

Instruction Manual



1.54 inch OLED Panel

(Suitable for air parking heater appliances)

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.

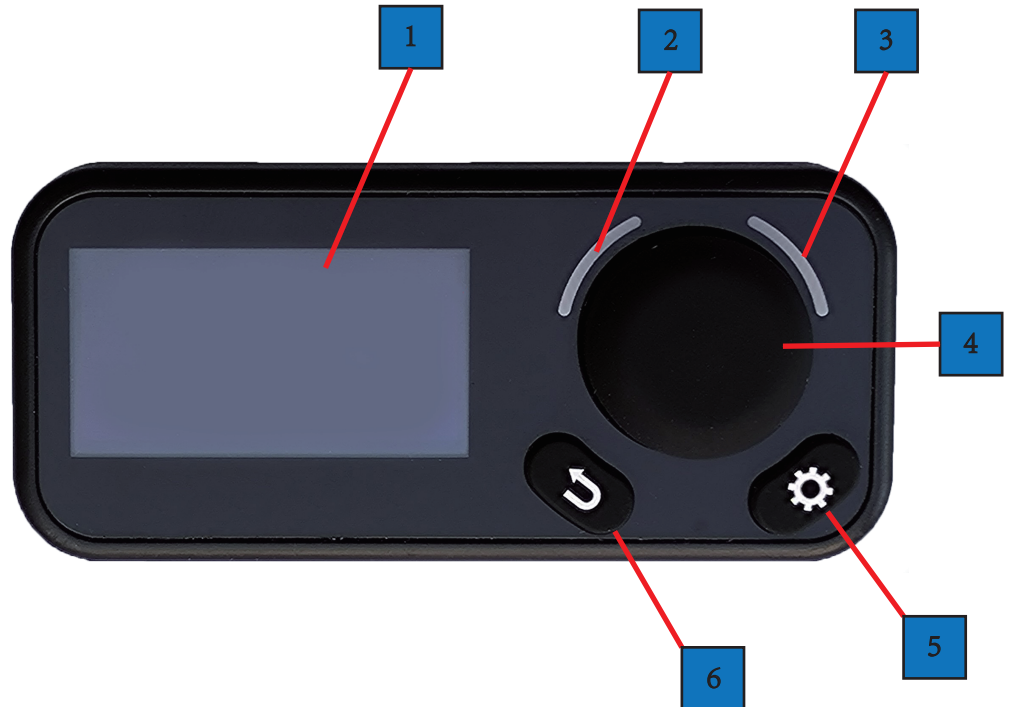
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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.

1.54 inch OLED panel	
1	OLED display screen
2	3 LED indicator
4	Knob & Confirm button
5	Set button
6	Back button



CONTENS

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1.DISPLAY



- After power-on, the panel enters the connecting state.
- After the connection is completed, the panel enters the working interface



(Working interface)

●The screen display content

12:00:00 Icon → The current time is 12 o'clock, 0 minutes and 0 seconds.

Icon → Variable Heat mode

P7 Icon → Warm air level is P7

Icon → The heater is turned on

1:35 Icon → The remaining heating time is 1 hour and 35 minutes

Icon → The timer has been turned on

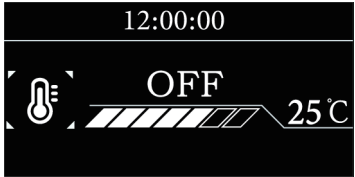
Icon → The standby function is turned on

Icon → timer 2 is working



- 1.On the working interface, long press the confirm button to turn on or off the heater.
- 2.Long press: Press time >1.5 seconds
- 3.Short press: Press time <1.5 seconds

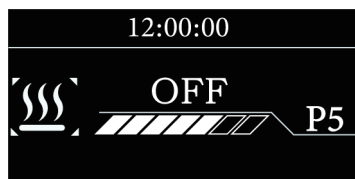
1.1 THREE OPERATING MODE

		
 → Variable Heat mode	 → Thermostat Mode	 → Ventilation mode

1.2 MODE SETTINGS

	● Enter the mode settings · Under the interface (working interface) short press the confirm button ● Change selection mode · Rotate the knob to change selected mode ● Confirm selection mode · Short press confirm button ● Exit selection mode · Short press the back button
	
