Aspenora

# User Manual for Car Refrigerator/Freezer



AS-BPR35S/AS-BPR42S/AS-BPR52S

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# Introduction

Dear Customer, thank you for purchasing an Aspenora portable refrigerator! All of our products are crafted carefully with the high technology available and the great attention to detail. We hope to provide you with amazing quality, service, and customer support.

Within this manual you can find information regarding the proper use and maintenance of your brand-new refrigerator, as well as instructions on how to handle and install your car refrigerator. By following the simple instructions in this manual, you can learn how to operate your unit safely and efficiently.

| **Important symbols contained in this manual:** | |
|---|---|
|  | General warning signifying property and life-threatening conditions |
|  | Electric warning |

# Safety Instructions

Improper usage or handling of your unit can cause serious damage or personal injury. The Aspenora portable refrigerator is designed for recreational use. It should not be used for commercial and industrial applications. Do not use it for any other unintended purposes. Do not remove any of the safety or warning labels from your product. Only use the power cables included with the purchase.

**Read the following instructions provided below to avoid personal injury and damage to the product**



## Electrical Safety

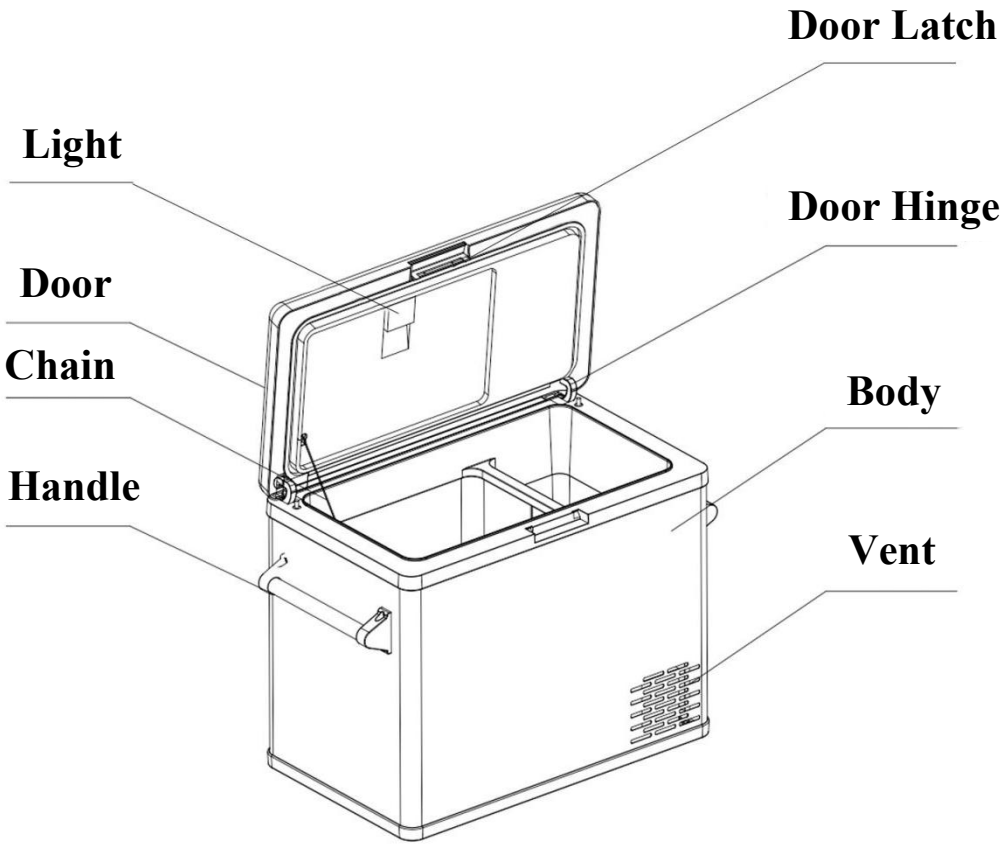
- Never submerse unit in water.
- Do not place the power cord near heat sources.
- Do not place any other electrical device or apparatus into the refrigerator.
- Make sure your power source and voltage matches the rating label of your unit.
- Keep the unit at a dry location. Keep it away from rain and other various water sources (sprinklers, snow, etc.)
- Use the ON/OFF button to turn the unit on/off. Do not pull the cord from the outlet.
- Do not pull the cord to disconnect the outlet, or to carry the unit.
- Do not disassemble any parts of the unit once it is powered on.
- Do not pinch or kink the power supply line.
- Do not use the unit with a damaged cord and/or loose socket.
- If cleaning, make sure the unit is turned off and unplugged.
- Do not modify the power cord in any way.
- Use proper outlets.



