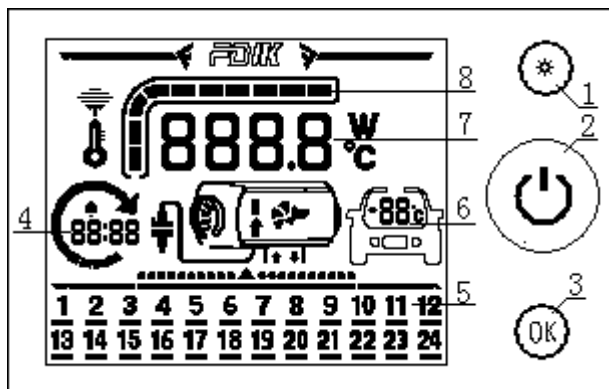


Operating Instructions for Parking Heater

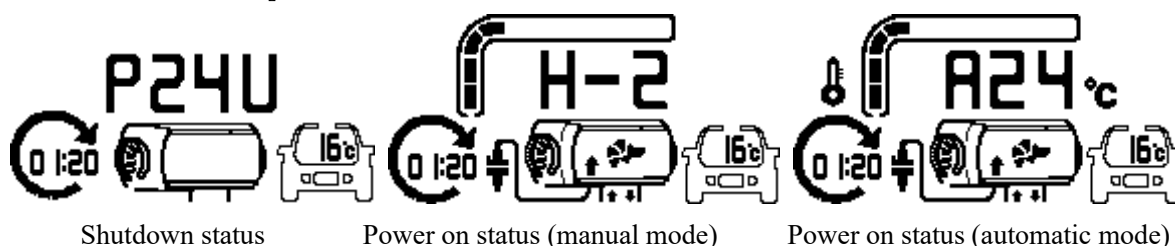
一、 The control panel is shown in the following figure



1. Function key; 2. Knob switch; 3. OK "button; 4. Display clock; 5. Timed hour table; 6. Display ambient temperature; 7. Display system data and parameters; 8. Power strip;

二、 Usage operation

1、 Power on/off operation



1) Power on operation

In the shutdown state, long press the "rotary switch" for 2 seconds, and the device will turn on, displaying the "power on status" as shown in the figure above.

2) Shutdown operation

In the power on state, long press the "rotary switch" button for 2 seconds, and the device enters the shutdown and cooling process, displaying "OFF". After the device is cooled down, it will shut down and display the "shutdown status" as shown in the above figure. **At this time, please do not forcefully cut off the power to cool the machine. "Directly cutting off the power will damage the components due to the high temperature of the machine and the inability to dissipate heat!" Wait for the machine to display the shutdown state before**

cutting off the power!.

3) Manual mode operation

Manual mode has 6 gears (H1-H6). H6 represents the maximum power, as shown in the "power on state" in the above figure. By rotating the "knob switch" to switch gears, "clockwise is upshift, otherwise downshift".

4) Automatic mode operation

Automatic mode, as shown in the figure above, set to 24 °C. The temperature can be adjusted and controlled by rotating the "rotary switch", with a temperature setting range of 5-35 °C. Short press "*" to switch between manual/automatic mode.

2、Switch to display data when turned on

In the power on state, press the "OK" button briefly to switch the display data. The switching sequence is gear (or set temperature) ->chassis temperature ->working voltage.

3、Function switching operation

In the shutdown state, long press the "" button for 2 seconds to enter the function selection interface. Rotate the "rotary switch" to switch the function selection. The sequence is: adjust the clock "AC" ->set the timer "ST" ->manually pump oil "Po" ->match the remote control with "rF" ->query the fault with "gF". Select the function and press the "OK" button to enter the corresponding function,

3.1、Adjust clock operation

- 1) Rotate the "rotary switch" to adjust the selection value.
- 2) Press the "rotary switch" to switch the adjustment digits.
- 3) Press "OK" to confirm the adjustment value and exit the clock adjustment state.
- 4) Press '*' to exit the clock adjustment mode directly.

3.2、Set timer

1) Rotate the "rotary switch" to select the hour value, and the corresponding number will flash (2HZ).

2) Press "OK" to confirm the selected hour, and the corresponding number will flash (1HZ).

3) Press '*' to exit the timed setting state.

*The selected value is the startup heating time. When the clock hour reaches

the selected hour value, the system will automatically start heating. When there is no selected hour value, it will automatically shut down. Multiple hours can be selected at this time. Manually shut down or power on, the system automatically exits the timed state.

3.3、Manual oil pump

Display 'PoLr'. Press any key or wait for 3 minutes to exit the manual oil pumping mode. **Please use with caution!**

3.4、Remote control matching

Display 'rF1'.

1) Rotate the "rotary knob switch" to adjust the third digit to the remote control number, with a range of 1-5 corresponding to 5 remote controls.

