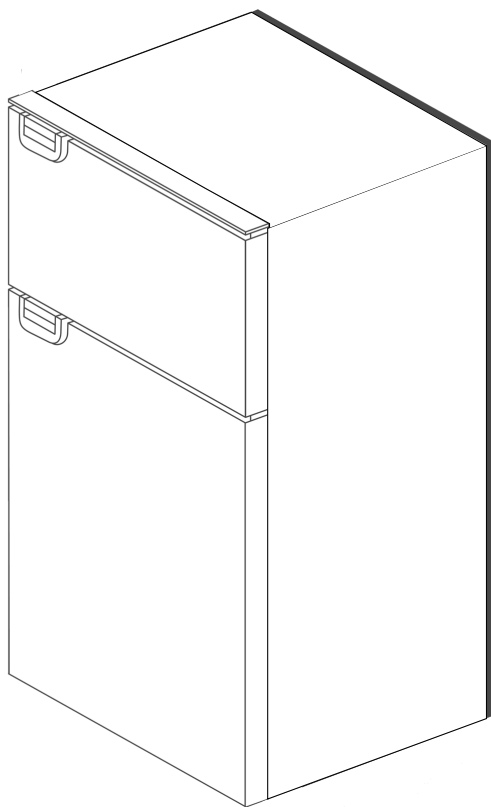




# Owners Manual & Operating Instructions



**MODEL:CR226**



# SAFETY INFORMATION



## NOTICE

Please read the user manual and safety instructions carefully before using the appliance.

- ◆ By ignoring the safety instructions, the manufacturer cannot be held responsible for the damage.
- ◆ The use of accessories that are not recommended by manufacturer can cause injuries and will invalidate any warranty that you may have.
- ◆ The appliance shall not be exposed to moderate/heavy rain.
- ◆ Place the refrigerator on a dry, secure surface, with adequate ventilation.
- ◆ Do not leave the refrigerator unattended in uncovered, outdoor areas exposed to the elements.
- ◆ Do not use this appliance near direct heat sources, such as an open flame or radiator.
- ◆ Do not place open containers of liquid inside the fridge.
- ◆ Please don't put hot/warm food into the fridge directly without letting it cooling off. Place/arrange the content of your fridge securely when using the refrigerator inside a moving vehicle.
- ◆ To maximize energy savings, please make sure the lid is closed and secure, and only open the fridge when you need to.
- ◆ The power cable must only be replaced by qualified technical personnel and by an assistant body authorized by the manufacturer.
- ◆ Before carrying out any maintenance operations on the refrigerator, disconnect all power sources from the fridge.
- ◆ Further information is provided on the technical data label inside the product.
- ◆ "The shelf can be removed by unscrewing the two stainless steel screws with a screwdriver (one on the left and the other on the right hand side) which prevent the shelf to slide out. Indel Webasto Marine is not responsible for any improper use of the refrigerator"



## CAUTION

- Please keep the fridge in a well ventilated area.
- Do not use mechanical devices or other means to accelerate the defrosting process, other than those recommended by the manufacturer.
- Do not use electrical devices inside the food storage compartments of the appliance, unless approved/recommended by the manufacturer.
- The appliance is only to be used with the power supply unit provided with the appliance.
- It must only be supplied at safety extra low voltage corresponding to the marking on the appliance.
- To avoid contamination of food, please respect the following instructions:
  - Opening the door for long periods can cause a significant increase of the temperature in the compartments of the appliance.
  - Clean regularly surfaces that can come in contact with food and accessible drainage systems.
  - If the refrigerating appliance is left empty for long periods, switch off, defrost, clean, dry, and leave the door open to prevent mould developing within the appliance.

**WARNING!** Food needs to be packed in bags before putting into the refrigerator, and liquids need to be packed in bottles or capped containers to avoid the problem that the product design structure is not easy to clean.



## **WARNING!**

- Do not store explosive items, such as aerosol cans with a flammable propellant in this appliance.
- Risk of fire and electrical shock.
- Do not let hot items touch the plastic parts of the appliance.
- Do not put flammable products or items in, near or on the appliance.
- Do not touch the compressor or the condenser when the fridge is operating. They may be very hot.
- When setting up the appliance, ensure the supply cord is not trapped or damaged.
- Do not locate multiple portable socket-outlets or portable power supplies at the rear of the appliance.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.

