashing for error "E3" = Compressor failure



Error	Error Identification	Solution
1	Battery protection (the voltage is outside the minimum and maximum range)	Check the voltage on the control panel Check the conditions of the power cords If necessary, replace with new cables Check the battery condition
2	Ventilator short circuit (the fan absorbs more than 0,5A from the electronic control unit)	Replace the fan
3	Motor startup error (the rotor is blocked or the pressure in the refrigerant circuit is too high [> 5 bars]) Electronic control unit failure	Replace the electronic control unit or the compressor.
4	Minimum motor speed error (if the cooling system was overloaded, the motor cannot keep up the speed of 1850 RPM)	remove the excess gas
5	Thermal protection of the electronic control unit	Check the compressor/condenser ventilation
6	Defective probe (the probe is defective or not connected)	Reconnect the probe and check its operation, or replace it
7	Communication error with display	Check connections, replace the control unit on the compressor and/or the display

8. Warnings for disposal

This products is compliance with Directive 2002/96/EC on electrical and electronic equipment waste (WEEE).

Proper disposal of the product is essential to prevent potential negative consequences to health and the environment.



The symbol on the product, packaging, or related documentation indicates that the product must not be disposed of with household waste. The product must be disposed of at an authorized recycling centre for electrical and electronic appliances. Always dispose of the product in compliance with the local environmental standards on waste disposal.

For more information on disposal, recycling, and reuse of the products, contact the local authorities, the local waste collection services, or the retailer/distributor where the product was acquired.

The packaging is made of recyclable material. It has the recycling symbol and must be disposed of at a recycling centre.

The symbol indicates that the product complies with all the provisions of the European Community that are required for its use.

9. Warranty

The Indel Webasto Marine warranty is compliance with EU Directive 2019/771

Period of validity

The product warranty is valid for 2 years regarding labour costs for repairs or replacements, but only if performed by authorized Webasto service centres.

The period of validity starts from:

- 1) The sale date indicated on the invoice or receipt for sale of the product.
- 2) The date of the invoice or registration document of the first sale of the vehicle in which it is installed, if installed by the vehicle manufacturer.
- 3) In the absence of one of the above documents, the week of production indicated in the S/N (serial number) applies.

Replacement of a product or component does not change the period of validity.

The warranty covers:

- Repair or replacement of the product or one of more components recognized as having manufacturing defects.
- Breakage or malfunctions of components under warranty regardless of proven proper installation and use.
- Labour and moving based on the operating methods indicated below.
- Shipping costs for the replaced product (excluding customs fees)

The warranty does not cover defects or damage or malfunctions caused by:

- Negligence, carelessness, or misuse
- Incorrect installation or careless handling
- installation elsewhere than in recreational vehicles
- Insufficient ventilation
- Incorrect electrical connection
- Undersized wiring
- Incorrect maintenance or maintenance performed by unauthorised personnel
- Failure to comply with the requirements indicated in this manual
- Damage from transport
- Customs fees
- Objects subject to wear
- Professional use
- Damage caused by atmospheric agents
- Costs for disassembly and/or reassembly of furniture or other structures

Information necessary to establish whether the case is covered by the warranty:

- Product code (indicated on the label attached to the product)
- S/N (serial number) (indicated on the label attached to the product)
- Invoice or purchase receipt (or registration document, see above in the Period of Validity chapter)
- Detailed description of the defect. (Attach photo if possible)
- Description of the installation, with special attention to ventilation and wiring. (Attach

photo if possible)

- (If it is established that the case is not covered by the warranty, the customer must pay all expenses for any repairs, replacements, labour, movement of people and transport. IWM is not required to incur any expenditure.)

Operating mode to apply once it has been established that the case is covered by the warranty:

IWN does not reimburse any expenses for parts purchased elsewhere.

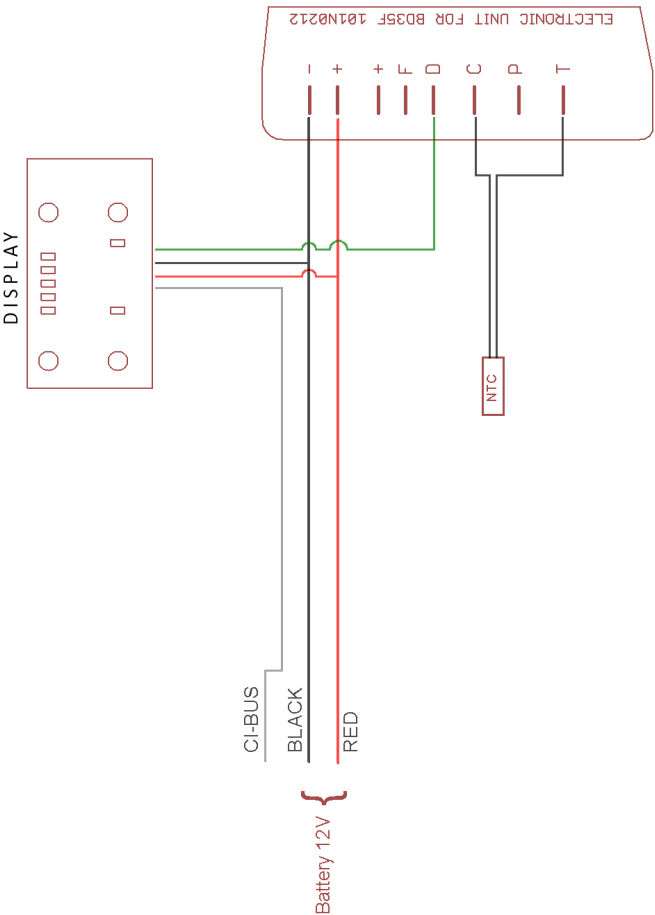
Products installed in Recreational Vehicles (RV):

Warranty work must only be carried out by service centres in the Webasto network.

The vehicle must be brought to the service centre.

Find the closest service centre at www.webasto.com

10. Wiring diagram



This image shows a full page of white paper with horizontal dotted lines. The lines are evenly spaced and run across the width of the page, providing a guide for handwriting practice. There are no margins, text, or other markings on the page.



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