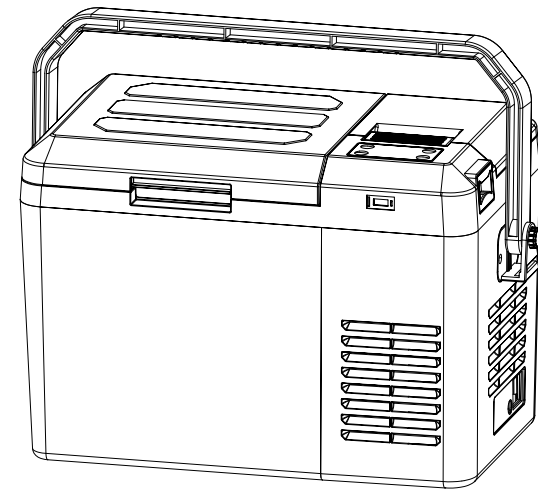


# CAR REFRIGERATOR WITH COMPRESSOR

User Manual



**Model: TB-J9**

## FCC WARNING :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

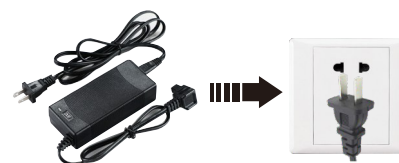
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules . These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  - Increase the separation between the equipment and receiver.
  - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
  - Consult the dealer or an experienced radio/TV technician for help.
- To maintain compliance with FCC' s RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.

## ● Attentions

- △ Before using the refrigerator, please read this manual carefully and keep it properly
  - ⊙ Before the first use of refrigerator, you should clean it inside and outside with a damp cloth.
  - ⊙ Do not fill the refrigerator with corrosive liquids. Do not directly pour liquids into the refrigerator.
  - ⊙ When the refrigerator is not used for a long time, please disconnect the power supply and keep it dry.
  - ⊙ Please clean the inner chamber regularly to prevent odor bacteria and ensure food safety.
  - ⊙ Shut down the refrigerator and battery before pulling by the trolley (If with battery).
- △ Connect the power supply
  - ⊙ Find the DC power cord in the kit. Connect DC plug to the power outlet of the car refrigerator.
  - ⊙ Well place the refrigerators in the car (back-up, seats....)
  - ⊙ Lay out power cords as per the interior space of your car. Insert the cigarette lighter plug (one side of the power cord) into the car cigarette lighter hole.



Adapter



Connect the car cigarette lighter



DC 12/24V

Connect the car refrigerator

Connect the car cigarette lighter / DC Power Cord / Connect the car refrigerator (Standard mode) / Connect the car refrigerator (Built-in Mode)

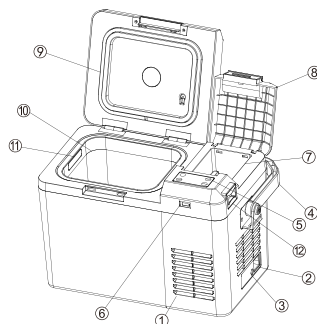
The refrigerator can be connected to more than one source of energy.

The refrigerator can be directly connected to the 12V/24V DC power supply.

If the refrigerator is used in 100-240V power supply, an AC adapter should be adopted.

## ● Component diagram

- ① Compressor cover      ② Power inlet
- ③ Solar power terminal      ④ Handle
- ⑤ Control panel      ⑥ USB
- ⑦ Battery slot
- ⑧ Battery slot cover
- ⑨ Door gasket
- ⑩ Storage compartment
- ⑪ Inner light
- ⑫ Bottle opener



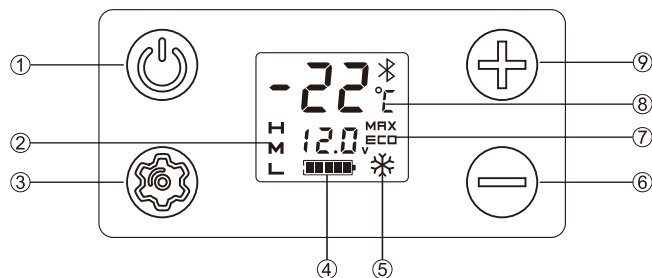
## ● Operation Method

⚠ **WARNING!** Condensation or ice may appear around door gasket and front of cabinet if the fridge runs for long time. It's normal. Please clean the condensation or ice with dry towel.

⚠ **WARNING!** The fridge is designed for outdoor camping, not suitable for long term freezing food.

⚠ **WARNING!** To save energy and avoid condensation or ice issue, please not run the fridge with setting lower than 0°C/32°F for long term.

⚠ **WARNING!** Defrost water may leak from inner compartment of cabinet if the fridge is powered off or standby by for long time. It's normal. Please clean the inner side by dry towel if you plan to depose the fridge.