	

1.3 LEVEL ADJUSTMENT



- **Warm air level range (P1-P7)**
 - P1 is warm air minimum power
 - P7 is warm air maximum power
- **Intensity Adjustment**
 - Rotary knob



- **Temperature setting range (5°C -35°C)**
 - 5°C is the minimum room temperature
 - 35°C is the maximum room temperature
- **Temperature setting adjustment**
 - Rotary knob



- **Ventilation level range (P1-P7)**
 - P1 is the minimum wind speed
 - P7 is the maximum wind speed
- **Intensity Adjustment**
 - Rotary knob



Ventilation mode only fan operation

1.4 HEATER STATE



● State

- The heater is turned on

● Settings

- Short press confirm button to enter the mode settings
- Long press the confirm button to turn off the heater

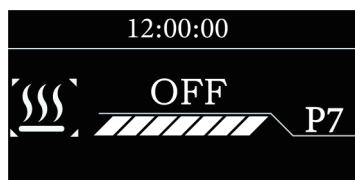


● State

- The heater is Shutting Down.
- (OFF Flashing)

● Settings

- Short press confirm button to enter the mode settings
- Long press the confirm button to turn on the heater
- Short press back button to enter the time display



● State

- The heater is turned off.

● Settings

- Short press confirm button to enter the mode settings
- Long press the confirm button to turn on the heater
- Short press back button to enter the time display



1.Long press: Press time >1.5 seconds

2.Short press: Press time <1.5 seconds

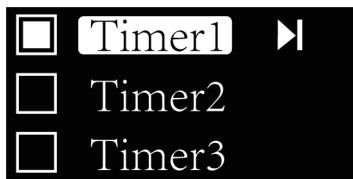
3.When the heater is working in power mode or temperature mode, switching to ventilation mode is not allowed

1.5 TIMER SETTING



● Enter the timer setting

- Short press the confirmation button on the working interface, find the timer setting option, and then short press the confirm button again to enter.



● Turn on and off the timer

- Short press the confirm button at the position of the timer name



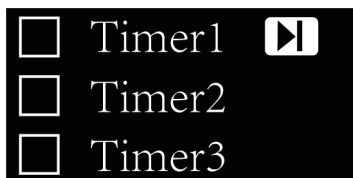
→Timer on state



→Timer off state

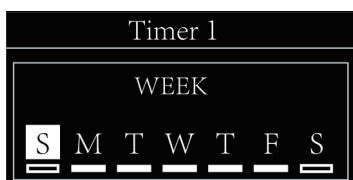
● Switching options

- Rotary knob



● Setting of timer parameters

- Short press the confirmation button at position ► to enter the parameter setting of the corresponding timer



● Setting of timer week

- Press the confirm button to turn on or turn off



→Week on state



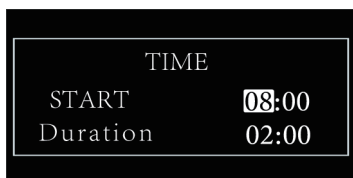
→Week off state

● Switching options

- Rotary knob

● Exit

- Short press back key



● Timer time setting

- Short press confirm button



Icon → The starting time 8 hours and 0 minutes

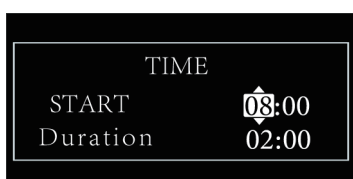


Icon → The working duration is 8 hours and 0 minutes

(The working duration is up to 24 hours at most and 10 minutes at least.)

