



WALL VENT



FRESHER 50

EN OPERATION MANUAL

 **BLAUBERG**
Ventilatoren

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The user’s manual consisting of the technical details, operating instructions and technical specification applies to the installation and mounting of the wall vent FRESHER 50 (hereinafter «wall vent» or «the unit» as mentioned in the «Safety requirements» and «Manufacturer’s warranty» sections as well as in warnings and information blocks).

SAFETY REQUIREMENTS

Read the user’s manual carefully prior to installing and operating the unit.

Fulfil the user’s manual requirements as well as the provisions of all the applicable local and national construction, electrical and technical norms and standards.



The warnings contained in the user’s manual must be considered most seriously since they contain vital personal safety information.

Failure to follow the rules and safety precautions noted in this user’s manual may result in an injury or unit damage.

After a careful reading of the manual, keep it for the entire service life of the unit.

While transferring the unit control the user’s manual must be turned over to the receiving operator.

Symbol legend:

	WARNING!
	DO NOT!

UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



- Disconnect the unit from power mains prior to any installation operations.



- Unpack the unit with care.



- Do not lay the power cable of the unit in close proximity to heating equipment.



- While installing the unit follow the safety regulations specific to the use of electric tools.



- Do not use damaged equipment or cables when connecting the unit to power mains.



- Do not operate the unit outside the temperature range stated in the user's manual.
- Do not operate the unit in aggressive or explosive environments.



- Do not touch the unit controls with wet hands.
- Do not carry out the installation and maintenance operations with wet hands.



- Do not wash the unit with water.
- Protect the electric parts of the unit against ingress of water.

UNIT MOUNTING AND OPERATION SAFETY PRECAUTIONS



- Do not allow children to operate the unit.



- Disconnect the unit from power mains prior to any technical maintenance.



- Do not store any explosive or highly flammable substances in close proximity to the unit.



- When the unit generates unusual sounds, odour or emits smoke disconnect it from power supply and contact the Seller.



- Do not open the unit during operation.



- Do not direct the air flow produced by the unit towards open flame or ignition sources.



- Do not block the air duct when the unit is switched on.



- In case of continuous operation of the unit periodically check the security of mounting.



- Do not sit on the unit and avoid placing foreign objects on it.



- Use the unit only for its intended purpose.



**THE PRODUCT MUST BE COLLECTED SEPARATELY AT THE END OF SERVICE LIFE.
DO NOT DISPOSE OF AS UNSORTED MUNICIPAL WASTE.**

PURPOSE

The unit is designed to ensure continuous mechanical air supply in houses, offices, hotels, cafés, conference halls and other utility and public spaces.

The wall vent is equipped with a coarse and a fine filter, used for fresh filtered air supply to premises.

The wall vent is designed for wall flush mounting.



THE UNIT MAY NOT BE OPERATED BY CHILDREN OR PERSONS WITH REDUCED PHYSICAL, MENTAL OR SENSORY CAPACITIES, OR LACKING THE APPROPRIATE TRAINING.

THE UNIT MUST BE INSTALLED AND CONNECTED ONLY BY PROPERLY QUALIFIED PERSONNEL AFTER THE APPROPRIATE BRIEFING.

THE CHOICE OF UNIT INSTALLATION LOCATION MUST PREVENT UNAUTHORIZED ACCESS BY UNATTENDED CHILDREN.

The unit is rated for continuous operation.

Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).

DELIVERY SET

Name	Number
Indoor unit of the wall vent	1 item
Air duct	1 item
Sound-absorbing material	1 item
Assembled cartridge	1 item
Outer ventilation hood	1 item
Remote control	1 item
Cardboard template	1 item
Mounting kit	2 packs
User's manual	1 item
Mounting hood installation instruction	1 item
Packing box	1 item

TECHNICAL DATA

The wall vent is rated for indoor application at ambient temperatures of between -30 °C (-22 °F) and +50 °C (+122 °F) and relative humidity up to 97 %.

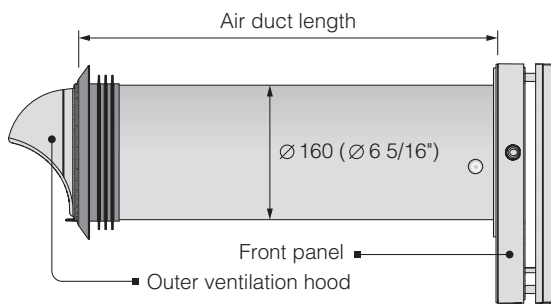
The wall vent is rated as a class II electric appliance.

Ingress Protection (IP) rating from solid objects and liquids IP 24.

The wall vent design is regularly improved, so some models may slightly differ from those ones described in this manual.

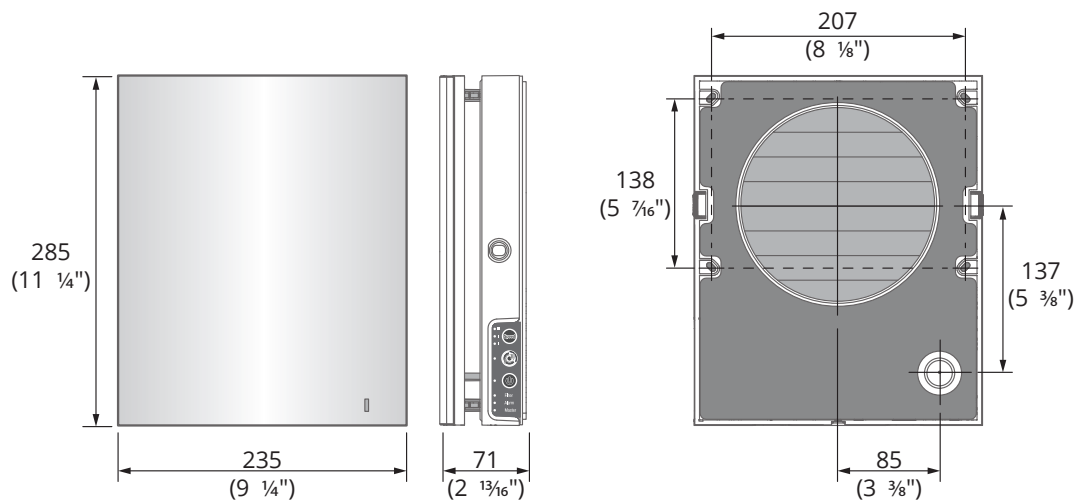
TECHNICAL DATA

Speed	I	II	III
Unit voltage [V/50-60 Hz]	1~100-240		
Power [W]	3.8	4.7	6.6
Current [A]	0.031	0.039	0.056
Air capacity [m ³ /h (CFM)]	20 (12)	35 (21)	50 (29)
Filters	F8+G3		
Transported air temperature [°C(°F)]	from -30 (-22) up to +50 (122)		
Noise level, 1 m [dB(A) (Sones)]	22 (0.6)	29 (1.0)	32 (1.2)
Noise level, 3 m [dB(A) (Sones)]	13 (0.3)	20 (0.5)	23 (0.6)
Noise level attenuation [dB(A) (Sones)]	41 (2.5)		
PM 2.5 removal efficiency [%]	98		
Ingress protection	IP 24		



The air duct length depends on the unit model.
 The supplied ventilation hood model depends on the wall vent model.
 The overall dimensions of the outer ventilation hood are stated in the installation instruction.

