CLIMTEC | VENTILATION THAT ECONOMIZE

TECHNICAL PASSPORT

EN

RD/RDC Base
100 · 125 · 150 · 200 · 200+ · 250

RD/RDC Standard
100 · 125 · 150 · 200 · 200+ · 250

Supply-exhaust ventilation systems with heat recovery

IP20

III

climtec.co.uk

Preface

Dear Customer! Thank you for choosing the highly efficient supply and exhaust ventilation system with heat recovery Climtec™, which provides heat recovery for optimizing air exchange and creating a comfortable atmosphere in your home.

This guide contains all the necessary information for the proper installation and operation of Climtec™ devices. You also have the option to download the electronic version of the guide in your chosen language by simply using the QR code below.

Webpage climtec.co.uk

Installation manual

Device length change

We sincerely appreciate your concern for the environment and ecology, as we understand how important it is to provide a stable microclimate not only for your comfort but also for the health of the planet itself. Our technologies contribute to energy saving, which not only reduces energy costs but also helps to minimize your carbon footprint. Your contribution to preserving the ecology of our planet truly matters!

«Look deep into nature, and then you will understand everything better.»

Albert Einstein

«To forget how to dig the earth and to tend the soil is to forget ourselves.»

Mahatma Gandhi

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1. STORAGE AND TRANSPORTATION RULES

The product must be stored in its original packaging in a ventilated room at a temperature from +5°C to +40°C and relative humidity not exceeding 70%.

The presence of vapors and impurities in the air that cause corrosion, disrupt insulation, or compromise the tightness of connections is not allowed.

For loading and unloading operations, use appropriate lifting equipment to prevent possible damage to the product.

During loading and unloading operations, follow the transportation requirements for this type of cargo.

The product may be transported by any means of transport, provided it is protected from atmospheric precipitation and mechanical damage. The product may only be transported in an operating position.

Carry out loading and unloading without sudden jolts or impacts.

Before the first operation after transportation at low temperatures, the product must be kept in operating temperature conditions for at least 3-4 hours.

2. WARNINGS

Carefully read the installation instructions, safety warnings, instructions for use, and maintenance recommendations.

The device complies with European Directives 2014/30/EU and 2014/35/EU.

The installation of the device must be carried out only by qualified technical personnel in accordance with the current installation rules for ventilation equipment.

In cases of improper installation according to its recommendations (see p. 6), the manufacturer or another sales organization that did not provide installation services for the device has the right to refuse warranty service for the device.

The allowable operating temperature range of the device is from -20°C to +40°C.

The installation can only be performed on a wall.

The device is intended for ventilation with heat recovery in residential and non-residential premises where the relative humidity level does not exceed 70%, as well as in those premises where the air composition CANNOT cause damage to the device components.

In cases of using the device under unacceptable conditions, the manufacturer and other sales organizations authorized to sell the device

shall not be held responsible for the consequences of improper use or installation.

After unpacking, be sure to check the integrity of the device, the power cable, and the plug included.

Do not use the device if you doubt its integrity.

Do not connect the device to an old/damaged/faulty electrical network!!! IT IS FORBIDDEN to carry out any work without disconnecting the system from the electrical network.

Do not touch the device with wet or damp hands or feet.

Do not expose the device to weather conditions (rain, sunlight, etc.), only the rear air intake (rear grille) is designed for use outside the building.

IT IS FORBIDDEN to operate the system when there is a risk of foreign objects entering the flow part of the module housing, which may jam or damage the fan blades.

DO NOT turn on the device when it is disassembled!!!

Do not block the rear air intake (rear grille).

Do not block the front part of the device.

Do not allow children to play with the device!!! Using the device by children is allowed only under strict supervision by adults!!!

At low ambient temperatures (below -5°C), the manufacturer recommends using the device without turning it off to prevent icing of the device.

Failure to comply with all the conditions voids the warranty.

3. FIELD OF APPLICATION

The decentralized ventilation system with heat recovery Climtec™ removes stale air from the room and simultaneously fills it with fresh air from outside.

An aluminum heat exchanger is located inside. Unlike COPPER and other materials, aluminum does not oxidize; it has a stable oxide film and therefore has no negative impact on the human respiratory system.

Additionally, the aluminum heat exchanger allows operation within a wide temperature range, features natural corrosion protection (oxide film), and prevents the growth of fungi and rotting bacteria on the heat exchanger lamellas.

Air from the room is extracted through the recuperator by one fan, while air from the outside is simultaneously pulled in by another fan. The airflows are separated so that they do not mix when the fans are operating and move in different heat exchanger channels in opposite directions.

FORMULA FOR CALCULATING THE EFFICIENCY OF THE CLIMTEC™ HEAT RECOVERY UNIT

$$K_T = \frac{T_3 - T_1}{T_2 - T_1} \times 100\%$$

where:

Kt is the coefficient of heat recovery efficiency,

T1 is the temperature of the external (outside) air, °C,

T2 is the temperature of the exhaust air (room air), °C,

T3 is the temperature of the incoming air, °C

4. DELIVERY SET

The Climtec™ delivery set includes the following items:

- Heat recovery unit
- Technical passport
- Power cable with Type C plug (Euro plug) PVC 2*0.75, L = 2.5 m
- Control (remote/stationary) or a two-position switch (for RD-100 Base, RD-125 Base)

5. DISPOSAL

General Provisions

According to European Union legislation, the disposal of electrical and electronic equipment (EEE) is regulated by the WEEE Directive (2012/19/EU). It is mandatory for all users and market operators to comply with these norms to ensure environmental safety.