● Exit

- Short press back key



● Confirmation of timer time setting

- Short press confirm button

● Adjustment of timer time

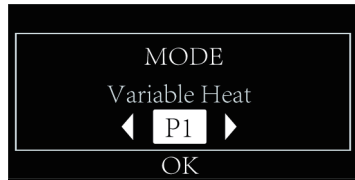
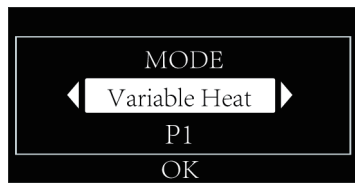
- Rotary knob

● Exit

- Short press back key

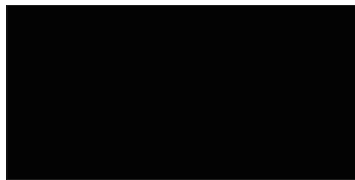


In order to ensure safety, the timer is turn off after the power is cut off

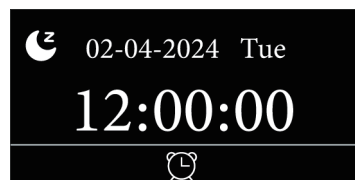


- **Timer mode and level setting**
 - Short press confirm button
- **Timer mode and gear adjustment**
 - Rotary knob
- **Exit**
 - Short press back key

2 STANDBY AND TIME



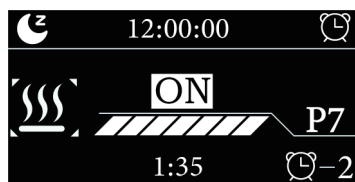
- **State**
 - Standby (screen off)
- **Settings**
 - Press any key to exit standby



(Time interface)

- **Current interface**
 - Time interface
- **Turn on and off standby function of the Time interface**
 - Long press set button
- **Enter the working interface**
 - Short press back key
 - Short press confirm button

- **The standby function of the time interface is turned on**
 - If there is no operation within 20 seconds, the control panel will enter standby state.
- **The standby function of the time interface is turned off**
 - The control panel displays the time interface



(Working interface)

- **Current interface**
 - working interface
- **Turn on and off the standby function of the working interface**
 - Long press set button

- **The standby function of the working interface is turned on**
 - When the heater is working, if there is no operation within 20 seconds, the control panel will enter the standby state
- **The standby function of the working interface is turned off**
 - When the heater is working, The control panel displays the working interface



After the heater is turned off and there is no operation within 20 seconds, the control panel will automatically switch to the time display

3.SYSTEM SETTINGS

●Enter System Settings

- Short press set button

●Switch Setting Options

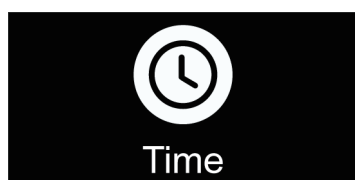
- Rotary knob

●Exit System Settings

- Short press back key

Attention: To ensure safety, when the heater is working, the control switch cannot enter the system settings.

3.1TIME SETTING



●Current setting options

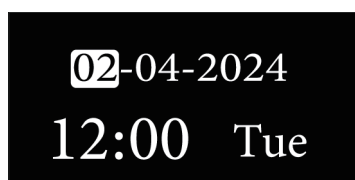
- Time Setting

●Enter the time setting

- Short press confirm button

●Switch setting options

- Rotary knob



●Time setting

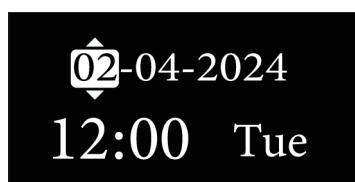
- The time is displayed in 24-hour format
- The time parameters that can be set include year, month, day, hour and minute.

●Enter the time parameters settings

- Short press confirm button

●Switch time parameters options

- Rotary knob



●Time parameters settings

- "The day of the week" is automatically calculated and does not need to be set.

●Confirm time parameters

- Short press confirm button

●Time parameters adjustment

- Rotary knob

●Exit time setting

- Short press the back button

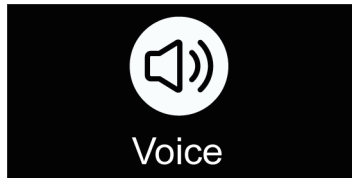


When setting the time, the "seconds" do not appear on the interface.

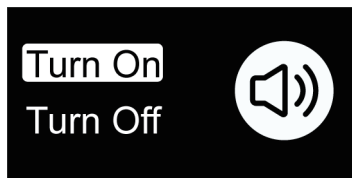
When confirming the time parameter settings, the "seconds" will be reset to zero.

