EN

TECHNICAL PASSPORT

Quattro series

Supply-exhaust ventilation systems with heat recovery **Quattro series** from **Climtec**[tm]

The decentralized ventilation system with heat recovery TM «CLIMTEC» removes used air from the room and simultaneously fills it with fresh air from the street.

An aluminum heat exchanger is located inside. Aluminum does not oxidize, unlike copper and other materials with high thermal conductivity, therefore, it does not have a negative effect on the human respiratory system, allows working in a wide temperature range, has natural protection against corrosion (oxide film), prevents the development of fungal and putrefactive bacteria on the fins of the heat exchanger.

Air from the room is driven through the recuperator by one fan, and air from the street by another. At the same time, the air flows are separated in such a way that during the operation of the fans, they do not mix, but move in different channels of the heat exchanger in opposite directions.

RECOVERY EFFICIENCY CALCULATION FORM

Determination of the recovery efficiency coefficient (KD) is made by calculation according to the formula:

$$Kt = (T3-T1 / T2-T1) \times 100\%$$

where

Kt — temperature recovery efficiency coefficient;

T1 — outdoor air temperature, °C;

T2 — exhaust air temperature (room air), °C;

T3 — supply air temperature, °C

On/Off

Control of LED lighting

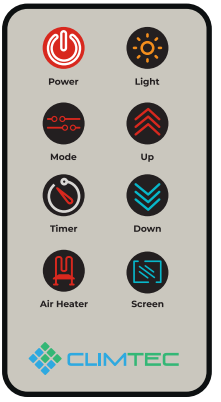
Settings (mode)

Selection of recovery modes

Changing the information on the display

Timer

Air heater



«OFF» mode

By default, the screen displays the current time.

“SCREEN” — a short press on the button cyclically changes the contents of the screen: Time ▸ Humidity level ▸ CO2 level (CO-1 — CO-5) ▸ Indoor temperature ▸ Outdoor temperature (CO2 — displayed if the sensor is available, otherwise this parameter is not available).

“TIMER” — long hold ▸ clock setting mode ▸ the current time is displayed on the screen with a flashing “Clock” value. Each subsequent short press of “TIMER” changes the flashing value from “Hours” (flashing clock) to “Minutes” (flashing minutes). Time adjustment - When the value (“Hour”/”Minute”) is flashing with the buttons **“UP”/”DOWN”** increase/decrease the value by one unit, respectively (long holding of “UP”/”DOWN” – accelerated setting mode – 5 units at once). Exit from the clock mode occurs automatically in the absence of pressing any buttons on the remote control after 5-6 seconds, and the set values of hours and minutes are accepted as the current time of day.

“LIGHT” – a short press turns on/off the external backlight with the current color. Long holding “LIGHT” – color adjustment mode: “COL X” is displayed on the screen, where X is the current color number from 1 to 7. In this mode, a short press of “LIGHT” cycles the current color from “1” to “7” (7 -White color). The exit from the color setting mode occurs automatically if no buttons are pressed on the remote after 5-6 seconds, the selected color is saved as the current one.

“POWER” – switching to «ON» mode. Hold for 2-5 seconds (the screen displays the greeting “HI” during the transition and the recuperator model).

ON MODE

By default, the screen shows Room Temperature.

“SCREEN” – a short press changes the contents of the screen cyclically: Indoor temperature ▸ Outdoor temperature ▸ Time ▸ Humidity level ▸ CO_2 level (CO-1 — CO-5) (CO2 level is displayed if the sensor is present, otherwise this parameter is not available) .

Short press “TIMER” – displays the remaining time until the recuperator is turned off. If the timer is not set, “tOFF” is displayed — the timer is not set, the shutdown will not occur.

Long holding “TIMER” — shutdown timer setting mode — the screen displays the current time until shutdown with a flashing value «Clock» (if the timer was not configured, 00:00 is displayed). Each subsequent short press of “TIMER” changes the flashing value from “Hours” (flashing clock) to “Minutes” (flashing minutes). Adjusting the timer - while the value («Hour»/»Minute») is flashing, use the «UP»/»DOWN» buttons to increase/decrease the value by one unit, respectively (long holding of «UP»/»DOWN» - accelerated setting mode — 5 units at once). Setting the timer value to 00:00 - turns the timer into the “tOFF” state. To quickly reset the timer value to 00:00 (“tOFF”) – briefly press “POWER” in the timer setting mode. Exiting the clock mode occurs automatically in the absence of pressing any buttons on the remote after 5-6 seconds, and the set values of hours and minutes are taken as the time remaining until shutdown.

