



# USER GUIDE

## *Instruction Manual*

# IRONMAN 4x4 ICECUBE FRIDGE / FREEZER



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This user guide includes information on the IceCube Fridge / Freezer range

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## General information and safety instructions

Please read and familiarise yourself with this manual thoroughly before first use.

### Intended use

This is a portable product designed for private use. It designed for use in Vehicles, 4-wheel drives, caravans and other vehicles including motor homes caravans and boats.

It is designed to cool food beverages and be set up and used in dry weather protected areas.

- The safety precautions enclosed reduce the risk of fire, electric shock and ensure correct operation of the appliance
- Keep the manual in a safe place for future reference along with you purchase receipt

Always follow basic safety precautions and accident prevention measures when using an electrical appliance including the following.

### Electrical safety

- Correct voltage corresponds to the voltage indicated on the appliance rating label.
- For safe connection, insert the power cord firmly into a properly earth AC mains or 12V DC socket.
- Do not alter the 240V plug. Protect from moisture.
- To protect against electric shock, do not immerse the cord plug or the appliance in water or other liquids
- Ensure your hands are dry before handling the plug or switching on the appliance. Do not use it on wet surfaces.
- Do not store explosive substances such as aerosol cans with a flammable propellant in this appliance.
- Protect the power cord. Do not kink or damage the power cord.
- Do not wrap the power cord around the appliance.
- Do not pull the unit by the power cord.
- Do not use the power cord as a handle.
- Never touch uninsulated power cord with bare hands, this applies specially to handling AC cords.
- Never obstruct vents of to the fridge, freezers, compressor.
- Defrost the fridge freezer on a regular basis. Never use hard or sharp implements to remove ice from the cooling compartment.
- Never use abrasive or solvent based materials. When cleaning the cooling compartment.
- Do not use any electrical appliances inside the cooling compartment.
- **Note** 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.
- Do not expose to rain
- This appliance is suitable for camping use.
- This appliance may be connected to more than one power source.

## Getting started

### Installation.

After unpacking the appliance, check that all parts are supplied. Place the unit in a dry place which is protected against splashing water. Do not place directly adjacent to sources of heat, such as heating, gas ovens, hot water pipes, or directly in the sun.

It is important that your appliance is installed and operated in accordance with these instructions to ensure its performance, efficiency & operation.

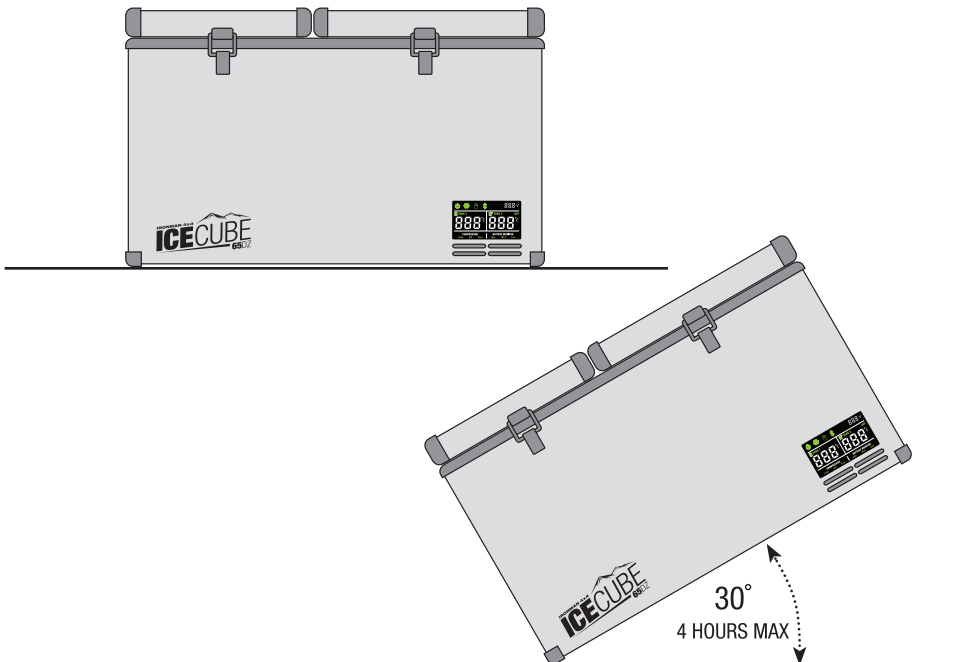
### Application and Cooling Performance Range

