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DIVIO USER

Installation
Operation
Commissioning
Maintenance



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1. GENERAL

1.1 General information

This manual is dedicated exclusively for the qualified, authorised installation technician who must be adequately trained and possess all the necessary psychophysical requirements requested by law. All the operations must be performed with care and good workmanship in compliance with the safety at work regulations in force.

- After unpacking, make sure that all the components are present. If there are any missing items or the unit does not conform, indicate the reserves on the delivery slip and confirm them by registered letter to the transporter within three working days.
- It is forbidden to modify the safety or adjustment devices or adjust without authorisation and indications of the manufacturer.
- It is forbidden to dispose of, or leave in the reach of children, the packaging materials which could become a source of danger.
- All repair or maintenance interventions must be performed by professionally qualified as foreseen in this booklet. Do not modify or intervene on the appliance as this could create dangerous situations and the manufacturer will not be responsible for any damage caused.

1.1.1 Compliance

The CIAT Divio comfort units conform to European directives LVD, EMC, RoHS e RAEE: 2006/95/EC, 2004/108/EC, 2002/95/EC and 2002/96/EC


1.2 Symbols

The pictograms in the next chapter provide the necessary information for correct, safe use of the machine in a rapid, unmistakable way.

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- Paragraphs marked with this symbol contain very important information and recommendations, particularly as regards safety. Failure to comply with them may result in:

- danger of injury to the operators

-  - loss of the warranty
- refusal of liability by the manufacturer.

Generic danger



- Signals to the personnel that the operation described could cause physical injury if not performed according to the safety rules.

Electrical hazard



- If the operation is not carried out in compliance with the safety regulations there is a risk of suffering physical injury due to contact with components under tension.

1.3 Electrical characteristics table (fig. 1)

Fig. 1

Divio	700	900
Power supply	230V/1ph/50Hz +/- 10%	
Power supply cable minimum section	1,5 mm ²	
Min and max operating temperature limits	0°C / 50°C	
Min and max operating relative humidity	15% / 85°C	
input current	0.1 A	

2. USE

2.1 On-board machine electronic control with led bar (fig. 2)

The command makes the temperature regulation completely autonomous through the AUTO, SILENT, NIGHT and MAX programmes, with a probe positioned in the lower part of in the lower part of the Divio unit, and guarantees anti-freeze security even when in stand-by.







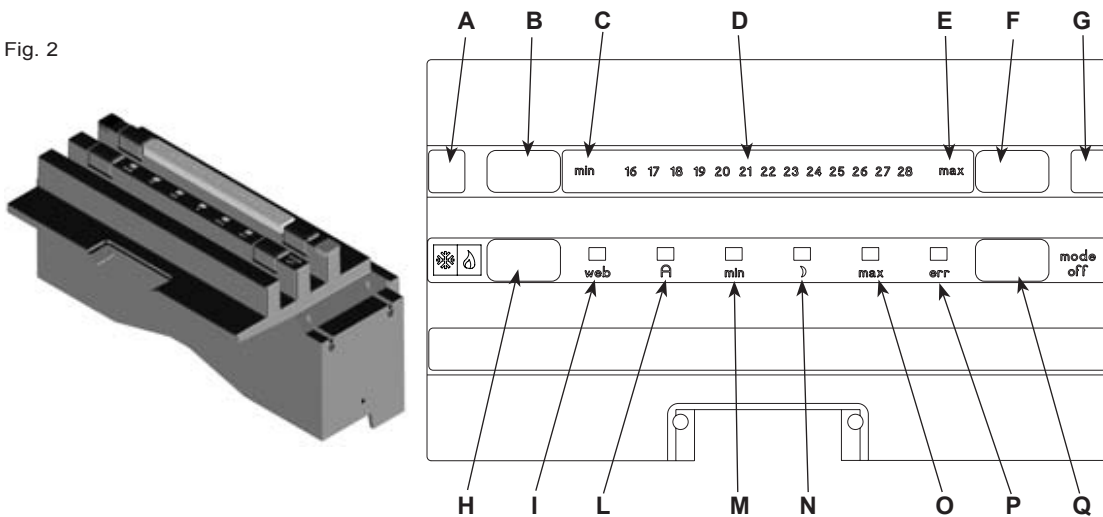
- A** Blue LED cooling
- B** Decrease set temperature button
- C** Blue LED 5°C extreme exceeded
- D** LED bar setpoint settable from 16 to 28 °C
- E** Red LED 40°C extreme exceeded
- F** Increase set temperature button
- G** Red LED heating
- H** Summer/winter function button (not available)
- I**  Yellow LED Webserver supervision active (only available if connected to a reversible heat pump or with the "natural cooling" option)
- L**  Automatic function indicator
- M**  Silent function indicator
- N**  Night function indicator
- O**  Maximum ventilation speed indicator
- P**  Yellow LED block due to water not in temperature
- Q** MODE button: ON/OFF - select operating mode and reset dirty filter signal (only if the signal is enabled).

