



Ecomaster Basic D user manual

Reference: MH-003



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Category: Manual

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RE	Restricted	
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Revision control			
Version	Date	Change	Comments
V0	09-22-17	Pablo García	New format and language
V1	16-05-2018	Pablo García	Software version notification included
V2	06-06-2018	Pablo García	Correction in PWM shortcircuit

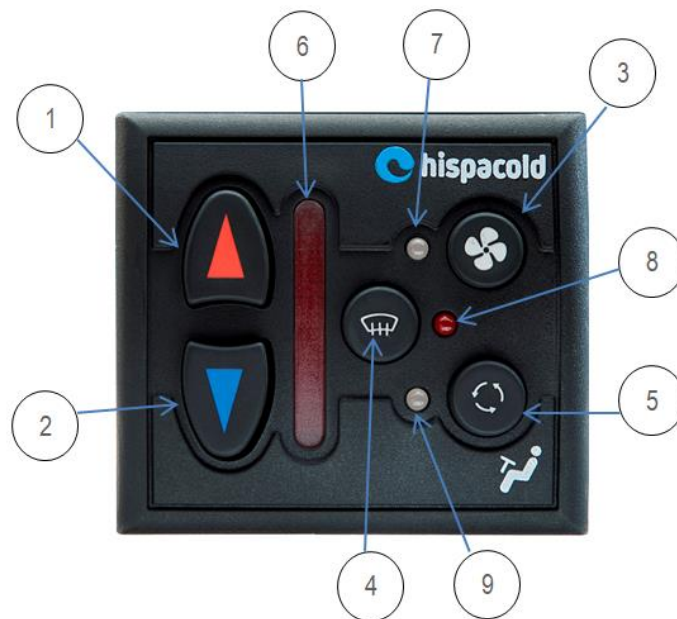
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1. Functional description

Ecomaster Basic D keyboard allows the control of the following elements:


- Air impulsion temperature (water valve)
- Fan speed
- Indoor air / Outdoor air flaps
- Defogger flaps





The control node has 5 functionality keys, a LED bar and three control lights (LEDs)


Each press of  (1) key increases air impulsion temperature.

Each press of  (2) key decreases air impulsion temperature.

 (3) is used in order to change fans speed. Two different speeds are available. If the control light 7 is off, fans are shutdown. If the control light is green coloured, the speed is minimum. Red colour is for maximum speed



 (4) is used to set defogger flaps. Control light 8 off shows that the air impulsion is over the bus glass. Red coloured is used when the air flow is directed to feet

 (4) key controls flaps positioning for outdoor/ indoor air flow. Control light number 9 shows that the flap allows outdoor air if the colour is green. Red coloured is used for recirculation air (Indoor air)

If the passengers control node requires air conditioning, Ecomaster Basic D control node change flaps position to outdoor air. Flaps position could be changed manually using  (4) key.

If the control does not have electric supply, it is automatically shut down. When the electric supply is recovered, the node will remember the last configuration

1.1. Software version

Press  y  keys during 5 secs. One LED light from the bar will light during 20 sec in order to show the software version (Number starts from the bottom)

For example, if the software version is 4.00, the fourth LED light from the bar will light.

If software versión is a BETA versión, for example 4.00C, the first led of led bar (begining from above) will blink:



2. Error Diagnosis

Each time that the control node receive electric supply, automatically checks every output. If the control detects any problem, it will show the error indicated in LED bar (Table 2.1). After that, the control node will activate the outputs without problems

To entry on diagnosis mode, press  (1) y  (2) keys at the same time

For other problems related with the control node:

- Minimum speed shortcircuit: Only the maximum speed is available and the control light n° 7 as a green blinking light
- Maximum speed shortcircuit: Only the minimum speed is available and the control light n° 7 as a red blinking light
- Shortcircuit on flaps output: Blinking n° 8 light
- Shortcircuit on defogger output: Blinking n°9 light

The table below shows different codes showed by the LED bar (n°6) in order to identify different errors. LED light number 1 is the first LED starting from the bottom side.

LED	ERROR
1	Valve calibration
2	Pump output short circuit to GND
3	Fan minimum speed short circuit to power supply
4	Fan minimum speed short circuit to GND
5	Fan maximum speed short circuit to power supply
6	Fan maximum speed short circuit to GND
7	PWM output short circuit to power supply
9	Reflow flaps error
10	Defogger flaps error
11	Water valve error
12	Valve return error
13	Intern error