Disposal Procedures

- **Sorting:** Consumers must properly sort electronic equipment intended for disposal and deliver it to specialized collection points.
- **Collection Points:** Specialized collection points for electronic waste are organized across EU member states and are typically managed by local authorities.
- **Manufacturers and Importers:** Manufacturers and importers are obligated to ensure free collection and disposal of electronic waste in accordance with the terms of the WEEE Directive.

Responsibilities in Case of Violations

Failure to comply with disposal regulations may lead to the following:

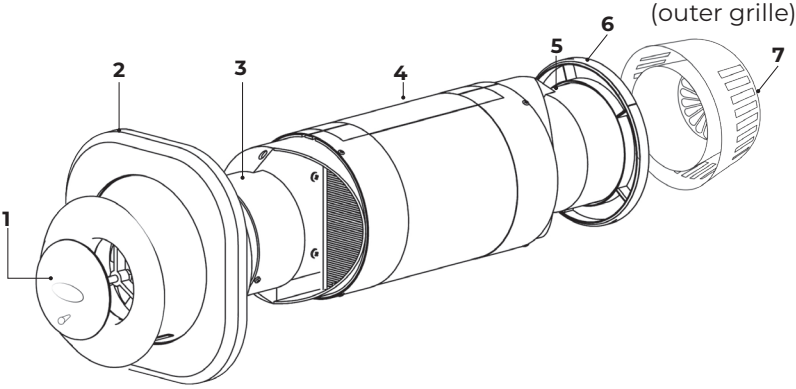
- **Administrative Responsibility:** Violators may face fines or administrative penalties depending on the regulations of the specific EU country.
- **Criminal Responsibility:** If violations result in environmental damage, criminal penalties may include significant fines or imprisonment.
- **Civil Compensation:** Violating parties may be required to compensate damages caused to the environment or third parties based on the environmental damage liability standards in EU law.
- **Licensing Requirements:** Companies that conduct collection, recycling, or disposal of EEE must have an appropriate license for such activities in compliance with the Waste Framework Directive. Refusal to issue or revocation of such licenses may result in additional legal consequences.

6. PRODUCT OVERVIEW

The product consists of a front unit face body (anemostat), which is located inside the premises, a working module that contains an aluminum heat exchanger and a filter located inside the wall, and also an external air intake (outer grille).

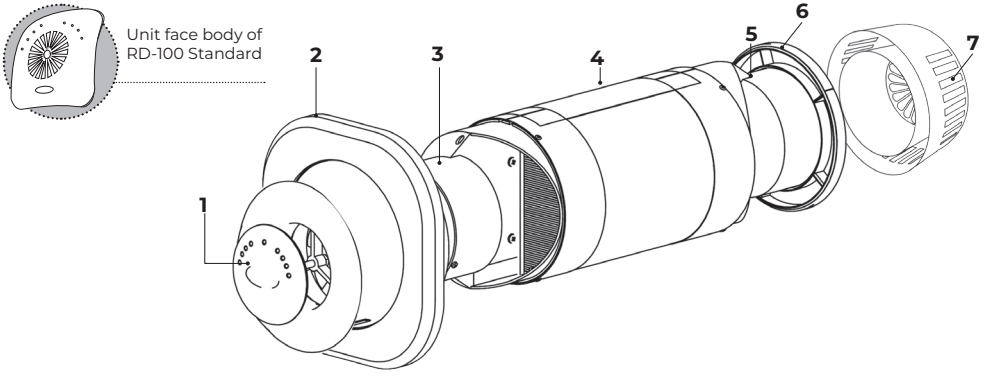
RD-100 Base, RD-125 Base, RD-150 Base, RD-200 Base, RD-200+ Base, RDC-250 Base

1. Unit face body (anemostat) with a mechanism for manual valve operation to block airflow
2. Flange
3. Air supply fan
4. Heat exchanger
5. Exhaust fan
6. Filter
7. External air intake (outer grille)



RD-100 Standard, RD-125 Standard, RD-150 Standard, RD-200 Standard, RD-200+ Standard, RDC-250 Standard

1. Unit face body (anemostat)
2. Flange
3. Air supply fan
4. Heat exchanger
5. Exhaust fan
6. Filter
7. External air intake (outer grille)



7. INSTALLATION AND CONNECTION GUIDELINES

A complete installation manual can be accessed via the QR code.

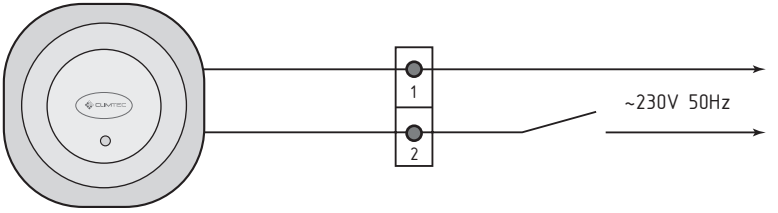
The manufacturer recommends installing the supply and exhaust system according to current legislation and standards.

The installation of the supply and exhaust system must be carried out exclusively by a person with the appropriate qualifications!