Fig. 2



2.2 Description of on-board machine (fig.2)

2.2.1 General switching on

To manage the Divio comfort unit via the control panel, it must be connected to the mains.
If there is a master switch on the mains power supply then it must be switched on.

2.2.2 Activation

To activate Divio:

- Press the MODE button (fig.2 ref. Q) and select one of the operating modes.

2.2.3 MODE button (fig. 2 ref. Q)

For setting the operating mode the Divio comfort unit. Each time the button is pressed the following operating modes are set in sequence:

- automatic function
- silent function
- night function
- maximum ventilation speed

2.2.4 Manual heating/cooling selection

Each time the sum/win button (fig. 2 ref. H) is pressed it corresponds to the change of the summer/winter regulation mode performed by the command and visible through the lighting up of the 2 Red heating LED (fig. 2 ref. G) or the blue cooling LED (fig. 2 ref. A). In heating the Red LED (fig. 2 ref. G) is alight when the setpoint is higher than the room temperature, when the setpoint is lower both red and blue are OFF.

In cooling, the Blue LED (fig. 2 ref. A) is alight if the setpoint is lower than the room temperature, if it is higher, both red and blue LEDs are OFF.

2.2.5 Stand-by

To switch off the appliance, keep the MODE button (fig. 2 ref. Q) pressed for about 2 seconds. The lack of a warning light indicates the "stand-by" status (no function).

When the control is set to this operating mode it guarantees an anti-freeze security. If the ambient temperature drops to below 5°C, the Heat Pump input is activated.

2.2.6 Selecting on-board machine electronic control temperature

Use the two buttons (fig. 2 ref. B and F) to set the desired room temperature which is displayed on the LED bar (fig. 2 ref. D). The adjustment range is from 16 to 28 °C; the resolution is 0.5° C and is obtained when the two adjacent LEDs light up.

At the two ends are the extreme values, minimum (maximum cooling temperature) and maximum (maximum heating temperature) (fig.2 ref. C and E).

Only set these values for short periods and then set the selection to an intermediate value. The command is very precise, set it to the desired value and wait until the command has made the adjustment. To reduce the possibilities of temperature oscillations there is a neutral band of 2°C (1°C more and 1°C less than the selector setting).

2.2.7 On-board machine electronic control LED indications (fig.2)

The setpoint can be adjusted between 16 and 28 °C and is displayed on a graphic bar made up of 13 amber-yellow LEDs (fig.2 ref. D); the resolution is 0.5° C and is obtained when the two adjacent LEDs light up. At the ends of the graphic bar there are 2 other LEDs slightly distanced from the others, the blue on the left is minimum (fig.2 ref. C) the red on the right is the maximum (fig.2 ref. E) and they indicate the respective exceeding of the extremes by 5 and 40 °C.

The 4 green LEDs (fig. 2 ref. L, M, N, O) indicate the set operating mode, when all are off this indicates stand-by.

The red LED (fig.2 ref. G) and blue LED (fig. 2 ref. A) respectively indicate the activation of the heating or cooling function. If one of the two LEDs is flashing, this indicates that the request of water (hot or cold) has not been satisfied and stops the fan until the water temperature reaches a suitable value to satisfy the request

If the water temperature don't reaches a suitable value for the requested function after 10 minutes the control is blocked and only the yellow error LED lights up (Example 1: heating function with room temperature of 20°C and water temperature below 15°C.

Example 2: cooling function with room temperature of 20°C and water temperature above 25°C).

The release is automatic after 45 minutes or manual when there is a passage from heating request to cooling request (or vice versa) or by pressing the MODE button (fig. 2 ref. Q).