- ① ON/OFF      ② Battery protection level      ③ Setting
- ④ Power/Voltage      ⑤ Compressor running symbol      ⑥ Decrease temperature
- ⑦ MAX/ECO      ⑧ Temperature display      ⑨ Increase temperature

## ● Operation Method

Item	Description	Explanation
1		Switch the fridge on when the button is pressed briefly. Switch the cooler off when the button is pressed again.
2		Press briefly to select MAX or ECO In MAX mode, the compressor runs fast to reduce temperature rapidly. In ECO mode, the compressor runs slowly to save energy.
3		Press briefly to increase setting temperature 1 degree. Press continuously to increase temperature fast.
4		Press briefly to decrease setting temperature 1 degree. Press continuously to decrease temperature fast.
5		Press  and  simultaneously for 3 seconds to change temperature unit between °F and °C. Please make sure no any symbol is flashing when you use this function.

### Set car battery protect level

Car Battery Protection Voltage Reference

Built-in ECO electronic control module can automatically monitor car battery voltage. Refrigerator will be automatically cut off when the power is excessively consumed, So that protecting the battery consumption from too low to affect auto ignition.

Voltage	High Level set to be factory default (Voltage Protection)		
	H (High) level	M (Medium) level	L (Low) level
12V	11.3V OFF, 12.5V ON	10.1V OFF, 11.4V ON	8.5V OFF, 9.6V ON
24V	24.6V OFF, 26V ON	22.3V OFF, 23.7V ON	21.3V OFF, 22.7V ON

**NOTE:** when the refrigerator is on work, "OFF" or "ON" is the stop or start of the compressor.

Battery Protection Levels: H (High)>L (Low) >M (Medium)

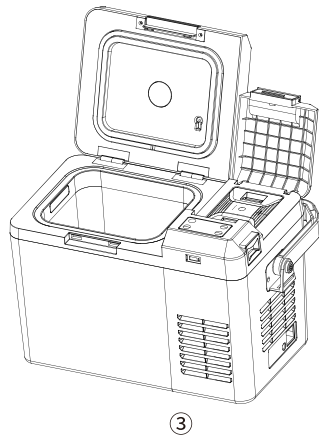
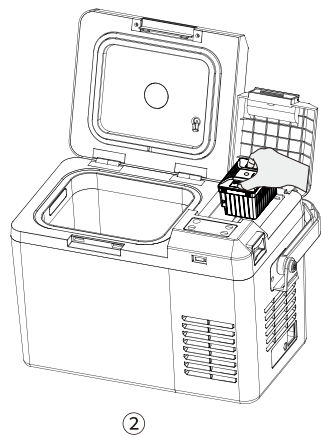
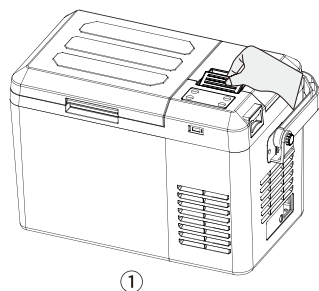
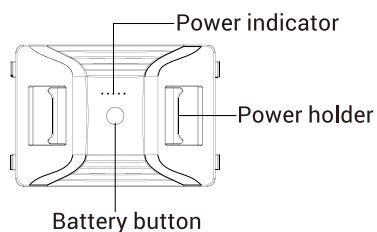
Press longer to enter car battery protect level setting mode. In this mode, press shortly to set protect level H/M/L. The letter (H/M/L) will flash for 3 second if no more operation. Then the selection is fixed and will be showed in display.

### Power-off Memory Function

There is a power-off memory function for the car refrigerators. When the power is lose, working state (On/Off status, working mode etc.) which before power-off can be automatically recovered at the next startup, no need to set it again.

ECO: Energy-saving cooling    MAX: Powerful cooling

## ● Operation Method



- ⊙ Open battery slot cover.
- ⊙ Press battery button continuously until the indicator is lighted.
- ⊙ Press ON/OFF button to power on the fridge.
- Tips: please set battery protection level to "L" if you are using this battery.
- If the display of control panel shows "E1", it means the power in the battery is low.
- ⊙ Press battery button continuously to switch off the battery if you don't need the battery or plan to put away the fridge.
- ⊙ Squeeze two battery holders to take out the battery.
- ⊙ Keep the battery in slot.
- ⊙ Connect the fridge with 12V/24V power by cigar lighter power cable or home socket by AC/DC adapter. Then the battery is charging although the fridge is not switched on.

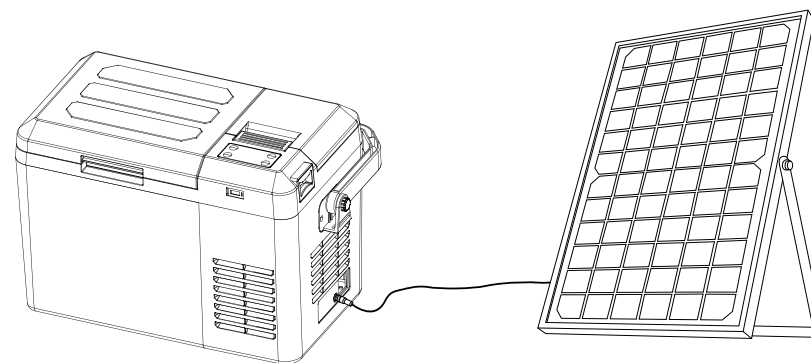
**WARNING!!! Please not charge the battery in temperature higher than 43°C.**

