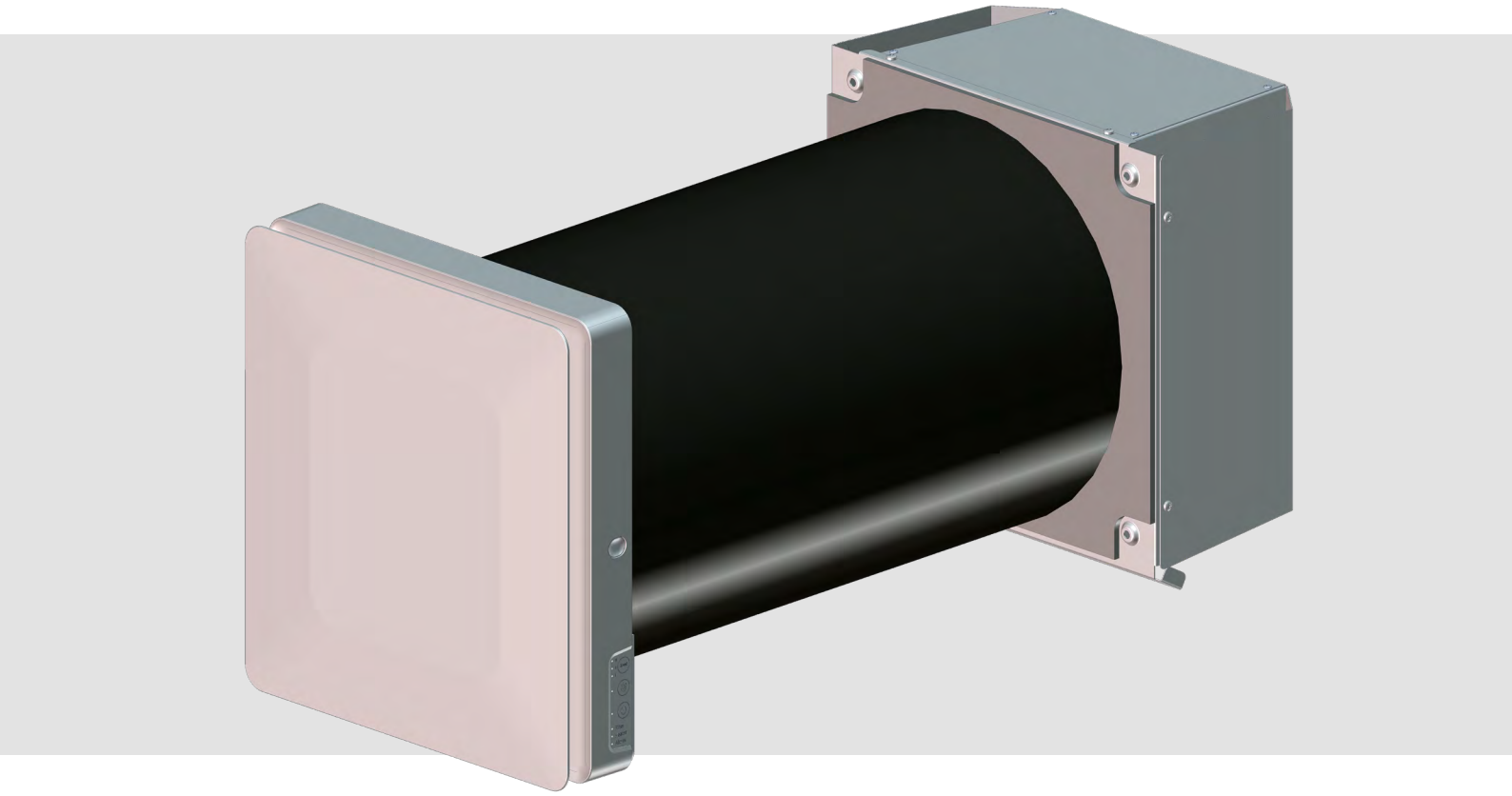
USER'S MANUAL

TwinFusion
TwinFusion E
TwinFusion E2

TwinFusion ERV
TwinFusion E ERV
TwinFusion E2 ERV



Single-room supply & exhaust heat & humidity recovery ventilator

VENTS

CONTENTS

Safety requirements ... 3
Purpose ... 4
Delivery set ... 4
Designation key ... 4
Technical data ... 5
Design and operating principle ... 6
Mounting and set-up ... 8
Connection to power mains ... 14
Control ... 15
Technical maintenance ... 17
Storage and transportation regulations ... 19
Manufacturer's warranty ... 20
Certificate of acceptance ... 23
Seller information ... 23
Installation certificate ... 23
Warranty card ... 23

This user's manual is a main operating document intended for technical, maintenance, and operating staff.
The manual contains information about purpose, technical details, operating principle, design, and installation of the TwinFusion (E/E2) (ERV) unit and all its modifications.
Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

SAFETY REQUIREMENTS

This unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the unit by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the unit.
This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
Cleaning and user maintenance shall not be done by children without supervision.
Children shall not play with the appliance.

Connection to the mains must be made through a disconnecting device, which is integrated into the fixed wiring system in accordance with the wiring rules for design of electrical units, and has a contact separation in all poles that allows for full disconnection under overvoltage category III conditions.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a safety hazard.

Ensure that the unit is switched off from the supply mains before removing the guard.

Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.

The appliance may adversely affect the safe operation of appliances burning gas or other fuels (including those in other rooms) due to back flow of combustion gases. These gases can potentially result in carbon monoxide poisoning. After installation of the unit the operation of flued gas appliances should be tested by a competent person to ensure that back flow of combustion gases does not occur.

All operations described in this manual must be performed by qualified personnel only, properly trained and qualified to install, make electrical connections and maintain ventilation units.
Do not attempt to install the product, connect it to the mains, or perform maintenance yourself.
This is unsafe and impossible without special knowledge.
Disconnect the power supply prior to any operations with the unit.
All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.
Disconnect the unit from the power supply prior to any connection, servicing, maintenance, and repair operations.
Connection of the unit to power mains is allowed by a qualified electrician with a work permit for the electric units up to 1000 V after careful reading of the present user's manual.
Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.
While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.
Misuse of the unit and any unauthorised modifications are not allowed.
Transported air must not contain any dust or other solid impurities, sticky substances, or fibrous materials.
Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.
Do not close or block the intake or extract vents in order to ensure the efficient air flow.
Do not sit on the unit and do not put objects on it.
The information in this user's manual was correct at the time of the document's preparation.
The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.
Never touch the unit with wet or damp hands.
Never touch the unit when barefoot.
Do not install or use the product until all construction and finishing work has been completed in the room where it is to be installed.
BEFORE INSTALLING ADDITIONAL EXTERNAL DEVICES, READ THE RELEVANT USER MANUALS.



THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.

DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.