2) Press any key on the remote control, and the machine will successfully match the code and exit the remote control matching state.

3) Press the "*" key to exit the remote control matching mode.

***Remote control requirements: frequency band 433MHz, 24 bit code.**

3.4、Fault code inquiry

1) Rotate the "rotary switch" to check the fault code.

2) Press the "*" key to exit the fault code query state.

4、Fault alarm

As shown in the figure below, the displayed data is the fault code, please refer to the fault table for its meaning.

E-3

Fault table

Fault table	Reason for malfunction	Handling method
E-2	Power supply voltage range	Normal range: 24V (18-32V), 12V (9-16V), Check if the battery or generator is functioning properly, and inspect if the fuse is aging
E-3	Ignition plug malfunction	1) Check if the ignition plug connector is loose or if the wire is short circuited to the casing 2) Check if the ignition plug is damaged
E-4	Oil pump malfunction	Check if the oil pump connecting wires and connectors are damaged, loose, oxidized, short circuited, or open

		circuited.
E-5	High temperature alarm (inlet air>50 °C ; casing>230 °C)	1) Check if the heating air duct is unobstructed 2) Check if the fan is running normally 3) Check if the temperature sensor is functioning properly
E-6	Fan malfunction	1) Check if the impeller is stuck 2) Check if the connection plugin is loose 3) The gap between the magnet on the wind turbine and the Hall sensor on the controller is too large 4) Whether the circuit is short circuited or open circuited; Motor leakage
E-7	Communication malfunction	Detecting wiring harness
E-8	Turn off the engine	1) Check for oil shortage, low-temperature solidification of oil, blockage of oil circuit, and stuck oil pump 2) Check if the oxygen intake and exhaust ducts are unobstructed 3) Check if the temperature sensor of the casing is in full contact with the casing and if the compression spring is strong.
E-9	Sensor malfunction	Is the temperature sensor connecting wire and connector damaged or loose, and is the sensor damaged
E-10	Startup unsuccessful	1) The temperature of the casing is too high, and the casing cannot be cooled down after 3 minutes of startup 2) There is a large amount of white smoke in the exhaust gas 2.1) Check if the filter next to the ignition plug is clean. If it is not clean, clean or replace it 2.2) Check if the fuel pump sprays effectively 2.3) Check if the ignition plug is aging 3) There is a small amount of white smoke or no smoke in the exhaust gas 3.1) Check for oil shortage, frozen or blocked oil circuit 3.2) Check if the oil pump is stuck or damaged, and if it is unable to dispense oil effectively 3.3) Check if the combustion intake and exhaust passages are unobstructed 3.4) Check if the ignition plug is damaged 3.5) Is the clearance between the inner rotor too large 4) Ignition is normal but still reports ignition failure fault

		Check if the temperature sensor of the casing is in full contact with the casing, if the compression spring is strong, and if the sensor is functioning properly.
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Usage guidelines

1. It is prohibited to use in environments with high humidity, conductive dust, flammable and explosive gases, dust, materials, corrosive media, strong light exposure, and nearby strong magnetic, high-voltage, and high current equipment operation.
2. Power supply voltage range: DC24V controller is suitable for (18-32) V; DC12V controller is suitable for (9-16) V; Different voltage controllers are not interchangeable and are prohibited from being used beyond the applicable voltage range.
3. The 5kW controller can only be used on a 5kW machine body; The 2kW controller can only be used on a 2kW machine body.
4. If the controller or external components are damaged, the same model and parameter components must be selected and replaced by professionals.
5. Do not open the controller casing without permission.
6. The equipment must be installed strictly according to the requirements and used under safe conditions.
7. The controller shall not be held responsible for any losses or liabilities caused by misconnections, short circuits, or damages of external components or circuits.
8. When the body is at high temperature and the fan cannot operate normally, it is necessary to quickly cool down the body. Blow cold air into the combustion inlet to lower the body temperature below 80 °C. Prevent high temperature from damaging components or causing fires.
9. When heating the equipment, it is necessary to ensure that all air ducts are unobstructed and the pipes are not folded, compressed, or blocked, in order to effectively ensure the heating efficiency and normal operation of the equipment. Unobstructed channels can cause high temperatures in the body, reduce heating efficiency, shorten equipment lifespan, or damage equipment. The use of standard fuel is necessary to ensure the normal use and service life of the equipment.

*Our company is not responsible for any losses or liabilities caused by failure to install and use according to clauses 1-9.

*The ignition point of cotton and sponge is 150 °C, the ignition point of paper is 130 °C, the ignition point of cloth is 270 °C, and the ignition point of diesel is 220 °C. The hot air outlet should be above 150 °C, and the exhaust temperature of the waste pipe can be above 270 °C.