



# MV Rotary Control

ALPINE AUTO

OPERATION MANUAL

Ed 1.00

MV Heating UK Ltd  
Unit 6  
Second Avenue Business Park  
Millbrook  
Southampton  
SO15 0LP



MV Heating UK LTD  
+44 (0)2380 522345



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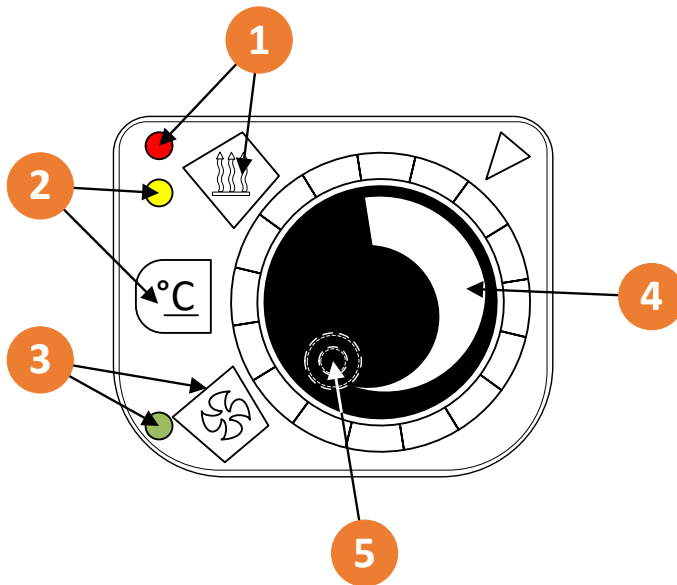
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## Key



- 1. Variable Output Button and Red Indicator Light**
- 2. Temperature Button and Amber Indicator Light**
- 3. Fan Only (Cold Air) Button and Green Indicator Light**
- 4. Control Knob**
- 5. Fixing Screw Hole - Located underneath control knob. Use a small flat-bladed screwdriver to gently remove the knob.**

The rheostat (or rotary) control works by twisting the control knob to the desired heat setting, and using the buttons listed to determine the heater's function. The Alpine Auto model of heaters have a fully automatic altitude function that operates up to 5000m, allowing the user to take their vehicle almost anywhere!

## Installing the Control

Remove the rotary knob by gently lifting it away using a small flat-bladed screwdriver.

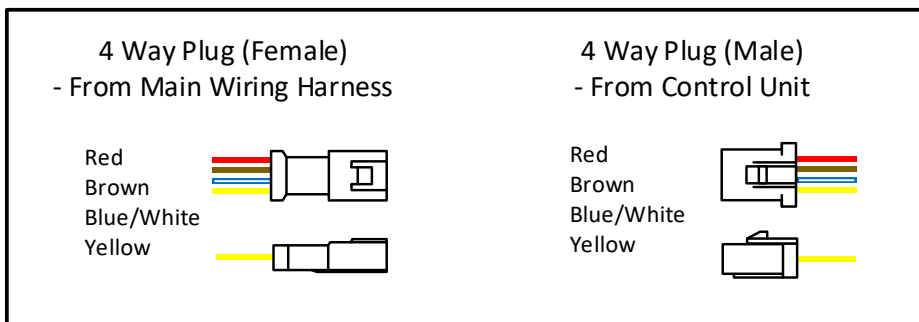
Use the fixing screw and mounting pad provided to fix the control to a suitable, flat, and clean surface. It is best installed so that it can be seen and operated easily to identify working conditions and for ease access.

Once mounted, simply push the rotary knob back into position, paying attention to its orientation.

The image below shows the control unit plug and loom connection that it corresponds to.

To fit the control into the loom, simply push the plug in place.

To remove it, push down the tab on the male plug, and separate the two.





## Variable Output Mode

In variable output mode, once turned on the heater will continue to run until it is manually turned off again. Whilst turned on, the rotary knob is used to select the power output (fan speed) of the heater. The higher the fan speed, the greater the volume of hot air will be pushed into the heating space.