With the automatic cooling/heating regulation system is activated, the simultaneous lighting-up of the 2 red heating LED (fig. 2 ref. G) and blue cooling LED (fig. 2 ref. A) indicates that the setpoint has been reached (neutral band).

2.2.8 Error signals (fig. 2)

If the 4 LEDs (fig. 2 ref. L, M, N, O), if the signal is enabled, indicates that the Divio comfort unit need maintenance. Select the stand-by programme, clean the air filter and then, when you switch the appliance back on, keep the MODE button (fig. 2 ref. Q) pressed for 5 seconds until normal functioning is restored.

If the AUTO and ERR LEDs (fig. 2 ref. L and P) both flash it indicates a room temperature probe fault. If the MIN and ERR LEDs (fig. 2 ref. M and P) both flash it indicates a fault on the water temperature probe located in the main battery, if both the NIGHT and ERR LEDs (fig. 2 ref. N and P) flash this indicates a fault in the secondary battery probe in the 4-pipe versions, if both the MAX and ERR LEDs (fig. 2 ref. O and P) flash this indicates a fault in the motor/HALL sensor.

With the last signal the outputs of Divio function normally but the ventilation speed modulation function is inhibited and the fan functions at a fixed number of revs.

If the MODE button is pressed the alarm signal is inhibited for 10 seconds and the temperature and operating settings can be made. The luminosity of the LEDs during normal functioning is deliberately reduced to increase your comfort at night time, but as soon as a button is pressed the maximum luminosity is restored for a period of 7 seconds from the last button-pressing.

2.2.9 Automatic functioning (fig. 2)

Selecting this operating mode, indicated when the relative LED lights up (fig. 2 ref. L).

The temperature control and regulation are managed by a micro-processor system which automatically adapts the function of the appliance to the changing environmental conditions. In particular, the regulation of the ventilation speed is completely automatic, between a minimum value and a maximum value depending on the heating or cooling requirements in the room.

The cooling or heating is selected with the sum/win button (fig. 2 ref. H). If the automatic heating and automatic cooling setting is chosen, the command makes the adjustment based on the room temperature and is conditioned by the temperature of the water available inside the system.

Until the water temperature reaches a value which satisfies the request, the fan remains switched off, and the LED corresponding to the request (red heating fig. 2 ref. G, or blue cooling fig. 2 ref. A) flashes.

If the water temperature reaches an unsuitable value for the requested function (Example 1: heating function requested with room temperature of 20°C and water temperature below 15°C. Example 2: cooling function requested with room temperature of 20°C and water temperature above 25°C) after 10 minutes the control is blocked and only the err yellow LED (fig. 2 ref. P) lights up. The release is automatic after 45 minutes or manual when there is a passage from heating request to cooling request (or vice versa) or by pressing the MODE button (fig. 2 ref. Q).

2.2.10 Silent functioning (fig. 2)

Selecting this operating mode, indicated when the relative LED lights up (fig. 2 ref. M), the ventilation speed is limited to a lower value. For the rest, the operation is the same as in automatic mode.

2.2.11 Night functioning (fig. 2)

Selecting this operating mode, indicated when the relative LED lights up (fig. 2 ref. N), the set temperature is automatically adjusted as follows:

- reduced by 1° C after one hour and a further degree after 2 hours in the heating function.
- Increased by 1°C after one hour and a further degree after 2 hours in the cooling function.

2.2.12 Operation at maximum ventilation speed (fig. 2)

With this operating mode, indicated when the LED lights up (fig. 2 ref. O), maximum power is obtained immediately both in heating and cooling.

2.2.13 Dirty filter signal (fig. 2)

When the 4 green LEDs on the control panel start flashing (fig. 2 ref. L, M, N, O), if the signal is enabled, this indicates that the air aspiration filter is dirty.

To clean the filter, consult the machine maintenance manual N12100.

Once the filters have been cleaned the signal must be reset by pressing the MODE button (fig. 2 ref. Q) for 5 seconds.

2.2.14 Deactivation

To deactivate the appliance:

- Keep the MODE button (fig. 2 ref. L) pressed for 2 seconds until all the LEDs switch off. The command guarantees anti-freeze security even when in stand-by.

2.2.15 Shut-down for long periods

When switching off for long periods or holidays, proceed as follows:

- Deactivate the appliance
- Set the master switch to OFF.

The anti-freeze function is not active.



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