

# Operators Manual

B-COOL12000RV-RM – 12V



## OPERATING INSTRUCTIONS

### Determining the operating mode of your A/C:

Press **ON/OFF (power)** Key for 3 Seconds to turn on the air conditioner.

Look at the control panel. It will display the letter **"A"**.

Look at the control panel. It will display either the letter **"A"** or the letter **"P"**.

**A – Stands for Automatic Mode**

**P – Stands for Manual Mode**

### 1) Automatic mode



In **Auto** mode you can **only** adjust the temperature. The lowest you can set the temperature is **16 °C or 60.8 F**.



Air speed is adjusted by the system according to the temperature.

The temperature display on control panel is the **Air Inlet Temperature**. It can be called a “**Standby**” temperature.

When the thermostat senses air inlet temperature reaches the temperature you set, the compressor shuts off and the **snowflake mark** will disappear.

When the temperature becomes 6°C higher than the set air inlet temperature, the compressor will turn on again

## 2) Manual Mode

The temperature display on control panel is air outlet temperature. This temperature can be called “**Compressor Protect Temperature**” (to prevent compressor from over-heating and evaporator from freezing). The lowest you can set is **4°C or 39 F**.



When the thermostat senses that the air outlet temperature has reached the set temperature, the compressor shuts off and the **Snowflake Mark** disappear.

When the inside temperature rises to 6°C higher than air outlet temperature, the compressor will turn on by itself.

The **Manual Mode** has **3 MODES**

Sleep: Wind Speed 1-6 level with **Star and Moon symbol**

Standard: Wind Speed 2-6 level

Strong: Wind speed 3-6 level

**Note:** Every time you turn on the air conditioner the control panel memory will remember the last working setting.

## Setting up the Manual Mode from Automatic Mode

Press “**STANDARD**” button on the Remote control to enter **Manual Setting Mode**.



“**P**” Means the air conditioner is in **Manual Setting Mode**.

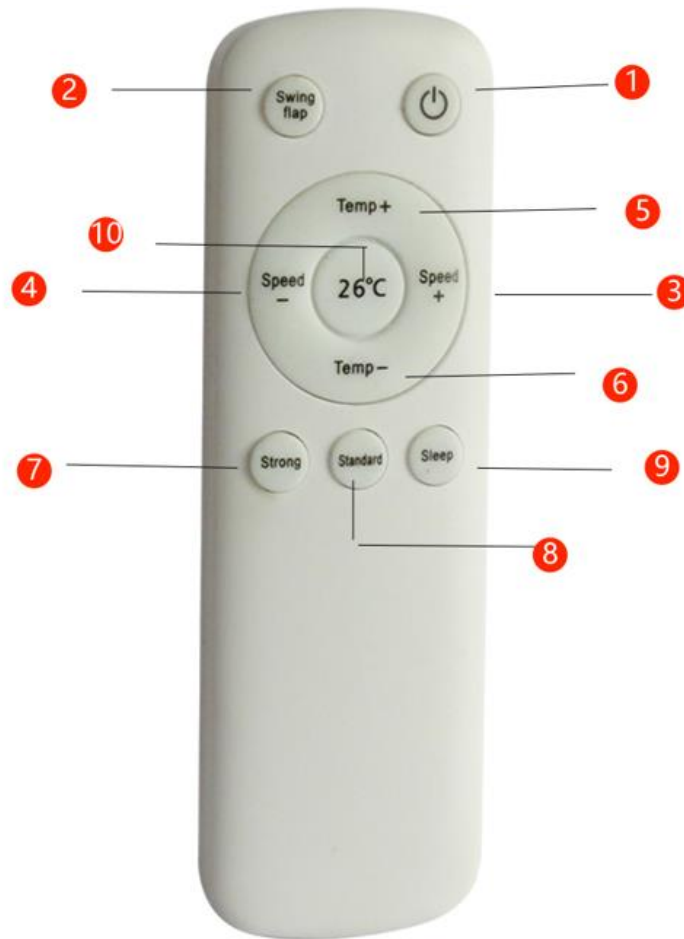
## Setting up the Automatic Mode from Manual Mode

Press the button #10 (**26°C**) on your remote, and you should then see an “**A**” on the control panel.

