

USER GUIDE

iFROST 40L

FRIDGE / FREEZER



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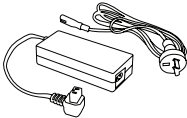
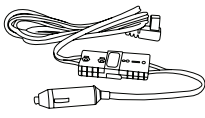


OVERVIEW

Introducing the iFROST 40L Lithium Portable Single Zone Fridge/Freezer, your ultimate solution for keeping food and drinks cold without relying on melting ice. Its thick insulation maximises efficiency and extends unplugged runtime if you are using the lithium battery (sold separately). For longer adventures, you can recharge using a solar panel, power station, dual battery system, or by connecting to AC/DC power. The smart lid is designed to open from both sides, making the unit ideal for camping, 4WD's, caravans, boats, picnics, or even as an extra fridge at home.

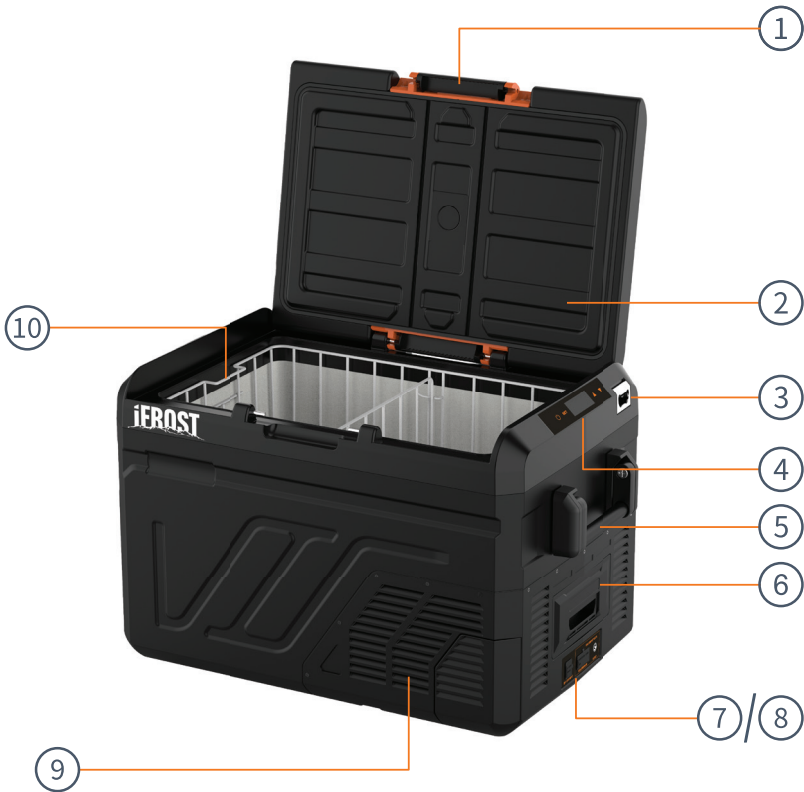
KEY FEATURES:

- Low Amp Consumption
- LG Compressor
- Low Profile (440mm high)
- Automatic Digital Display Dimming
- Smart Lid
- Built-in Bottle Opener
- 12V/24V Input
- 240V Input
- Large Temperature Range (-22°C~24°C)
- Drain Hole

Accessory List

 <p>AC Adapter</p>	 <p>DC Adapter</p>	 <p>Wire Basket</p>	 <p>User Manual</p>
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PRODUCT OVERVIEW:



① LID LATCHES

② LID

③ BOTTLE OPENER

④ DISPLAY

⑤ HANDLE

⑥ BATTERY* COMPARTMENT

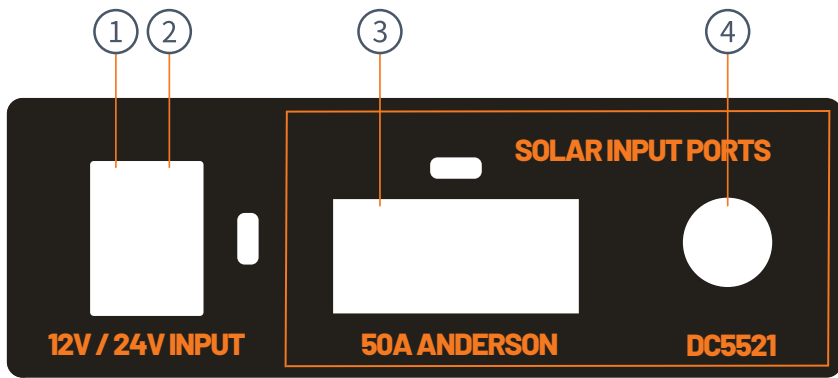
⑦ DC INPUT

⑧ AC INPUT

⑨ AIR VENT

⑩ BASKET

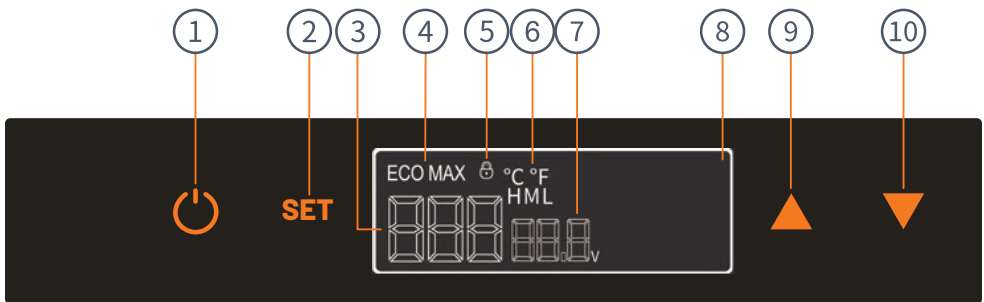
*LITHIUM BATTERY IS SOLD SEPARATELY



- ① AC 240V INPUT PORT
- ② DC 12V/24V INPUT PORT

- SOLAR INPUT ONLY**

 - ③ 50A ANDERSON INPUT PORT
 - ④ 5.5MM INPUT PORT



- ① MAIN POWER CONTROL
- ② SETTINGS BUTTON
- ③ TEMPERATURE DISPLAY
- ④ ECO / MAX INDICATOR
- ⑤ LOCK / UNLOCK INDICATOR
- ⑥ TEMPERATURE UNIT CONTROL
- ⑦ INPUT VOLTAGE INDICATOR
- ⑧ DISPLAY
- ⑨ INCREASE BUTTON
- ⑩ DECREASE BUTTON

GETTING STARTED

Upon receiving your fridge / freezer, ensure you have all the included adapters and they are intact. Place the unit in a dry area away from water, heat, or direct sunlight.

For optimal performance, if you purchased the internal mounted lithium battery (sold separately), it is recommended to charge the unit as soon as possible. Following these instructions will ensure seamless operation with high performance.

The cooling compartment features a single zone section, with the display indicating the correct temperature of the compartments midpoint.

WARNING: before storing medication, confirm the fridge / freezers cooling capacity meets the specific requirements of the medication.

The unit has been designed and developed to work optimally within an ambient temperature range of -10°C ~ 55°C and up to 90% humidity, the unit can operate continuously at a max angle of 30 degrees (figure 1).



Prolonged operation with an angle of 30 degrees or more is not recommended, you should limit use in this state to a maximum of 4 hours.

WARNING: Adequate airflow around the air vents is necessary for peak fridge / freezer performance.

POWERING THE FRIDGE:

There are three different ways to power your fridge, each outlined below:

1. AC Adapter

When you want to run the fridge from mains power, plug the AC 240V adapter and cable into the fridge DC 12V / 24V port located at the end of the fridge then connect the other end to a suitable AC 240V power source.

The fridge will then need to be turned on via the display.

The AC 240V adapter can power the fridge and charge the internally mounted lithium battery (sold separately).

2. DC Adapter

When you want to run the fridge from DC 12V / 24V power, plug the DC 12V / 24V adapter and cable into the fridge DC 12V / 24V port located at the end of the fridge then connect the male cigarette socket to a female cigarette socket ensuring it is a suitable DC 12V / 24V power source.

The fridge will then need to be turned on via the display.