PURPOSE

The product is designed to ensure continuous mechanical air exchange in flats, cottages, hotels, cafés and other domestic and public premises. It is equipped with a heat exchanger that enables supply of fresh filtered air heated by means of reusing the heat contained in extract air.
The product is designed to be installed on external walls.
The product is designed to operate in premises only after all finishing work is complete.
The product is not designed for dehumidification, for example, of new buildings.
It is rated for continuous operation.

DELIVERY SET

Name	TwinFusion (E/E2) (ERV)	TwinFusion (E/E2) (ERV) EH TwinFusion (E/E2) (ERV) EH-2
Indoor unit	1 pc.	1 pc.
Plastic air duct	1 pc.	1 pc.
Assembled cartridge	1 pc.	1 pc.
Outer ventilation hood	–	1 pc.
Cardboard mounting template	1 pc.	1 pc.
Mounting kit	1 packing	1 packing
Mounting wedges	1 set	1 set
User's manual	1 pc.	1 pc.
Packing box	1 pc.	1 pc.

DESIGNATION KEY

TwinFusion E ERV EH-2

Outer hood model
_ – no hood
EH – outer hood "Slim" for thick walls;
EH-2 – outer hood for thin walls;

Heat exchanger type
_ – cross-flow and counter-flow heat exchanger
ERV – cross-flow and counter-flow heat exchanger with humidity recovery

Heater
_ – no heater
E – preheater
E2 – preheater and reheater

Product series
TwinFusion is a series of Wi-Fi-controlled supply and exhaust products with heat and humidity recovery, featuring a nominal air duct diameter of 250 mm

TECHNICAL DATA

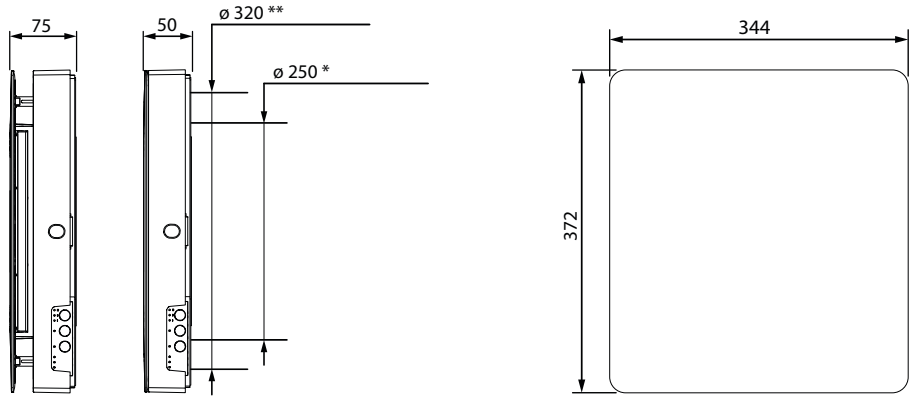
The product must be installed and operated indoors at an ambient temperature ranging from +1 °C to +40 °C and a relative humidity of up to 65% (without condensation).
The unit is rated as a class II electric appliance.
Ingress protection rating against access to hazardous parts and water ingress is IP24.
The product design is constantly being improved, thus some models may slightly differ from those described in this manual.

IF MOISTURE CONDENSATION OR ICING OCCURS INSIDE OR OUTSIDE THE UNIT'S CASING WHILE THE PRODUCT IS IN OPERATION, TURN OFF THE UNIT AND VENTILATE THE ROOM BY OTHER MEANS

Parameter	TwinFusion, TwinFusion ERV				TwinFusion E, TwinFusion E ERV				TwinFusion E2, TwinFusion E2 ERV			
Speed	1	2	3	Boost	1	2	3	Boost	1	2	3	Boost
Airflow (factory setting) [m³/h]	30	50	75	120	30	50	75	120	30	50	75	120
Power mains parameters	220–240 V 50/60 Hz											
Maximum power without heaters [W]	40				40				40			
Maximum preheater power [W]	–				200				200			
Maximum reheater power [W]	–				–				200			
Maximum current without heaters [A]	0.3				0.3				0.3			
Maximum current with heaters [A]	–				14				2.5			
Transported air temperature [°C]	–20…+40											
Supply filter ISO 16890 / EN 779:2012	ePM Coarse 90% / G3+G4 Optional: ePM1 70% / F8								Coarse 45% / G3			
Extract filter ISO 16890 / EN 779:2012	Coarse 45% / G3											
Heat exchanger type	counter-flow											
Heat recovery efficiency (EN 13141-8) [%]	85 (TwinFusion) 71 (TwinFusion ERV)											
Weight [kg]	~11											

If the conditions of use of the product are outside the specified limits, turn it off.
Use other means to ventilate the room.

OVERALL DIMENSIONS OF THE INDOOR UNITOF THE PRODUCT [MM]



*plastic air duct
**EPP air duct

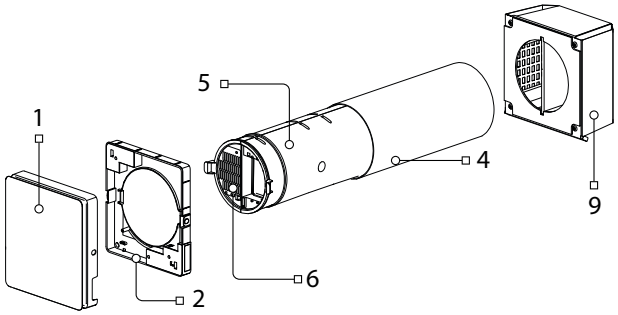
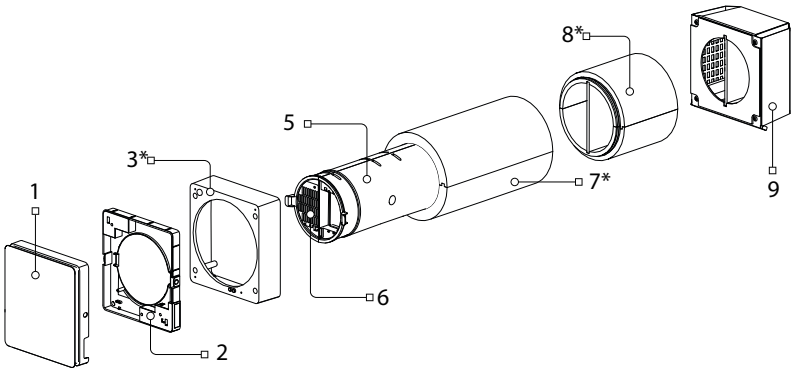
Wi-Fi technical data

Standard	IEFE 802,11, b/g/n
Frequency band [GHz]	2.4
Transmission power [mW] (dBm)	100(+20)
Network	DHCP
WLAN security	WPA, WPA2

