reventon
INDUSTRIAL SOLUTIONS

Intelligent control panel VERTIC
User Guide

Welcome

Thank you for buying the product! Your new controller will provide years of reliable service. Using this digital device will provide more uniform comfort in your home through the seasons and more automatic work of the heat recovery unit Vertic. Please read this manual for complete instructions on installing and operating your device. If you require further assistance, please feel free to contact directly with Reventon Group Sp. z o.o.

In the box you will find

- Intelligent control panel VERTIC
- user guide

Service

We offer the warranty of 24 months from the sales day.

Technical data

Power supply: 230 ~ 240 VAC, 50 ~ 60 Hz
Shell material: PC (fireproof) and acrylic panel
Dimensions: 85 x 85 x 15 mm
RS485/Modbus RTU communication

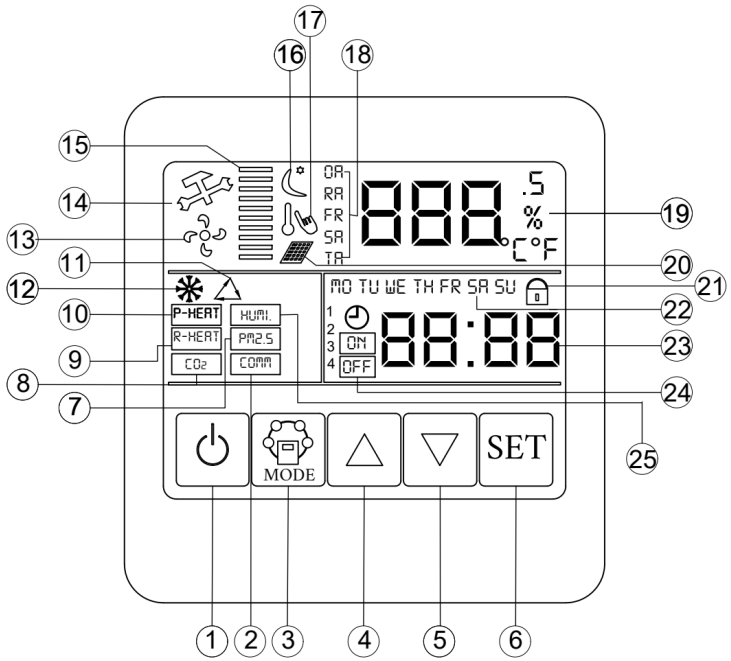
About device

The intelligent control panel VERTIC allows to remotely control the operation of heat recovery unit VERTIC. It has a liquid crystal LCD screen with touch buttons. The contemporary design of the device makes it look aesthetically pleasing in any interior. Control panel allows to modify all parameters of the unit and equipment.

Features of the controller

- Modern design
- Temperature display
- Temperature control
- Weekly timer
- 4 speed control
- One-key fan boost
- Manual/auto operation
- Filter replacement reminder
- Anti-frost
- Humidity control
- Humidity display
- CO_2 value display (if connected)
- Time and date display
- Electric heating control function
- Power consumption statistics
- RS485/Modbus function

Home screen quick reference



1	Power	13	Fan Running
2	Communication	14	Repair
3	Mode	15	Fan Speed
4	Up button	16	Sleep Mode
5	Down Button	17	Setting Temperature
6	SET Button	18	Temperature Mode
7	PM2.5 Symbol	19	Temperature Display
8	CO2 Symbol	20	Filter Alarm
9	Heating	21	Child Safety Lock
10	Pre-Heating	22	Week
11	Bypass On/Off	23	Clock
12	Defrost On/Off	24	Weekly Time On/Off
25	Humidity Symbol		

Basic operations

1. Power Button

- Press shortly to turn on or turn off the machine.
- Long press this button for more than 6s to lock the screen,and long press thepower button for more than 6 seconds to unlock it in the locked screen state. No operation can be performed in the locked screen state.
- When the power is turned off, the display goes off. When turned on again, the device will run according to the status before turned off.

2. Display Mode Selection

- Press the "MODE" button to switch the display status of the device(as shown the figure below). The set temperature display and the CO2 concentration display can only be displayed after the corresponding function and hardware are turned on.
- Timer on/off mode displays: time, day of the week, timer on, timer off, airflow and room temperature.
- Sleep mode displays: sleep icon, time, day of the week and room temperature.