“MODE” – кrepeated pressing cyclically changes the current recuperator mode “RECOVERY” ▸ “INFLOW” ▸ “EXTRACTION”.

- when switching modes, fans must be overclocked to ensure a speed other than the maximum
- when switching to the «Exhaust» mode with the reheating heating element turned on, the heating element is forced to turn off, followed by blowing (delay of turning off the supply fan for 20-30 seconds).

“MODE” – long press - turns on AUTO mode (see below).

“UP”/ “DOWN” — short presses - change the performance of the recuperator (higher/lower, respectively). Displayed on the speedometer .

“UP”/ “DOWN” — hold - (quick control) increases/decreases the performance of the recuperator to the Maximum/Minimum value, respectively.

“AIR HEATER” – turning on/off the reheating heater by short pressing. (The heater will not be turned on in the «Extraction» mode!!!).

“POWER” – switching to «OFF» mode. Hold for 2-5 seconds (the screen displays “BYE”). When the heating element is turned on, the supply fan is blown (delayed shutdown) for 20-30 seconds.

The function of viewing the CO_2 value in ppm:

Long hold "SCREEN" while displaying the CO_2 level (values CO-1 — CO-5) will display for 5-6 seconds the value of CO_2 in ppm (when pressing and holding "SCREEN", the parameter "Indoor temperature" will be displayed for a short time), after which a number from 400 to 2000 values of CO2 in ppm for 5-6 seconds, after which the screen will show the CO_2 level again (values of CO-1 - CO-5).

"AUTO" mode (available with a CO2 sensor):

"MODE" – a long press – turns on the "AUTO" mode (the message "AUTO" is briefly displayed on the screen). The mode is indicated by the icons of the operating modes "RECOVERY" ▸ "INFLOW" ▸ "EXTRACTION" first flashing, then extinguished. In this mode, the recuperator operates in recuperation mode and automatically adjusts the output depending on the CO2 level in the room. Performance adjustments and mode switching are not available in this mode. The rest of the management, respectively «ON» mode.

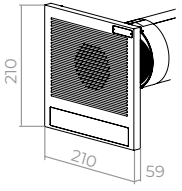
The logic of operation of the "AUTO" mode:

The recuperator switches to recuperation mode at the level of 50% productivity, polls the CO_2 sensor and displays the value of the CO_2 level (values of CO-1 - CO-5). If the obtained value is equal to C3 and higher, the efficiency of the recuperator is increased by one level (from 50% to 75%). Then, after 30 minutes, the sensor is re-polled and if the value is equal to ЗИ-3 and above, productivity increases again by one level (from 75% to 100%). Next, the recuperator works at maximum performance until the level of CO2 in the air stabilizes within the values of CO-1 – CO-2. As soon as the air indicators have returned to the limits of CO-2 values, the recuperator turns on the recuperation mode at the level of 50% of productivity. When the sensor detects the level of CO2, the corresponding value of CO-5 (2000 ppm and above), 100% productivity is included without stepwise transitions of productivity levels.

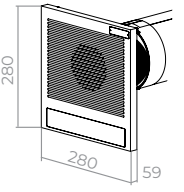
"MODE" – short press – disables "AUTO" mode and switches to "ON" mode.

«POWER» - works as a shutdown in normal mode when held for a long time, but when the recuperator is turned on again, it continues to work in «AUTO» mode!!!

The size of the front panel, mm



Climtec Quattro 100, 125



Climtec Quattro 150, 200+

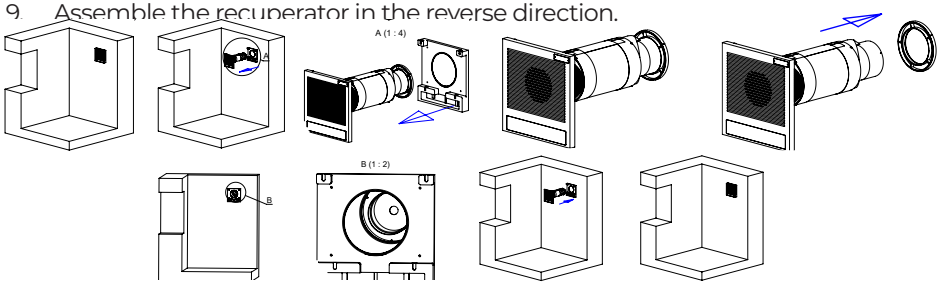
Display of CO_2 values on the Quattro display:

CO-1 displays the number of PRM from 400-499 units (good clean air). CO-2 reflects the amount of PRM from 500-899 units (normal indoor air). CO-3 reflects the amount of PRM from 900-1199 units (drowsiness and weakness may be observed). CO-4 reflects the number of PRM from 1200-1899 units (chronic fatigue, headache). CO-5 displays the amount of PRM more than 1900 units (maximum permissible concentration for 8 hours)

RECOVERY MAINTENANCE

Maintenance is periodic (recommended 1-2 times per year), preventive inspection of the surfaces of the fans, heat exchanger, filter of the supply channel and, if necessary, their cleaning.