DESIGN AND OPERATING PRINCIPLE

The product consists of an indoor unit with a decorative front panel, a cartridge located inside the mounting sleeve (air duct) and the outer ventilation hood (if available). The indoor unit houses the product's control elements. The design of the indoor unit ensures the separation of supply and exhaust airflows. The cartridge design includes two fans, a heat exchanger, and two air dampers.
A gravity damper is installed in the exhaust air duct, which opens under the action of airflow. When there is no airflow, it remains closed and prevents natural airflow into the room. An automated damper with an electric actuator is installed on the supply air duct.
It opens when the supply fan is running and closes when it is not running. The fans create supply and exhaust airflows.
Coarse filters are located in the path of the airflows. Exhaust air from the room enters the unit through the right side of the indoor unit, is filtered by the extract filter, then passes through the heat exchanger, and is exhausted outside through the left side of the outer hood by the exhaust fan. Fresh intake air from outside flows through the right side of the outer hood, enters the unit via the supply fan and is filtered through the supply filter. Then the air flows through the heat exchanger and is supplied to the room through the left side of the indoor unit. In the heat exchanger, the warmer air stream is cooled down, and in turn warms up the colder air stream.
The air streams remain separated.
During the cold season, the supply air in the heat exchanger is heated by the thermal energy of the warm exhaust air.
During the warm season, if the air conditioner is running in the room, the supply air is cooled as it transfers thermal energy to the exhaust air.
Heat recovery reduces the cost of heating and cooling the premises.
In **TwinFusion models**, condensate may form and is discharged outdoors through an outer ventilation hood.
TwinFusion ERV models use a heat exchanger with humidity recovery, which recovers not only heat but also humidity.
In the summer, the heat recovery unit cools and dehumidifies the supply air, and in the winter, it heats up and humidifies it.

The main components of the product include:

Delivery set	Delivery set with additional components to accommodate different wall thicknesses
	

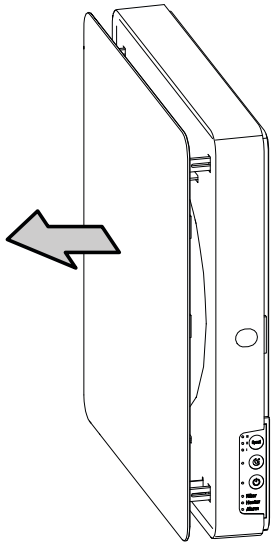
1. Front section of the indoor unit with a front panel.
2. Stationary part of the indoor unit.
3. DC TwinFusion spacer. *
4. Plastic mounting channel.
5. Cartridge.
6. Supply air reheater for TwinFusion E2 and TwinFusion E2 ERV models.
   Coarse filter for TwinFusion, TwinFusion ERV, TwinFusion E, TwinFusion E ERV models.
   Fine filter for TwinFusion, TwinFusion ERV, TwinFusion E, TwinFusion E ERV models*.
7. TC TwinFusion 545x320 EPP thermal insulation installation duct. *
8. DE TwinFusion 282x320 EPP installation duct extension *
9. Outer ventilation hood

* Optional purchase item; not included in the delivery set.

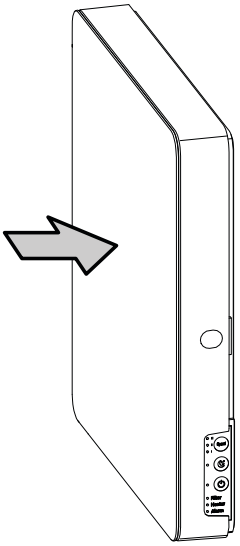
Opening/shutting off the airflow

To close the air duct, gently press down on the front panel until the air duct is completely closed.
To open the air duct, gently pull the front panel towards you with both hands.
The unit functionality is not changed after the airflow is reopened.
If there is a sudden power outage while the unit is turned on, it is recommended that you close the front panel of the unit all the way, as shown in the figure below, to prevent unwanted drafts.

Opening the airflow



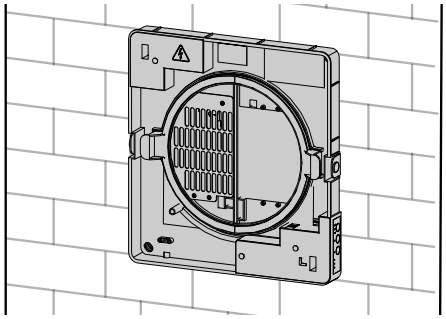
Shutting off the airflow



MOUNTING AND SET-UP

DO NOT BLOCK THE AIR DUCT OF THE INSTALLED UNIT WITH DUST ACCUMULATING MATERIALS, SUCH AS CURTAINS, CLOTH SHUTTERS, ETC. AS IT PREVENTS AIR CIRCULATION IN THE ROOM.

The product has only one operating position.



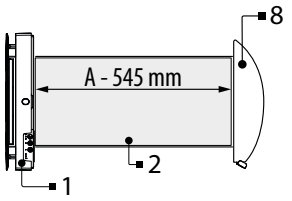
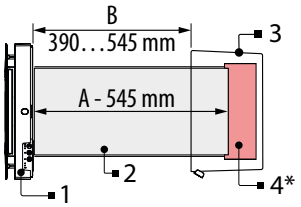
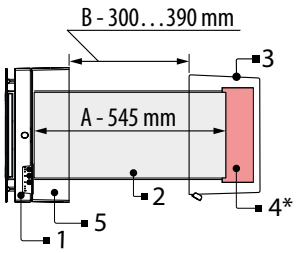
Mounting in walls of various thicknesses

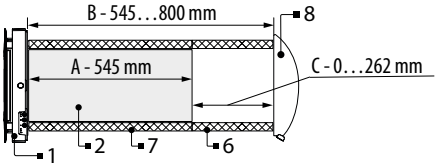
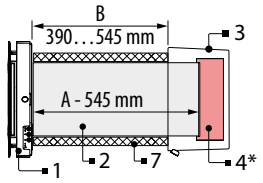
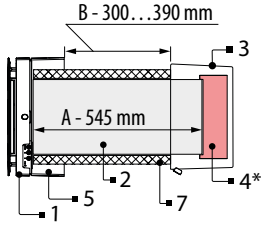
Choose the method to make the product fit the outer wall thickness before ordering the product and any additional components.
The product's cartridge length is 545 mm.
When installing in walls thinner than 545 mm, an outer ventilation hood for thin walls EH-2 TwinFusion 250 and an inner spacer body DC TwinFusion, can be used to partially compensate for the cartridge length.
When installing in walls thicker than 545 mm, use the DE TwinFusion 282x320 EPP, air duct extension, which can be trimmed to match the required length. Multiple extensions may be used.

The product installation layout in the wall can be determined using the data provided in the table below.

For products with a plastic installation duct with a diameter of 250 mm.