The DC 12V / 24V adapter can power the fridge and charge the lithium battery (sold separately). Examples of a stable DC power source include iTechworld power stations, a dual battery system, or a vehicle cigarette socket.

3. Solar Input

To charge the internally mounted lithium battery using solar power, see below:

Plug an unregulated solar panel (16V – 31.5V) into the solar input ports at the end of the fridge. Ensuring the panel provides at least 50W.

Do not exceed 31.5V 10A.

We recommend using the iTechworld 200W Solar Blanket.

WARNING: Do not use the solar input ports without the battery connected.

OPERATION

AUTO LOCKING DISPLAY:



The display will automatically lock and dim itself after 30 seconds to prevent accidental changes.

To unlock, hold the **SET** button for 3 seconds or until the lock icon disappears.

POWER ON & OFF:



Long press the  button to turn the fridge on or off.

TEMPERATURE SET:

Use the  and  buttons to set the desired temperature, ranging from -22°C ~ 24°C . The compressor will automatically switch off once the temperature is reached, and it will continue to maintain this temperature.

To confirm this setting, refrain from pressing any buttons for 3 seconds or until the temperature stops flashing.

SETTINGS:

The setting menu has 3 different functionalities, details of each sub menu and their related functionalities are listed below. You can cycle through each sub menu with the **SET** button, and adjust them with the  and  buttons.

1. Compressor Speed

A - ECO: This mode will save energy with a higher efficiency but it will reach your set temperature slower.

B - MAX: This mode will use more energy with a lower efficiency but it will reach your set temperature faster.

2. Battery Monitor

There are 3 voltage cut out settings.

SETTING	12V		24V	
	Turn OFF	Turn ON	Turn OFF	Turn ON
Low (L)	<9.6V	>11.2V	<21.4V	>23V
Medium (M)	<10.4V	>11.7V	<22.8V	>24.2V
High (H)	<11.1V	>12.4V	<24.3V	>25.7V

- When connected to a car battery , we suggest M
- When connected to the lithium battery, we suggest L
- When using the AC input, we suggest H

The voltage outputs may vary among different vehicles. If the display shows E1, it indicates that the input voltage is too low. In this instance, lower the voltage setting (L / M / H).

3. Temperature Unit

Select between Celsius (C°) and Fahrenheit (F°)

FAULT CODES:

Fault Code	Fault	Solution
E1	Low / high voltage protection activated	Isolate the fridge for 60 seconds, ensure the input voltage is within the range specified on page 9.
E2	Condenser fan sensor fault	Isolate the fridge for 30 minutes, then reconnect the input source. If you are still experiencing issues, please contact the iTechworld service centre.
E3	Compressor pressure sensor fault	
E4	Compressor sensor fault	
E5	Over temperature protection activated	Isolate the fridge for 30 minutes, ensure it is not in direct sunlight. If you are still experiencing issues, please contact the iTechworld service centre.
E6	Temperature sensor fault	Isolate the fridge for 30 minutes, then reconnect the input source. If you are still experiencing issues, please contact the iTechworld service centre.

TROUBLESHOOTING

If your fridge is not running, please test your power source input. To troubleshoot this, connect the fridge to at least 2 different power sources for a minimum of 30 minutes each, such as a AC 240V wall plug and a vehicles DC 12V power.

If the fridge works correctly when connected to one of these sources, the issue is likely not the fridge. The fridge will operate consistently regardless of where the power comes from, as long as it is stable and within the correct range. Typical problems include wiring issues, undercharged batteries, and connection problems.

If your fridge display is not turning on:

1. Check the input power source (ensure the voltage is neither too high or too low)
2. Inspect the power cables and all connections between the input power source and the fridge.
3. Confirm that both the input power source and the fridge are turned on.
4. Verify that the battery is turned on, if using the removable lithium battery.

If your fridge is performing poorly:

1. Ensure the lid is being closed properly from both sides.
2. Check the input power source (ensure the voltage is neither too high or too low)
3. Confirm adequate ventilation around the fridge vents.
4. Ensure the temperature of the food being placed inside the fridge is not too high.
5. Verify the temperature setting is correct.
6. Verify the fridge is not in direct sunlight.

