T1

Our company has passed ISO9001.

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QUICK START GUIDE

·Display Icon

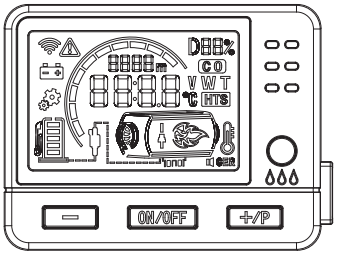
INSTRUCTIONS

·Switch Operation

·Error Code

·Quick Installation Guide

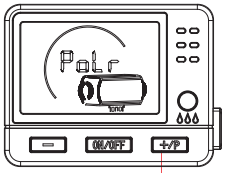
PLEASE READ CAREFULLY BEFORE USE.



Heating	Glow plug	Error	Motor
Buzzer	Fuel pump	Volt	
Setting	Fuel volume	Case temperature	
combustion efficiency		Remote signal	
Overtemperature sensor		Service time (Day)	
Note: The function of ICONS that are not marked is not enabled			

I Pumping Mode

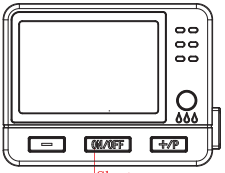
After the initial installation of the split heater, please fill fuel to the fuel circuit first.The heater could be ignited normally only when the diesel flows into the burner from the tank.



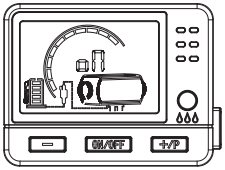
(Figure 1) Long press

Operation method:
Long press the "+/P"button to light the screen up in off status.(The buzzer sound once). When the screen shows Polr (Figure 1) , release the button to turn on Fuel Pumping mode. The pump goes into rapid pumping status (pumping 500 times). The heater will ignite and start to operate automatically if diesel has been pumped into the burner. If the diesel hasn't been pumped into the burner successfully, please repeat the operation above to restart the pumping procedure. The number of times you start fuel pumping mode depends on the length of the the oil pipe. You will figure out if it works properly by observing the filling processing of the oil tube.

Please note this process applies to the initial installtion of the split type or when there is no fuel in the fuel pipe only. Do not use it in normal times in case the combustor chamber been flooded. Pumping mode is not needed for all-in-one diesel heater, just start the heater normally.



Short press

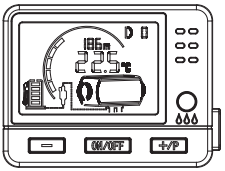


(Figure 2)

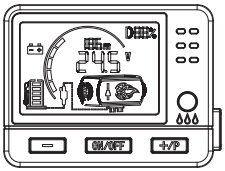
II Starting Up

Short Press the "on/off " in off status, when the display shows "on" (figure 2) then the heater is turned on. The display of the screen (figure 3 & figure 4) shows current temperature and altitude respectively. Short press and "+/P" to set power （from 1.4kw to 5kw). When the screen displays as figure 5, it means the heater is running properly.

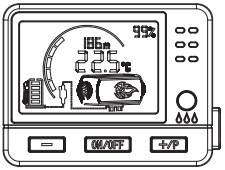
Note: When the heatig is running, long press " " to swtich the display (figure6, figure7, and figure8). Setting complete after the buzzer sounds only once.



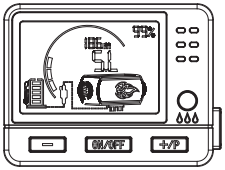
(Figure 3)



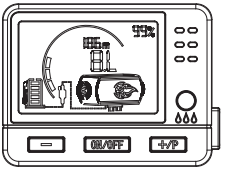
(Figure 4)



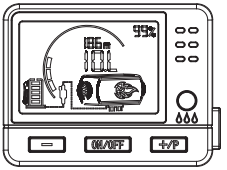
(Figure 5)



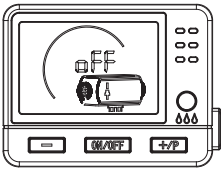
(Figure 6)



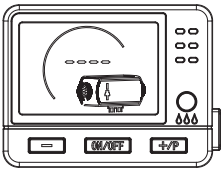
(Figure 7)



(Figure 8)



(Figure 9)

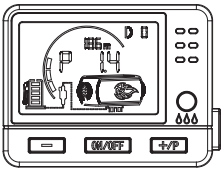


(Figure 10)

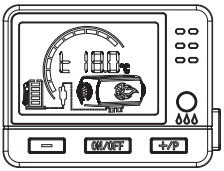
III Shut Down

Long press the "on/off " when the heater is running. The heater goes into shutting down process after the buzzer sounds once only and the screen shows "off"(figure 9) .When screen displays "---" as figuer 10, the screen turns off the heater stops working.

Note: It is forbidden to cut off the power during the shutting down process until the screen get completely dark.