THE OVERALL DIMENSIONS OF THE FRONT PANEL ARE STATED BELOW.



UNIT DESIGN AND OPERATING LOGIC

The wall vent consists of an indoor unit with a decorative front panel, a cartridge, an air duct, a sound absorbing material and an outer ventilation hood.

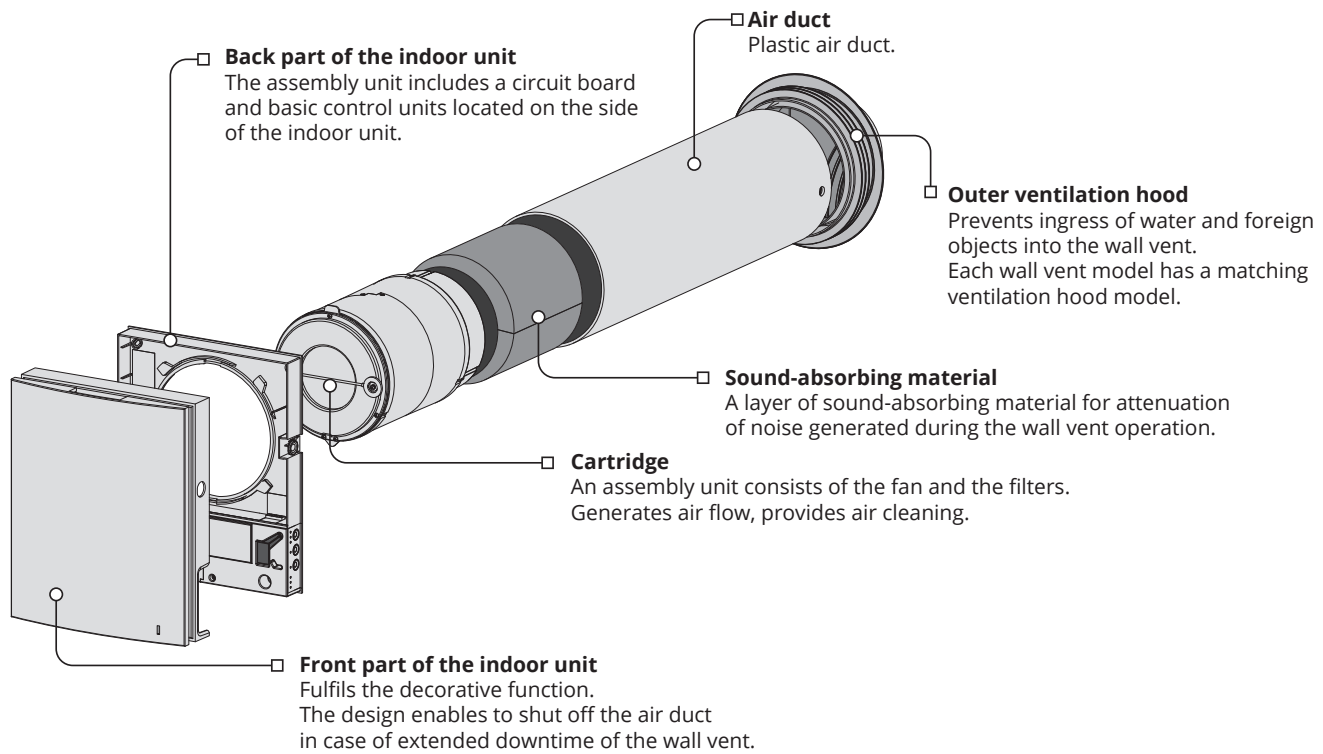
Cartridge is the basic functioning part of the wall vent.

The cartridge consists of a fan and two filters that ensure coarse and fine air filtration and prevent ingress of dust and foreign objects into the fan.

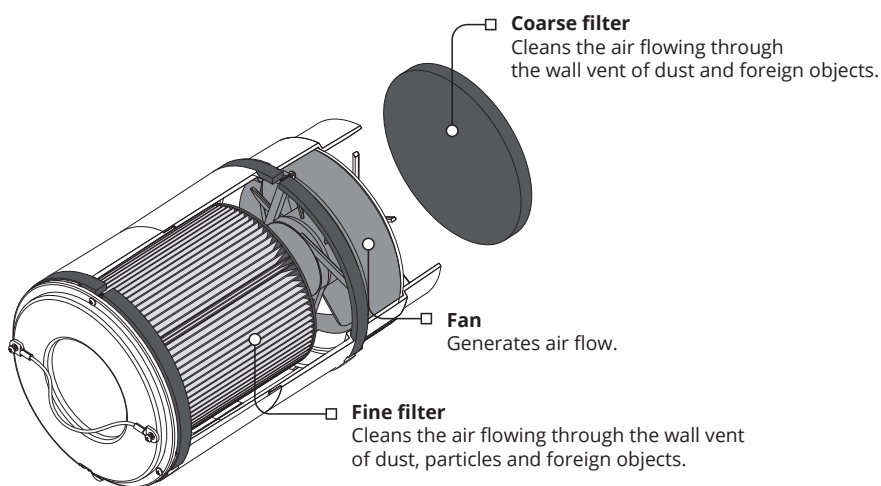
The indoor unit is equipped with automatic shutters that close during the wall vent standstill and prevent air backdraft (only for standard models of wall vents).

The outer ventilation hood is used to prevent direct ingress of water and other objects to the ventilator.

WALL VENT DESIGN



CARTRIDGE DESIGN



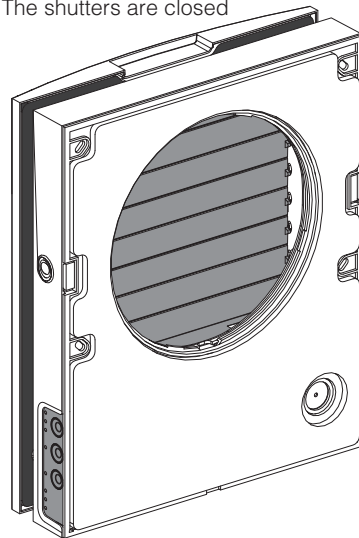
Cartridge is a solid block consisting of the fan and the coarse and fine filters.

The filters are easy removable for technical maintenance.