Pro Tips:

Pre-chill your fridge and contents before embarking on a trip to optimise efficiency and extend the battery life if you are using the internally mounted lithium battery (sold separately), as the fridge requires time to cool down its walls, air, and contents to the set temperature.

Optimal fridge fullness is around half to three quarters full.

SPECIFICATIONS

General	
Model Name	iFROST 40L Fridge / Freezer
Capacity	40L
Dimensions	689 x 406 x 440mm
Weight	17kg
Compressor	LG
Power Input	50W
DC Input	Yes
AC Input	Yes
Solar Input	50A Anderson / DC 5521
12V Average Amp Draw	0.8A
12V Max Amp Draw	4.2A
24A Average Amp Draw	0.4A
24V Max Amp Draw	2.1A
Insulation	PU Foam
Cooling Range	-22°C~24°C
Optional Battery	
Battery Type	Lithium-ion
Nominal Voltage	11.1V
Nominal Capacity	20.8Ah
Rated Capacity	230Wh

The iFROST 40L Fridge / Freezer complies with CE, EMC 50498 and EESS standard including all Australian deviations.

MAINTENANCE:

Your fridge has already been cleaned by iFROST, but it is advisable to clean it again before the first use. We recommend using a damp cloth with warm water for this, be cautious to avoid getting water into the seals or electrical components. After cleaning, dry the fridge entirely with a cloth. If you are storing the fridge for an extended period of time, leave the lid slightly open to prevent odours and mould.

- Do not use cleaning agents
- Do not use hard brushes
- Ensure all power input cables and the lithium battery (sold separately) have been removed
- Dry the fridge completely after washing

SAFETY PRECAUTIONS

For safe operation and optimal performance, the iFROST 40L Fridge / Freezer must be operated correctly. Please carefully read, understand, and follow all instructions and guidelines in this user guide. Failure to follow these instructions may result in damage to the unit, property, death, or serious injury.

Disclaimer: While iTechworld has taken every precaution to ensure the accuracy of the contents of this user guide, iTechworld assumes no responsibility for any errors or omissions.

Furthermore, all specifications and functionality may change at any time without notice.

It is best to view our website for the most up-to date information.

WARNING:

This fridge has an optional internally mounted lithium battery system (sold separately) which may cause death or severe injury if used incorrectly. Even with the extensive safety features, caution should still be used when operating the unit.

WARNING:

People with physical disabilities, visual, sensory, or mental impairments (including children) should not use this fridge. Children should be supervised to ensure they do not play with the fridge.

WARNING:

Please use the recommended and included cables specified in this user guide (page 3).

WARNING:

The fridge is not waterproof, do not expose the unit to moisture or precipitation.

WARNING:

Secure the fridge properly during transportation.

WARNING:

If you are installing the fridge on a boat, the installation should be carried out by a qualified electrician.

WARNING:

Do not drop the fridge or removable lithium battery (sold separately).

DANGER:

Ensure the fridge is placed in a well ventilated area during use. Failure to do so may cause the fridge to overheat.

DANGER:

Do not disassemble or modify the fridge, doing so may result in a risk of electrical shock, fire, death, or serious injury.

DANGER:

This fridge is only suitable for use with the removable iTechworld lithium fridge battery (sold separately) listed in this user guide.

DANGER:

Avoid handling cables or plugs with wet hands or if any part of your body is in contact with water. When operating the fridge on-board a boat using a AC 220V – 240V power source, ensure the connection has an RCD. Failure to do so may result in a risk of electrical shock, fire, death, or serious injury.

DANGER:

Do not damage any of the power cables connected to the fridge, this includes kinking the cables, wrapping the cable around the fridge, or pulling the cable around sharp edges.

REGULAR INSPECTIONS:

Regularly check the fridge, iTechworld lithium fridge battery (sold separately), and all connections for signs of damage.



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iTECHWORLD
THE POWER EXPERT

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When it comes to energy storage and creation at iTechworld, we take pride in being one of the biggest names in the industry. Based in Australia, we are a family-owned and operated business. With many more innovative products on the horizon we are committed to constantly raising the bar to provide bigger and better benefits to all our customers Australia-wide.

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