Wall thickness range: 300…545 mm

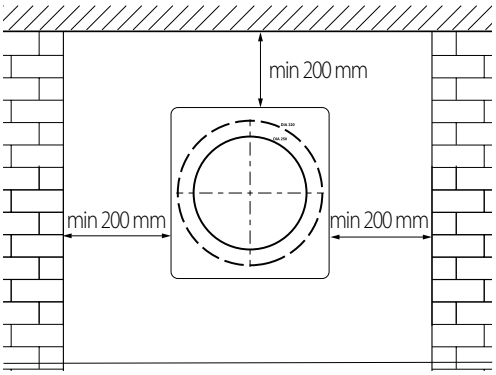
Wall thickness		
Exactly 545 mm	Use the EH TwinFusion 250 hood	
From 390 mm up to 545 mm	Use the EEH-2 TwinFusion 250 cover for thin walls and trim the partition	
From 300 mm up to 390 mm	Use the DC TwinFusion indoor unit spacer and the EH-2 TwinFusion 250 thin-wall hood, and trim the partition	

<table>
<tr><th colspan="3">For units with a thermal insulation mounting channel made of EPP with a diameter of 320 mm
(TC TwinFusion 545x320 EPP).
Wall thickness range: 300…800 mm</th></tr>
<tr><td>Wall thickness</td><td></td><td></td></tr>
<tr><td>From 545 mm up to 800 mm</td><td>Use the DE TwinFusion 282x320 EPP extension with trimming</td><td>
</td></tr>
<tr><td>From 390 mm up to 545 mm</td><td>Use the EH-2 TwinFusion 250 cap for thin walls with a partition trimming and EPP mounting channel trimming</td><td>
</td></tr>
<tr><td>From 300 mm up to 390 mm</td><td>Use the DC TwinFusion indoor unit spacer and the EH-2 320 thin-wall hood with a partition trimming</td><td>
</td></tr>
<tr><td>Designation key</td><td colspan="2">1. Indoor unit;
2. Cartridge;
3. EH-2 TwinFusion 250 outer ventilation hood for thin walls;
4. Trimmed hood partition;
5. DC TwinFusion indoor unit spacer;
6. DE TwinFusion 282x320 EPP extension;
7. TC TwinFusion 545x320 EPP thermal insulation mounting channel;
8. EH TwinFusion 250 outer ventilation hood for thick walls,</td></tr>
<tr><td></td><td colspan="2">A – Cartridge length (545 mm)
B – Wall thickness
C – Length of the extender DE TwinFusion 282x320 EPP.

* The partition, which is part of the EH-2 TwinFusion 250 hood for thin walls, is 175 mm long.
It can be trimmed by a maximum of 150 mm, leaving at least 25 mm.</td></tr>
</table>

To install the product, follow the steps below in order:

1. Prepare a round core horizontal hole in the outer wall.
To ensure optimal air distribution in the room, it is recommended to adhere to the minimum clearance distances from the indoor unit casing to surrounding obstacles when selecting the installation location.

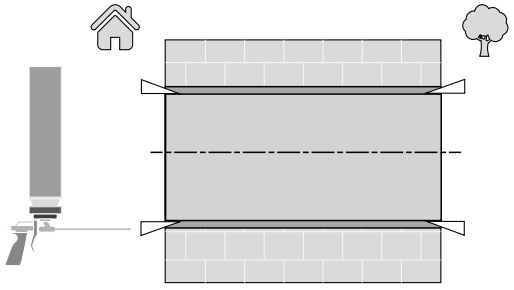


The hole diameter is 270 mm for models with a plastic mounting sleeve and 340 mm for models with the **TC TwinFusion 545x320 EPP** insulated mounting channel.

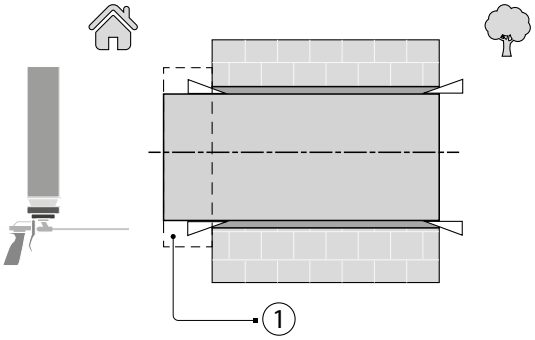
2. If using the **TC TwinFusion 545x320 EPP** installation channel, trim it down to match the required length.
Fit the mounting sleeve or the **TC TwinFusion 545x320 EPP** mounting channel into the wall, making sure it is perfectly horizontal and not tilted.
For ease of installation use the mounting wedges included in the delivery set.

Below is a schematic diagram showing the relative positions of the mounting sleeve, the wall, and other structural elements of the product.

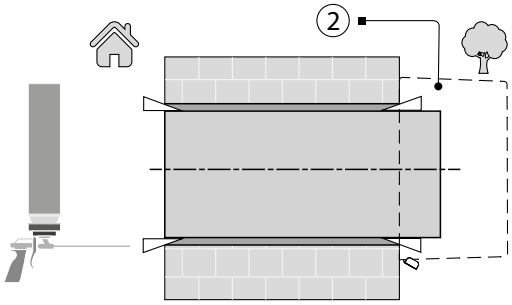
Mounting in a wall exactly 545 mm thick
(TC TwinFusion 545x320 EPP mounting sleeve or mounting channel)



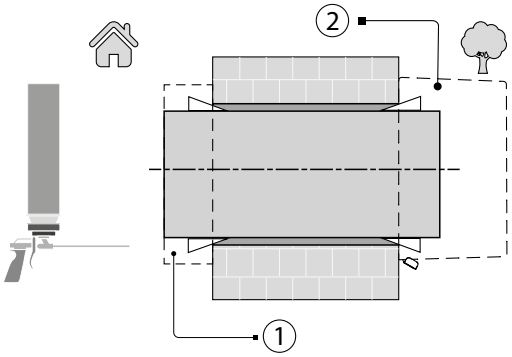
Mounting in a wall less than 545 mm thick
(TC TwinFusion 545x320 EPP mounting sleeve or mounting channel)



Mounting in a wall less than 545 mm thick
(mounting sleeve)



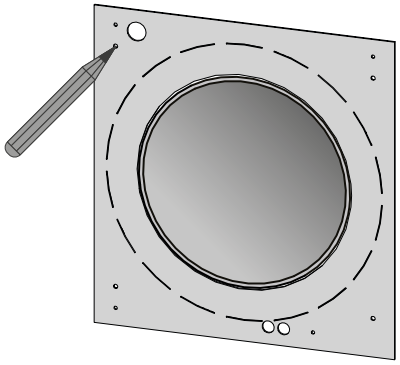
Mounting in a wall less than 545 mm thick
(mounting sleeve)



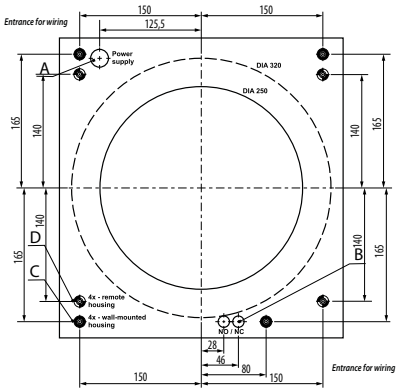
1. **DC TwinFusion** spacer casing 2.**EH-2 TwinFusion 250** outer ventilation hood.