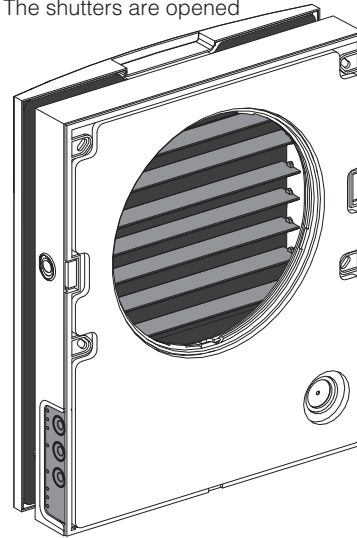
OPERATING LOGIC OF THE AUTOMATIC SHUTTERS

The indoor unit is in the basic version equipped with automatic shutters.
During the wall vent operation the automatic shutters are opened and let the air flow freely through the wall vent.
The automatic shutters are closed within 2 minutes at the wall vent shut down.

The shutters are closed




The shutters are opened

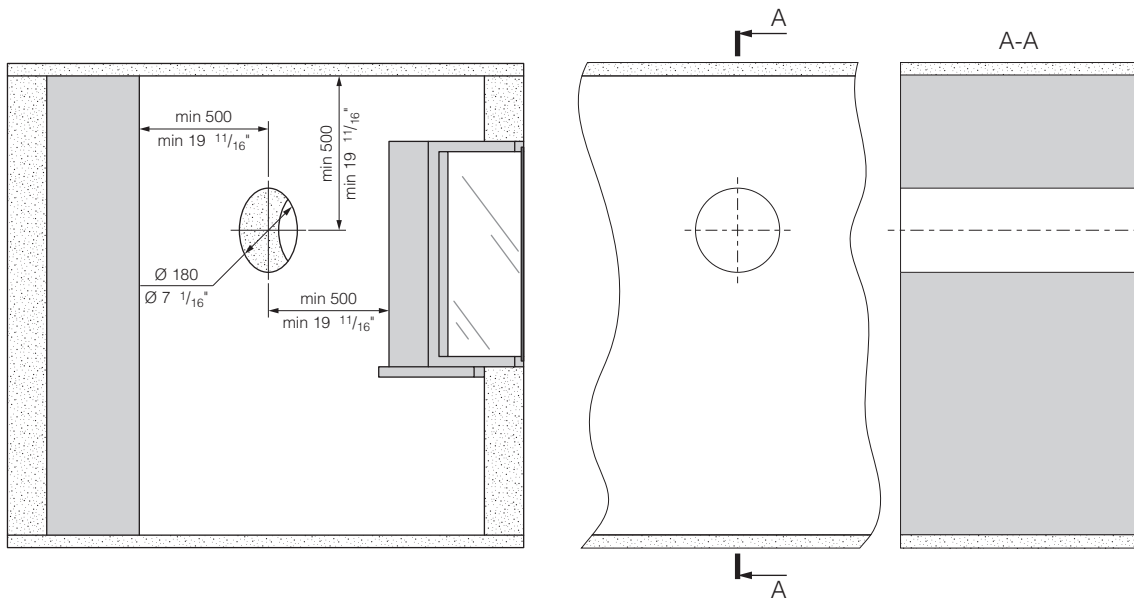


MOUNTING AND SET-UP

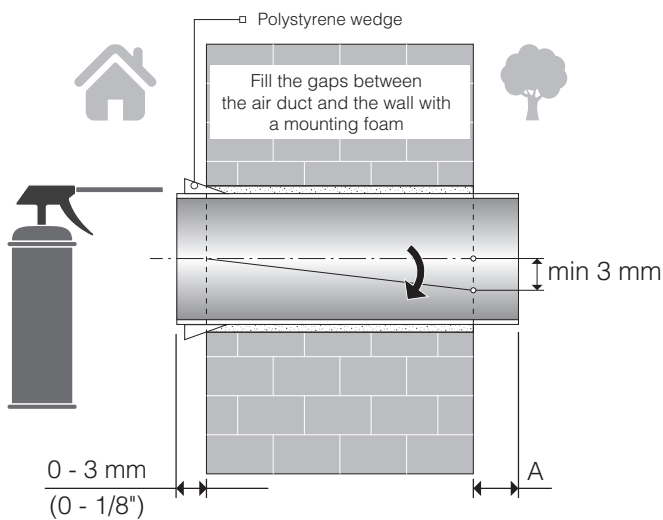
 **READ THE USER'S MANUAL PRIOR TO MOUNTING THE UNIT**

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

1. Prepare a round core hole in the outer wall. The hole size is shown in the figure below. While preparing a core hole it is recommended to make preparations for layout of the power cable and other required cables.



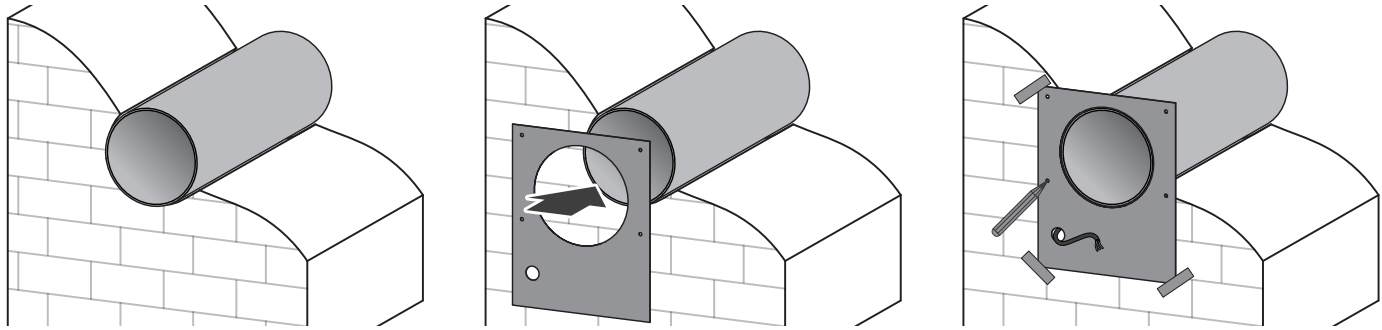
2. Insert the air duct in the wall. For ease of installation use the polystyrene wedges included in the delivery. The air duct end must protrude for the distance that enables installation of the outer ventilation hood (see the User's manual for the outer ventilation hood).



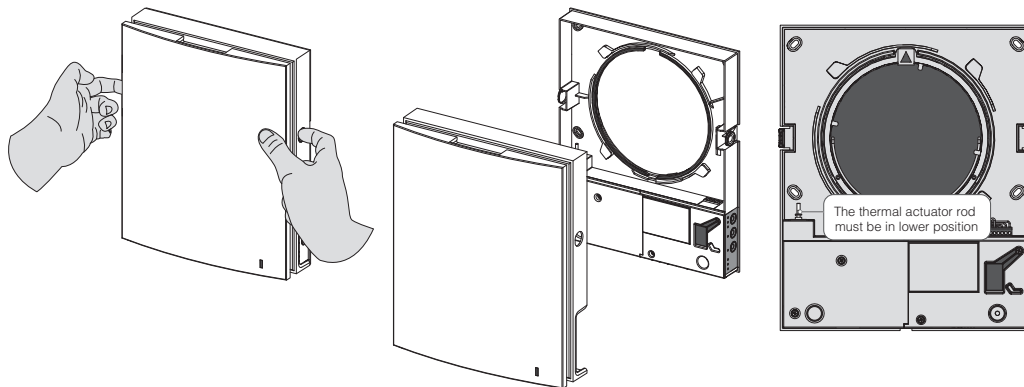
Insert the air duct into the wall as shown in the picture on the left.
 Install the air duct with the minimum slope of 3 mm down from the outer side of the wall.
 On the outer wall side the air duct end must protrude to a distance that enables installation of the outer ventilation hood.
 Distance **A** is stated in the installation instruction for the ventilation hood.
 The air duct length can be adjusted before and after its fixation in the wall.
 In the first case calculate the required length before mounting and in the second case be sure to have enough access to the outer wall side after air duct installation and fixation.