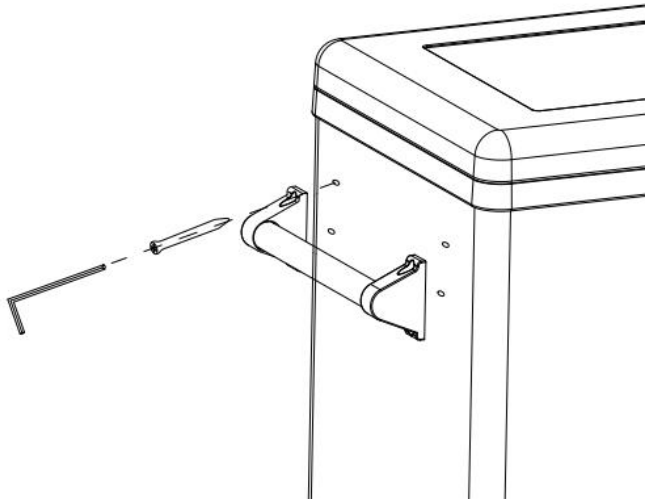
## General Safety

- This product is not intended to be used by children and should be supervised at all times while in use.
- Do not allow children to play with, or crawl inside, this product. When disposing the unit, it is recommended to remove the lid.
- Make sure the unit is not placed near heat sources.
- Do not place the unit under direct sunlight.
- During transportation, slope less than 45 degree and handle it carefully.
- Do not use abrasive cleaners on the product.
- Do not make it slope more than 30 degree from the level during its working.
- Make sure the surface that the unit is on can withstand the weight of all it's contents.
- Do not pour water out by turning it up side down, use dry cloth or sponge to absorb the water when necessary
- If the portable refrigerator is not going to be used, make sure to leave it unplugged.

# Diagram




## Handle Assembling



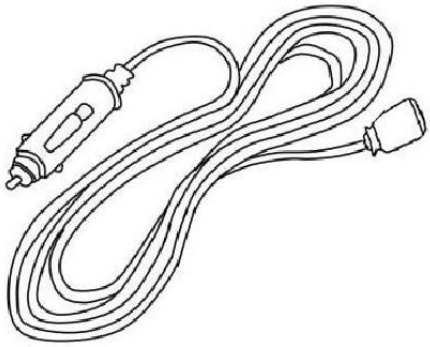
When you receive the product, the two handles and screws are not assembled to the fridge in order to avoid unnecessary damage during shipment. In order to assemble the handles, please read the instruction carefully:

1. A hexagon wrench, two handles, and at least 8 screws are included in the package for you to operate.
2. Each handle should be screwed to the fridge at the side with four screws.
3. Place the handle to the screw holes at the side of the fridge, fasten the handle with the wrench and screws clockwise.