(Figure 11)



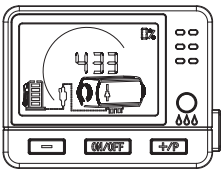
(Figure 12)

IV Mode Setting

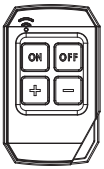
Short press the "on/off " when the heater is running to enter into Mode Setting.

1. It is Power mode when the screen displays P1.4-5 as figure 11. The heater will work at the set power value to heating continuously.
2. It is Variable frequency mode when the screen displays t10°C ~ 35°C. (Figure 12). The heater will start to run at 1.4kw when temperature reaches at 35°C.

Note: The 2 mode types can only be switched, but not been used at the same time. The heater will operate as the mode you set last time.
For example: Power mode will be inactivated if you set Variable frequency mode after setting power mode.



(Figure 13)

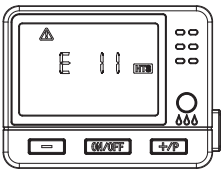


Remote control

V Remote Pairing

Press the " OFF " button of the controller first when in off status and then press "💧💧💧" The controller and the switch pairs successfully after the screen displays 433 as figure 13 and the buzzer sound once.

Note: The controllers has been paired in the factory before delivery, and no further operation is required.



(Figure 14)

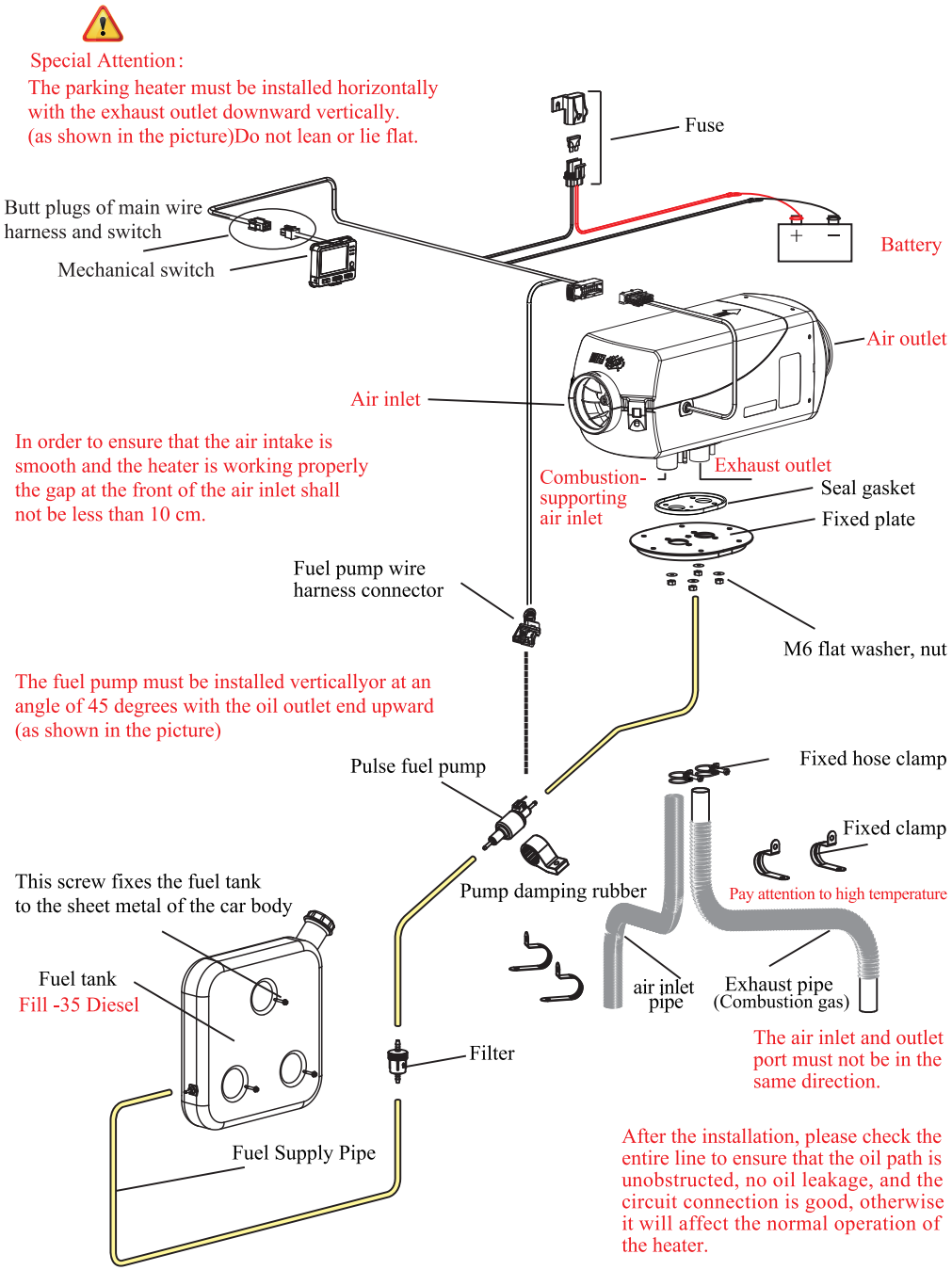
VI Error and Fault

It is fault alarm when the icon "⚠" and " HTS " blinks, buzzer sounds at high frequency and the screen displays E11 as figure 14, please refer to the fault code chart to solve the problem.