1. Press the «Turn off» button on the remote control. Turn off the ventilation system.
2. De-energize the ventilation system.
3. Disconnect the connector on the power cable.
4. Pull the internal module out of the recuperator body by carefully pulling the front module. If the back of the front module is attached to the wall:
   - Turn 4 bolts of the RAFIX screed, which connect the front and rear parts of the front module, counter-clockwise;
   - Pull out the internal module by the front part of the front module (the back part of the front module remains on the wall)
5. Dry clean the surface of the recuperator internal module, fan blades and, if necessary, the heat exchanger from dust.
6. Remove the inlet filter.
7. Dry or wet clean the inlet channel filter.
8. Dry or wet clean the inner surface of the recuperator body
9. Assemble the recuperator in the reverse direction.



Clock

Recovery mode

Speed of work
(25%-100%)

Air heater
(only works
in flow mode)

air flow

Exhaust

Датчик температури повітря (червоний — повітря з вулиці, білий — в приміщенні)

CO_2 sensor

LED lighting

PARAMETER	Quattro 100		Quattro 125		Quattro 150		Quattro 200+	
	STANDARD	PROFI	STANDARD	PROFI	STANDARD	PROFI	STANDARD	PROFI
Diameter of the body of the working module without insulation, mm	100	100	125	125	150	150	200	200
Diameter of the mounting hole, mm	112	112	142	142	162	162	225	225
Length, mm	320-600	320-600	410-1000	410-1000	460-1000	460-1000	480-1000	480-1000
The size of the front panel, mm	210x210x59	210x210x59	210x210x59	210x210x59	280x280x59	280x280x59	280x280x59	280x280x59
Weight, kg	2,5	2,5	2,5	2,7	4,0	4,2	7	7
Efficiency, %	up to 93	up to 93	up to 93	up to 93	up to 93	up to 93	up to 93	up to 93
Volume of supply/ exhaust air at maximum power, m^3/h	40/40	40/40	60/60	60/60	100/100	100/100	240/240	240/240
Volume of supply/ exhaust air at minimum power, m^3/h	10/10	10/10	25/25	25/25	45/45	45/45	60/60	60/60
The recommended area of the room is up to, m^2	15	15	25	25	40	40	90	90
The recommended number of people in the room is up to	2	2	4	4	5	5	8	8
Voltage, V	220/230	220/230	220/230	220/230	220/230	220/230	220/230	220/230
Electric power of electric fan drives in recuperation mode at maximum speed, W	6	6	7	7	24	24	40	40
Maximal electric power of air heating element, W	40	40	40	40	100	100	300	300
Sound power level (LWA)	22/32	22/32	26/38	26/38	26/38	26/38	22/32	22/32

PARAMETER	Quattro 100		Quattro 125		Quattro 150		Quattro 200+	
	STANDARD	PROFI	STANDARD	PROFI	STANDARD	PROFI	STANDARD	PROFI
Aluminum diametral plastic heat exchanger	+	+	+	+	+	+	+	+
Flow shut-off valve	Auto	Auto	Auto	Auto	Auto	Auto	Auto	Auto
Air cleaning filter (G3)	+	+	+	+	+	+	+	+
Information LED panel	+	+	+	+	+	+	+	+
CO_2 sensor	-	+	-	+	-	+	-	+
Supply air temperature sensor	+	+	+	+	+	+	+	+
Outside air temperature sensor	+	+	+	+	+	+	+	+
Air humidity sensor	+	+	+	+	+	+	+	+
Heating of the drainage channel	-	+	-	+	-	+	-	+
Front panel made of MDF and acrylic	+	+	+	+	+	+	+	+
Control (D/C remote control): - number of speeds - 4; - operating modes - recuperation, inflow, hood; - timer; clock; LED lighting.	+	+	+	+	+	+	+	+
Management via mobile addition	-	+	-	+	-	+	-	+
Dispatching	-	+	-	+	-	+	-	+

FILTER REPLACEMENT

1. Turn off the power (machine or socket). 2. Remove the decorative clutch. 3. Disconnect the power wire terminals. 4. Holding the pipe, pull out the working module. 5. Replace the filter. 6. Assemble in reverse order. Install the module in the pipe.