## **CORRECT DISPOSAL OF THIS PRODUCT**



To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the recovery systems or contact the retailer that they can take this product for environmental safe recycling.

Risk of child entrapment.

Before you throw away your old refrigerator or freezer:

-Take off the doors.

-Leave the shelves in place so that children may not easily climb inside.

## **INTENDED TO USE**

This appliance is intended to be used in household and similar applications such as :

- staff kitchen areas in shops, offices and other working environments;
- farm houses and by clients in hotels, motels and other residential type environments;
- bed and breakfast type environments;
- catering and similar non-retail applications.
- This appliance is suitable for camping use.

# IMPORTANT INFORMATION

- Do not lay your fridge on its back, top or sides or at any angle exceeding 30°. If your fridge has been handled this way, stand the fridge upright for 12 hrs to allow the internal fluids to redistribute evenly before use.
- Do not use a modified sine wave inverter to operate your fridge.

## PRIOR TO INSTALLATION

### DELIVERY

At delivery, please check that the fridge is complete and is not damaged in any way. Remove all packaging and securing tapes from the fridge. To avoid injury and causing damage to the appliance, be extremely cautious when using sharp or pointed tools to complete this task. Do not connect an appliance that has been damaged, contact Bushman immediately.

## INSTALLATION

Installation of the CR226 must be completed by a suitably trained professional only.

### WIRING

Always wire your fridge directly to your battery terminals. Do not run the wires via a buss bar, battery management system or shared circuit. Please also ensure the earth is wired directly to your battery, not to a chassis. Ensure the wiring polarity is correct. Connect the red wire to the positive terminal (+) and the black wire to the negative terminal (-). Never connect bare electric wires.

Use only connections of a size suitable for the cross section of the wire being used.

CROSS SECTION IN MM <sup>2</sup>	AWG (AMERICAN WIRE GAUGE)	MAXIMUM LENGTH OF WIRE IN METRES	
		12 V	24 V
2.5	14	2.5	5
4	12	4	8
6	10	6	12
10	8	10	20

### ISOLATION SWITCH AND FUSE

We recommend installing an isolation switch for the fridge circuit as close to your battery bank as possible. Any switches must have a breaking load not less than 20 A on 12 V or 10 A on 24 V.

The power supply wiring must also be protected with a 15 A fuse.

### INSTALLATION IN A CAVITY

Your new fridge is designed to be installed in a cavity. We recommend allowing a minimum 5mm gap on each side and the top for ease of installation. A minimum gap of 25mm is required for the rear.

Refer to the following table for the recommended cut-out dimensions.

MODEL	CUT-OUT CAVITY DIMENSIONS (MM)		
	WIDTH	DEPTH	HEIGHT
CR226	605	550	1460

## MOUNTING KIT

Position the mounting kit flush with the front edge of the fridge cabinet and mark the position of the holes. Drill shallow, 3mm drill bit, pilot holes through the sheet metal cabinet. Affix the mounting kit to the side and top of the fridge cabinet using the screws provided. Once the fridge has been connected to the power supply and moved into its final position, the mounting kit can be affixed to the front of the cavity.

## INTERNAL MOUNTING SLEEVES

There are 4 internal mounting sleeves on the inside of the fridge cabinet, and 2 internal mounting sleeves in the inside of the freezer compartment. Access is provided by gently levering off the plastic caps. M5 screws or bolts need to be used. Drill 4mm pilot holes through the plastic sleeve and right through the fridge cabinet sides. Put a small nylon washer onto the screw / bolt heads before inserting. Ensure that the exterior of the fridge cabinet is flush with your cabinetwork before affixing the screws / bolts. If there is a gap, pack it out with a suitable hard material. Check for screw / bolt tightness after your first trip.

## VENTILATION

Ventilation will have a critical impact on the efficient operation of your fridge. A minimum of 2 vents needs to be provided from the rear of the fridge cavity to the outside environment, or to the main room where the fridge is located. The vents should be located at the bottom and top of the fridge cavity and have a free cross section of minimum 600cm<sup>2</sup> each. Note that a 500mm x 250mm vent will have only a free cross section of approximately 600 cm<sup>2</sup> (not 1250 cm<sup>2</sup>).