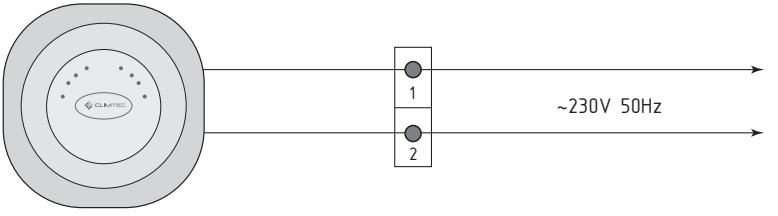
Before installation, it is necessary to visually inspect the integrity of the device and its components and perform a test run of the device. The device is connected to a power supply with a voltage of ~230V and a frequency of 50 Hz.

The connection of the heat recovery unit to the electrical network is performed using an electric cable with a plug. If the power supply is not available at the mounting hole, the electric cable from the heat recovery unit should be connected to the power network in a distribution box following the connection diagram: contact terminals 1 and 2 must be connected in parallel. Connection diagrams for the devices can be found in the illustrations below.

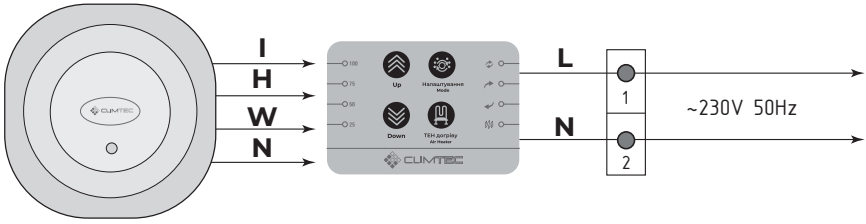
Climtec™ Device Connection Diagram:



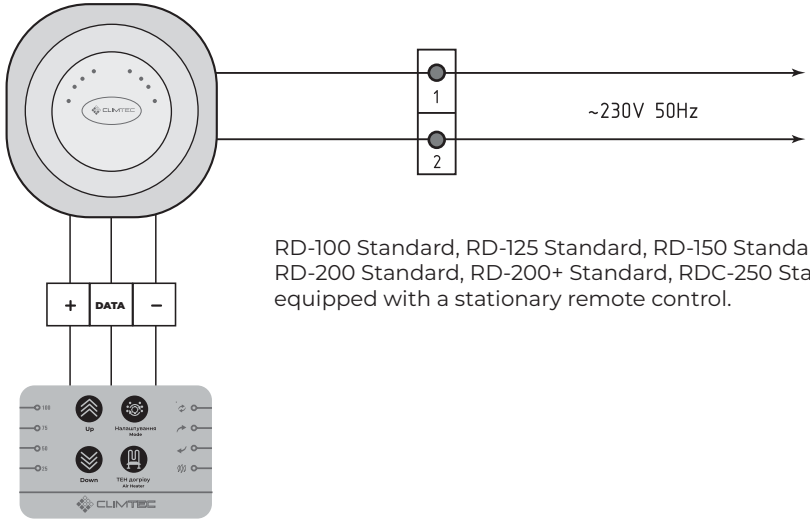
RD-100 Base, RD-125 Base equipped with a two-position ON/OFF switch.



RD-100 Standard, RD-125 Standard, RD-150 Standard, RD-200 Standard, RD-200+ Standard, RDC-250 Standard equipped with a remote control.



RD-150 Base, RD-200 Base, RD-200+ Base, RDC-250 Base equipped with a stationary remote control.



RD-100 Standard, RD-125 Standard, RD-150 Standard, RD-200 Standard, RD-200+ Standard, RDC-250 Standard equipped with a stationary remote control.

The axial line of the heat recovery unit fan should not be directed towards fixed sleeping or resting places.

Recommended placement of the device: Install the device 30 cm away from the ceiling and the nearest wall, cabinet, shelf, etc.

Using a diamond drill, create a hole in the external wall of the room with a slight slope of 3-5° towards the street. It is recommended to use a construction vacuum cleaner while drilling. The diameter of the mounting hole can be found in the technical specifications table (see p. 36).

To ensure the proper operation of the heat recovery unit, the casing that extends outdoors must protrude from the wall by 2–3 cm up to the point where the external air inteke of the heat recovery unit begins.

The external air intake of the heat recovery unit, which is attached to the external pipe, must be installed with the non-perforated side facing upwards (perforated zones must face the sides and bottom of the heat recovery unit).

The interior part of the heat recovery unit includes a decorative flange that covers the mounting hole in the wall.