The cooling compartment has varying temperature zones. The temperatures indicated on the digital display are related to the middle of the cabinet. The single zone fridge freezer is designed to either refrigerate or freeze food. The dual zone fridge freezer can be used as either a fridge or freezer or both simultaneously.

If you wish to refrigerate medicines, first check to ensure the appliance cooling capacity meets the demands of the required medicines. The appliance is designed to operate at ambient temperatures between minus -10 degrees and plus 55 degrees Celsius in a maximum air humidity of 90%.

**Note** normal operation of the appliance requires that heat is radiated away from the condenser located at the end of the cabinet. Adequate airflow is always required around the compressor.

The cooling system has been designed to operate correctly when the appliance is positioned on angles up to 30 degrees. It is recommended that the time the unit is exposed to angles over 30 degrees is limited to a maximum of four hours of continuous operation.



## Power requirements

The appliance is designed to operate on AC or DC voltage. AC input 110 - 240V AC at 50/60Hz. DC input 12 or 240 Volt DC. Example car, cigarette lighter or car battery.

The power supply automatically switches the appliance to mains operation when connected to AC mains power even if the DC power cord is connected. It will then switch back to DC when the AC power is disconnected.

If the appliance is operating when the vehicle ignition is switched off. The fridge freezer will switch off automatically when the power source voltage falls below the battery protection cut out setting.

The unit will automatically switch back on when the vehicle is restarted, and the power source reaches the battery protection cut in setting.

The appliance is equipped with an electronic control system that will prevent polarity reversal in the event that the battery connection is reversed - The unit will not start to operate.

For optimum operation it is important that the correct sized cable is used in relation to the distance from the battery to the unit and that the power input socket is fitted with a 15 amp blade fuse for protection.

CABLE AREA		12V DC MAX CABLE LENGTH		24V DC MAX CABLE LENGTH	
[mm <sup>2</sup> ]	AWG	[m]	[ft.]	[m]	[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

(AWG - American Wire Gauge)

The length measurement in the above table is from the battery to the refrigerator.

DC 12/24V



### DC Operation

Plug the DC power cord into the power socket on the end of the fridge freezer, then connect to a suitable DC power source.

The unit will automatically turn on, there is no requirement to switch the appliance on. The display will automatically show the current internal cabinet temperature.

The display will show the measured voltage at the power inlet at the input connection

**NOTE:** This is not the “actual” battery voltage as there may be a reduction in voltage depending on the size of cables and distance of the appliance to the battery.