3. Stick the delivered cardboard master plate on the indoor wall using a mounting tape. The large opening in the master plate must be axially aligned with the air duct. For aligning of the master plate with respect to the horizon line it is recommended to use a builder's level.

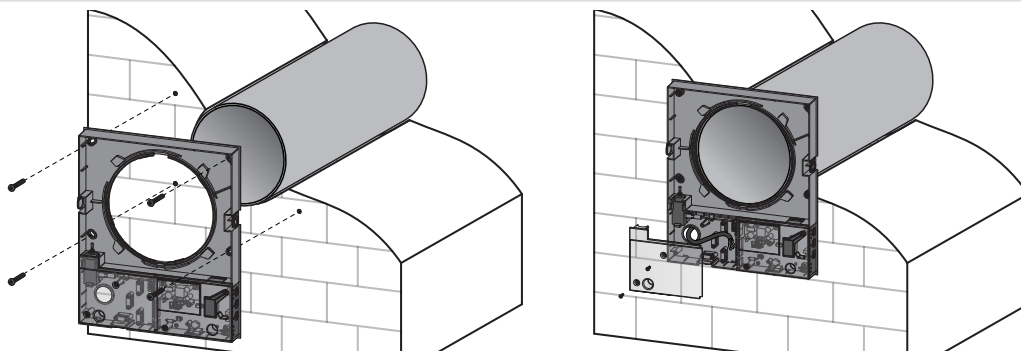
Then mark the fastening holes for installation of the supplied dowels and drill the holes to a required depth. Route the power cable from the wall vent outside through the specially marked opening on the master plate.



4. Unlatch the front part of the indoor assembly unit from its back part.

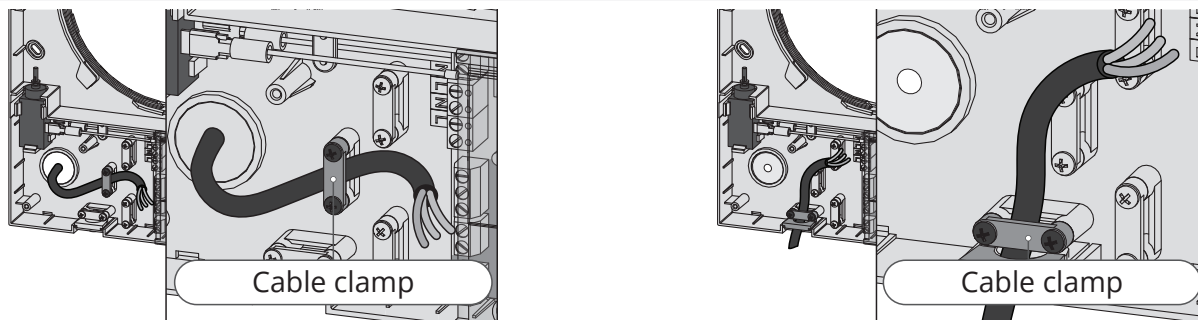


5. Fix the back part of the indoor assembly unit on the wall with the screws supplied with the mounting kit of the wall vent. Remove the two retaining screws from the left transparent cover to enable access to the terminals.

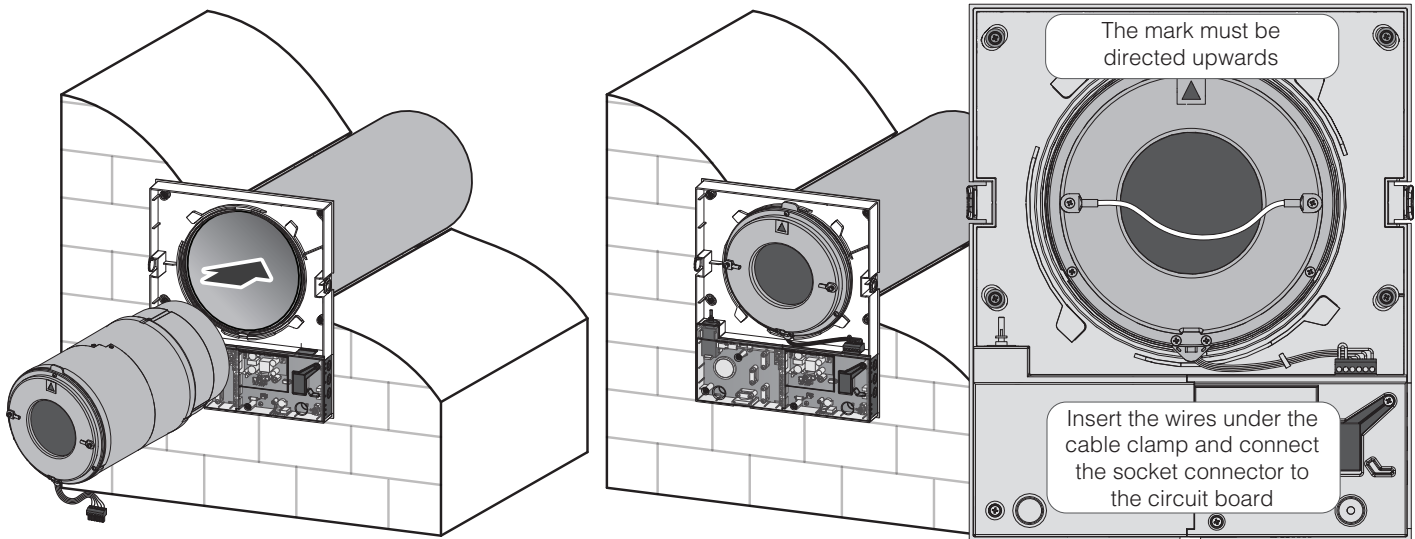


6. Route the power cable as figured below and connect the wall vent to power mains in compliance with the external wiring diagram, refer to Page 11.