The time has no memory function, and when the power is cut off, the time will return to the default.

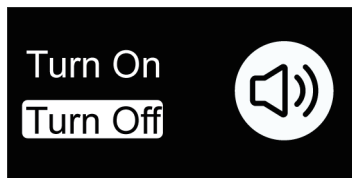
3.2 SOUND SETTINGS



- **Current setting options**
 - Sound Settings
- **Enter sound Settings**
 - Short press confirm button
- **Switch setting options**
 - Rotary knob



- **Current selection status**
 - ON
- **Confirm sound settings**
 - Short press confirm button
- **Exit sound settings**
 - Short press the back button



- **Current selection status**
 - OFF
- **Confirm sound settings**
 - Short press confirm button
- **Exit sound settings**
 - Short press the back button



Sound Settings have memory function, will not change when the power is cut off

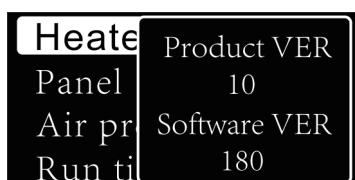
3.3 INFORMATION



- **Current setting options**
 - Information
- **Enter information options**
 - Short press confirm button
- **Switch setting options**
 - Rotary knob



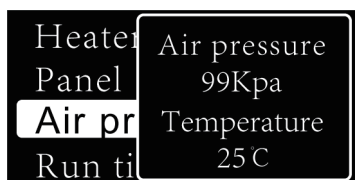
- **Current display**
 - select the information option
- **Switching information options**
 - Rotary knob
- **Enter the option**
 - Short press confirm button



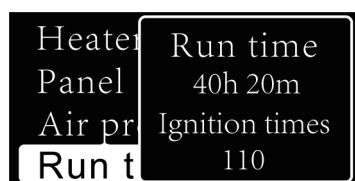
- **Current information display**
 - Heater information
- **Exit Heater information display**
 - Short press the back button
 - Short press confirm button



- **Current information display**
 - Control Panel Information
- **Exit control Panel Information display**
 - Short press the back button
 - Short press confirm button

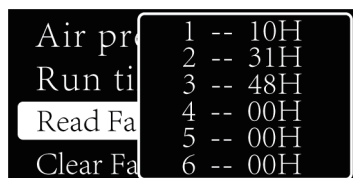


- **Current information display**
 - Atmospheric pressure information
- **Exit atmospheric pressure information display**
 - Short press the back button
 - Short press confirm button



- **Current information display**
 - Heater information
- **Exit heater information display**
 - Short press the back button
 - Short press confirm button

(Figure 1)



- **Current information display**
 - Read Faults"
- **Exit Read Faults display**
 - Short press the back button
 - Short press confirm button



- **Current information display**
 - Clear Faults
- **Confirm Clear Faults**
 - Short press confirm button
- **Exit Clear Faults display**
 - Short press the back button

3.4 LANGUAGE SETTINGS



- **Current setting options**
 - Language setting
- **Enter language settings**
 - Short press confirm button
- **Switch setting options**
 - Rotary knob



- **Current selected language**
 - Chinese
- **Confirm language settings**
 - Short press confirm button
- **Exit language settings**
 - Short press the back button

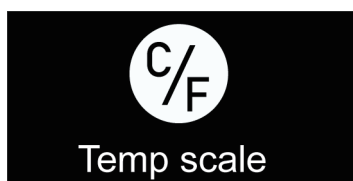


- **Current selected language**
 - English
- **Confirm language settings**
 - Short press confirm button
- **Exit language settings**
 - Short press the back button



Language Settings have memory function, will not change when the power is cut off

3.5 TEMPERATURE SCALE



- **Current setting options**
 - Temperature scale setting
- **Enter temperature scale settings**
 - Short press confirm button
- **Switch setting options**
 - Rotary knob



- **Current selected temperature scale**
 - Centigrade
- **Confirm temperature scale settings**
 - Short press confirm button
- **Exit Temperature scale settings**
 - Short press the back button