# SPECIFICATIONS

MODEL	CR226	CR226-US
Dimensions (L x W xH)	595x575x1460mm	595x575x1460mm
Capacity	226L	226L
Net Weight	51 kg	51 kg
Rated Power	80 W	80 W
Temperature Range	0°C to10°C	0°C to10°C
Power Source	DC 12V/24V	DC 12V/24V AC 110-120V~ 60Hz
Refrigerant	R134a(100g)	R134a(100g)

# OPERATION



## OPERATING THE FRIDGE



### ON/OFF

- **Standby**

Toggles the fridge between “standby” and “power on” modes.

In Standby mode, the screen is blank.

- **Power on**

In Power on mode, the screen displays the fridge temperature.



### PLUS / MINUS

Increase or decrease the fridge set temperature (0 °C to 10 °C )

## ADVANCED SETTINGS

To enter the advanced settings mode, put the fridge into standby mode, then press and hold both the PLUS and MINUS buttons for 3 seconds. Use the ON / OFF button to toggle between Battery Protection settings and Celsius / Fahrenheit settings.

### • Battery Protection / Low Voltage

We strongly recommend using the default battery protection settings because all 12V / 24V circuits will have voltage drop between your battery and the fridge compressor. If you change these settings, your fridge may turn off and on intermittently and without your knowledge and perform poorly. Use the PLUS and MINUS button to switch between Low, Medium and High as follows:

Voltage Protection	12V		24V	
	Cut off (V)	Cut in (V)	Cut off (V)	Cut in (V)
Low	9.6V	10.9V	21.3V	22.7V
Middle	10.4V	11.7V	22.8V	24.2V
High	11.1V	12.4V	24.3V	25.7V

## 4.ERROR CODE & SOLUTIONS

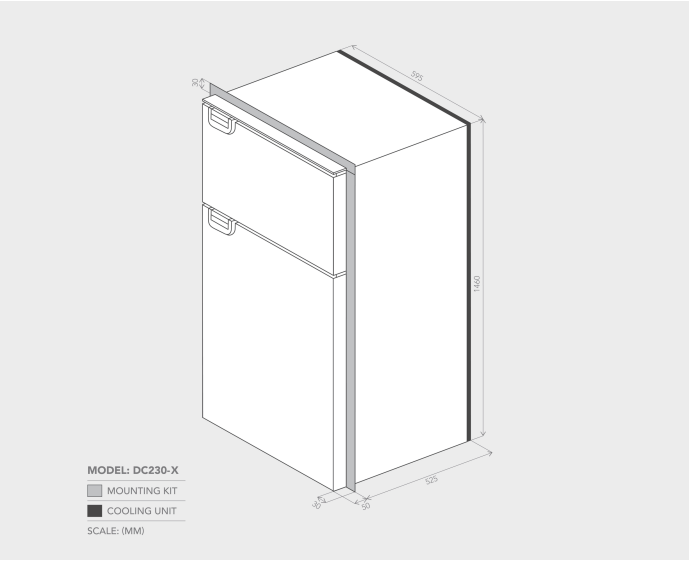
A red LED error light is installed inside the main fridge light housing. The number of flashes corresponds to the following error type.

Code	Description
E1	The DC voltage is under the protection setting and the battery protection mode is activated.
E2	The cooling fan overloads with more than 1A of current.
E3	Motor start error The motor of compressor is blocked or the pressure difference in the refrigeration system is too high.
E4	Minimum motor speed error The compressor overloads and the motor can not maintain its minimum speed 1850 rpms.
E5	Thermal cut-out of electronic unit Thermal cut-out error If the refrigeration system overloads, or the ambient temperature is too high, the thermal sensor is overheated.

### THERMOSTAT FAILURE

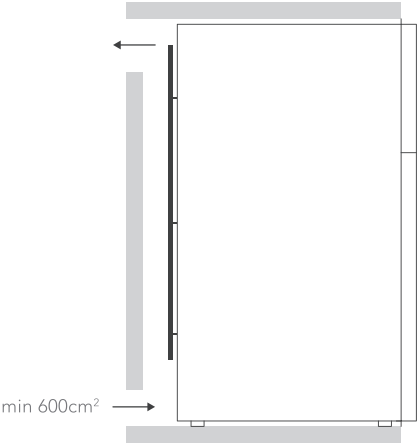
If the NTC thermistor has a short circuit or no connection, E6 will display on the screen.

