



MV OLED Control

ALPINE AUTO – HYDRO VERSION

OPERATION MANUAL

Ed 1.00

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OLED Display

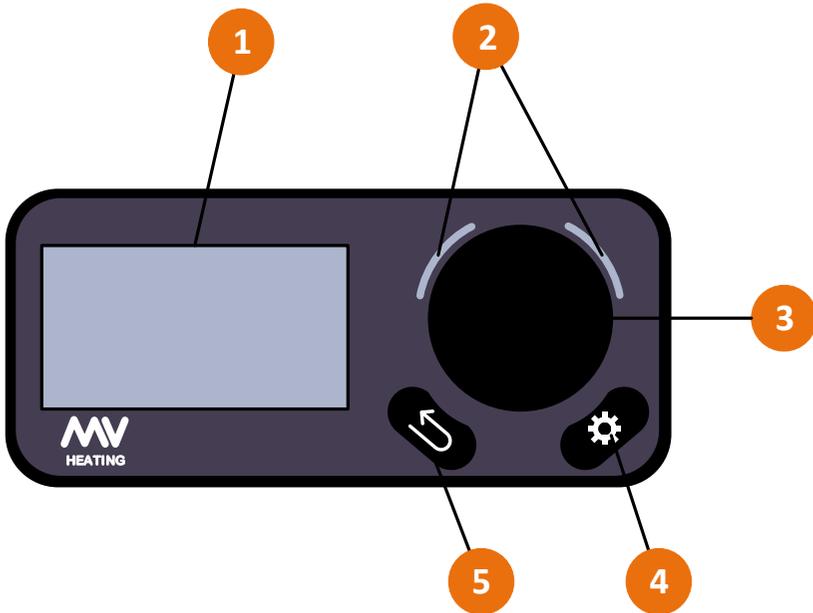


Figure 1

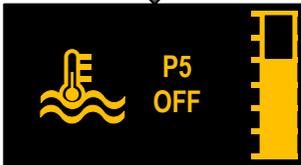
1. OLED Display
2. LED Indicators
3. Rotary Knob and Confirm Button
4. Settings Button
5. Return/Back Button

Operation

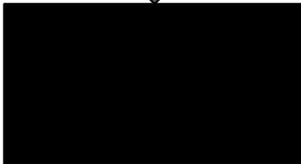
Initial Start Up & Standby Mode



Once the unit has been powered on, the panel will enter an initialization state.



Once this has completed, the panel will enter the normal control (home) interface.



After 30 seconds of inactivity the display will turn blank. This is the standby mode. Press any button to wake the display up.

Setting Water Temperature



In the home screen press the rotary knob to enter the water temperature select mode.



Turn the knob to the left or the right to change the water temperature and press it again to return to the home screen. Range = 35 – 95°C.



The home screen will display the current water temperature, and the heater output.

The set water temperature is the temperature the water will get to before it shuts down. See 'Power On' (page 6) for more information.

Changing Heater Output



In the home screen use the rotary dial to change the output of the heater from 1-6. The higher the output the quicker the heater will reach the set water temperature.

Power On



Press and hold the rotary dial for 3 seconds to switch the heater on.



The interface will change to 'ON', and the LED indicators will turn green.



Use the rotary dial to change the heating output at any time during operation.



Press the rotary dial to change the water temperature sensor at any time during heater operation and confirm by pressing it again.



Press and hold the rotary dial for 3 seconds to turn the heater off.

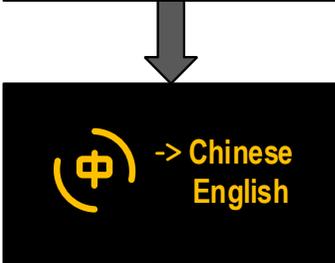
Note: Unless turned off in the step above, the heater will continue to run until it has reached the water set temperature ($\pm 1^\circ\text{C}$). The heater will then shut down until the water temperature has fallen by approximately 10°C , before starting up again. The heater will continue to do this until it has been manually switched off.

Settings

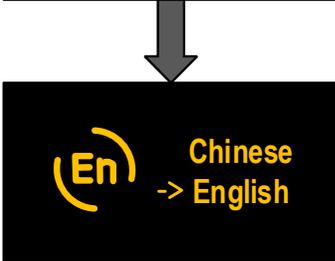
Changing Language



Enter the setting mode by pressing the settings button.