AC 110/230V



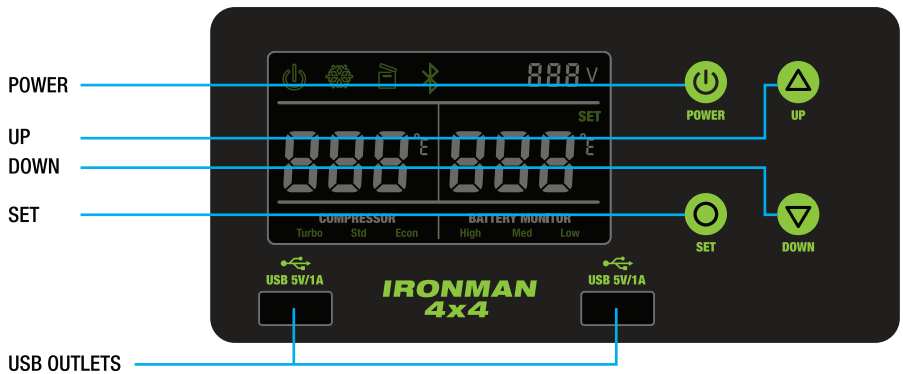
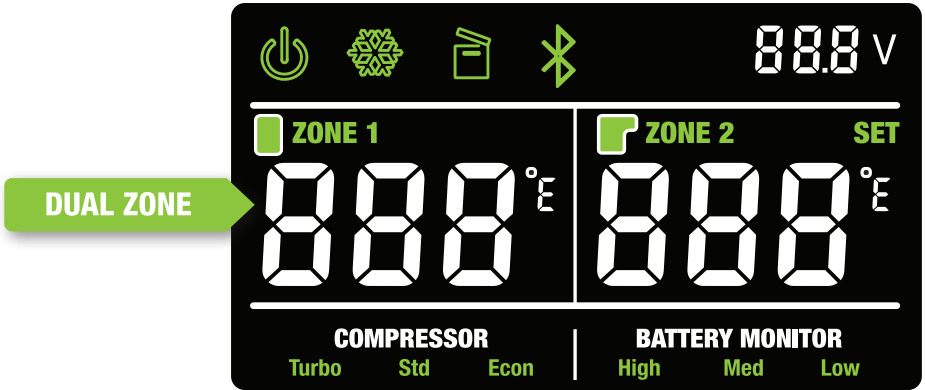
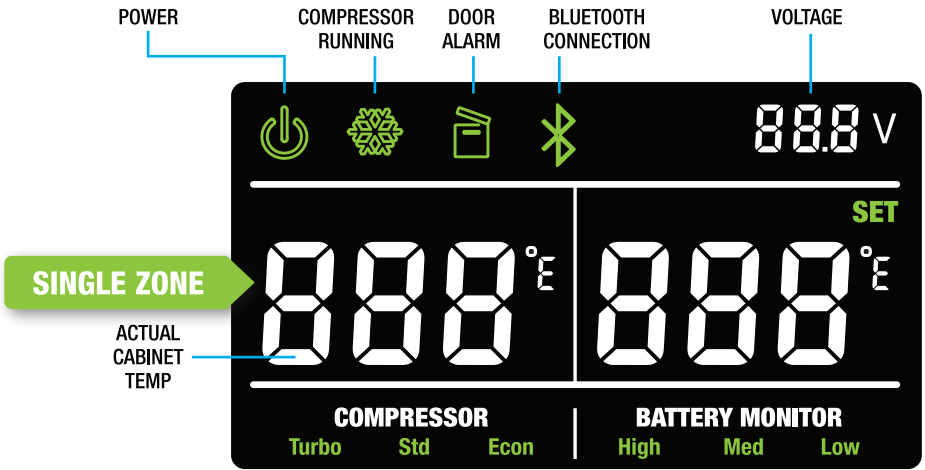
### AC Operation

Plug the AC power cord into the power socket on the end of the fridge freezer, then connect to a suitable AC power source.

The unit will automatically turn on, there is no requirement to switch the appliance on. The display will automatically show the current internal cabinet temperature.

The display will show the measured voltage at the power inlet at the input connection – The control system is programmed to display connection to AC power with a voltage value above 27V (This is normal operation).

# Control Panel



## Temperature control

When your fridge freezer is first connected to the AC or DC power input, the appliance will automatically switch on and the LCD control panel will display the current cabinet temperature, battery protection and cooling speed setting, as well as the current voltage input.

The temperature control enables the setting of the cabinet to the desired temperature level and displays the current cabinet temperature. The electronic control has been programmed to maintain an average of the set temperature.

The compressor will start up when the internal cabinet temperature increases .5 to 1.5 degrees above the set temperature and will run until the temperature is .5 to 1.5 degrees below the set temperature.

## Battery protection

The user can set the minimum battery voltage cut out to protect their battery, when the appliance reached this level, it will switch off and an audible beep will be heard when the protection is activated.

The unit will automatically restart once Cut In voltage is reached and will retain all the original settings prior to the monitor being activated.