# FRIDGE DIAGRAM



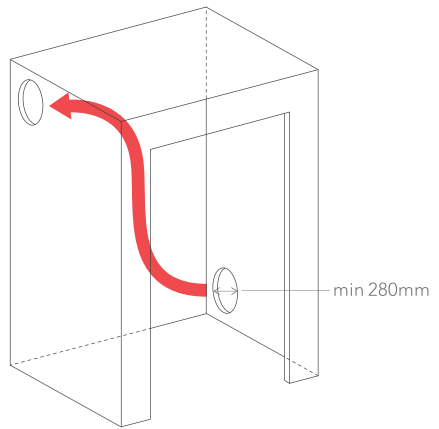
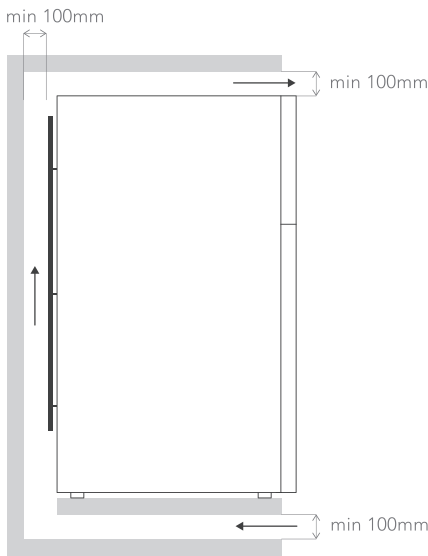
**WARNING:** To avoid a hazard due to instability of the appliance, it must be fixed in accordance with the instructions

## VENTILATION OPTIONS DC230-X

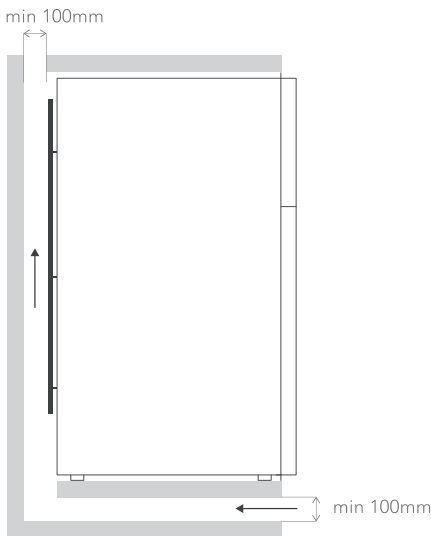




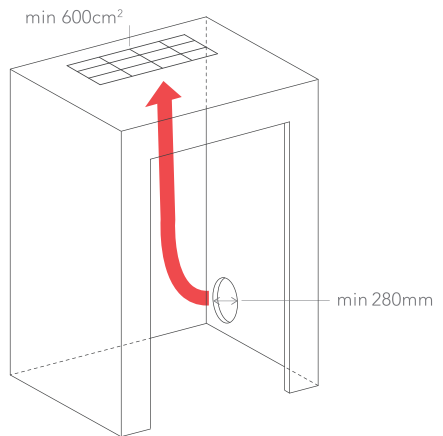
▲ Exterior Ventilation



▲ Interior Ventilation Option 1



▲ Interior Ventilation Option 2



▲ Interior Ventilation Option 3

▲ Interior Ventilation Option 4

# DAILY MAINTENANCE AND ATTENTION

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## Matters need attention

- Please use a wet cloth and warm water mixed with gentle non-abrasive detergents to clean the interior and exterior of your fridge.
- Please power off and unplug the unit before cleaning.
- Please use non-abrasive detergent to cleaning the interior/exterior of the fridge.
- Please don't scrap the interior of the fridge to defrost/de-ice the fridge.
- Please don't pressure-wash/spray the fridge with a running water hose.
- It is strictly forbidden to wash refrigerators directly with water in order to prevent the reduction of electrical insulation and rusting of metal parts.
- The following things can damage the coating and plastic parts, so they can not be used for cleaning: alkaline detergent, soap, abrasive powder, hot water, brush, n-Pentyl acetate, gasoline, alcohol.

## Maintenance of plastic parts

- To properly protect the door seals, we must always keep them clean. Avoid grease staining and deformation when using. If oil (animal or vegetable oil) is attached to the plastic parts in the box for a long time, the plastic is easy to aging or cracking, and gives off a bad smell. Therefore, we should form the habit of cleaning regularly.