ERROR CODE	CONCLUSION	POSSIBLE SITUATIONS	SOLUTION
E 0	Motherboard failure	①Dust on motherboard	① Clean motherboard
		② Motherboard damage	② Replace motherboard
E 1	Starting failure	① Run out of diesel	Add diesel
		② There are big bubbles in fuel line	Check if there is any looseness at the connections of the fuel line, and tighten it
		③ No fuel or insufficient fuel is pumped	Unplug the fuel pipe of the pump outlet, start the heater, and observing the fuel output. If the fuel output is abnormal, please remove the pump, and blow air to the pump inlet with an air blow gun. Replace the pump if this can not solve the problem
		④ White Smoke	Check if there is any clog at the air outlet, air intake or conbustion hole of the glow plug, if yes, clear it
		⑤ Dripped fuel at exhaust pipe	Check whether the power supply meets the starting power of 150W; if additional wiring is required, the wire diameter must be at least 2.5mm^{2}and the length cannot exceed 2 meters.
E 2	Flame goes out	①Air intake/outlet is not smooth	Check if the air intake and outlet is smooth, if there is any carbon deposition, and clear it
		② Problem with fuel pump	Insufficient fuel volume pumped, replace the fuel pump
E 3	Abnormal voltage	① Voltage mismatch	Check if the voltage of the heater match with power supply, if not, replace a power supply
		② Poor connection	Check if the wire is well connected with power supply
		③ Additional wiring	Check the specification of added wire harness. Requirement: Pure copper with a diameterof 2.5mm^2 at least , no virtual connection is allowed
		④ Not meeting starting power	Check whether the power supply meets the starting power of 150W; if additional wiring is required, the wire diameter must be at least 2.5mm^{2}and the length cannot exceed 2 meters.
E 4	Premature ignition	① Residue fuel in the heater	Illegal shutting down for the last time caused residue fuel in the heater, resulting in a premature ignition. Please restart the heater
E 6	Motherboard sensor failure	① Over temperature or damage of the sensor	Check if the heater or the air intake is in an overtemperature status. If they are not over temperature, please replace the motherboard
E 7	Failure at fuel pump	① Open circuit at the connection wire	Check if there is any looseness between the pump wire harness and pump socket. Reconnect and plug firmly
		② Pump damage	Replace the fuel pump
		③ Motherboard damage	After ruling out the above two possibilities, replace the motherboard

ERROR CODE	CONCLUSION	POSSIBLE SITUATIONS	SOLUTION
E 8	Motor failure	① Fan blade stuck	Check if the case of the heater is deformed, this could be possibly caused by the fan blade stuck during transportation. Put the parts back in their space
		② Motor damage	Replace the motor
		③Motor stalls	Check if there is any damage or bent at the sensor. Check if the distance between the fan and motherboard is too large, put the parts back in their space
		④ Short circuit or open circuit at its connection	Check if there is any looseness between the motor wiring harness and the corresponding circuit board socket, reconnect and plug firmly
E 9	Glow plug failure	① Short circuit at the glow plug	Check whether the positive and negative electrodes of the glow plug are adhered, and separate them if they are. If there is no adhesion, please replace the glow plug.
		② Circuit board damage	If the problem can not be solved by replacing glow plug, then replace the motherboard
E 10	Body overtemperature	① Clog at air intake or air outlet	Check if there is any stuck or obstruction at the air intake or air outlet, clear it.
		② Temperature sensor	Check whether the temperature sensor is misaligned and put it back at its place. Replace the sensor
E 11	Sensor failure	① Bad connection	Check if there is looseness at the plug of the sensor, reconnect it firmly.
		② Sensor damage	Measure the resistance value of the sensor, if there is no value, please replace the sensor.
E 12	Open circuit of the glow plug	① Bad connection	Check if there is looseness at the plug of the glow plug, reconnect it firmly.
		② Motherboard damage	After ruling out the first situation, if the problem persists, please replace the motherboard.
C 4	Controller damage	The electronic parts of the controller are overheated or damaged.	Check whether the controller is affected by high temperature and keep it away. If the problem persists after being away, replace the controller.
C 7/ CONN	Controller/ Motherboard damage	① Controller signal transmission failed	Check if there is looseness at the plug of the controller, please reconnect it firmly.
		② Electronic parts of the controller damage	After eliminating the first option, use the emergency start method. If the machine can be started and run, please replace the switch. If failed to start, replace the motherboard

Quick Installation Guide



P/N:01220116

FCC Warnning:

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 againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.