Use the rotary knob to select language. Confirm by pressing the rotary knob once.



Select between Chinese and English by using the rotary knob and pressing to confirm.

Press the return button to go back at any time.

NOTE: The language setting has a memory function and will not change when power has been cut off.

Bluetooth

The Bluetooth function is compatible with the 'Mybluee' app on smart devices. Once connected, please refer to the separate app manual for further information.



Enter the setting mode by pressing the settings button.



Use the rotary knob to select the Bluetooth setting. Confirm by pressing the rotary knob once.



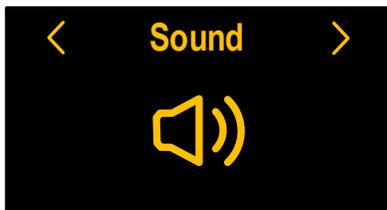
Select between ON and OFF by using the rotary knob and pressing to confirm.

Press the return button to go back at any time.

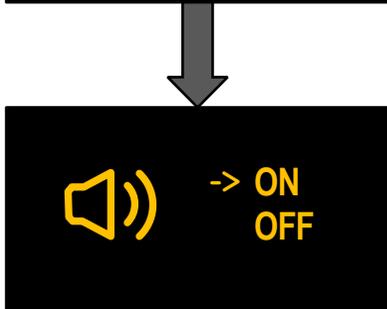
When turned on, the Bluetooth symbol will appear on the top left on the display.

NOTE: The Bluetooth setting has a memory function and will not change when power has been cut off.

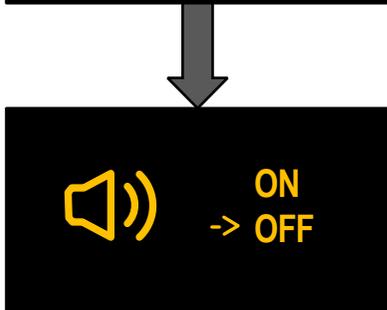
Sound



Enter the setting mode by pressing the settings button.



Use the rotary knob to select the sound setting. Confirm by pressing the rotary knob once.



Select between ON and OFF by using the rotary knob and pressing to confirm.

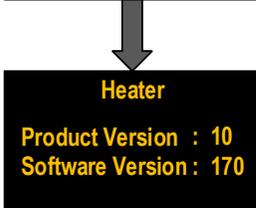
Press the return button to go back at any time.

NOTE: The sound setting has a memory function and will not change when power has been cut off.

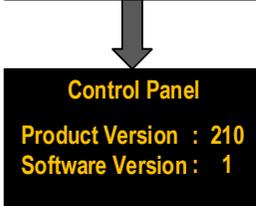
Information Display



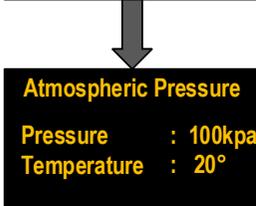
Enter the setting mode by pressing the settings button.



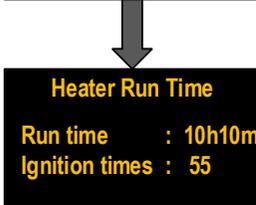
Use the rotary knob to select the information setting. Confirm by pressing the rotary knob once.



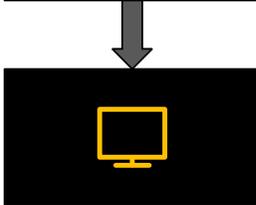
Use the rotary knob to switch between various information on the control panel.



These include heater information, OLED (control) panel information, atmospheric pressure, and the heater's run time, on your current OLED display.



Press the return button to go back at any time.



NOTE: The monitoring mode is for professionals.

Countdown Timer



Enter the settings mode by pressing the settings button and use the rotary knob to select the Countdown Mode. Confirm by pressing the rotary knob once.



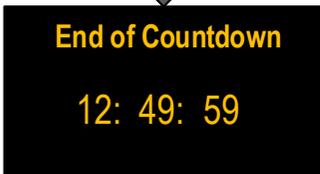
In the selection mode, use the rotary knob to select the power output you would like the heater to run in (see page 5 for more information), and press the rotary knob to confirm.



Select the hours followed by the minutes you want the heater to start in – Pressing the rotary dial each time to confirm.