Room temperature

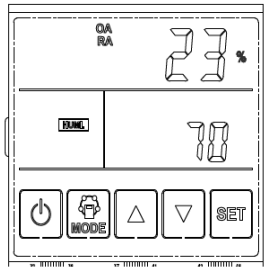
Outdoor air temperature

Exhaust air temperature

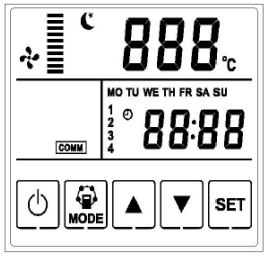
Supply air temperature

Setting temperature

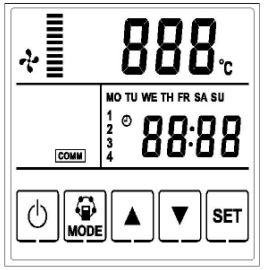
CO2 concentration



Humidity



Timer on and off



Sleep mode

3. Fan Speed Setting

(1) Manual mode fan speed setting

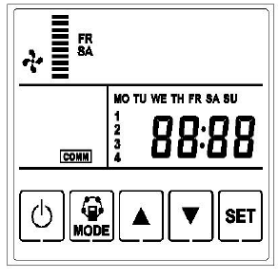
Press the MODE button to switch the supply air temperature (SA) or the exhaust air temperature (FR), click the "△" and "▽" button to adjust the fan speed and the air volume display is: the first speed, the second speed,the third speed, the fourth speed .

(2) Four periods timer

The 24 hours per day is divided into four periods. The fan speed of the unit can be set at each periods, and the device will run according to the set fan speed till the next period . Under this mode, the fan speed of each period should be set from Monday to Sunday. The time period before the first time node runs according to the fourth time period setting.

Click MODE button to switch the device to the timer on/off mode, press SET button shortly to start timer setting. After entering the timer setting interface, the "week" flashes, then adjust to the week you need, press SET button shortly

again to switch to the hour setting of the first period corresponding to the current week, press SET button shortly again to switch to the minute setting, press SET button shortly again to switch to the fan speed setting. Complete all time settings as per above instructions, press the power button to save and exit after setting.



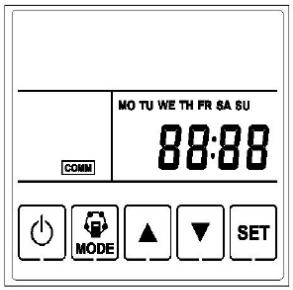
Timer setting

4. One-key Fan Boost

Under any display interface, press "△ + ▽" key at the same time, the equipment will run at boost speed, and return to the previous running state after 30 minutes operation. The operation time can be set by the user, and the operation process is described in the following parameter setting. The airflow icon on the LCD controller display starts flashing after turning on the one-key boost speed function.

5. Date and Time Setting

Click MODE button to switch the device to timer on/off mode, long press SET button to start the setting function then adjust the hour by pressing Up and Down button; then short press SET to enter the minute setting, adjust the minute by pressing Up and Down button; short press SET again to set the week, short press MODE or power button to exit after setting completed.

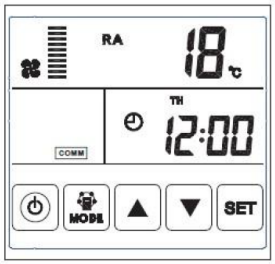


Time setting

6. Bypass Function Setting

The device is shipped from the factory with automatic bypass by default. If you need to manually control the bypass function, you need to turn off the automatic bypass function, the operation procedure is described in the parameter setting below. In the automatic bypass mode, the equipment will automatically control the ON/OFF of bypass according to the fresh air temperature (OA). The opening temperature of the bypass can be set by yourself, and the operation procedure is described in the parameter setting below.

Bypass ON



Bypass OFF

After the automatic bypass function is turned off, it is the manual bypass mode. At this time, under the display interface of fresh air temperature (OA), long press the "△" button to open the bypass, and the bypass icon will be displayed. Long press the "▽" arrow key to close the bypass, bypass icon will be extinguished.

7. Humidity Control Function

When the equipment is turned on, the equipment will run at a IV speed if the indoor humidity value is detected to be higher than the set value. When the humidity value drops below the set value, the equipment will return to the original running state. The humidity setting value can be modified by the user. See the following parameter setting for the operation process.

8. Anti-frosting Function

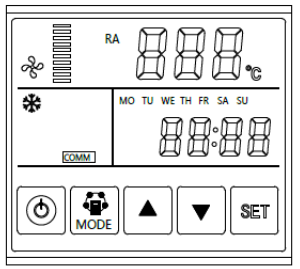
In order to prevent frosting inside the equipment due to low temperature, the equipment has two functions of frost prevention:

1) Defrosting OA

When the outdoor temperature is lower than -5℃ (parameter 22) and lasts for 1h, the equipment will conduct defrost operation for 10min (parameter 09). At this time, the air supply fan stops running and the exhaust fan runs at the IV speed.

2) Defrosting EA

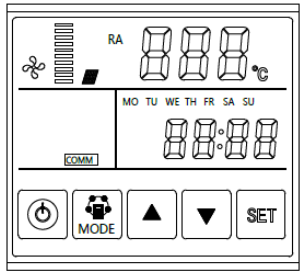
When the eaxhaust air temperature is lower than 5°C (parameter 08), the equipment will ocnduct defrost operation for 10min (parameter 09). At this time the air supply fan stops running and the exhaust fan runs at the IV speed.