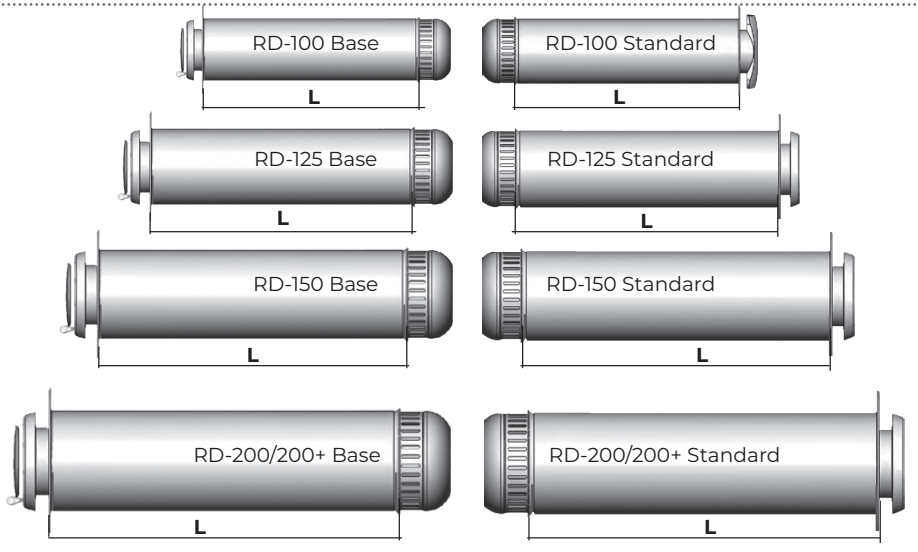
Disconnect the power cable from the network.

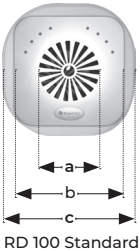
Insert the heat recovery unit into the hole using a seal or mounting foam (ensure it does not create deforming pressure on the unit's casing).

Connect the power cable to the network. Turn on the heat recovery unit.

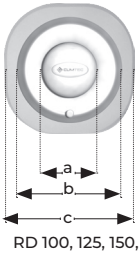
PARAMETERS	RD 100		RD 125		RD 150		RD 200		RD 200 +	
	Base	Standard	Base	Standard	Base	Standard	Base	Standard	Base	Standard
Diameter of the body of the working module without insulation, mm	100	100	125	125	150	150	200	200	200	200
Diameter of the mounting hole, mm	112	112	142	142	162	162	225	225	225	225
Length, mm	360-650	360-650	450-1000	450-1000	500-1000	500-1000	525-1000	525-1000	525-1000	525-1000
Weight, kg	2	2	2,2	2,2	3,5	3,7	5,1	5,3	5,4	6
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	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	185/185	185/185	240/240	240/240
Volume of supply/ exhaust air at minimum power, m^3/h	-	10/10	-	15/15	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	70	70	90	90
The recommended number of people in the room is up to	2	2	4	4	5	5	6	6	8	8
Voltage, V	220/230	220/230	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	24.5	24	40.7	38	48	46
Maximal electric power of air heating element, W	-	-	-	40	-	100	-	300	-	300
Sound power level (L_{WA}), min/max	-/32	22/32	-/38	26/38	26/38	26/38	26/38	26/38	22/32	22/32
Aluminum diametral plastic heat exchanger	+	+	+	+	+	+	+	+		
Flow shut-off valve	Manual	Auto	Manual	Auto	Manual	Auto	Manual	Auto	MANUAL	AUTO
Air cleaning filter (G3)	-	-	option	+	option	+	option	+	option	+
Control panel	on/off	remote	on/off	remote	stationary	remote or stationary	stationary	remote or stationary	stationary	remote or stationary

8. TECHNICAL DATA

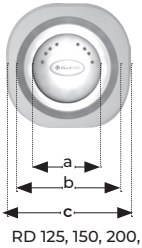




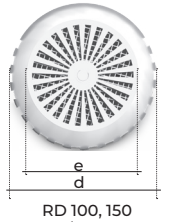
RD 100 Standard



RD 100, 125, 150, 200, 200+ Base

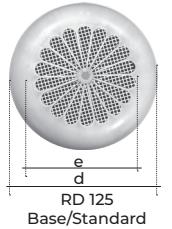


RD 125, 150, 200, 200+ Standard

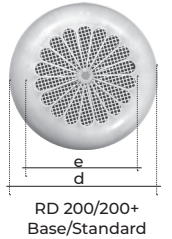


RD 100, 150 Base/Standard

Dimensions, mm		a	b	c	d	e	L
RD-100	base	70	131	165	107	62	360-650
	Standard	73	131	165	107	62	360-650
RD-125	base	90	148	190	131	90	450-1000
	Standard	90	148	190	131	90	450-1000
RD-150	base	90	148	215	159	92	500-1000
	Standard	90	148	215	159	92	500-1000
RD-200	base	128	200	265	206	148	525-1000
	Standard	128	200	265	206	148	525-1000
RD-200+	base	128	200	265	206	148	525-1000
	Standard	128	200	265	206	148	525-1000

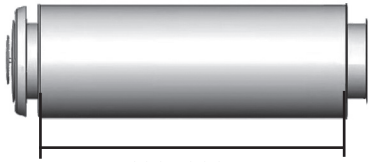


RD 125 Base/Standard

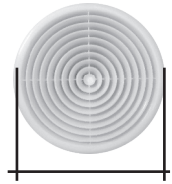


RD 200/200+ Base/Standard

Parameters	RDC 250 Base	RDC 250 Standard
Diameter of the body of the working module without insulation, mm	250	250
Diameter of the mounting hole, mm	270	270
Length, mm	600-1000	600-1000
Weight, kg	8	8
Efficiency, %	up to 87	up to 87
Supply/exhaust volume air at maximum capacity, m^3/h.	600/600	600/600
Recommended area of the premises, m^2	100	100
Recommended number of people indoor	10	10
Voltage, V	220/230	220/230
Electric power of electric fan drives in recuperation mode at maximum speed, W	140	143
Sound power l evel (L_{WA}), min/max	22/32	22/32
Maximal electric power of air heating element, W	-	600
Aluminum heat exchanger diametrically lamellar	+	+
Control panel	stationary	remote
Air purification filter G3	-	-
Flow shut-off valve	manual	Auto