12H and 50min means the heater will start in 12 hours, and 50 minutes time. It **does not** refer to how long the heater will run for.



After the minutes have been confirmed, the countdown clock will begin, and the heater will start after the clock has run down.

Press the return button to go back at any time.

Factory Reset

To reset the panel to the default factory settings, enter the setting mode by pressing the settings button and use the rotary knob to select the factory reset setting. Confirm by pressing the rotary knob once.



The display will read 'Factory Reset?' – Confirm by pressing the rotary knob.

Press the return button to go back at any time.

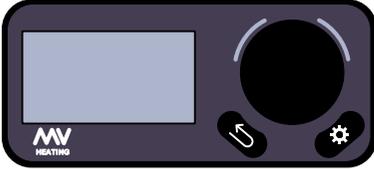


The control will then briefly go out before going through its initializing sequence again.

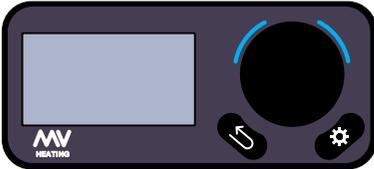
NOTE: Factory reset restores the language, Bluetooth, sound, and other related settings.

LED Indicator

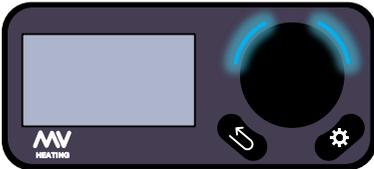
The LED indicator will flash and/or change colour depending on what state the heater is in.



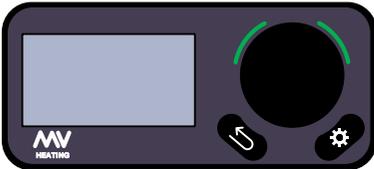
No Lights: When the control panel is in use or in standby mode and the heater is not running.



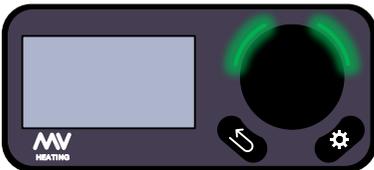
Blue Lights: When the control panel is initializing.



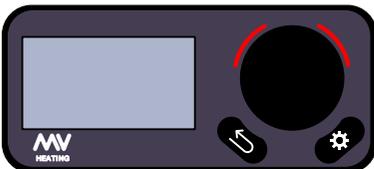
Blue Lights Flashing: When the control panel is disconnected.



Green Lights: When the heater is running.



Green Lights Flashing: Fault condition - The heater has detected a fault.



Red Lights: When the heater is shutting down.

Faults

When a fault appears, or the controller has lost connection, a prompt will appear.

No Connection



When starting the control panel, if the OLED display is unable to initialize, the panel will enter a disconnected state.

Press any key to attempt initializing again. If no connection continues, check the communication cable is installed correctly.

Disconnect



If the communication between the heater and control panel becomes disconnected during an operation (heater is running, fuel priming etc.) the display will read 'Disconnect'.

If disconnect continues, check the communication cable is installed correctly, and has not become damaged.

Fault

If the heater detects a fault, the display will go into a fault state.



The display will read the fault code (number) and the fault cause.

To exit the fault display, hold the rotary knob.

NOTE: After exiting the fault display, please wait until the heater is completely turned off before restarting the heater. Otherwise, the heater may not exit the lockout state.

Updates



If connected via Bluetooth to the MyBluee app, any updates to the OLED display or the heater will turn the display into an update state.

The display will automatically exit the update state when the update is complete.

Installation

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

Safety Information:

- Find a suitable mounting surface within the vehicle 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 a waterproof and moisture-proof location.

Location

The control switch should be installed where it is easy to read and locate. The control panel opening size is 16mm X 22mm, as shown below.