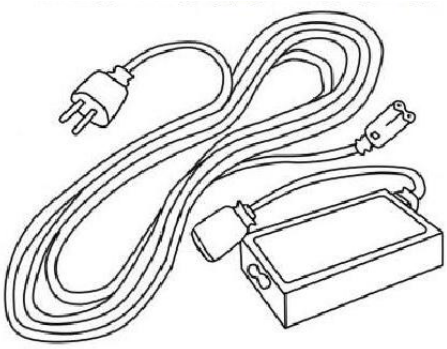
## Included Parts

1. DC Power Cord (for 12/24V DC power source)
2. AC Power Cord and Adapter (for 110V AC power source)

### DC Power Cord



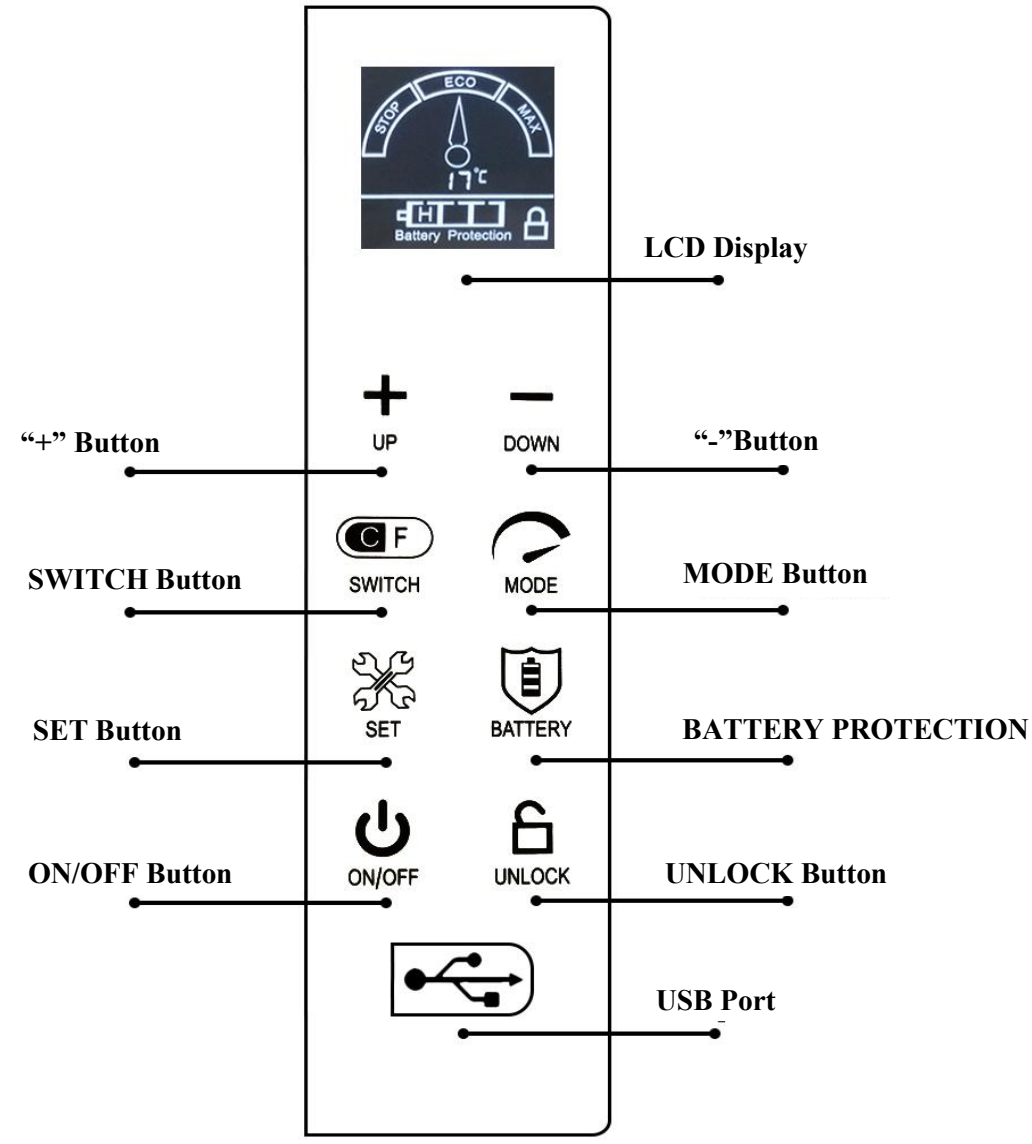
### AC Power Cord and Adapter



# Instruction of Operations

## I. Control Panel Operation

Your portable refrigerator is equipped with a quick and easy digital control system. The instructions for use are provided below.