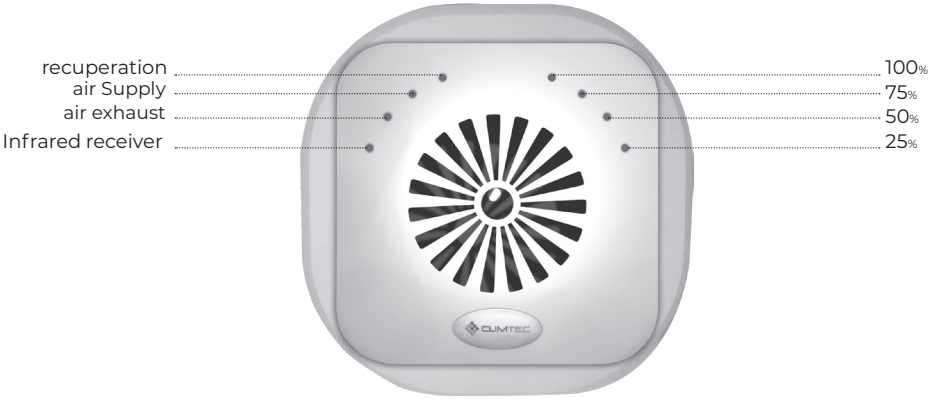

600-1000 mm


330 mm

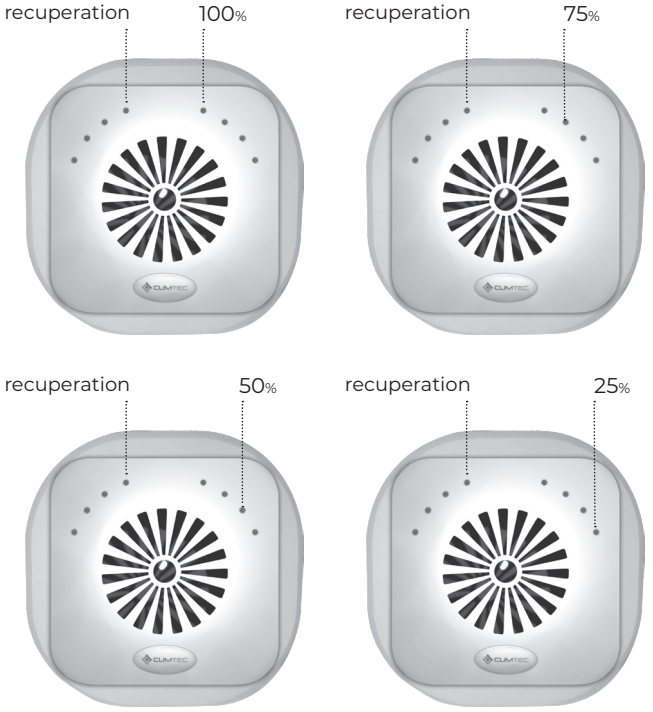

256 mm

9. MODES AND SPEEDS

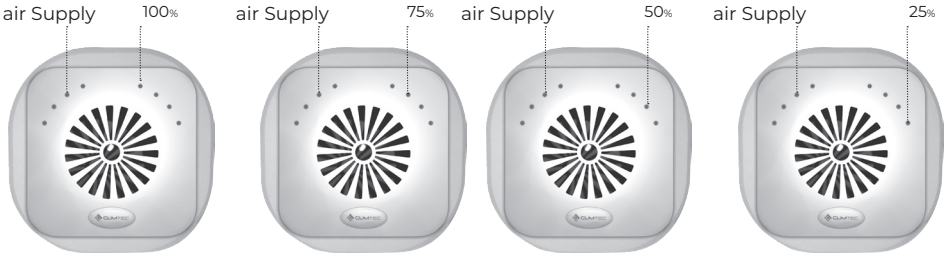
Supply and exhaust recuperators RD-100 Standard