3. Install the outer ventilation hood. The installation procedure of the outer ventilation hood is described in its installation instruction.

4. On the indoor side, place the cardboard template from the delivery set against the wall. The large opening in the master plate must be coaxial wth the mounting sleeve. Align the master plate horizontally with a level. Secure the template to the wall in this position.
Then mark the fastening holes for installation of the supplied dowels and drill the holes to a required depth.
The indoor unit and the spacer casing have different mounting hole locations.
When marking with the template, use the diagram corresponding to the unit being installed on the wall.
Route the power cable from the wall through the marked opening on the template.
If external devices are used, their cables must also be routed through the corresponding locations marked on the template.

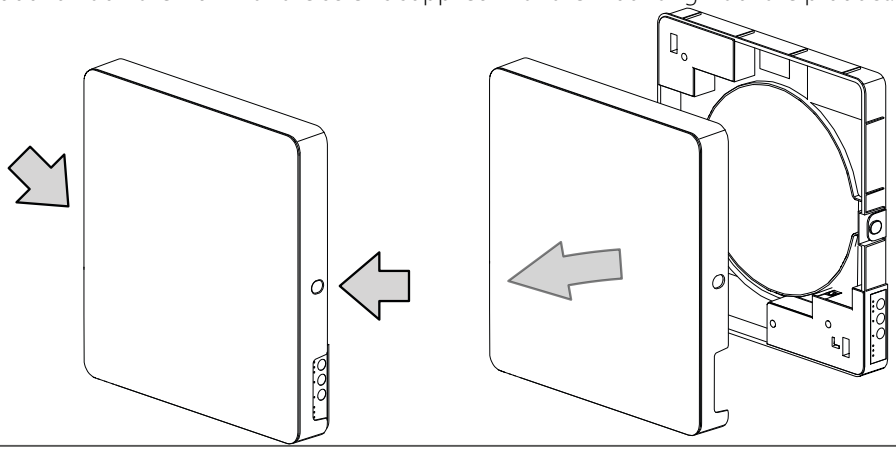


Marking the holes to fasten the unit

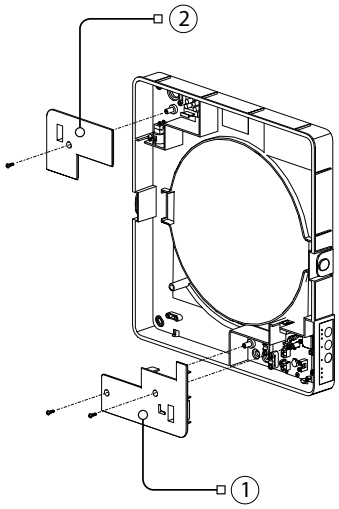


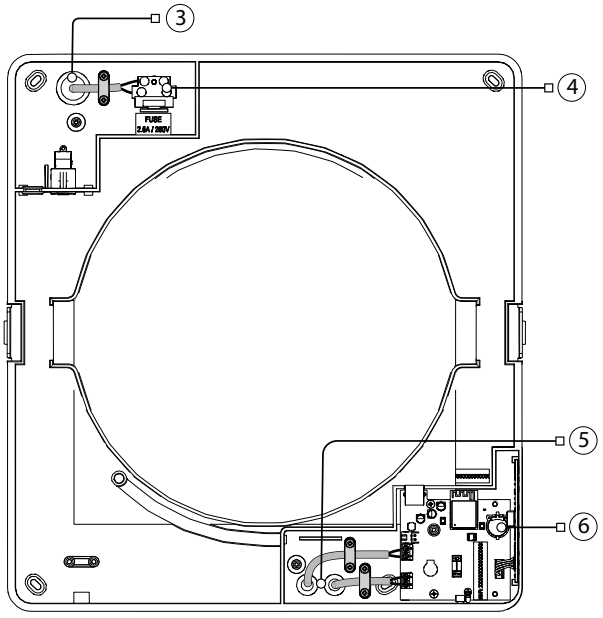
A – power input location; **B** – signal cable input location; **C** – mounting hole markings for the indoor unit;
D – mounting hole markings for the spacer insert;

5. Separate the front panel of the indoor unit from its back part.
To do this, press the round buttons on the top and bottom of the indoor unit simultaneously, as shown on the left in the figure below.
Fix the back part of the indoor unit on the wall with the screws supplied with the mounting kit of the product.



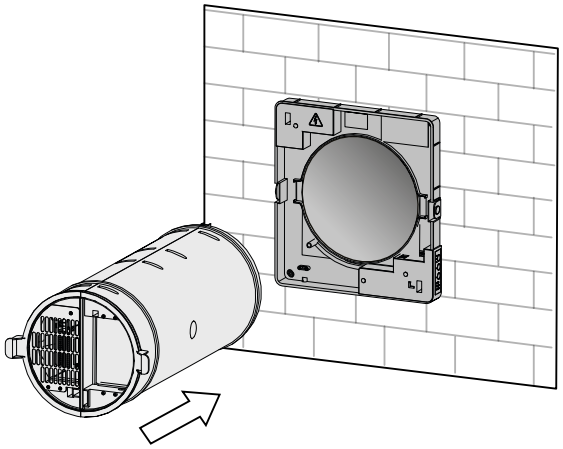
6. Remove the three retaining screws from the controller cover to enable access to the terminals.
Route the power cord through the appropriate cable gland.
Connect it to the power terminal block.
Connect the cables from external devices to the corresponding terminal blocks on the controller board in accordance with the external connection diagram, if used.
Secure all cables with cable clamps.



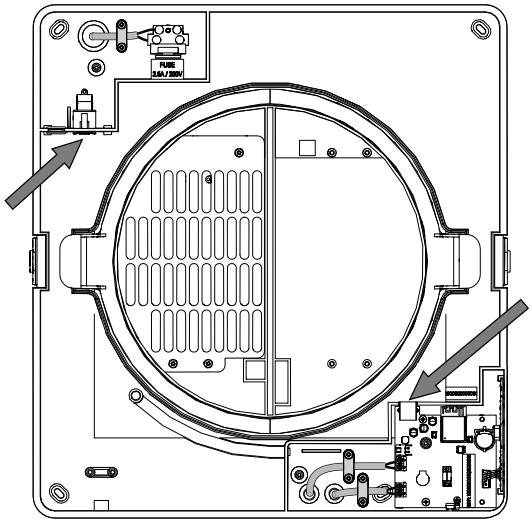


1. Cover for the cable entry point, connection terminals, and fuse
2. Controller board cover
3. Cable glands for power cables
4. Power terminal block integrated with the fuse
5. Cable gland for external devices
6. Battery

7. Install the cartridge into the mounting sleeve as shown in the figure below.

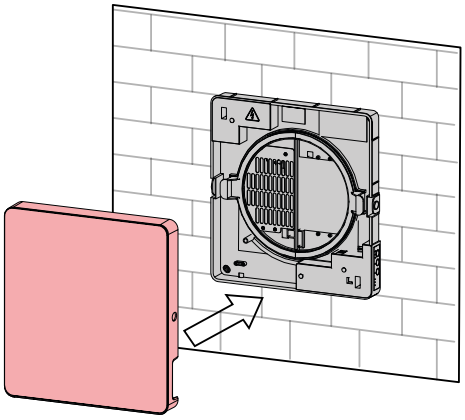


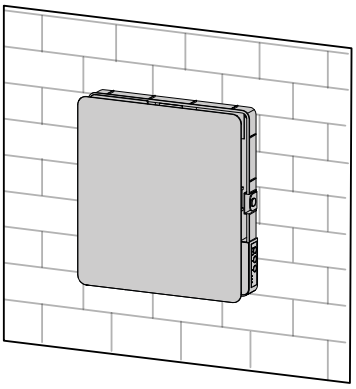
8. Plug the cartridge connectors into the indoor unit at the points indicated by the arrows.