**1. Unlock**

The control panel will be locked automatically when there is no operation for three seconds. When the control panel is locked, there is a LOCK icon on the LCD display, you are not able to operate the panel; in order to operate, you must touch and hold the **UNLOCK** Button for three seconds to unlock the panel firstly, then the LOCK icon on the LCD display will disappear.

**2. ON/OFF**

◎ When the first time you plug the car fridge to a AC 110V power source by the adapter, or DC 12V power source of the cigarette lighter socket in a car, the car fridge will start to work automatically.

◎ Turn on/off the fridge by press and hold the ON/OFF button for three seconds. When the fridge is off but connecting to the power source, the indicator on the LCD display will point to STOP icon.

◎ If you turn off the fridge, then unplug the fridge from a power source, the next time you plug it to a power source, you must press and hold the ON/OFF button to turn on the fridge. When the fridge is on, the indicator on the LCD display will point to ECO or MAX icon (the same mode before you turn off the fridge).

◎ When the fridge is turned off but still connecting to a power source, the LCD display will keep reading the interior temperature so you always know the temperature status, however in this condition the display lightness will be only half of its normal condition.

**3. TEMPERATURE SETTING**

To select a higher temperature, press "+" button; to select a lower temperature, press "-" button. Press and hold "+" or "-" button the setting temperature will keep changing until you stop pressing.

◎ You could set the temperature from -4°F (-20°C) to 50°F(10°C).

**4. MODE**

There are two work modes for option, ECO and MAX. To select your desire work mode, press the **MODE** button. When you select ECO mode, the indicator on the LCD display will point to ECO icon; when you select the MAX mode, the indicator will point to MAX icon.

◎ The factory default setting is MAX mode.

◎ In MAX mode, the compressor works in full speed and the temperature goes down fast; in ECO mode, the compressor works in half speed and the temperature goes down slower than MAX mode, and it consumes less power.

**5. BATTERY PROTECTION**

You could select the battery protection level by press the **Battery Protection** button. Each time you press the button, you are selecting the battery protection levels among H (High), M (Middle) and L (Low).

◎ You are allowed to switch off the battery protection function, however, please make sure you have a reliable battery that you don't have any concern on draining it. Otherwise, **DO NOT** switch off the battery protection.

◎ To switch off the battery protection, press and hold SWITCH button and BATTERY protection button at the same time, then B1 code will appear on the LCD display, wait for 3 seconds, the battery protection function is off. In this condition, the fridge will keep working until the battery's output is not enough to power the fridge on.

◎ If you turn off the battery protection function, the battery icon on the LCD display will disappear.

**6. SWITCH**

Press the SWITCH button to switch the temperature reading between Celsius and Fahrenheit degrees. When you select Celsius degree, the corresponding icon on the LCD display will display °C icon; when you select Fahrenheit degree, the icon on the LCD display will display °F icon.

◎ The factory default setting is Fahrenheit degree.

**7. SET**

Press and hold the SET button for 3 seconds, the LCD display will start flashing **E1** code, when **E1** code keeps flashing you touch SWITCH button again, the code will switch from E1, E2, E3, E4, E5, E6, E7, and E8. When staying in a specific code you can press UP or DOWN button to change the parameter according to your need. Every code represents something you can calibrate by yourself, and here below is what it means by each code:

| Code | Setting | Default Value | Range | Details |
|---|---|---|---|---|
| E1 | To calibrate the temperature lower range | -20°C (-4°F) | -40°C~-20°C (-40°F~-4°F) | The default lowest temperature you can set is -20°C(-4°F), maximum you can set it to be -40°C(-40°F), after you reset this value, you can select your desire temperature lower than -20°C (lowest -40°C), the compressor will not stop running until the interior temperature goes to -40°C. |
| E2 | To calibrate the temperature upper range | 10°C (50°F) | 10°C ~40°C (50°F~104°F) | Same principle as E1 |
| E3 | Temperature Display Calibrate for setting temperature above -6°C | 0 | -10°C~10°C | If you find the displaying temperature does not match the real temperature, you can calibrate the temperature reading within the range. For example if the real temperature is 2°C but it displays 0°C, you can change the parameter to be 2°C, then the display will read 2°C instead of 0°C. |
| E4 | Temperature Display Calibrate for setting temperature between -7°C~-12°C | 0 | -10°C~10°C | If you find the displaying temperature does not match the real temperature, you can calibrate the temperature reading within the range. For example if the real temperature is -10°C but it displays -12°C, you can change the parameter to be -2°C, then the display will read -10°C instead of -12°C. |
| E5 | Temperature Display Calibrate for setting temperature below -13°C | 0 | -10°C~10°C | If you find the displaying temperature does not match the real temperature, you can calibrate the temperature reading within the range. For example if the real temperature is -15°C but it displays -17°C, you can change the parameter to be -2°C, then the display will read -15°C instead of -17°C. |
| E6 | Compressor KICKS IN temperature | 1°C | 1 ~ 10°C | In default, when the real temperature is gets 1 degree higher than your setting temperature, the compressor will be turned ON automatically. You can set the value between 1~10. |
| E7 | Compressor KICKS OFF temperature | 1°C | 1 ~ 10°C | In default, when the real temperature is gets 1 degree lower than your setting temperature, the compressor will be turned OFF automatically. You can set the value between 1~10. |
| E8 | RESET to factory default | | | In E8 code, press and hold + and - button at the same time for 3 seconds, the control program will be reset to factory default setting. |

# II. Error code

You may see a series of blinking numbers and letters appear on your refrigerator's display, but don't worry, these are just error codes. If can not be solved, please contact our customer service.

| Code | Description | Solution |
|---|---|---|
| F1 | Input voltage is low | Re-charge the battery, or lower the battery protection level. |
| F2 | Fan overload protection | Turn off the fridge for 30 minutes and restart. |
| F3 | Compressor on and off too frequently | Turn off the fridge for 30 minutes and restart. |
| F4 | Compressor speed is too low | Turn off the fridge for 30 minutes and restart. |
| F5 | Control module overheat protection | Place the fridge in a well-ventilated place, turn it off for 30 minutes and restart. |
| F6 | Controller hardware Failure | Turn if off and restart. |
| F7 | Temperature sensor short-circuit | Check temperature sensor |
| F8 | Temperature sensor out of place | Check temperature sensor |

# III. Food storage

- Freezer ( - 4 F)

--Meat should be cut and wrapped tightly, and then evenly placed in the freezer.

--After buying frozen food, put it in the freezer as soon as it is still in frozen condition.

--Do not put the fresh food and frozen food together.

--Do not put the fruit and vegetable in the freezer to avoid freeze-drying.

--Do not put the glass container or other container with sealed liquid in freezer. Or there is a possibility of explosion.

- Refrigerator ( 32 F ~ 50 F)

--Eggs,butter,milk and bottled drinks should be put in refrigerator.

--Fruit and vegetable should be put in the crisper for moisture retaining.

--Hot food should be cooled down before it's placed in, which could help to save power.

--Food must be packed into freezer bags. Leave space between packaged foods to keep the circulation of cool air.

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# IV. Defrosting

- After the refrigerator working for a period, frost could be seen on surfaces in the freezer, which reduces cooling performance and increases power consumption. In this case, you need to defrost it.
- Unplug the refrigerator and open the doors,take the food in the refrigerator to cool place. Use defrosting shovel to remove ice and frost (also can just let the door open, then ice and frost will be thawed by the raising temperature). Then use dishtowel to wipe off the ice water. After that, place the food back to the refrigerator and plug in.

**Note: Do not use sharp metal tools to defrost, you will possibly break the coil by doing so.**

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# V. Care and cleaning

Unplug the refrigerator before cleaning!