Anti-frosting function activated

9. Filter Replacing Alarm Function

This device has a filter alarm function, which will remind the user to change or clean the filter after 60 days from he date the device is turned on and running. After replacing or cleaning the filter, the user can click the filter alarm button and reset it on the device body control panel, or eliminate the reminder through parameter setting. The operation procedure is described in the parameter setting below.



Filter Alarm ON

10. Power Consumption Statistics

This device can approximately count the power consumption of the equipment and electric heating. For the operation process, please refer to the parameter setting below.

11. CO2 Control Function

(CO2 Sensor Needs to be Purchased Separately)

This function needs to be turned on manually, for the operation process, please refer to the parameter setting

below. When the CO2 control function is turned on,and the indoor CO2 concentration is higher than the set value, the supply and exhaust fans will run the VI speed for extremely fast ventilation until the CO2 concentration drops below the set value. The CO2 set value can be modified by the user. For the operation process, and the operation process is described in the parameter setting below.

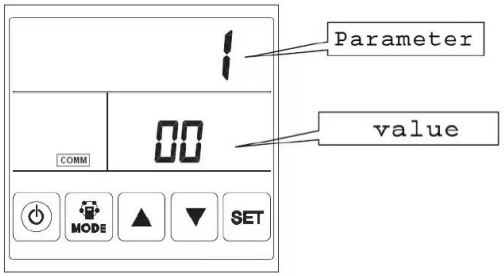
12. Electric Heating Control Function

(The Equipment Only Reserves Control Terminals)

This function is only effective when the electric heating function is on, and the device is turned off by default. If you need to turn on the function, please refer to the parameter settings below for the operation procedure. This function is only valid when the air duct type electric heater is connected. After the electric heating function is turned on, click MODE to switch the device to the set temperature interface (look up to the 2nd point, to the Temperature Setting interface). Press the "△" or "▽" button to set the electric heating start temperature. After the setting is done, long press the "MODE" button to save. The heater will turn on when the difference between set value and SA temperature will be larger than 5 degrees. After the electric heating is turned on, the heating icon will be displayed.

13. Parameter Settings

Long press the "MODE" button in the power-on state, release the "MODE" button after the buzzer sounds, and enter the parameter setting interface at this time. Short press "SET" button, each time you press it, the parameter value will increase by 1. After selecting the corresponding parameter item according to the following table, press the "△" and "▽" button to adjust the parameter value. After the adjustment is completed, press the "SET" button to confirm and save. After all the parameters are set, short press the power button to exit the setting.

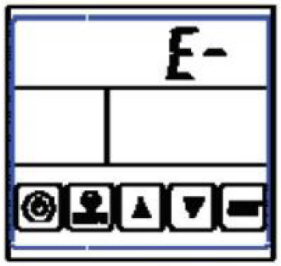


Parameter Setting Instructions

No.	Contents	Range	Default	Unit
01	Power to auto restart	0-invalid 1-valid	1	
02	Auto bypass function	0-invalid 1-valid	1	
03	Bypass opening temperature X	5÷30	19	°C
04	Bypass opening temperature range Y	2÷15	3	°C
05	Electric heating setting	0-OFF 1-ON	0	
06	Conventional defrosting	0-invalid 1-valid	1	
07	Defrosting EA interval(regular)	15÷99	30	Minute
08	Defrosting entering temperature(regular)	-9÷10	5	°C
09	Defrosting duration time	2÷20	10	Minute
10	CO_2 Control function	0-invalid 1-valid	0	
11	CO_2 setting range	800÷2000	1500	PPI
12	Humidity control function	0-invalid 1-valid	1	
13	Humidity setting range	50÷100	75	%
14	IP address	1÷66	1	
15	ERV model match	Airflow 250 Airflow 350 Airflow 500	Setting before leaving factory	
16	Filter alarm	0-Filter alarm reserved 1-Filter alarm removal	0	
17	Filter alarm setting	0 60 80 100	60	Day
18	One key fan boost time range	0÷120	30	Minute
19	Electrical heater power setting	500÷3000	/	W
20	Device power consumption statistics	0÷9999	/	kW
21	Electrical heater power consumption statistics	0÷9999	/	kW
22	Defrosting entering temperature	-10÷10	-5	°C
23	Defrosting OA interval	1÷3	2	h

14. Error Code Display

Code the MODE button to switch the display state to the room temperature (RA) display, short press the “set” button to display the unit error code, short press the “set” again to switch to display the error information.



Without error

Error Alarm

Error Code

Code	Error
E1	Fresh air temperature sensor and humidity sensor error
E2	Return air temperature sensor and humidity sensor error
E3	Supply air temperature sensor error
E4	Exhaust air temperature sensor error
E5	CO2 sensor error
E6	Supply fan error
E7	Exhaust fan error
E8	Wrong connection between control panel and PCB board