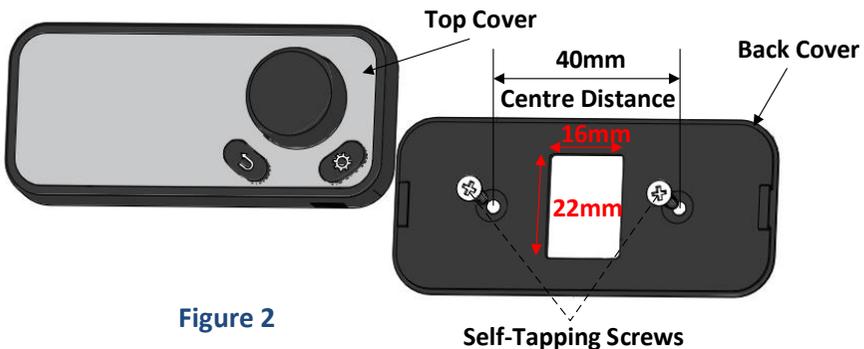


Figure 2

Installation Steps

1. Clean the installation opening and surface to ensure that it is smooth and clean with no dust or water.
2. Insert the tapping screw into the mounting surface as shown in Figure 2 and fix the back cover on the mounting surface.
3. Insert one end of the control switch lead wire into the PCB board's terminal seat as shown in Figure 3, and the other end through the back cover and installation opening as shown in Figure 2.
4. Finally, press the top cover firmly onto the back cover as shown in Figure 4.

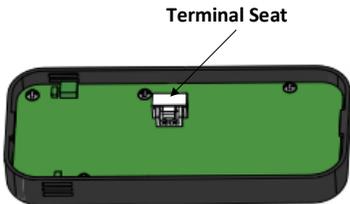


Figure 3

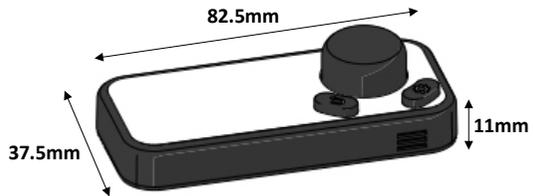


Figure 4

NOTES: Do not make any tensile stress on the control switch (communication) wires.

If any of the cables are pulled out during operation, it will cause the heater to interrupt and fail, and may even damage the heater and/or controller.



Fault Codes

Fault Code	Fault Cause	Troubleshooting
10	Voltage too high <15 (12V) >29 (24V)	A) Check Voltage at the battery B) Check Voltage at the heater
11	Voltage too low <10.2 (12V) >20.5 (24V)	A) Check Voltage at the battery B) Check Voltage at the heater C) Charge Battery
13	Second start failure	A) Check there is sufficient fuel in the fuel tank (or you have a positive supply), there are no blockages, and that the fuel filter is clean B) Check that nothing is blocking the air inlet or exhaust pipes
12	Software overheating	A) Check coolant level - If necessary, refill once cooled and re-start heater
14	Overheating	
15	Overheat lock (10 time starting Failure)	B) Check whether the water pump is working
17	Overheating hardware	
20	Glow pin broken circuit	A) Clean the glow plug of any carbon build-up
21	Glow pin short circuit	B) Change glow pin C) Change controller
30	Fan rotation speed is too high	A) Change controller
31	Broken circuit in the air motor	A) Check that the fan wheel is not rubbing B) Change the air motor
32	Short circuit in the air motor	C) Change Controller
33	Fan rotation speed is too low	A) Check if the voltage of the heater is too low B) Check if the fan wheel is rubbing C) Change Controller
38	Matrix heater broken circuit	
39	Matrix heater short circuit	A) Check matrix heater motor

Fault codes continue overleaf.



41	Water Pump broken circuit	A) Check the water pipe for kinks and blockages
42	Water pump short circuit	B) Replace water pump
47	Fuel pump short circuit	A) Ensure the fuel pump lead is correctly installed
48	Fuel Pump broken circuit	B) Change fuel pump C) Change controller
50	Starting Lock (see 13)	A) See 13
51	Temperature of the flame sensor is too high	A) Wait for flame sensor to cool and re-start B) Change flame sensor (normal temperature resistance >1Ω)
52	Flame out three times (See 13)	A) See 13
60	Temperature sensor broken circuit	A) Check temperature sensor (normal temperature resistance is about 10Ω)
61	Temperature sensor short circuit	B) Change temperature sensor
64	Flame sensor broken circuit	A) Check flame sensor (normal temperature resistance is about 0.8Ω)
65	Flame sensor short circuited	B) Change flame sensor
71	Overheat sensor broken circuit	A) Check overheat sensor (power off protection switch) B) Change overheat sensor
72	Overheat sensor short circuit	C) Change controller
99	Invalid fault information	A) Change controller
D3	Maintenance Reminder	A) Clean carbon build-up inside the heater



Notes

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