### **NOTE:**

- 1) There are two thermostats in our air conditioners, but they cannot work at the same time.  
In automatic mode - only air inlet thermostat works.  
In manual mode - only air outlet thermostat works.
- 2) Cooling effect in **Manual Mode** is better than in **Automatic Mode**.
- 3) When you set a low temperature in Manual mode, it is better set a high air speed.
- 4) Low temperature and low air speed - over a long time – may cause frosting on the Evaporator
- 5) The Cooling effect of the 12V is better when the Vehicle is in motion than in parking.
- 6) Our recommended Setting is the manual mode.

## OPERATING INSTRUCTIONS FOR THE REMOTE CONTROL



The Key's have the following functions :

- ① Turn on/off air conditioner
- ② Swing Flap: **Only available on B-COOL12000FlexM-24V – swing air function.**
- ③ Increase (evaporator blower motor) air flow.
- ④ Reduce (evaporator blower motor) air flow.
- ⑤ Temperature +
- ⑥ Temperature -
- ⑦ Strong mode
- ⑧ Standard mode \*\*\*
- ⑨ Sleep Mode
- ⑩ 26°C ECO mode \*\*\*\*\*

\*\*\* Change the mode from **Auto mode** to **Manual Mode**.

\*\*\*\*\* Change the mode from **Manual Mode** to **Auto Mode**

**OPERATING INSTRUCTIONS FOR THE INTERNAL CONTROL PANEL**



**12V Green**







**24V Yellow**

## To Set FAN SPEED FROM 1 – 6


1. Press  turn on/off Air conditioner
2. Press  enter wind set ,press  Reduce wind speed ,  increase the wind speed level 1----level 6

## To Change Temperature to Higher or Lower:

1. Press  turn on/off Air conditioner
2. press  When the display screen shows the temperature,  
Enter temperature set, press  Lower temperature,  
press  upper temperature. Temperature 15°C---32°C



## To Set Voltage:

1. Press  turn on/off Air conditioner

2) Press  and  at same time

3) Enter voltage set, Recommended at:

19V-24V for 24V product.

9V-12V for 12V products.

Notice: Please let your customer must set the voltage ,otherwise the air conditioner May use out the battery power when vehicles parking in whole night and let the air conditioner working.

## TO USE THE FAN ONLY FUNCTION:

**While the air conditioner is off**, press the Fresh air key, Once done the Compressor will not start and, only the condenser fan and inter motor will work.

For example, Set the Fan Speed level 3 , You can continue to set the Fan speed as you desire.

## **STRONG, ECO and SLEEP MODE:**

Press Strong mode Initial Temperature 16°C Wind Speed 6 , customers can set Temperature and wind speed freely.

Eco---Initial Temperature 26°C , Wind Speed 4 ,customers can set Temperature and wind speed freely.

Sleep--Initial Temperature 30°C , Wind Speed 3 ,customers can set Temperature and wind speed freely.

## **ERROR CODES - INSIDE CONTROL PANEL**

If, while the air conditioner is running, any of the following codes appear on the controller screen, please take the following steps as the code may indicate a serious problem

- 1) Stop the Air conditioner & Power Off**
- 2) After 10 minutes power ON & Start A/C**
- 3) If the code persists stop the A/C and power off contact the technical department at 604-599-9200**

<b>ERROR CODES</b>	<b>ISSUE</b>	<b>SOLUTION</b>
E01	Voltage is too low	Charge the battery or Start the Engine
E02	Evaporator blower is not operating	Check wiring and voltage of the supply wiring and repair. Also check blower and replace if defective.
H22/H23	Check evaporator inlet sensor by powering down the air conditioner and restart the air conditioner. If the code reappears it means that the sensor is defective or has become dislodged from the evaporator coil.	
E04	Temperature Sensor of Plenum	
E05	Compressor over temperature Indicator	This will power off the unit until the compressor cools down so as not to damage the unit. This may happen if the ambient temperature is very high. Once the compressor cools the unit will restart again.