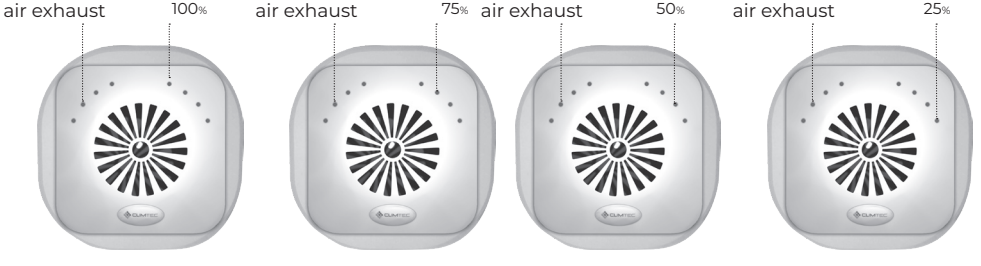
Recovery mode



Supply mode

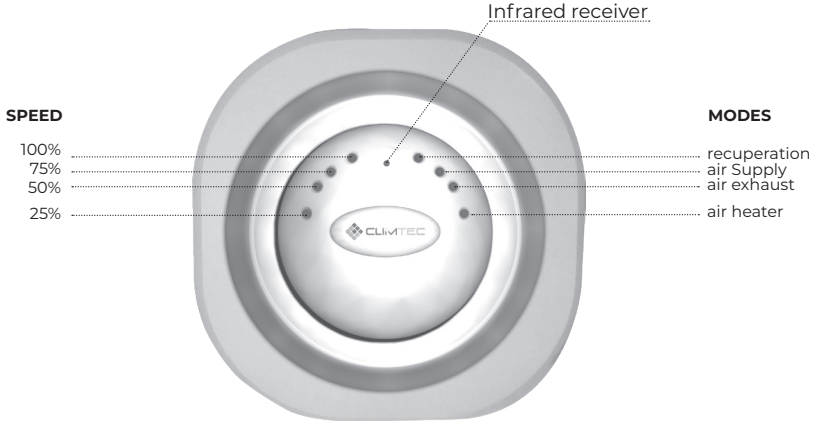


Exhaust mode

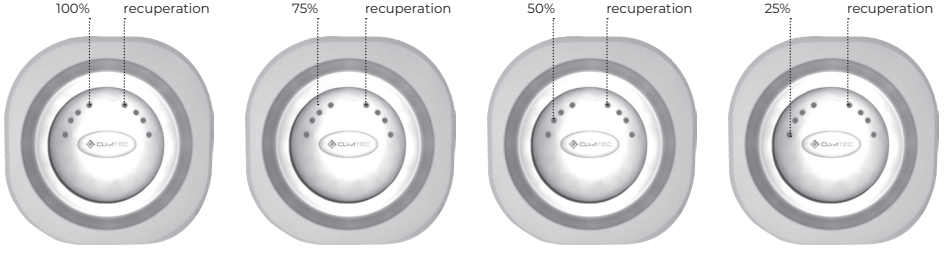


Recuperators RD 100 Base and RD 125 Base work only in recovery mode.

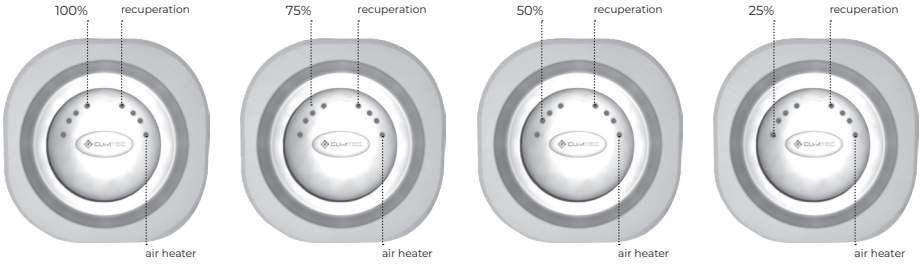
Supply and exhaust recuperators of the RD-125, RD-150, RD-200, RD-200+, RDC-250 Standard series



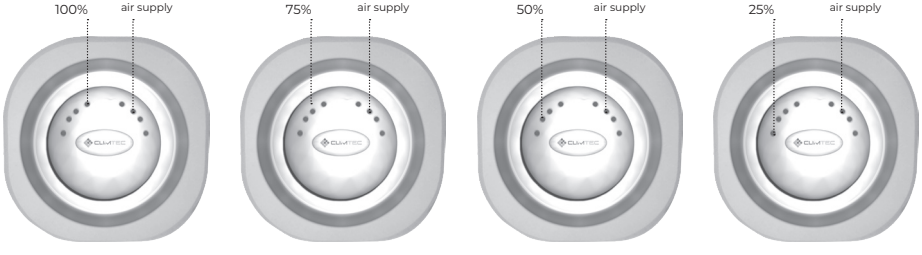
Recovery mode



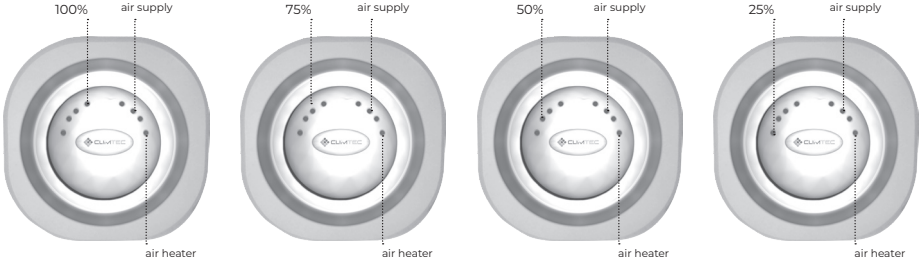
Recovery mode with air reheating



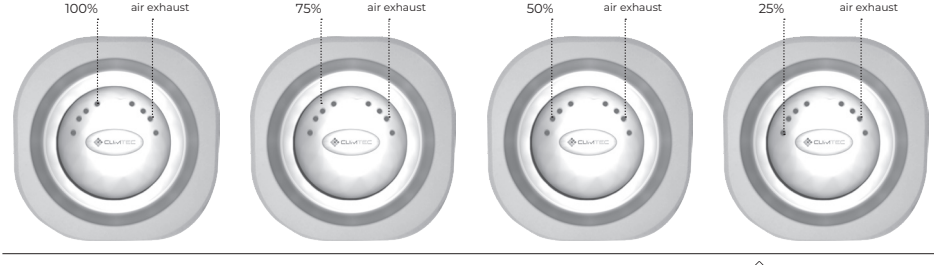
Supply mode



Supply mode with air heating



Air exhaust (the function of air heating in the «exhaust» mode is not provided)