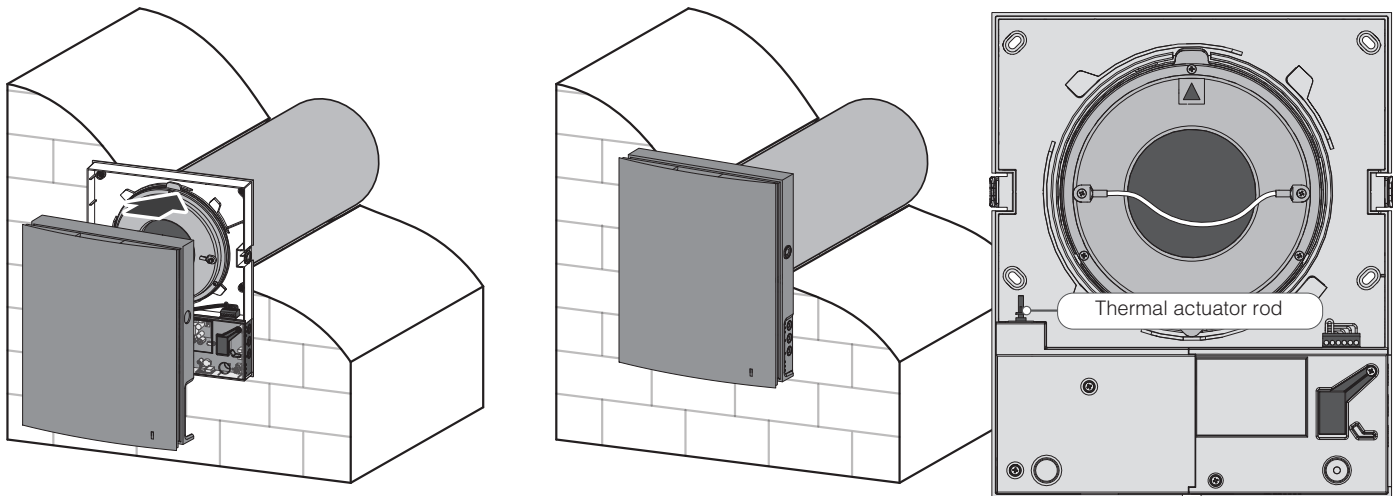
Fix the power cable and the signal cables with a cable clamp. After completion of the electrical connection re-install the transparent cover in site.



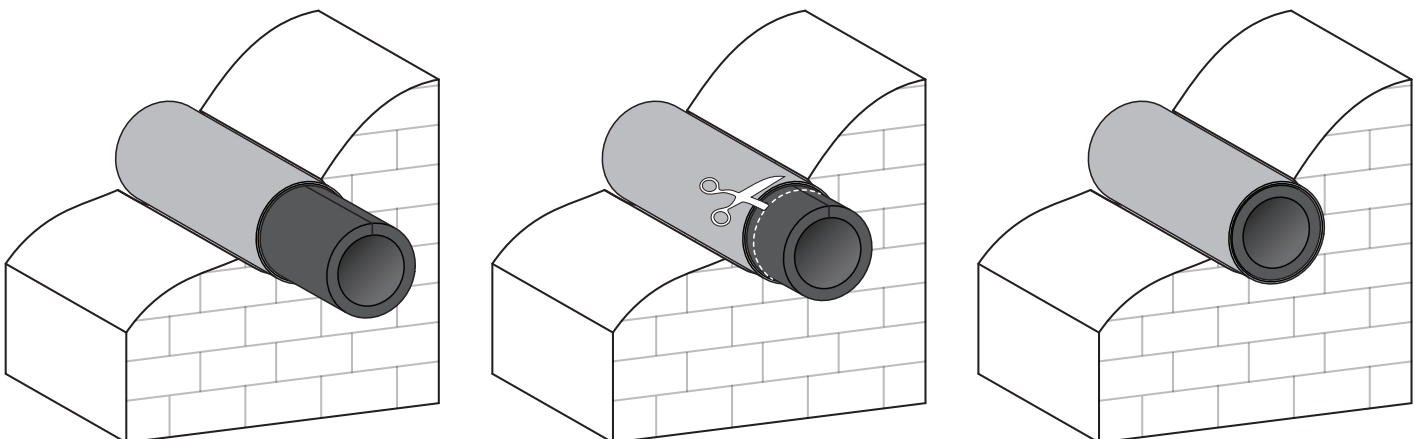
7. Insert the cartridge into the air duct as figured below. The pointer must be directed upwards. Then fix the wire with the protruding clamp and connect the socket connector to the circuit board.



8. Install the front part of the indoor unit.




9. Install the sound absorbing layer on the outer side. Roll the layer of the sound absorbing material to match the air duct diameter. The protecting paper layer must be outside. Insert the sound absorbing roll into the cartridge against stop. Mark the end of the sound absorbing roll to be flush with the air duct edge and cut the excess. Insert the ready sound absorbing roll into the air duct.



10. Install the outer ventilation hood. The mounting sequence of the outer ventilation hood is described in the installation instruction for the ventilation hood.

CONNECTION TO POWER MAINS AND CONTROL



DISCONNECT THE UNIT FROM POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.

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.

THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE MANUFACTURER'S LABEL. ANY INTERNAL CONNECTION MODIFICATIONS ARE NOT ALLOWED AND RESULT IN WARRANTY LOSS.

The wall vent is rated for connection to AC 100-240 V/ 50-60 Hz power mains. The routing of the power and signal cables is shown in the «Mounting and set-up» section, Page 9.

For electric installations use insulated, durable and heat-resistant electric leads (cables, conductors) with the minimum cross section 0.5 up to 0.75 mm² for the power cable and 0.25 mm² for the control cables. The cable cross-section is given for reference only. The signal cable must be shielded. The actual conductor cross-section selection must be based on its type, the 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 control board in compliance with the wiring diagram and terminal designation.

Connect the unit to power mains through the external automatic circuit breaker with a magnetic trip integrated into the fixed wiring system. The circuit breaker trip current must exceed the consumption current of the wall vent. For details, please refer to the table at page 5.

The wall vent design enables connecting any external controls with normally opened contacts (NO-contacts), such as an external CO₂ sensor, a humidity sensor, a switch, etc.

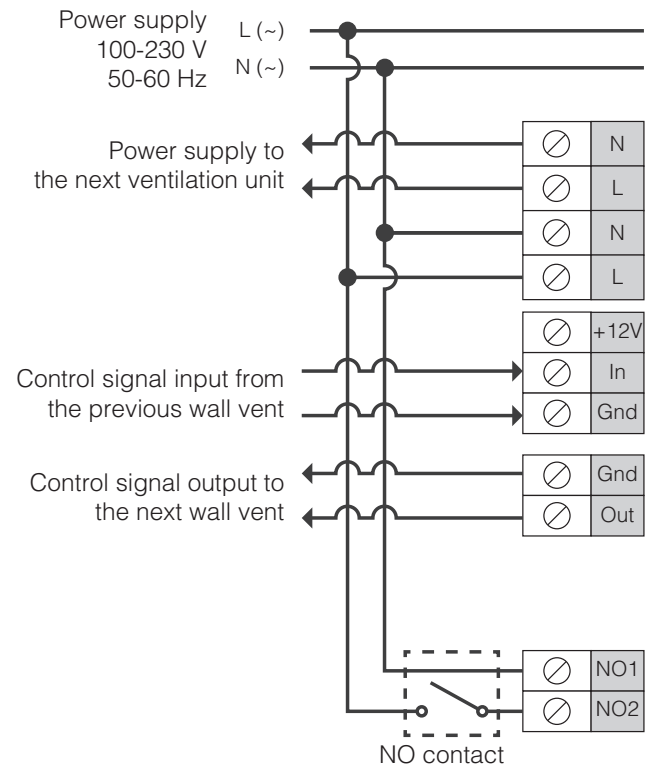
When the contacts NO1 and NO2 close the wall vent switches to high speed.