9. After connecting, reinstall and secure the controller board cover and the power terminal block cover.

10. Install the front panel of the indoor unit.





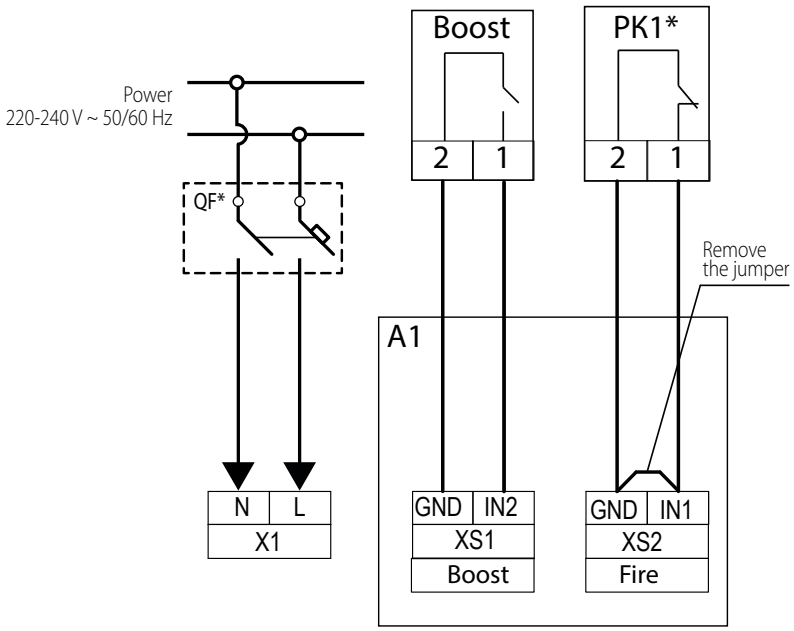
CONNECTION TO POWER MAINS

The unit is designed for connection to power mains with the parameters specified in the technical data table.
The connection must be made using durable, insulated and heat-resistant conductors (cables, wires).
The product must be connected to the power mains using insulated, flexible conductors (cables, wires) with the minimum cross section of 0.5-0.75 mm^2 for the power cable. The cable cross section is given for reference only.
The actual conductor cross-section selection must be based on its type, maximum permissible heating, insulation, length and installation method. Use copper wires for all the electric connections!
Connect the unit to power mains via the terminal block installed in the controller board in compliance with the wiring diagram and terminal designation.

The external power input must be equipped with an automatic circuit breaker built into the stationary wiring to open the circuit in the event of overload or short-circuit.
The position of the external circuit breaker must ensure free access for quick unit power-off.
The trip current of the automatic circuit breaker must exceed the maximum current consumption of the unit (see the "Technical data" section or to the unit label).
It is recommended to select the rated current of the circuit breaker from the standard series, following the maximum current of the connected unit.
The circuit breaker is not included in the delivery set.

The product's design enables connecting any external controls with a normally opened contact (NO contact), such as an external CO2 sensor, a humidity sensor, a switch, etc.
When the NO contact of the external device is closed, the unit turns to the maximum airflow.

EXTERNAL WIRING DIAGRAM



Designation	Name	Wire type	Type of contact	Note
Boost	Boost Mode On/Off Contact	2×0.5	NO	
PK1*	Fire alarm control panel	2×0.5	NO	Remove the jumper

*The product is not included in the delivery set.

CONTROL

Controlling the product with buttons on the indoor unit

The table below shows the buttons and indicators on the indoor unit of the product with a detailed description of their purpose and functionality.

Speed	The speed selection sequence is as follows: I-II-III. **I**: steady indicator glowing indicates that the product is operating at Speed I. **I** and **II**: steady glowing of the indicators I and II indicates that the product is running at Speed II. **I**, **II** and **III**: steady glowing of the indicators I, II and III indicates that the product is running at Speed III. Simultaneous blinking of the indicators I, II and III indicates that the Boost turn-off delay timer is active when the connected external sensors or the integrated humidity sensor get triggered. Alternate blinking of the indicators I, II and III indicates that the product is running at the speed set with the mobile app using the slider for manual speed setting, or indicating that the **Weekly Schedule** mode is activated.
	Night timer. The timer activates the product at Speed I for a set time period (8 hours by default). The timer setting may be changed when setting up the product on a mobile device. The ventilator reverts to the previous speed setting when the timer elapses. Press any speed setting key to deactivate the timer or press this button again. Hold the timer button (for ca. 3 sec.) to put the ventilator into "Setup mode." When all the indicators on the casing of the product are flashing simultaneously, it indicates that the Setup mode is enabled.
	ON / Standby
Indicators on the indoor unit	
Filter	Additional settings for filter replacement intervals are available in the mobile app. 90 days after the cartridge is inserted, the filter replacement indicator will start flashing. In this case, clean or replace the filters (see section Technical maintenance). After the filters are replaced, reset the timer using the mobile app or press and hold both the and Speed buttons on the Primary indoor unit for 3 – 5 seconds simultaneously until it beeps. Additional settings for filter replacement intervals are available in the mobile app.
Heater	A steady indicator light indicates that the heater is on.
Alarm	A steady indicator light indicates a fault. A flashing indicator indicates a warning. If the indicator is off, the device is operating normally.
The brightness of the indicators can be adjusted in the mobile app.	

Controlling the device using the Vents Home app

Download the Vents Home app and install it on the mobile device.

Vents Home – App Store	**Vents Home** – Play Market

The product on the factory settings operates as a Wi-Fi access point with the name FAN: + 16 characters of the ID number indicated on the device casing under the front panel.
Wi-Fi access point password: 11111111.
Follow the instructions in the mobile app to connect the device.
The app allows configuring the ventilator to connect via your home Wi-Fi network and via a cloud server.

Controlling the device using the Smart Home system

The products are connected to the Smart Home system in accordance with the appropriate user manual.