10. DEVICE CONTROL

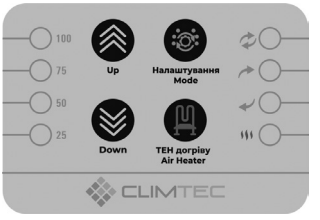
10.1. RD-100 Base, RD-125 Base

ATTENTION! Before starting the heat recovery unit of the BASE model, ensure that the airflow blocking valves are in the open position (rotate clockwise to open).

These heat recovery units are equipped with a two-position ON/OFF switch. Using this switch, you can start and stop the device. The device operates only in «Recuperation» mode.

10.2 RD-150 Base, RD-200 Base, RD-200+ Base, RDC-250 Base

- On/Off (hold for 3-5 seconds)
- Power increase (Up)
- Power decrease (Down)
- Air heater – Not available in the «Base» series.



Stationary control panel

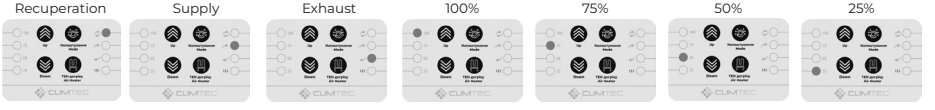
To turn the device On or Off, hold the «Mode» button for 3-5 seconds. Release the button when the LEDs light up. If the button is not released, the device will switch to «Reset» mode.

On the first start, the device runs at 100% power in «Recuperation» mode. On subsequent restarts, the heat recovery unit will continue to operate with the previously selected settings.

To switch to another mode, press the «Mode» button briefly, and while the mode LEDs are blinking, use the «Up/Down» buttons to select «Air Supply,» «Exhaust,» or «Recuperation.»

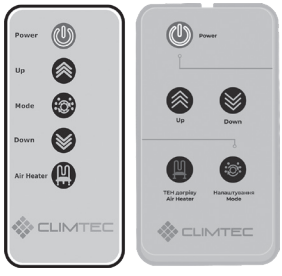
The power of the heat recovery unit is adjusted by pressing the «Up» and «Down» buttons.

The corresponding changes in settings are displayed on the stationary control panel (see the illustration below).



10.3. RD-100 Standard, RD-125 Standard, RD-150 Standard, RD-200 Standard, RD-200+ Standard, RDC-250 Standard (with Remote Control)

- On/Off (hold for 3-5 seconds)
- Power increase (Up)
- Power decrease (Down)
- Mode selection activation (Mode)
- Mode selection buttons (Up/Down)
- Air heater



Remote Control

To turn the device on or off, hold the «Power» button for 3-5 seconds. Upon startup, the device automatically initializes while the LEDs on the front unit face body (anemostat) of the heat recovery unit blink. Release the button when the LEDs light up. If the button is not released, the device will switch to «Reset» mode.

On the first start, the device runs at 100% power in «Recuperation» mode. On subsequent starts, the heat recovery unit will resume the operation in its previous settings before turning off.

To switch to another mode, press the «Mode» button briefly, and while the mode LEDs on the anemostat are blinking, use the «Up/Down» buttons to select «Air Supply,» «Exhaust,» or «Recuperation.»

The device's power is adjusted using the «Up/Down» buttons.

The air heater function is manually disabled with the «Air Heater» button.

When the heat recovery unit is turned off with the air heater activated, the air heater will cool down automatically for 30-40 seconds using the exhaust fan.

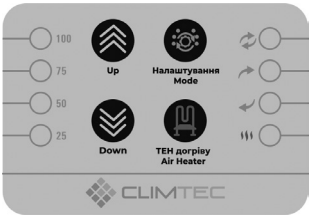
The air heating function does not operate in «Exhaust» mode. The air heating function is not supported in the RD-100 Standard model.

Supply and exhaust systems of the «Standard» modification are equipped with an automatic airflow valve. The valve automatically opens when the unit is turned on and automatically closes when it is turned off.

ATTENTION!!! In the event of a power outage or unexpected power disconnection, the automatic airflow valve does not close! The valve will close once power is restored.

10.4. RD-100 Standard, RD-125 Standard, RD-150 Standard, RD-200 Standard, RD-200+ Standard, RDC-250 Standard (with stationary control panel)

- On/Off (hold for 3-5 seconds)
- Power increase (Up)
- Power decrease (Down)
- Air heater



Stationary Remote Control

To turn the device On or Off, hold the «Mode» button for 3-5 seconds. Release the button when the LEDs light up. If the button is not released, the device will switch to the «Reset» mode.

The device's status is displayed on the front unit face body (anemostat) of the heat recovery unit (see p. 8).

Upon turning on the device, the initialization process takes place as the LEDs on the anemostat blink.

On the first start, the device runs at 100% power in «Recuperation» mode. On subsequent starts, the heat recovery unit resumes its previous operation settings before turning off.

The heat recovery power is adjusted by pressing the «Up/Down» buttons.