Several wall vents may be in series connected to power mains with a central control by the master wall vent.

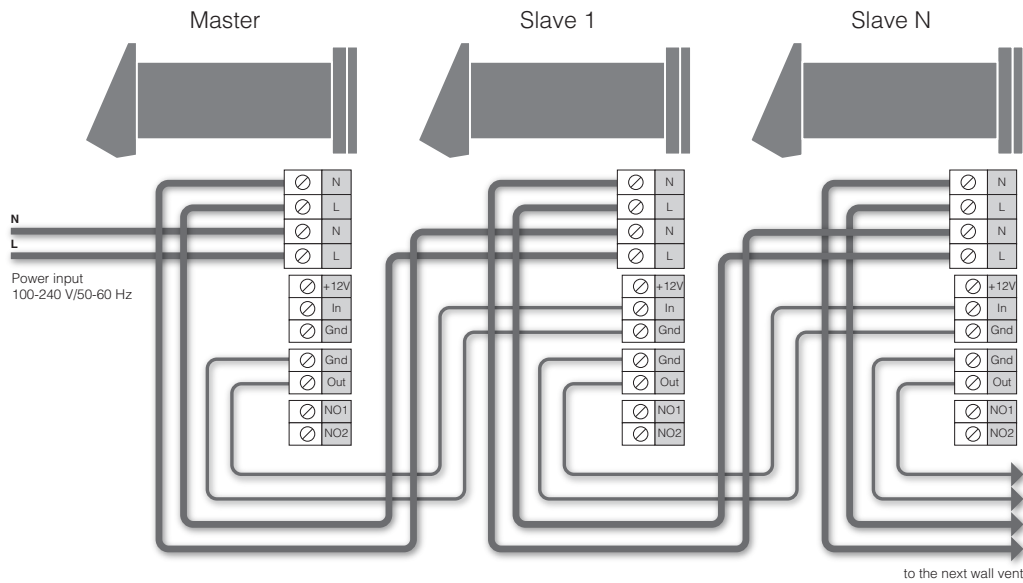
The inputs of two wall vents can be in parallel connected to the output of the previous wall vent.

In case of in-series or parallel connection of several wall vents power is supplied either from a previous wall vent or from power mains.

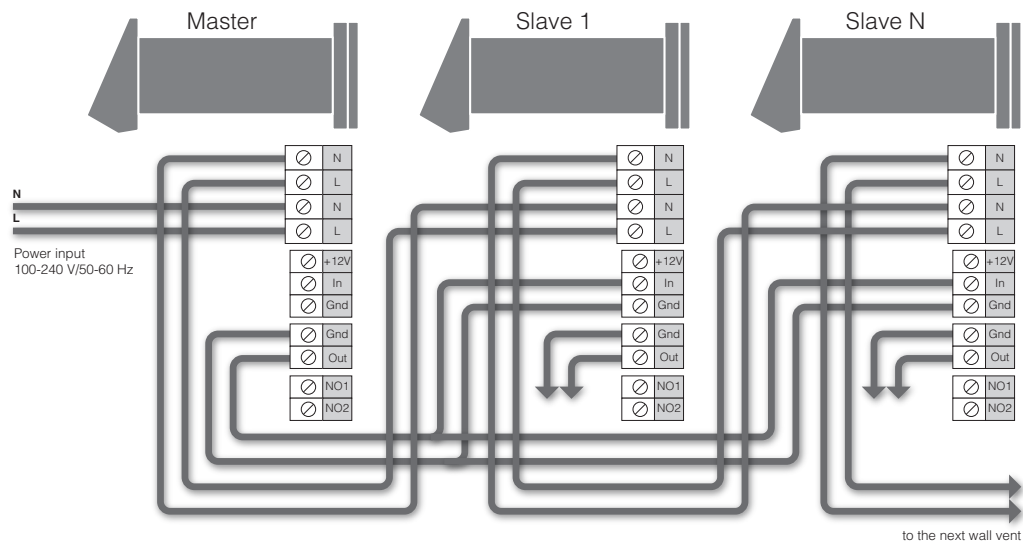
EXTERNAL CONNECTIONS DIAGRAM



WIRING DIAGRAM FOR IN-SERIES CONNECTION



WIRING DIAGRAM FOR PARALLEL CONNECTION

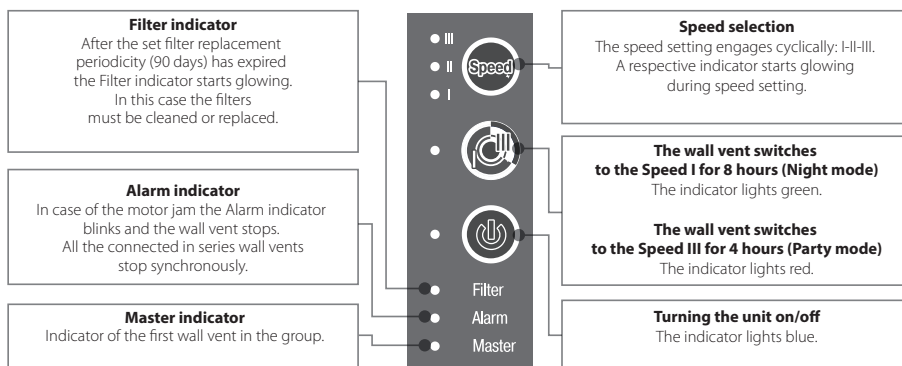


WALL VENT OPERATION

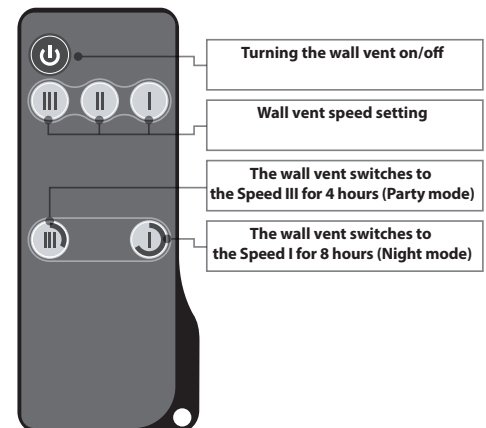
The wall vent can be operated with the control buttons on the side part of the indoor unit (see the figure below) or the remote control (only for models equipped with a remote control).

In case of in-series or parallel connection the signal from a control unit is received by the first wall vent (Master) only.