Product operation modes

Standard	This is the main operating mode of the unit. The unit's fans operate at one of the three speeds (1, 2, or 3). The **TwinFusion E2** and **TwinFusion E2 ERV** models can use a preheater to preheat the supply air. You can enable or disable the use of the preheater in the mobile app.
Ventilation	The product runs either in the air exhaust and air supply mode at a set speed. In this mode, one of the fans—either the supply or exhaust fan—operates.
Timer	After activating the timer using the button on the indoor unit or via the mobile app, the unit operates for a specified duration at a specific speed (by default, the night timer runs for 8 hours at speed 1). Once the timer elapses, the unit returns to its default operating mode.
Boost	Upon receiving a signal from an external device or when the built-in humidity sensor is triggered, **Boost** mode is enabled, and the unit switches to the speed preset for **Boost** mode in the mobile app. Once the signal is lost, **Boost** mode is disabled, and the unit's speed returns to its previous level. **Boost** mode is enabled and disabled with delays whose durations can be set in the mobile app.
Standby	The mode in which the device is turned off via the mobile app or remote control.
Setup mode	It is activated by pressing and holding the timer button on the device's casing. The ventilator will stay in this mode for 3 minutes, after which it will automatically return to the previous settings. To exit the Setup mode immediately, press and hold the timer button for 5 seconds until it beeps and all the LED lights stop flashing. In this mode the following settings are available for the Primary product: • Wi-Fi name: Setup mode. • Wi-Fi password: 11111111. • The device password is ignored.
Frost protection	To prevent the heat exchanger from frost during the cold season, the unit features a protection algorithm based on readings from the temperature sensor in the exhaust air duct downstream of the heat exchanger. The algorithm is activated when extract air temperature drops below +5 °C. If the conditions of this algorithm cannot be met, the device enters Standby mode and emits a "Fault" signal.
	For TwinFusion and TwinFusion ERV models, the supply fan will cycle on and off. If the risk of the heat exchanger freezing persists, the ventilator switches to Standby mode and sends a Fault signal.
	For TwinFusion E, TwinFusion E ERV, TwinFusion E2 and TwinFusion E2 ERV models, the preheater is activated; if this proves insufficient, the performance of both fans is reduced. If the risk of the heat exchanger freezing persists, the unit switches to Standby mode and sends a Fault signal. In the mobile app, the user can select a type of frost protection that does not use the preheater. In this case, the frost protection algorithm becomes similar to that of the TwinFusion and TwinFusion ERV models.
	Once the temperature has risen, reset the error in the mobile app and restart the unit using the  button. The unit will return to its previous operating mode.

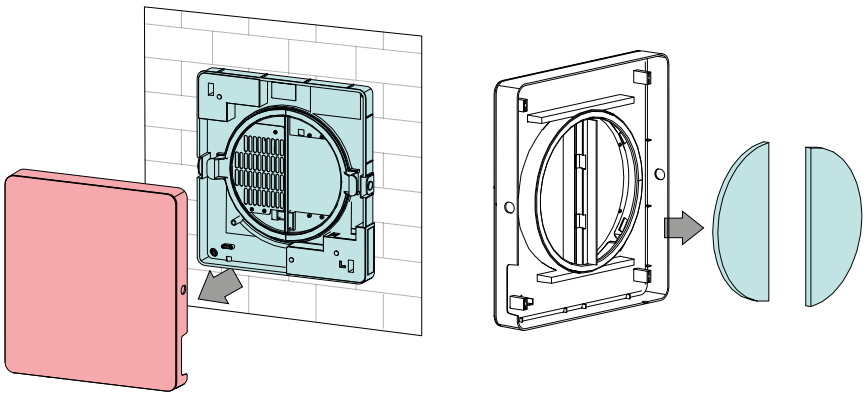
TECHNICAL MAINTENANCE

DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!

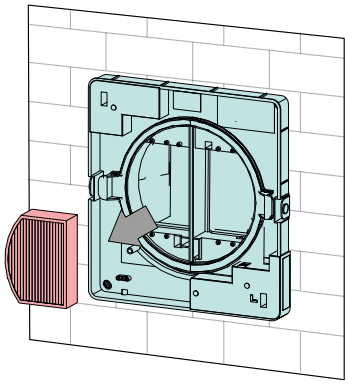
MAKE SURE THE UNIT IS DISCONNECTED FROM POWER MAINS BEFORE REMOVING THE PROTECTION.

Maintenance of the ventilator means regular cleaning of the ventilator surfaces of dust and cleaning and replacement of the filters.
To enable access to the main units, follow the procedure described below. The ventilator must be previously turned off using the remote control or the buttons on the indoor unit. Then turn off power supply completely.

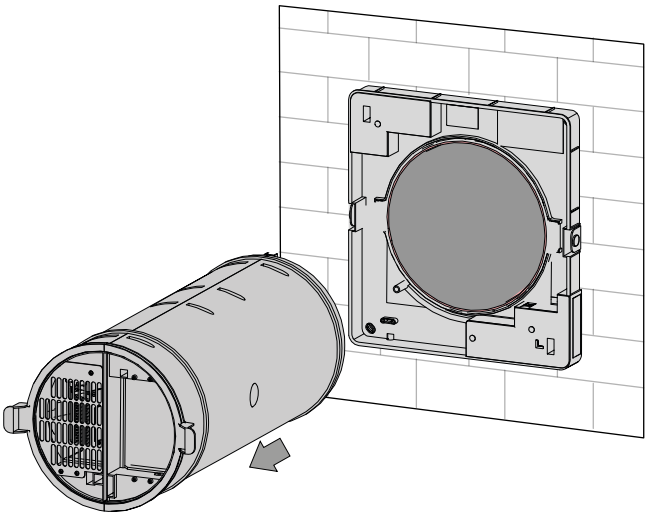
1. Remove the front panel of the indoor control unit as shown in the "Installation and set-up" section.
Remove the coarse filters from the indoor unit.



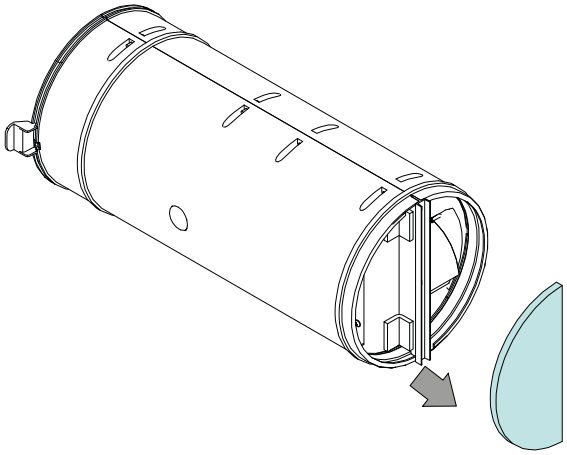
If an additional filter is installed, remove it and clean it with a vacuum cleaner.