CLEANING THE HEAT EXCHANGER

1. Follow steps 1-4 of the previous instructions above. 2. Connect the terminals of the power cord to the working module, apply power. We turn on the recuperator from the remote control. 3. In order to leave the automatic air flow shut-off valve in the open state, it is necessary to disconnect the terminals of the power cord on the working recuperator. You cannot turn it off from the remote control, because the automatic air flow shut-off valve will close. 4. Cleaning the recuperator: take the module, blow the module with compressed air at a pressure of no more than 4 Bar, remove dust from the fans. 5. Install the module back into the pipe. 6. Connect the terminals of the power cord. 7. Connect to the network. 8. When the power is restored, the automatic air flow shut-off valve will return to its initial position (closed).

SAFETY REQUIREMENTS

Installation, warranty and post-warranty repairs, service and maintenance of recuperators should be carried out only by specialists who have a corresponding Manufacturer's Certificate.

WARNING! USE A VOLTAGE STABILIZER TO PREVENT THE DEVICE FROM FAILURE

IT IS FORBIDDEN to carry out any work without disconnecting the system from power.

DO NOT operate the system if there is a threat of foreign objects entering the air flow path of the module housing, which can jam or damage the impeller blades of any of the fans.

Maintenance of the system consists in periodic (at least 1-2 times a year) inspection of the surfaces of the fans, cleaning of contaminated parts of the system (dry and wet) and replacing the filter with a clean one.

To prevent the failure of the heating element, it is necessary to turn off the heating element manually before turning off the recuperator (in case of its operation). Further, in the "recuperation" or only "inflow" mode, let the unit run for at least 2 minutes to completely cool the heating element.

If all conditions not met, the warranty does not apply.

CONTENTS OF DELIVERY

- Supply and exhaust ventilation system with CLIMTEC recuperation - 1 pc.
- Technical passport (warranty card) - 1 pc.
- Control unit - 1 pc.
- Packing box - 1 pc.

TRANSPORTATION AND STORAGE REQUIREMENTS

The systems can be transported by all covered modes of transport in accordance with the rules in force for these modes of transport, provided that the safety of the products is ensured.

TRANSPORTATION CONDITIONS:

- in terms of the impact of climatic factors of the external environment - group 2 GOST 15150;
- in terms of the impact of mechanical factors - group L according to GOST 2216. Products should be stored in dry, closed rooms in manufacturer's packaging. The number of rows of storage of products in height - no more than three on a pallet. The shelf life of systems packed in shipping containers is no more than one year. The shelf life is established from the date of manufacture.

DISPOSAL REQUIREMENTS

Wastes generated in the production process, subject to disposal in accordance with the Law of Ukraine «On withdrawal f rom circulation, processing, disposal, destruction or further use of low-quality and dangerous products» and DSanPiN 2.2.7.029.

Direct utilization of systems occurs according to the standard scheme for the disposal of solid household waste.

TERMS OF WARRANTY SERVICE

The manufacturer guarantees compliance of supply and exhaust ventilation systems with CLIMTEC recuperator to the requirements of these technical conditions at observance by the consumer of conditions of transportation, storage, installation and operation, to meet requirements of GOST.

Warranty period of operation of supply and exhaust ventilation systems with the CLIMTEC recuperator - 24 months from the date of sale of the trading organization.

Warranty period of storage of systems in packing of the manufacturer - 12 months from the date of shipment to the consumer.

Warranty service is performed by «ClimTec» LLC at the address U306 office, 23 of August str. 20A, Kharkiv, Ukraine.

Complaints about the quality of the goods can be carried out during the warranty period.

Expenses related to disassembly, assembly and transportation of the defective productduring the warranty period are not compensated to the Buyer.

As for the unreasonable of the claims, the costs of diagnosis and examination of the product are paid by the Buyer.

PRODUCTS ARE ACCEPTED FOR WARRANTY REPAIR (AS WELL AS UPON RETURN) FULLY EQUIPPED.

The manufacturer has the right without prior notice to make changes to the product that do not impair its technical characteristics, but is the result of work to improve its design or production technology.

SERVISE WARRANTY TICKET

Service warranty ticket	Ticket 1	Ticket 2
Defect		
Cause		
Method of troubleshooting		
Recovery date		
Service company		
Full name, signature, stamp		

Importer: CLIMTEC LTD, 16617100, info.climtec@gmail.com