- Use soft cloth dampened with warm water to wipe the inner surfaces and external appearance of the refrigerator.
- Use neutral detergent to clean the heavy stains,and dry with cleans soft cloth.
  NOTE: Do not sprinkle water on the refrigerator during cleaning because that would reduce the insulating property of electrical components and erode the metal parts.
- Do not use cleansers containing corrosive and deliquescent material ( such as scouring powder, bleach, soap powder, alkaline cleansers, benzene, gasoline, acid, hot water and etc.)to clean the appearance panels,door gaskets and plastic parts.Following situations are normal
- The flow of refrigerant through the evaporator may create a boiling or gurgling sound.
- In the raining and high humidity weather, moisture may form on the outside of refrigerator or door gaskets. You can wipe damp surfaces with dry cloth.
- If ice has accumulated in your unit, turn off the power and allow the ice to melt.
- The temperature on the back panel may be high(particularly in summer) due to heat emission of the condenser.
- The compressor may cause a high hum or pulsating sound when it is at starting or stopping step.
- It's normal to hear metal hit noise from compressor when refrigerator is bumped.

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# VI. Technical specification

| MODEL No.: | AS-BPR35S | AS-BPR42S | AS-BPR52S |
|---|---|---|---|
| CLIMATIC CATEGORY | T/ST/N/SN | | |
| PROTECTIVE CLASSIFICATION OF ELECTRIC SHOCK RESISTANCE | III | | |
| RATED VOLTAGE DC (V) | 12/24V | | |
| DC FUSE (A) | 15A | | |
| TOTAL INPUT POWER (W) | 35 | 35 | 40 |
| RATED CURRENT FOR DC(A) | 3.75/1.8A | | |
| REFRIGERANT (oz) | 0.88 oz | 0.95 oz | 1.1 oz |
| N.W (kgs) | 16kgs | 17kgs | 18kgs |

(Note: due to technical improvement, the above parameters may be changed, and it is subject to the rating label parameters of the product.)

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# VII. Disposal

➢ Place the packaging material in the appropriate recycling waste bins wherever possible.



If you wish to finally dispose of the product, ask your local recycling centre or specialist dealer for details about how to do this in accordance with the applicable disposal regulations.

# Common Questions and Answers

*Use this guide to help you resolve common issues:*

**Q: How do portable refrigerators keep items cool?**

**A:** A pump called a compressor pumps a fluid called refrigerant into a high-pressure chamber called the condenser, through a narrow valve and into a low-pressure chamber called the evaporator in a continuous circuit. The condenser is outside the refrigerator. When the refrigerant is pressurized inside of it, it rises in temperature. That excess heat leaks out of the compressor into the air. When the refrigerant flows into the low-pressure evaporator, the opposite thing happens: the refrigerant lowers in temperature. The evaporator is inside the refrigerator, and heat flows into it, cooling the portable fridge. Through this cycle, heat is continuously pumped out of the fridge and into the air outside, keeping the food inside nice and cool.

**Q: There are weird noises coming from my refrigerator, is this normal?**

**A:** It is generally normal for the refrigerator to make noises. If your fridge is tilted, moving it to level ground may improve these sounds. Some possible noises you may hear include:

a) The fan (It's normal for it to run all the time).

b) The refrigerant (Gurgling or hissing sounds, this is normal.)

c) Continuous metallic thumping: *This is an indication of a problem*. The unit may have been tilted or dropped during carrying. This can damage the compressor. Leave the unit on a level surface for 24 hours, and try turning it on again.

**Q: How does the battery protection work?**

**A:** This product is configured with automatic battery protection function in case of low voltage. If the DC power voltage drops to a cut-off value, the compressor will be automatically turned off and the "Er1" error code will appear on the display screen.

**Q: What is the recommended temperature for running a portable refrigerator as a refrigerator?**

**A:** Most vegetables & fruit should be kept at a maximum temperature of 10ºC, and for milk, dairy and other perishables 4ºC or lower is recommended. Please check the guidelines printed on the packaging of food that you purchase. Below 4ºC water starts to expand and it breaks open the plant cells, particularly in high water content foods such as lettuce, strawberries, etc. It is recommended that you do not place these items close to the top of the stainless steel liner where the evaporator coils are.