Buttons on the wall vent casing








Buttons on the remote control



WALL VENT CONTROL WITH THE BUTTONS ON THE INDOOR UNIT

	The speed setting engages cyclically: I-II-III. All the connected in series wall vents synchronize their speed with the first wall vent in the group.
	Timer button (cyclical switch between modes): • 8 hours at Speed I (Night mode). When this mode is activated the indicator lights green. • 4 hours at Speed III (Party mode). When this mode is activated the indicator lights red. Upon expiration of the set time period the wall vent reverts to a pre-set speed. Press any button of the manual speed setting to deactivate the timer.
	Turning the wall vent on/off.
Filter	Filter clogging indicator. 90 days after installation of the cartridge the Filter clogging indicator starts glowing. In this case clean or replace the filters (see the «Technical maintenance» section). During in-series connection the first wall vent indicator has a steady glow and the indicator of the wall vent requiring filter replacement blinks.
Alarm	Motor jam indicator. In case of the motor jam the Alarm indicator blinks and the wall vent stops. All the connected in series wall vents also stop synchronously. During in-series connection the indicator of the first wall vents has a steady glow and the indicator of the wall vent with a jammed motor blinks.
Master	Indicator of the first wall vent in the group.

REMOTE CONTROL

	Turning the wall vent on/off.
	The speed setting engages cyclically: Speed III-II-I respectively.
	Timer buttons:  — 4 hours at Speed III (Party mode).  — 8 hours at Speed I (Night mode). Upon expiration of the set time period the wall vent reverts to a pre-set speed. Press any button of the manual speed setting to deactivate the timer.

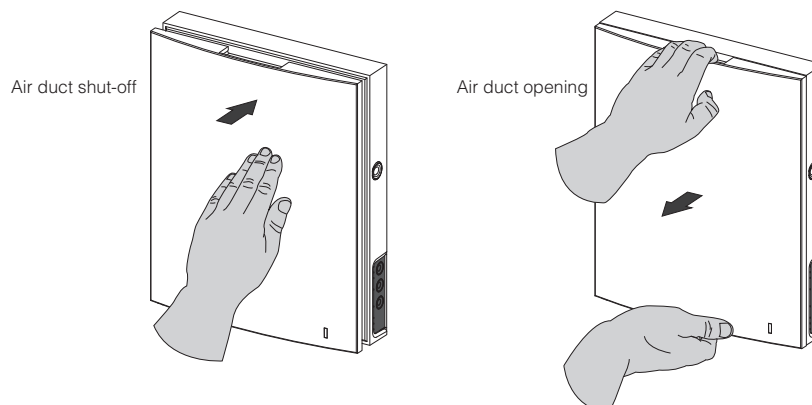
AIR DUCT CLOSING

Press the front panel gently to shut off the air duct.

The wall vent will turn off automatically.

To open the air duct pull the front panel while holding the special recesses.

The wall vent reverts to the pre-set operation mode that was active before the air duct shut-off.



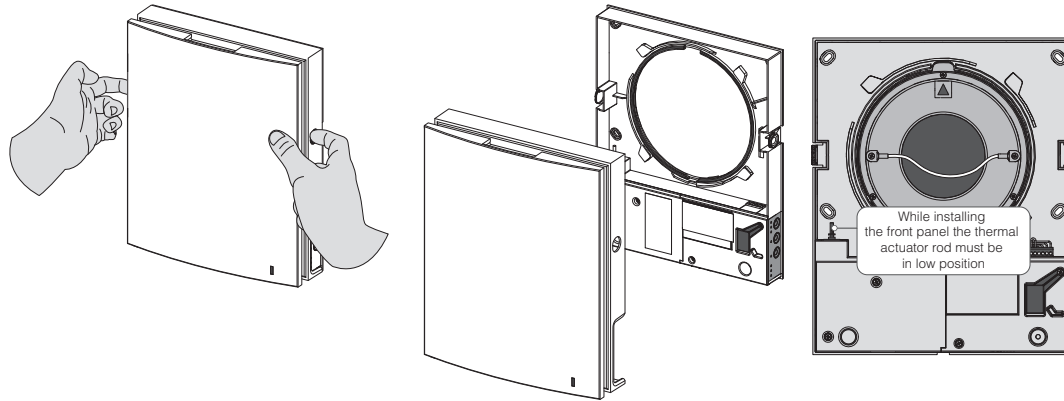
The front panel incorporates an operating LED indicator. During the dark time the indicator light intensity drops down.

TECHNICAL MAINTENANCE

Maintenance of the wall vent means regular cleaning of the wall vent surfaces of dust and cleaning and replacement of the filters. To access the basic assembly units follow the steps:

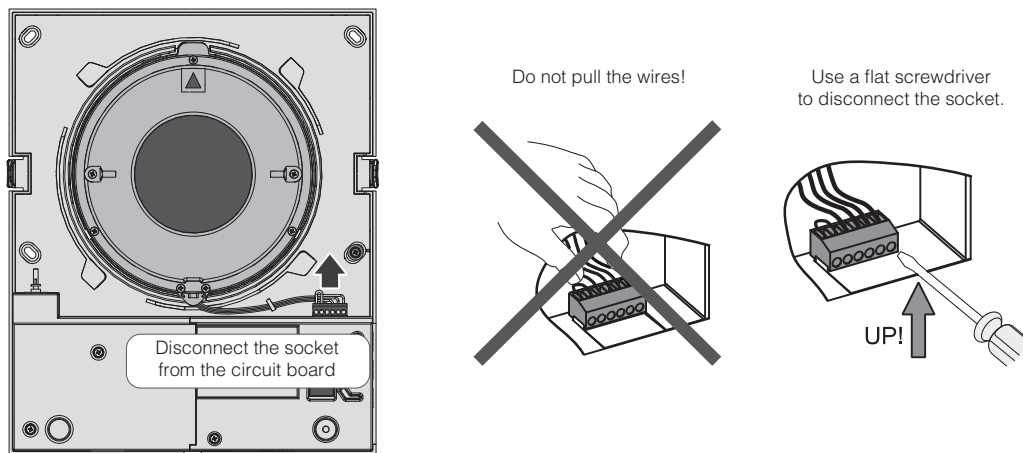
1. Press the latches on the side of the indoor control unit to take off the front part.

When re-installing the front panel the thermal actuator rod must be down. If it is uplifted, wait for about 2 minutes until it goes down.



