

Ecomaster Basic D.

User's Manual



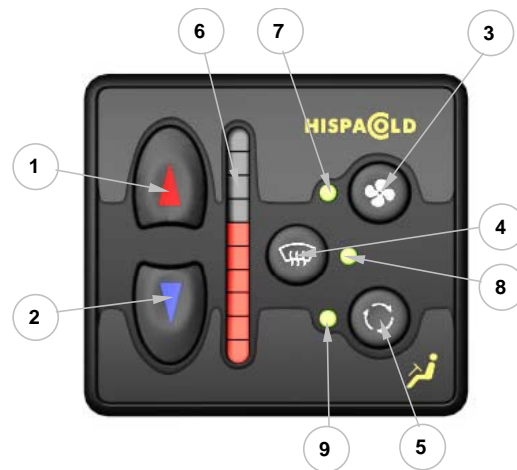
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1. DESCRIPTION OF OPERATION

Ecomaster Basic D is a heating control for the driver that allows, through its keypad, the handling of the following elements:


- Air propulsion temperature (through the water valve).
- Ventilation speed.
- Grilles for internal/external air.
- Grilles for feet/windscreen.





The control consists of 5 keys for the selection of the different functions, a bar of leds for the indication of the temperature level required and three leds or light indicators to signal the activation of the different elements.


By pressing key ⁽¹⁾ the selected temperature for the propulsion air increases. Each keystroke increases this temperature.


By pressing key ⁽²⁾ the selected temperature for the propulsion air decreases. Each keystroke decreases this temperature.

The key ⁽³⁾ is used to vary the speed of the air propelled by the anti-condensation fans. There are two air speeds that are indicated by the colour of led No. 7.

The state of the fans varies according to the key pressed ⁽³⁾: stopped (led off), minimum speed (led shows green), maximum speed (led shows red) and so on.

The key  (4) is optional and it is not present in all the items in the Ecomaster Basic D family. It is used in order to place the anti-condensation grilles so that air propulsion goes to the feet or to the windscreen. If led No. 8 is off, this means that the air is directed to the windscreen, if it is showing red it means that the air goes to the feet.

In order to handle the grille selecting the inlet of the outside fresh air, key  (5) must be pressed. If led No. 9 is showing green, the grille will be placed so that the inlet of external air is allowed. On the contrary, if led No. 9 is red, the air will be re-circulating from inside the vehicle.

The Ecomaster Basic D control will automatically close the air grilles leaving them in re-circulation position (led No. 9 showing red) in case the temperature control for passengers requires the activation of air conditioning. Nevertheless, the driver can open the grilles again by hand and leave them in renewal position (led No. 9 showing green) by pressing key  (5).

The control turns off each time the electricity supply is interrupted, through the general switch disconnection, and the activation of any outlet is impossible. As soon as it is powered on, it will turn on in the same conditions when it was turned off, that is to say, it remembers the previous state of all of the outlets.



2. ERROR DETECTION AND WARNING.

The Ecomaster Basic D control panel includes a sophisticated system for error detection and warning.

Each time the control is powered on, it carries out an automatic check of all the outlets.

If any problem is detected with the power supply during the following 12 seconds, it will show the detected error through the flashing of one of the leds in the led bar No. 6. (See Table 2.1)

After any error warning, the control panel will activate those outlets which were free of errors.

In addition to error warning during the initial starting process, it is possible to check the detected errors by pressing the keys ⁽¹⁾ and ⁽²⁾ simultaneously.

There is another form of failure warning through the flashing of leds 7, 8 and 9 in the following way:

If there is a short circuit in the outlet for minimum speed, maximum speed will begin functioning and led No. 7 will flash green.

If there is a short circuit in the outlet for maximum speed, minimum speed will begin functioning and led No. 7 will flash red.

If there is a short circuit in the feet-windscreen grilles outlet, led No. 8 will flash.

If there is a short circuit in the outlet of external/internal air grilles, led No. 9 will flash.

A table with error codes for each of the outlets is shown below:

The column marked LED shows the led from the led bar No. 6 to be illuminated in order to show the corresponding error. Led No. 1 corresponds to the lower led of the led bar.

LED	ERROR
1	Indicates that valve calibration is under way.
2	Outlet of short-circuited grounded pump.
3	Minimum speed outlet of fans connected due to failure to positive power supply.
4	Minimum speed outlet of fans short-circuited to ground.
5	Maximum speed outlet of fans connected, due to failure, to positive power supply.
6	Maximum speed outlet of fans short-circuited to ground.
7	PWM outlet connected, due to failure, to positive power supply.
8	PWM outlet short-circuited to ground or without connection. (This error is shown after the initial check).
9	Error in the outlet of the re-circulation grille.
10	Error in the outlet of the feet-windscreen grille.
11	Error in the outlet of the water valve.
12	Error in return to position of valve (emergency mode).
13	Internal error.