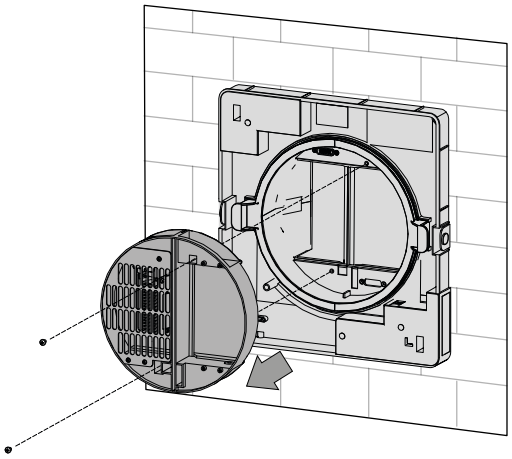
2. Disconnect the cartridge's electrical connectors from the indoor unit and remove the cartridge.

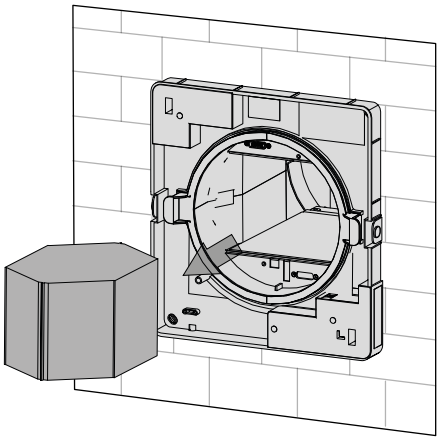


3. Remove the coarse filter located in the supply air duct from the cartridge.



4. To remove the heat exchanger, you must first remove the mounting assembly for the auxiliary filter (reheater).
To do this, unscrew the two screws and pull the assembly toward yourself, as shown in the figure below.
Then remove the heat exchanger.





5. Clean filters as they get clogged.
Upon elapse of the set number of days the filter replacement indicator (Filter) starts glowing steadily.
Depending on how dusty the air is, the duration of the product's operation until the next filter cleaning may vary.
The duration of the period when the filter replacement indicator is turned on can be set using the mobile app in the range from 70 to 365 days of continuous operation (by default, the Manufacturer's recommended value is set to 90 days).

- Reset the filter timer using the app on your mobile device or using the button on the indoor unit of the product, as described in the "Filter" subsection of the "Unit Control" section using buttons on the indoor unit.
- Replace or wash the coarse filters and let those dry out completely.
- Install the dry filters in their place and assemble the unit in the reverse order.
- It is allowed to clean the coarse filter with a vacuum cleaner.
- The coarse filter service life is 3 years.

6. Maintain the filters as they get clogged to ensure high recovery efficiency.
Some dust may accumulate on the side of the heat exchanger even in case of regular maintenance of the filters. Vacuum clean the heat exchanger not less than once a year.

POSSIBLE FAULTS AND TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
When switching on the ventilator, the fan does not start.	No power supply.	Make sure the power supply line is connected correctly, otherwise troubleshoot the connection error.
	The motor is jammed, the impeller blades are clogged.	Turn the ventilator off. Troubleshoot the motor jam and impeller clogging. Clean the blades. Turn the ventilator on.
Circuit breaker tripping during the ventilation unit start-up.	Overcurrent as a result of short circuit in the electric circuit.	Turn the ventilator off. Contact the Seller for further information.
Low air flow.	Low set fan speed.	Set higher speed.
	The filters, the fan or the regenerator is clogged.	Clean or replace the filter. Clean the fan and the heat exchanger.
Increased noise, vibration.	The impeller is clogged.	Clean the impeller.
	Loose screw connection of the unit casing or the outer ventilation hood.	Tighten the screws of the ventilator or the outer ventilation hood.

STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +5 ˚C to +40 ˚C and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

MANUFACTURER'S WARRANTY

The product is in compliance with EU norms and standards on low voltage guidelines and electromagnetic compatibility. We hereby declare that the product complies with the provisions of Electromagnetic Compatibility (EMC) Directive 2014/30/EU of the European Parliament and of the Council, Low Voltage Directive (LVD) 2014/35/EU of the European Parliament and of the Council and CE-marking Council Directive 93/68/EEC. This certificate is issued following test carried out on samples of the product referred to above.
The manufacturer hereby warrants normal operation of the unit for 24 months after the retail sale date provided the user's observance of the transportation, storage, installation, and operation regulations. Should any malfunctions occur in the course of the unit operation through the Manufacturer's fault during the guaranteed period of operation, the user is entitled to get all the faults eliminated by the manufacturer by means of warranty repair at the factory free of charge. The warranty repair includes work specific to elimination of faults in the unit operation to ensure its intended use by the user within the guaranteed period of operation. The faults are eliminated by means of replacement or repair of the unit components or a specific part of such unit component.

The warranty repair does not include:
- routine technical maintenance
- unit installation/dismantling
- unit setup

To benefit from warranty repair, the user must provide the unit, the user's manual with the purchase date stamp, and the payment paperwork certifying the purchase. The unit model must comply with the one stated in the user's manual. Contact the Seller for warranty service.

The manufacturer's warranty does not apply to the following cases:
- User's failure to submit the unit with the entire delivery package as stated in the user's manual including submission with missing component parts previously dismounted by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packaging and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- Damage to the unit casing and internal components caused by the user.
- Redesign or engineering changes to the unit.
- Replacement and use of any assemblies, parts and components not approved by the manufacturer.
- Unit misuse.
- Violation of the unit installation regulations by the user.
- Violation of the unit control regulations by the user.
- Unit connection to power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in power mains.
- Discretionary repair of the unit by the user.
- Unit repair by any persons without the manufacturer's authorization.
- Expiration of the unit warranty period.
- Violation of the unit transportation regulations by the user.
- Violation of the unit storage regulations by the user.
- Wrongful actions against the unit committed by third parties.
- Unit breakdown due to circumstances of insuperable force (fire, flood, earthquake, war, hostilities of any kind, blockades).
- Missing seals if provided by the user's manual.
- Failure to submit the user's manual with the unit purchase date stamp.
- Missing payment paperwork certifying the unit purchase.

FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT

USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP

CERTIFICATE OF ACCEPTANCE

Unit Type	Single-room supply & exhaust heat & humidity recovery ventilator
Model	
Serial Number	
Manufacture Date	
Quality Inspector's Stamp	

SELLER INFORMATION

Seller	
Address	
Phone Number	
E-mail	
Purchase Date	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
Customer's Signature	

Seller's Stamp

INSTALLATION CERTIFICATE

The _____ unit is installed pursuant to the requirements stated in the present user's manual.		
Company name		
Address		
Phone Number		
Installation Technician's Full Name		
Installation Date:	**Signature:**	
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.		
Signature:		

Installation Stamp

WARRANTY CARD

Unit Type	Single-room supply & exhaust heat & humidity recovery ventilator
Model	
Serial Number	
Manufacture Date	
Purchase Date	
Warranty Period	
Seller	

Seller's Stamp



Manufacturer: Ventilation Systems LLC,
Ukraine, Kyiv, 1 M. Kotsyubynskoho Street
Address of production facilities:
Ukraine, Kyiv Region, Fastiv District, Boyarka, 36 Sobornosti Street

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