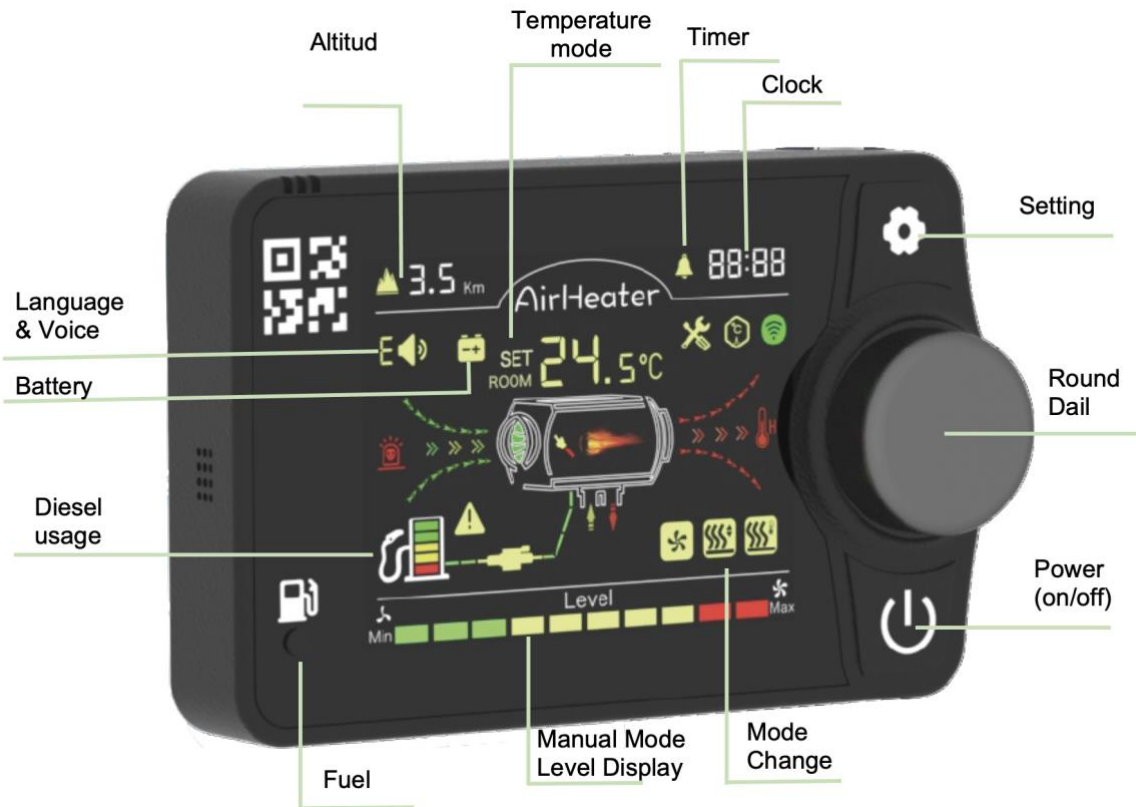


Diesel Heater User Manual



AF-2Kw/5Kw-MZ

USING AUFOCUS BLUETOOTH CONTROLLER AF-2Kw/5Kw-MZ



Basic Operation:

To Power On or to Power Off the heater: Short press the Power button.

To change modes between **Manual Heat Mode** and **Temperature Mode**: Short press the round dial. Note: The LCD display will switch between “**ROOM**” for Manual Heat Mode or “**SET**” for Temperature Mode.

1. **Room Mode** allows you to set the heater fan speed and heat output to run consistently, you will observe the level bar at the bottom of the screen as you turn the dial clockwise or anticlockwise to increase or decrease Indicating Level 1 to Level 10. The unit will run at a consistent speed and heat in this mode.

2. **Temperature Mode** allows you to set a target temperature **8 ~ 36 °C**. Turn the dial clockwise or anti clockwise and observe the temperature on the screen. Once you have reached your desired temperature stop turning the dial and the set temperature will flash twice and then change back to the current room temperature. The unit will now automatically increase/ decrease its heat and fan speed to reach your target temperature. Once it reaches your set target temperature the heater will step down and stop burning fuel and the combustion flame will stop burning. Once It drops a few degrees from your preset target temperature the unit will automatically reignite and the process will repeat to reach the set temperature again.