- 1)** Press the top button to turn the heater on, and the red light will appear.
- 2)** Use the rotary knob to control the heaters fan speed from high to low (the higher the fan speed, the quicker the vehicle will get warmer)
- 3)** Press the top button again, to switch the unit off – The red light will switch off and the unit will then go into a two-minute cool-down cycle.

## Fan Mode

In fan only mode, once turned on the heater will only run the fresh air fan until it is manually turned off again. Whilst turned on, the rotary knob is used to select the fan speed. The higher the fan speed, the greater the volume of air will be pushed into the heating space.

- 1)** Press the bottom button to use the fan only mode. The green light will appear.
- 2)** Use the rotary knob to alter the fan speed from high to low.
- 3)** Press the bottom button again to turn the fan off, the green light will switch off and the unit will shut down.



## Thermostatic Mode

In thermostatic mode, the heater will run until it has reached the set temperature and (version dependent) will either switch off completely or continue to run the fan until the temperature has dropped significantly that the heater will then relight and start again. The unit will continue to cycle until the controller is switched off completely, by pressing the thermostat button again, so the light disappears. Temperature will vary depending on where the temperature probe is installed, and how much ambient air flow it has.

- 1)** Press the middle button to turn the heater on, and the amber light will appear.
- 2)** Use the rotary knob to control the temperature from high to low. (35°C – 5°C respectively).
- 4)** Once the heater reaches the temperature set on the rotary knob, it will shut itself down.
- 5)** Once the temperature has dropped again, the heater will turn back on, and start to heat again.
- 3)** This process will continue until you press the middle button again, to switch the unit off – The amber light will switch off, and the unit will go into a two-minute cool-down cycle.



## Bluetooth

To switch the controller's Bluetooth function on turn the rotary dial all the way down and hold the thermostat button. When the yellow light turns on, turn the dial all the way up. If both the red and yellow lights flash, Bluetooth is on. If the green light flashes, it is off.

You can now connect your phone to the controller using the relevant smart phone app.

## Fault Information

If the heater detects a fault, the controller will go into an error state. The current light (red, amber, green depending on what mode the unit is in) will switch off, and begin to flash a number of times, followed by a pause.

To determine the fault, count the number of flashes and refer to the table below to rectify the fault.

## Fault Codes

Code on Digital Timer	Error Description	Error Light (Flashing Light) on Rotary Control
00	No Fault	F01
10	Second start failure	
20	Heater does not light in time	F02
21	Combustion termination	
30	Voltage too high	F03
31	Voltage too low	
A9	Voltage too low	
41	Overheated	F10
50	Flame sensor open circuit	F05
51	Flame sensor short circuit	
52	Hot air sensor open circuit	
53	Hot air sensor short circuit	
54	Hot air sensor overheated	
65	Inside temperature sensor broken circuit	F06
66	Inside temperature sensor short circuit	
68	Outside temperature circuit broken circuit	
69	Outside temperature circuit short circuit	
70	Fuel pump short circuit	F07
71	Fuel pump broken circuit	
80	Fan broken circuit	F08
81	Fan short circuit	
82	fan speed too low	
83	Fan speed too high	
84	Fan speed measurement fault	
90	Glow pin open circuit	F09
91	Glow pin short circuit	
92	Glow pin high resistance	
93	Glow plug drive open circuit	
a2	Overheating	F10
b4	Overheating or sensor fault	F11
b5	Overheat sensor fault	
c0	Hydro only - blower relay open circuit	F12
c1	Hydro only - blower relay short circuit	
c4	Preheating temperature broken circuit	
c5	Preheating temperature short circuit	
d0	Crystal oscillator in ECU broken	F13
d1	Fault information storage failure	
d3	Maintenance reminder	
-	Earthing Issue	Constant Flash
-	Connection Issue	Traffic Light





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