The air heater is manually disabled with the «Air Heater» button. Upon switching off the recovery unit with the air heater activated, the air heater will cool down automatically for 30-40 seconds using the exhaust fan.

The air heating function does not operate in «Exhaust» mode. The air heating function is not supported in the RD-100 Standard model.

Supply and exhaust systems of the «Standard» modification are equipped with an automatic airflow valve. The valve automatically opens when the unit is turned on and automatically closes when it is turned off.

ATTENTION!!! In the event of a power outage or an unexpected disconnection of the network, the automatic airflow valve does not close! The valve will close once power is restored.

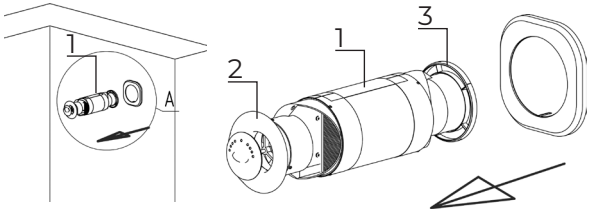
11. MAINTENANCE OF CLIMTEC™ DEVICES

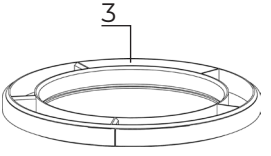
Technical maintenance involves periodic preventive inspection and cleaning of the fan surfaces, heat exchanger, and air supply channel filter twice a year (recommended before the start and after the end of the heating season).

ATTENTION!!! Carbon and bulk carbon filters must be replaced every 3 months!

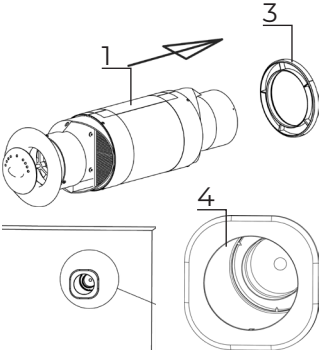
Steps for disassembling/assembling the device for cleaning:

1. Turn off the ventilation system using the controller.
2. Disconnect the ventilation system from the electricity.
3. Disconnect the connector on the power cable.
4. Remove the internal module “1” from the body of the heat recovery unit, carefully pulling the central protruding part of the front panel “2.” Pull on the larger round part “2.”
5. Clean the internal module of the heat recovery unit, fan blades, and, if necessary, the heat exchanger surface from dust using a dry method, such as compressed air.





6. Remove the air supply channel filter “3”.
7. Clean the air supply channel filter “3” using a dry or wet method.
8. Clean the inner surface of the heat recovery unit body “4” using a dry or wet method.
9. Reassemble the heat recovery unit in reverse order. Notice that the filter «3» is designed with a zone for draining condensate outside, and this zone must STRICTLY be directed downward!



!!! If any part of the device is cleaned using a wet method where allowed by the manufacturer, it is prohibited to reassemble the device while its parts are wet and to dry them forcibly using tools such as a hairdryer, microwave, etc. Do not use solvents, abrasive cleaning agents, glass cleaners, universal cleaners, or any cleaners with acidic or alkaline bases (including soda).These substances can damage plastic and other components due to their chemical properties.

12. TROUBLESHOOTING

!!! Climtec™ devices must be repaired by an authorized service organization. If the device requires repairs or if it is not possible to resolve the problem using the information below, you need to:

Turn off the device using the remote control or switch (for the Base series, close the airflow blocking valve). Disconnect the device from the power supply. Contact the seller or authorized service organization.

Problem	Possible Cause of the Problem	Troubleshooting
When the device is turned on, the fans do not start.	The power supply is not connected.	Ensure the power supply is connected properly.
	The motor is jammed or the fan blades are dirty.	Turn off the device. Eliminate the cause of the motor or impeller jamming. Clean the fan blades. Turn the device back on.
When the device is turned on, the fans start, but the airflow is not noticeable.	System icing.	Switch to the «Exhaust» mode for 1 hour to defrost frozen parts of the device.
	Airflow blocking valves did not open.	• Turn the blocking valve lever clockwise (for «Base» models). • Contact the seller (for «Standard» models).
The device does not respond to button presses on the remote control.	The battery is depleted.	Replace the battery (type CR2035 3V).
The automatic circuit breaker trips during the device is turning on.	Increased power consumption caused by a short circuit in the electrical system.	Turn off the device. Contact the seller.
Low airflow rate.	Low fan speed is set.	Set a higher speed.
	Filters, fan, or heat recovery unit are dirty.	Clean or replace the filter and clean the fan.
Increased noise or vibration.	The impeller is dirty.	Clean the impeller.
	The impeller has shifted off the axis.	Reinstall the impeller correctly.
Condensate leaks into the room.	Incorrect slope angle of the mounting hole.	Perform proper installation.
	Radial misalignment of the system in the casing.	
	Insufficient sealing of the device in the wall.	

13. SERVISE WARRANTY TICKET

The warranty period starts from the date of shipment of the Climtec™ device to the user or the sales organization and it is 24 months from the date of shipment.

!!! The manufacturer and specialized service organizations have the right to refuse warranty service in case of violation of the operating or installation conditions (see clauses 1, 6 of this manual). In such cases, the manufacturer or specialized service organizations may offer service and repair of the device on a paid basis (even during the warranty period).

SERVISE 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