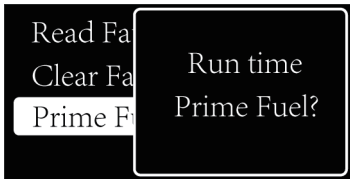


- **Current selected temperature scale**
 - Fahrenheit
- **Confirm temperature scale settings**
 - Short press confirm button
- **Exit temperature scale settings**
 - Short press the back button



Temperature scale Settings have memory function, will not change when the power is cut off

3.6 FUEL PRIMING FUNCTION



(Figure 2)

- **Start:**
Under the "Figure 1" interface
 1. Long press the Back and Set buttons
 2. When it appears (Figure 2), press confirm
- **Exit**
 - Short press the back button
 - Automatically exit if it exceeds 3 seconds



- **Current state**
 - Priming
- **Time regulation**
 - Rotary knob
- **Exit**
 - Short press the back button
 - Long press confirm button



Prime Fuel 90 seconds, the default time automatically quit the end of the countdown

4.COMMUNICATION AND FAULT

- **Communication status**

- When communication is abnormal, a prompt will appear

- **Fault state**

- When a fault occurs, the heater enters the fault lock state
- Long press confirm button, quit the locking state, heater is closed

4.1 IN CONNECTION



- **status**

- Panel initialization and communication with heater



If the panel fails to communicate with the heater, The panel enters the "No connection" state

4.2 NO CONNECTION



- **status**

- Communication with heater failed

- **Settings**

- Short press any keys back to initialize



When the "No Connection" state appears, please check the communication cable first.

4.3 COMMUNICATION DISCONNECT



● Work Status

- Communication between panel and heater is disconnected

● Exit

- Communication recovery automatically exits



● Status

- Communication between panel and heater is disconnected

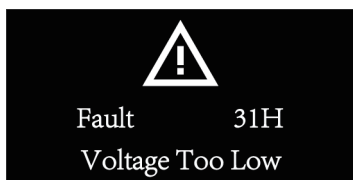
● Exit

- Communication recovery automatically exits



When the Disconnected state appears, check the communication cable first

4.4 FAULT



● Display

- Fault state
- Fault code 31H
- Fault cause (Voltage Too Low)

● Exit

- Long press confirm button, exit the fault state



After exiting the fault state, please wait until the heater is completely turned off before restarting the heater. Otherwise, the heater may not exit the fail-lock state

5.FAULT CODE

Fault Code	Display on OLED
10H	Ignition Failure
20H	Flameout
30H	Voltage Too High
31H	Voltage Too Low
41H	Temp too High Prior to Ignition
52H	Outlet Temp Sensor Open Circuit
53H	Outlet Temp Sensor Short Circuit
65H	Inlet Temp Sensor Open Circuit
66H	Inlet Temp Sensor Short Circuit
70H	Fuel Pump Open Circuit
71H	Fuel Pump Short Circuit
80H	Combustion Fan Open Circuit
82H	Combustion Fan Too Slow
83H	Combustion Fan Too Fast
85H	Combustion Fan Startup Failure
90H	Glow Pin Open Circuit
91H	Glow Pin Short Circuit
A2H	Overheat Sensor Temp Too High
A4H	Inlet Temp Too High Prior to Ignition
B4H	Overheat Sensor Open Circuit
B5H	Overheat Sensor Short Circuit
E0H	No Ignition Signal
E1H	Glow Pin Driver Voltage Not Detected

6.LED INDICATOR

- LED indicator

- You can know the current working status by observing the LED indicator

- Display and status

- The following lists the corresponding states of different LED displays

Work Status	LED display
Initialize	Blue light
Disconnect	Blue light flashing
Operating	Green light
Shutting Down	Red light
Fault	Green light flashing

7. INSTALLATION

● Installation Notes:

- The control switch must be installed in the vehicle in accordance with the corresponding technical specifications for vehicle control.

● Safety Information:

- Find a suitable mounting surface within the driver's field of vision to fix the control switch.
- Do not use high-voltage devices unless the electronic circuit (PCB board) has been disconnected.
- If welding is required on the vehicle, do not connect the DC power supply to the control switch. Welding will cause serious damage to the switch.
- Do not shorten the original control lead wire. When installing this control switch, the vehicle power supply must be turned off.
- This control switch should be installed in the waterproof and moisture-proof location.