**Q: My refrigerator has sufficient power but the compressor is not turning on.**

**A:** Make sure the lid is closed and there is ample space (2" at sides, 4" at rear) around the unit for it to ventilate properly. If the temperature around the unit is too low the compressor may not run, move it to a warmer location. If none of these apply to you, there may be a disconnected wire.

**Q: Can portable refrigerator be operated from 12V DC power socket of a car?**
**A:** Yes. We recommend you to set the battery protection at high mode, and the ignition should be on to charge the battery so that your car battery has enough power to supply. Then you can connect the refrigerator with DC cable. This will help to prevent you from flattening your car battery, of course. If your car battery is not in good condition the low voltage error protection may switch off the fridge.

**Q: Can solar panels be used with portable refrigerators?**
**A:** The car fridge will not work properly if directly connected to solar panels, as the voltage output fluctuates too much for the controller built in the fridge. You can, however, connect solar panels through a charger/regulator to a 12V battery running the fridge.

**Q: Does dust affect the performance of portable refrigerators?**
**A:** Yes. Although the fridges are tough, operating the fridge in very dusty environments can lead to reduced performance as the dust collects on the condenser coils. Extremely dusty environments may cause poor power connections and intermittent operation so it is strongly advised not to operate the fridge in areas such as plastering, concrete sawing, landscaping or dusty outdoor conditions.

**Q: Is it okay to lay the refrigerator down on a non-horizontal surface and make it work?**
**A:** If the refrigerator is tilted no more than 45 degrees and not working for a long time, it's fine. So the refrigerator will work fine if it is bumping on the boat or on the car.

**Q: How does the evaporation tube of the portable freezer surround?**
**A:** The evaporation tube surrounds the refrigerator from top to down. If you use the refrigerator, it will cool the upper part more quickly than the bottom part.

**Q: How much noise when the refrigerator run?**
**A:** The noise of the refrigerator is less than 45 decibels during normal operation.

**Q: How do portable refrigerators keep things cool?**
**A:** In an icebox, you remove the coolant (the melted ice) which has absorbed the heat, and you refill it with fresh ice. In a refrigerator, you use a refrigerant to absorb the heat from the food, and then you pump it using a compressor away from the food and replace it with fresh refrigerant to keep the contents cold.

**Q: How does the refrigerator perform on hot days?**
**A:** Your refrigerator has to work harder on a hot day. Because it's hotter outside the insulation lets more heat through, and the compressor has to work harder to try and get rid of the heat into air that is already hot. This is also true for your fridge at home. The compressor will run more often and you will use more power. It is really important to keep the fridge out of the direct sun, and not in a heated environment like the back of a closed up car or 4WD.

**Q: When the refrigerator is turned on, the temperature indicator sometimes jumps up and down or changes - is this normal?**

**A:** The digital temperature display may vary a degree or two or as the unit is cooling down. It does not affect the operation of the fridge.

**Q: How to use the refrigerator in different working environments?**

**A:** Maybe the refrigerator will be putted on boat or in RV long term, you can use the spare battery and turn off the battery protection on the refrigerator. If you are going camping and power the refrigerator with the car battery, we advise you set the battery protection at High mode so that it will not run out your car battery and make your car start normally.

**Q: How can I connect the refrigerator with the spare battery?**

**A:** There are two ways to connect the refrigerator:1. Cut off the cigarette lighter and connect the positive and negative poles of the battery directly. Or you can use a cigarette lighter socket adapter to connect our DC cable and make sure the line of the socket is thicker than the DC cable.

# OCCASIONS OF THE PORTABLE FREEZER

The portable freezer can store your meat, ice cream, fish and all your cold snacks when you are sailing around the globe or on a cruise to your favorite destinations.

Portable refrigerator freezers are the best solutions for all your camping and vocational trips. They are available in a wide range of sizes that suit your needs.

As show on the picture, you can use the portable freezer in car, truck, yacht. And when you go to fishing, camping, picnic, it also can help you very much.



Home



RV



Car



Yacht



Fishing



Camping



Truck



Picnic

Aspenora

To obtain service or information, contact Aspenora via email at info@aspenoras.com