### BATTERY MONITOR

High Med Low

BATTERY PROTECTION	12V CUT-OUT	12V CUT-IN	24V CUT-OUT	24V CUT-IN
LOW	10.2V	11.2V	21.6V	23.0V
MED	10.7V	11.7V	22.6V	24.0V
HIGH	11.7V	12.7V	24.6V	26.0V

## Compressor Speed

The cooling system can be adjusted to increase or decrease the cooling performance as required, the higher the speed the more power can be consumed.

### COMPRESSOR

Turbo Std Econ

## Bluetooth connection instructions

Visit the Apple Store or Google Play and search Ironman, locate the free app, download, and install.



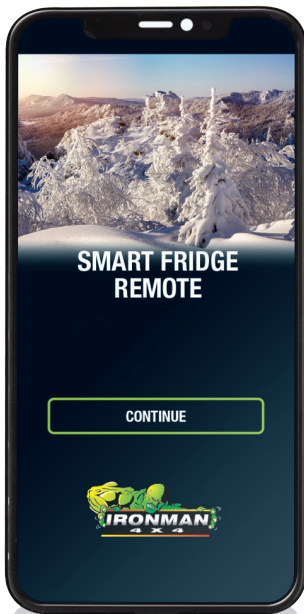
Check that the appliance is connected to a suitable power source is turned on, then launch the app. App should automatically detect fridge and the six-digit product code will appear at the bottom of screen.

**Note:** if connection cannot be made, press POWER and SET & a four-digit code will appear.

**Press continue to open user interface.**

The icon will illuminate on the LCD control panel, confirming connection to the device. Once connected, the device will display the current settings and operation of the appliance.

**Note:** The app is designed to connect and control only one fridge at a time and can be used within 10 meters of the unit. It is recommended to keep solid walls and obstructions to a minimum between the appliance and the device to ensure correct operation.



SINGLE ZONE



DUAL ZONE



## Appliance Operation



POWER



SET



UP



DOWN

### Power

1. Touch and hold the POWER button to turn fridge on.
2. Touch and hold the POWER button again to turn fridge off.

### Temperature setting

#### Singe Zone

1. Touch and release ○ SET One (1) Time, an audible beep will be heard & the display will flash showing current temperature setting.
2. Touch and release the △ or ▽ until the required temperature is selected.
3. The display will flash 5 times & then return to the Actual Temperature. - Actual temp is shown on left side of display.

#### Dual zone

##### Temperature setting – Zone 1

1. Touch and release ○ SET One (1) Time, an audible beep will be heard & Zone 1 will flash showing current temperature setting.
2. Touch and release the △ or ▽ until the required temperature is selected.
3. The display will flash 5 times & then return to the Actual Temperature.

##### Temperature setting – Zone 2

1. Touch and release ○ SET Two (2) Times; an audible beep will be heard & Zone 2 will flash showing current temperature setting.
2. Touch and release the △ or ▽ until the required temperature is selected.
3. The display will flash 5 times & then return to the Actual Temperature.


### Battery protection

1. Touch and release ○ SET Three (3) Times, an audible beep will be heard until the Battery Monitor display flashes.
2. Touch and release the △ or ▽ until the required setting is reached.
3. The display will flash 5 times & the setting is confirmed.

### Compressor speed

1. Touch and release ○ SET Four (4) Times, an audible beep will be heard until the Compressor Speed display flashes.
2. Touch and release the △ or ▽ until the required setting is reached.
3. The display will flash 5 times & the setting is confirmed.

### Door Alarm

1. If the door is not closed correctly, after 5 minute an audible beep is herd and the  will flash on the display - Check that door is closed correctly.

### Change Temp Read Out – Celsius to Fahrenheit

1. Touch and hold the △ and ▽ icons together, the display will change from Celsius to Fahrenheit.
2. Repeat process to change from Fahrenheit to Celsius.