7.1 INSTALLATION LOCATION

● Installation Location:

- The control switch should be installed in the location easy to read and operate
- The opening size of control switch is 16mm × 22mm, refer to "Figure 3"

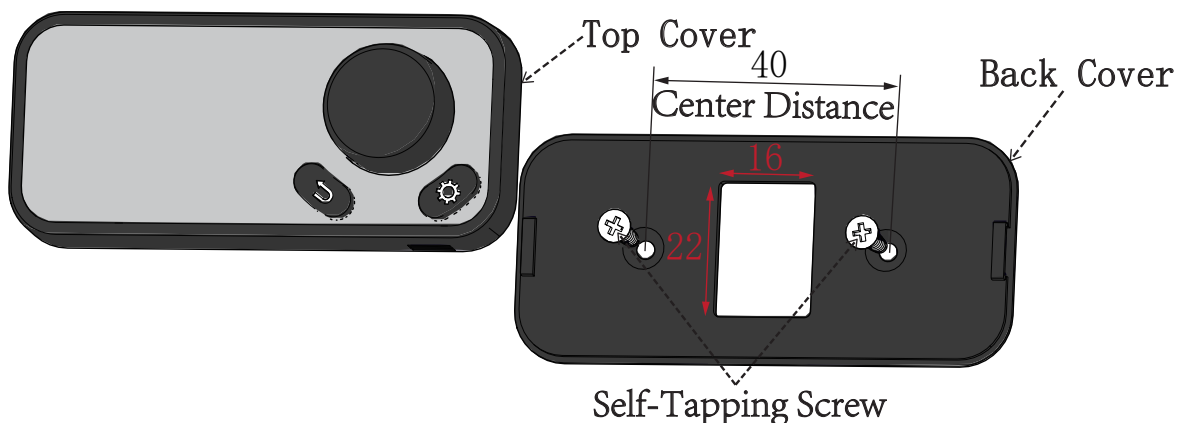


Figure 3

(The dimensions are in millimeters and are not to scale)

7.2 INSTALLATION STEPS

● Installation steps:

1. Clean the installation opening and surface firstly to ensure that the installation surface is smooth and clean without dust and water mist.
2. Insert the tapping screw into the mounting surface as shown in Figure 3, and fix the back cover on the mounting surface.
- 3 Insert one end of the control switch lead wire into the PCB board terminal as shown in Figure 4, and the other end through the back cover and installation opening as shown in Figure 3.
4. Finally, press the top cover firmly onto the back cover as shown in "Figure 5".

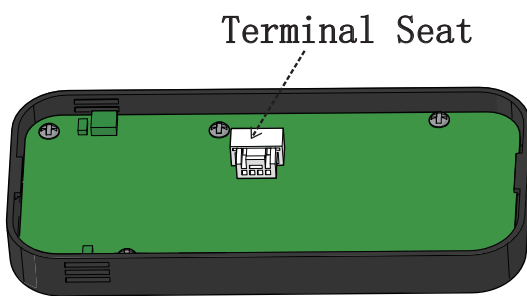


Figure 4

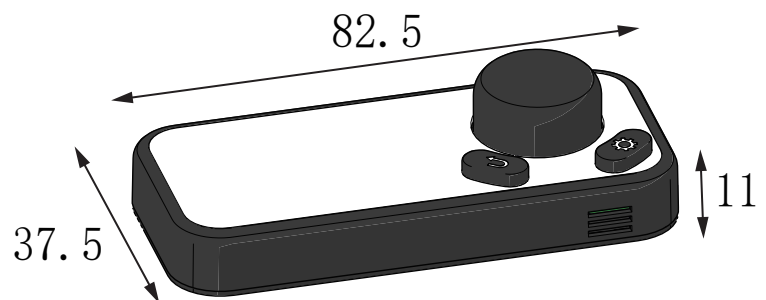


Figure 5



Do not make any tensile stress to the control switch lead wire.



Pull out the the control switch lead wire during the heater working process is forbidden, once the plug at both ends of the lead wire falls off from the control switch or controller, it will cause the heater heating interruption and failure.