## ● Operation Method

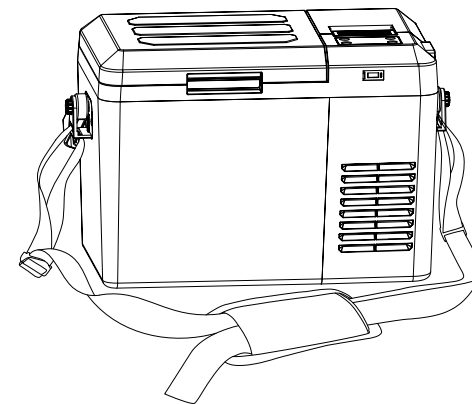
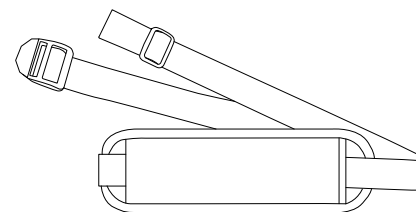
### Use solar power

Specification of solar panel: out put voltage:12~18V,maximum current < 8A,maximum power <200W.

Please ensure the battery is kept in the slot. The solar panel charges the battery, not power on the fridge directly.



### Strap



## ● Troubles and Troubleshooting

Advice: If there is any abnormal situations that cannot be resolved through simple fault analysis, please contact professional customer service for assistance.

### △ Car Refrigerator Does Not Work

- Check if the power is connected properly. (check if the plug is loosened or positive and negative poles are reversed).
- Check if the power switch on the operation panel is turned on.
- Check if the cooling ventilation is normal.
- Check if the fuse is blown.

### △ Poor Cooling Performance

- Check if the lid is closed properly
- Check if the door seal is damaged or deformed.
- Check if there is poor ventilation around the fridges.
- Check if the temperature is set properly.

### △ Abnormal Noise

- Refrigerator is not put on a flat level surface
- Check for vibrations in surrounding objects
- Parts in the refrigerator get loose or fall off.

### △ Refrigerator Condensation

- It is normal that there slightly will be some condensation on the refrigerator surface when air humidity is more than 75%.

### △ Definition Of Error Codes On The Display

Error Code	Error Type
E1	Low Input Voltage
E2	Fan Fault
E3	Input Voltage Fault due to compressor starts frequently
E4	Low Rotational Speed of Compressor
E5	Overheating of Controller Chip
E6	Open or Short Circuit of NTC

## ● Failures and Solutions

### △ E1: Low Input Voltage

- Failure 1: Insert refrigerator power cord into cigarette lighter before the car starts.  
Solution 1: Wait for a while to connect the car after it started.
- Failure 2: Input voltage of the adapter is too low.  
Solution 2: Adjust the battery protection level to middle-voltage or low-voltage. If it doesn't work, please replace a new adapter.

### △ E2: Fan Fault

- Please replace a new fan when identify there is a fan malfunction.

### △ E3: Input Voltage Fault due to compressor frequently start

- When the refrigerator is used in car and E3 appearing
  - ① Please shut down for 5 minutes and restart it.
  - ② If it doesn't work, that can be identified to be E1 fault, please solve it according to the solution of E1.
- When the refrigerator is connecting with adapter and E3 appearing
  - ① Please adjust battery protection level to the middle level or low level.
  - ② If it doesn't work, please replace a new adapter.

### △ E4: Low Rotational Speed of Compressor

- Please adjust input voltage and repower it.

### △ E5: Overheating of Controller Chip

- Please power off for 5 minutes and check if the overheating is caused by the bad ventilation around compressor.

## ● Applications



With an additional battery, you can hold any temperature you set in any situations without worries.



When storing ice cream in refrigerator, please set to the lowest temperature and keep power on constantly.



Prevent healthy problems from bottled water deterioration caused by the high temperature.



Keep fresh for the frozen food and luxurious seafood during the long travelling.



Freshness of tealeaves is effectively preserved by car refrigerator, you can enjoy the fresh and delicious tea any time during the self-driving travelling.



Coating of sunglasses will drop off at the high temperature, car refrigerator is the best ideal place to put away.



Cosmetic is easy to go bad at high temperature, so the best choice to store outside is with a car refrigerator.



Ideal storage temperature for red wine is 10°C-15°C, the precise temperature control of car refrigerator guarantees the storage temperature for it.



Fruits cannot be kept in hot car for more than 2 hours, even it is in the air conditioning. But car refrigerator is able to effectively keep the fruit fresh for a long time.

## ● Safety Attention

- ⊙ Ensure proper connecting of voltage for the refrigerator at any time.  
(Parameter label shows the approved voltage for car refrigerator).
- ⊙ Do not directly pour any liquid into the car refrigerator.
- ⊙ It is forbidden to modify the refrigerators privately, in case of dangers.
- ⊙ Refrigerators should not be exposed to the rain.
- ⊙ Do not lean the fridge during running to avoid damage of inner parts.

## ● Car Refrigerator Electrical Schematic