2. Disconnect the socket from the circuit board.

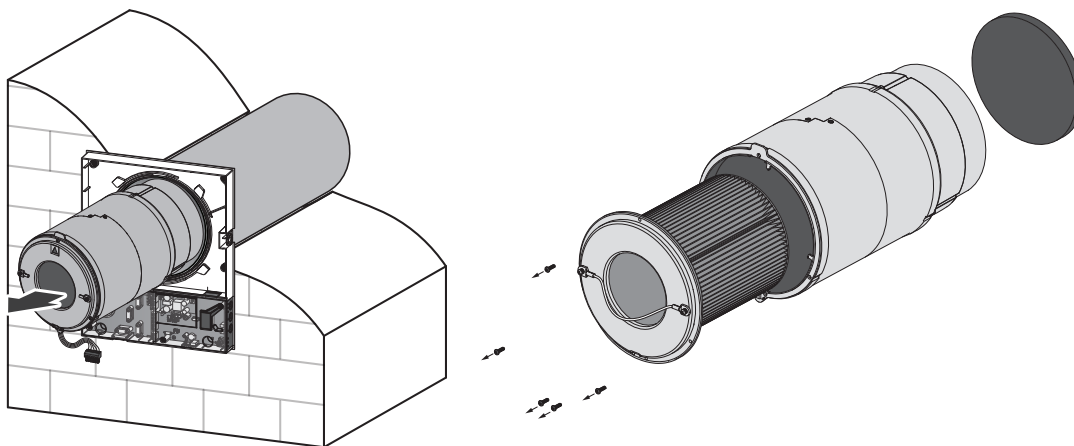
While removing the socket do not pull the wires. Uplift it with a flat screw driver of a respective size.



3. Pull the cord to remove the cartridge from the air duct. Remove the filters from the cartridge.

To remove the coarse filter undo 5 self-tapping screws that secure it and pull the filter out of the cartridge. A new fine filter should be installed in the reverse order.

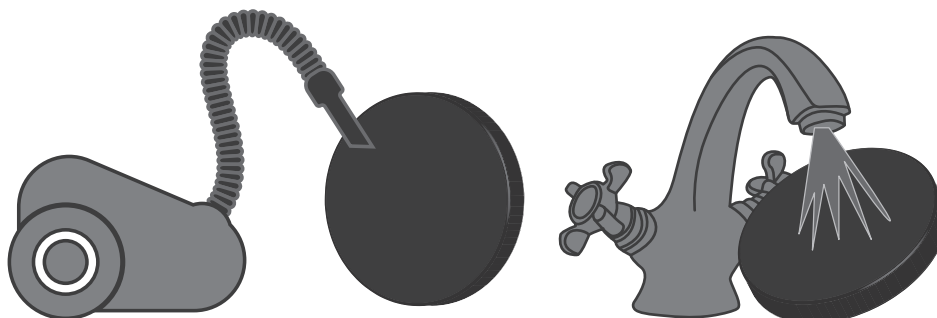
The coarse filter is removed by pulling out of the grooves.



The fine filter is maintenance-free and must be replaced after 90 days of non-stop operation of the unit.

Clean the coarse filter as it gets clogged, but not less than once in three months.

- After the set filter replacement periodicity (90 days) has expired the Filter indicator starts glowing. The filter timer is reset once the cartridge socket is disconnected from the circuit board.
- Wash the filter and let it get dry. Install a dry filter in the air duct.
- Vacuum cleaning is allowed.
- The filter rated service life is 3 years.
- For new filters contact the Seller.



4. Replacement of the remote control battery (if necessary).

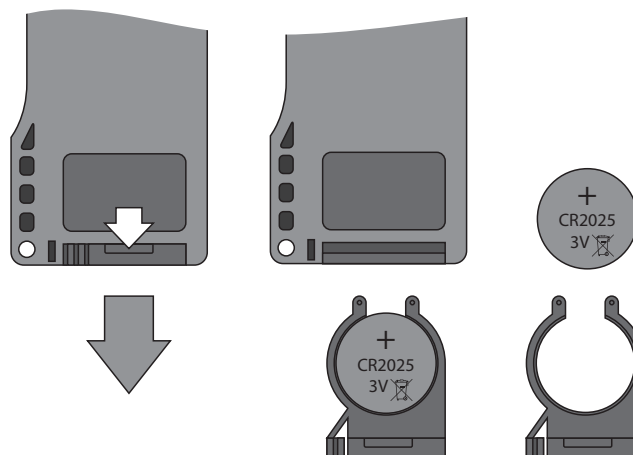
In case of a long operation of the remote control the battery must be replaced.

If the wall vent does not respond to the commands from the remote control it is a signal to replace the battery.

Battery type: CR2025.

To replace the battery of the remote control remove the battery holder with a battery.

Replace the battery and install the holder with a new battery back to the remote control.



TROUBLESHOOTING

POSSIBLE FAULTS AND TROUBLESHOOTING

Problem	Possible reasons	Troubleshooting
When switching on the wall vent 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 soiled.	Turn the wall vent off. Troubleshoot the motor jam and the impeller clogging. Clean the blades. Restart the wall vent.
Circuit breaker tripping during the wall vent start-up.	Overcurrent as a result of short circuit in the electric circuit.	Turn the wall vent off. Contact the Seller for further information.
Low air flow.	Low set fan speed.	Set higher speed.
	The filter or the fan is clogged.	Clean or replace the filter, clean the fan.
Noise, vibration.	The impeller is clogged.	Clean the impeller.
	Loose screw connection of the wall vent casing or the outer ventilation hood.	Tighten the screws of the wall vent or the outer ventilation hood.

STORAGE AND TRANSPORTATION REGULATIONS

Store the unit in the manufacturer’s original packing box in a dry closed ventilated premise with temperature range from +5 °C (+ 41 °F) to + 40 °C (104 °F).

Storage environment must not contain aggressive vapours 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 packing by any mode of transport provided proper protection against precipitation and mechanical damage.

Avoid sharp blows, scratches or rough handling during loading and unloading.

MANUFACTURER'S WARRANTY

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, mounting 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 elimination of faults by the manufacturer by means of warranty repair at the factory free of charge.

The warranty repair shall include 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 document 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 dismantled by the user.
- Mismatch of the unit model and the brand name with the information stated on the unit packing and in the user's manual.
- User's failure to ensure timely technical maintenance of the unit.
- External damage to the unit casing (excluding external modifications as required for installation) 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.
- User's violation of the unit installation regulations.
- User's violation of the unit control regulations.
- Unit connection to the power mains with a voltage different from the one stated in the user's manual.
- Unit breakdown due to voltage surges in the 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.
- User's violation of the unit transportation regulations.
- User's violation of the unit storage regulations.
- 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 document certifying the unit purchase.



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



USERS' 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.

ACCEPTANCE CERTIFICATE

Wall vent

FRESHER 50	
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is recognized as serviceable.

We hereby declare that the product complies with the essential protection requirements of Electromagnetic Council Directive 2004/108/EC, 89/336/EEC and Low Voltage Directive 2006/95/EC, 73/23/EEC and CE-marking Directive 93/68/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

This certificate is issued following test carried out on samples of the product referred to above.

Approval mark _____ Manufacturing date _____

INSTALLATION CERTIFICATE

Wall vent

FRESHER 50	
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is connected in compliance with the operation manual requirements by the professional:

Company _____

Name _____

Date _____ Signature _____

WARRANTY CARD

FRESHER 50	
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SALLER

SALES DATE

REPRESENTATIVE IN EU

BLAUBERG Ventilatoren GmbH
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D-81379 Munich,
Germany



BLAUBERG
Ventilatoren



www.blaubeergventilatoren.de
FRESHER_v2(2)_EN