General Settings:

Press and hold the settings button then you can use the dial to switch between the following:

- **F0: Clock setting (on the right top corner)**

Displays the current time. To change hours and minutes press the round dial and turn it to change hours and minutes. **Note: The time will be reset to 12:00 if the source power is disconnected.**

- **F1: Timer function---start time**

Displays the Automatic start time. This function allows you to preset a time for the unit to start automatically.

- **F2: Timer function---running time**

Displays the Automatic running time. This allows you to preset a length of time before the unit shuts down automatically.

- **F3:** Allows you to switch the automatic timer function on or off for the preset time.

- **F4:** This is the language and voice setting “E” means English, “C” means Chinese, “R” means Russian; “-” No voice

- **F5:** Calibration of room temperature (-9°C ~9°C)

The room temperature which displays on the screen is detected by a temperature sensor inside of the LCD controller, this temperature may vary slightly from the actual room temperature. This function allows you to calibrate the temperature.

- **F6:** Allows you to set the size of your fuel tank 5L, 10L, 15L etc. When used this setting will anticipate and display the amount of fuel you have left on the LCD display. Note: If used you will need to reset this every time you fill your fuel tank up as follows:

Press the “FUEL LEVEL RESET” button on the bottom left side of the LCD Screen for 7 seconds while heater On. This will reset the fuel level.

There is 5 bars inside of the fuel tank indicator which displays on the screen. For example if you set the unit up as 5L then one bar represents 1 liter, if you set the unit up with 10L then one bar represents 2L, etc.

- **F7:** This allows you to change the pump rate – 16U or 22U. For example, 22U means 22ml of diesel is delivered to diesel heater per 1,000 pumps.

Note: Aufocus units are preset to 22u pump rate for normal operation.

Additional Settings & Information:

To enter additional settings and Information: Whilst the unit is turned on press and hold the Settings Button and then press and hold the power button at the same time. Let go of the buttons once the screen goes blank and displays EN00 on the top right of the screen. Using the dial you'll be able to scroll through the following settings:

- EN00: Display the software version of the LCD Screen.
- EN01: Displays the last error code that was recorded.
- EN02: Displays the current temperature of the outer side of the aluminum body.
- EN03: Displays the current source voltage.
- EN04: Displays the unit current running heat level
- EN05: Displays the current room temperature
- EN06: Displays the Altitude

- **EN07: Displays “-P-” , This is used to prime the unit quickly on first start up after installation or if you have run out of fuel.** The pump runs for 90 seconds and then goes to normal start up mode. You can do another time prime if the diesel doesn't arrive diesel heater after the first prime process, the diesel heater will fire up automatically when diesel arrives to the unit. This will not cause over priming because the Glow plug heats at the same time during this process.

- **EN08: Displays “rtE” -- This is to pair a new remote control.** Note: Only one key on the remoter is paired at a time. Use the following instructions to do this:

On EN08, On the LCD Panel hold the round dial down until the display shows “P1” ,Now do the following:

- a. Using the remote control press the “+” key. The display will then change to P2. (this means the + key is now paired and that the LCD is ready to pair the next key.)
 - b. Using the remote control press the “-” key. The display will then change to P3. (this means the - key is now paired and that the LCD is ready to pair the next key.)
 - c. Using the remote control press the “M” key. The display will then change to P4. (this means the M Key (Mode key) is now paired and that the LCD is ready to pair the next key.)
 - d. Using the remote control press the “Power” key. The display will then turn off. The remote is now paired.
- **EN09 – Displays the Bluetooth Password 1234.** Note This password can be changed from the Bluetooth app. Note: If changing the password using the app there must be at least one number retained in the app otherwise the app will close.

Note: The password will change to the password which you set on your phone after you long press the “round dail” on the LCD panel.