## Appliance Operation (cont.)

### Dual Zone – Shut Down Zone

The Dual Zone has the function to shut down a Zone if it is not required to assist with power consumption and efficiency

#### Zone 1

1. Touch & hold  $\Delta$ , then touch and hold  $\circ$  SET
2. An audible beep will be heard, and the display will show “OFF” for **Zone 1**
3. Repeat process to reactivate the Zone

#### Zone 2

1. Touch & hold  $\nabla$ , then touch and hold  $\circ$  SET
2. An audible beep will be heard, and the display will show “OFF” for **Zone 2**
3. Repeat process to reactivate the Zone

### Control Panel Brightness

The brightness of the display can be adjusted as required

1. Touch and hold  $\Delta$  to increase the brightness
2. Touch and hold  $\nabla$  to decrease the brightness



## Error Codes

ERROR CODE	ERROR TYPE	METHOD TO ADDRESS
<b>ERR01</b>	Battery Cut Out Activated	<ul style="list-style-type: none"> <li>• Check that source voltage is above the set Cut Out level - Adjust as required</li> <li>• Check Operation on another power source</li> </ul>
<b>ERR02</b>	Cooling Fan Issue	<ul style="list-style-type: none"> <li>• Call Ironman Customer Service</li> </ul>
<b>ERR03</b>	Compressor Start Up Issue	<ul style="list-style-type: none"> <li>• Remove fridge from power source and wait for 10 mins before reconnecting</li> <li>• Try connection to Alternate Power Source</li> <li>• Potential Control System Issue - Contact Ironman Customer Service</li> </ul>
<b>ERR04</b>	Compressor Speed to Low	<ul style="list-style-type: none"> <li>• Remove fridge from power source and wait for 10 mins before reconnecting</li> <li>• Try connection to Alternate Power Source</li> <li>• Move unit to a lower ambient temperature area</li> <li>• Clean and ensure all vents are clear to ensure uninterrupted air flow across compressor &amp; cooling system</li> </ul>
<b>ERR05</b>	Extreme Ambient Temperature	<ul style="list-style-type: none"> <li>• Move unit to a lower ambient temperature area</li> <li>• Clean and ensure all vents are clear to ensure uninterrupted air flow across compressor &amp; cooling system</li> </ul>
<b>ERR06 ERR07</b>	Thermostat Failure	<ul style="list-style-type: none"> <li>• Call Ironman Customer Service</li> </ul>

## Warranty



This fridge / freezer comes with a Total 5 year warranty from the day of purchase under the following conditions.

Any warranty claims exclude parts such as fuses, connectors, plugs, etc.

- All defects are variably attributable to material or production errors.
- Warranty claim must be made within the warranty period.
- Purchase receipt must be presented with unit warranty claim.
- Improper use of unit will void warranty.
- Warranty will be void if the unit is run with supplementary parts or accessories from other manufacturers.
- Warranty does not cover fridge content spoilage or loss.

Claims other than the above are not covered by warranty, Ironman 4x4 reserves the right to repair or replace at our discretion.

For any service issues or warranty claims  
please contact **Ironman 4x4** on our toll-free number **1300 731 137**.



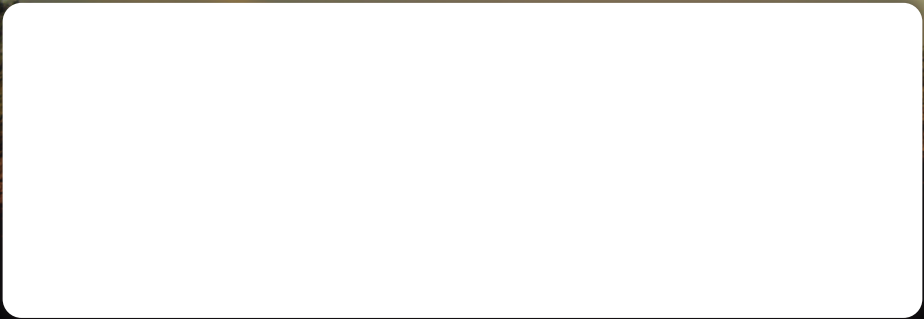
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