E06/E07	Condenser fan is not operating	Check the wiring and voltage. Also check fan as it may be defective and needs to be replaced
E09	Condenser fan control board is defective	Replace the condenser fan control board
E10	Condenser fan failure	Replace the condensing fan motor
E11	Condenser fan is not operating	Check the wiring for damage
E15	If error comes up almost immediately	The Thermostat has been dislodged, Call the Technical department at 604-599-9200
E15	If the error comes up after 10 minutes	Issue with the compressor controller, replace it, Call the Technical Department at 604-599-9200
E15	If the error comes up after 30 minutes	Issue with freon, Call the Technical Department at 604-599-9200

## ERROR (FLASHES) CODES – COMPRESSOR



FLASH	Result	Solution
1x	Standby	
5x	Compressor Case temperature is too high	Lack of refrigerant or dirty condenser
6x	Open circuit of cooling fan	Bad contact of electromagnetic fan plug
7x	Short circuit of cooling fan	Short circuit in the motor or in the connection line
9x	Condenser fan controller failure	Replace the controller
10x	Condenser fan failure	Replace the fan
11x	Condenser fan lost contact	Re-Connect the fan properly

## GENERAL TROUBLESHOOTING

ISSUE	SOLUTION
IF THE COOLING EFFECT IS NOT GOOD	Select the right mode and set proper temperature and speed.
	Check if there is any obstruction at the air inlet and outlet
	Check if the surface of the condenser is too dirty
	Check if it is short of refrigerant and if the high and low voltage is within the normal range
THERE IS WATER ON THE SURFACE OF THE INDOOR UNIT	When running in an environment with high humidity, water drops may form on at the air outlet and core surface, which is a normal physical phenomenon
THE INSIDE CONTROL PANEL DISPLAYS VOLTAGE FAULT	Check battery for low voltage and verify the power source is either DC 12V or 24V, Check if the low voltage protection value is too high
THE INSIDE CONTROL PANEL DISPLAYS SENSOR FAULT	Check if the sensor at air inlet / outlet is plugged in correctly, Check if the display temperature is higher than normal ambient temperature. If it is, change the sensor
THE INSIDE CONTROL PANEL DISPLAYS FAN FAULT	Check if the fan is correctly plugged in. Connect the fan with a separate 12V or 24V DC power source. If the fan doesn't work, replace fan.
THE INSIDE CONTROL PANEL DISPLAYS OUTDOOR UNIT FAULT	Check if it is short of refrigerant.
	Check if the high and low voltage is within the normal range.
	Check if the condenser is too dirty - so that heat dissipation is adversely affected.

## MAINTAINENCE GUIDELINES

Before beginning cleaning, make sure the air conditioner is turned off & powered off.

- 1) Surface Cleaning of inside unit: Wipe with a clean damp cloth. The cloth can be dipped in a mild cleaning solution if the unit is very dirty.
- 2) The core of evaporation chamber is too dirty. Check for dirt and debris in the evaporator, clean with compressed air if necessary.
- 3) Outdoor unit cleaning: Remove the top cover and clean the condenser with compressed air. Pay attention not to damage the condenser coil.
- 4) Long time not in use: Unplug the air conditioner and wrap the outdoor unit to avoid any physical damage.
- 5) Using after long time not in use: Clean the unit body condenser and evaporation unit. Check for signs of any foreign matter at the air inlet or outlet of the unit. Check if the drain is clear; Install remote controller, make inspection and power it on.

### **Tips:**

**Maintain the AC unit frequently - at least once every 2 months.** If you operate the AC in a dusty - dirty environment, more frequent cleaning will be required. Check for blockage on top and bottom of the condenser fan, the condenser coil and air flow before and after the evaporator blower.