DOWNLOAD THE FOLLOWING APP to Pair your Bluetooth:

	
<p>Scan to get IOS app or search "airheaterble" in app store</p>	<p>Scan to download android app or visit https://www.booyood.com/app/airHeaterByBLE.apk</p>

Fault Code:

E01	Startup failure	<p>*The diesel heater will display "E-01" if fuel has not arrived to the chamber or if you have run out of fuel.</p> <p>*Check the fuel tank whether is empty;</p> <p>*Check the fuel filter is not blocked and check if diesel is moving forward or not when the pump is pumping)</p> <p>•Inspect the fuel line from the tank all the way through to the unit to ensure that there is no blockage or leaks. Check that all joiners and miniclips are correctly in position and not causing any blockage.</p>
E02	Lack of fuel	<p>*Check that there is enough fuel in the tank- add fuel</p>
E03	Supply Voltage Over Run	<p>This usually indicates that there is not enough power for power to heat the glow plug. Check the battery output voltage is between in 9V and 16V for a 12V Heater and between 18V and 30V for 24V Heater</p>
E04	Outlet sensor faulty	<p>This indicates a temperature sensor issue. This sensor is found on top of the aluminum body. Check that the sensor is plugged in to the main board properly and that it is secured firmly against the aluminum body. If this fails you may need to replace the sensor.</p>
E05	Inlet sensor faulty	<p>Replace the ECU</p>

E06	Pulse pump faulty	Check the pump power is plugged in properly or that there is no damage to the electric wire to the pump. Whether, if its plugged in properly then you may need to replace the fuel pump or the electric wire to the pump.
E07	Fan fault	Check that nothing is blocking the fan, try and spin it with a screw driver. Check that the fan is plugged in to the main board correctly. if this fails you may need to replace the fan.
E08	Ignition unit fault	Check that the glow plug is screwed into the aluminum casing properly and that it is plugged into the main board properly. If this fails then you may need to replace the glow plug.
E09	Overheating	Check the air inlet and outlet on the heater unit to ensure that there is no blockage.
E010	Overheat sensor fault	This indicates a temperature sensor issue. This sensor is found on top of the aluminum body. Check that the sensor is plugged in to the main board properly and that it is secured firmly against the aluminum body. If this fails you may need to replace the sensor.

Monthly Checks and Maintenance:

The Aufocus Diesel heater should require very little maintenance.

- Simply start and run your heater on high for at least 15 minutes each month. This ensures everything keeps circulating and doesn't give the diesel a chance to go off.
- Check that all ducts are attached securely at least once monthly and ensure that there is no obstruction at the ducts Inlet and outlet.
- After each road trip you should inspect the undercarriage of your vehicle to ensure that there is no damage and that nothing has moved. **Note:** Pay special attention to the exhaust and muffler as this gets extremely hot and there should be some clearance from the start of the exhaust all the way to the muffler. (Its shouldn't be too close or touching anything that is not steel.

Product Parameters

Model	Main Unit Weigh (Kg)	Dimensions (mm)	Heat Value (Kw)	Hot air Volume (Kw)	Rated Power Consumption (W)	Power Consumption for Ignition (W)	Ave Oil Consumption (L/h)
AF-2KW	2.7	310*115*122	2	90	36	W100	0.36
AF-5KW	4.5	376*140*150	5	150	50	W100	0.6

Conditions

- Storage Temperature: -55°C to +70°C
- Operating Temperature: -41°C to +50°C
- Only use Diesel Fuel to operate this unit
- Applicable Altitude: Civil<4,000m

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Warnings:

1. Do not place any combustible or flammable dangerous goods near the exhaust pipe.
2. There should be no obstructions within 100 mm from the heater's exhaust. The exhaust temperature is very high, any materials that cannot withstand high temperature may be damaged or may even potentially cause a fire.
3. Do not use fuel other than diesel.
4. **If the heater is installed indoors, it is necessary to direct the exhaust fumes to the outside and ensure that there is no leakage. Failure to do so may result in the risk of exhaust gas poisoning or suffocation.**
5. When turning the heater off, ensure that the heater is allowed to run through a cool down cycle. Otherwise, the remaining diesel will not be burned out of the combustion chamber which can lead to carbon build up and excessive smoke from the exhaust.
6. Do not modify the heater, use, repair or replace any components with non-Aufocus original parts.

AU Focus company is not liable for any accidents or damages caused by the reasons above.