



PASSIV+ 200



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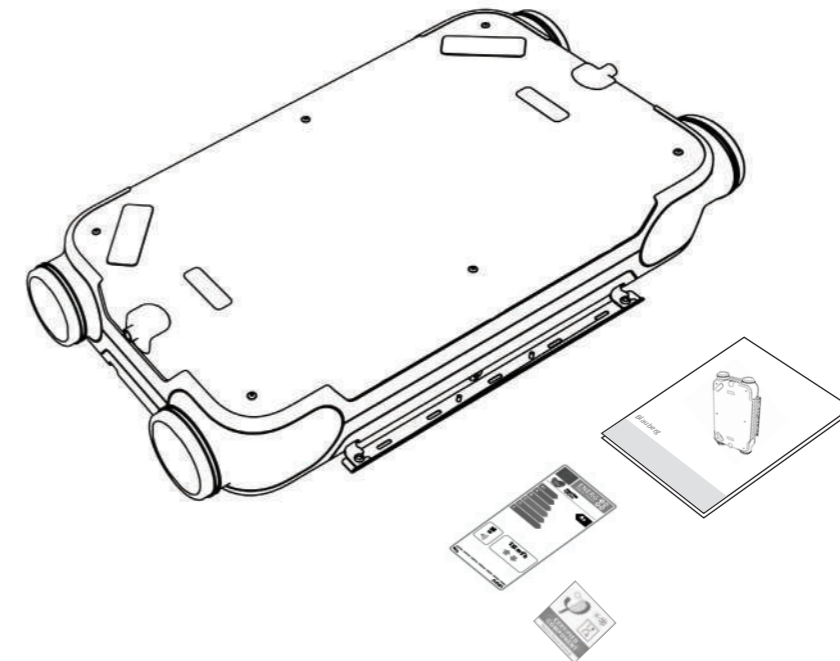
1 DELIVERY

1.1 CONTENT OF THE DELIVERY

Before starting the installation of the Heat Recovery Unit, you should check if it has been delivered complete and intact.

The delivery content of the Blauberg PASSIV+ 200 Unit consists of the following elements:

1. Blauberg PASSIV+ 200 Heat Recovery Unit
2. Installation Manual
3. Ecodesign Label
4. Installation Guides
5. Bracket and Fixings



** In the event that the Unit has been delivered with a visible defect, such as bumps or scratches, or if all the items and accessories listed above are not included, please contact your supplier.*



The use of this Unit is not authorized for persons, including minors, with reduced intellectual abilities, with limited physical abilities or with the lack of necessary experience and knowledge, unless they are under the supervision or have received from a person responsible for their safety the necessary instructions for using the Unit.



In any case, a check should be carried out on the children to ensure that they do not play with the unit.

1.2 OPTIONAL BLAUBERG PASSIV+ 200 ACCESSORIES

DESCRIPTION	IMAGE	CODE
G4 FILTER 65%		DFFG4
FILTER F7 ePM1 55%		DFFF7
FILTER G4 + F7 CORSE 65% - ePM1 55%		DFFG4F7
CARBON FILTER		DFFCA
FILTER F9 ePM1 80%		DFFF9
FILTER G4 + F9 CORSE 65% - ePM1 80%		DFFG4F9
Wireless smart multi-controller		PASSIVCTRL
Wireless intelligent humidity sensor		PASSIVHR
Wireless intelligent CO2 sensor		PASSIVCO2
RF - Ethernet communication gateway		PASSIVRFETH
RF Communication Gateway - RS485		PASSIVFRS485
Connect Modbus master KNX converter		PASSIVCONNECT

2 APPLICATION

The Blauberg PASSIV+ 200 Unit is a Mechanical Ventilation Unit with Heat Recovery (MVHR). It has a thermal efficiency level of up to 95% and a maximum airflow capacity of 200 m³/h. The Blauberg PASSIV+ 200 is also fitted with low energy EC fans.

Blauberg PASSIV+ 200 Features:

- Continuous regulation of air flows through the control panel.
- Presence of a filter status indicator in the Unit and can indicate the filter status on the controller.
- Intelligent frost protection ensures that the unit continues to operate optimally even at low temperatures. Optional pre-heater available if required.
- Low acoustic sound level.
- Equipped as standard with automatic summer by-pass.
- Regulation of constant flow.
- Energy saving.
- High performance.

These are the installation instructions for the Blauberg PASSIV+ 200.

The Blauberg PASSIV+ 200 can be installed on both wall and ceiling, with standard mounting brackets included. For the correct position of duct connections and their dimensions **[See section 3.3]**.

The Factory Unit will come as the right handed version, but can be modified to left handed with a few simple steps **[See section 3.3]**.



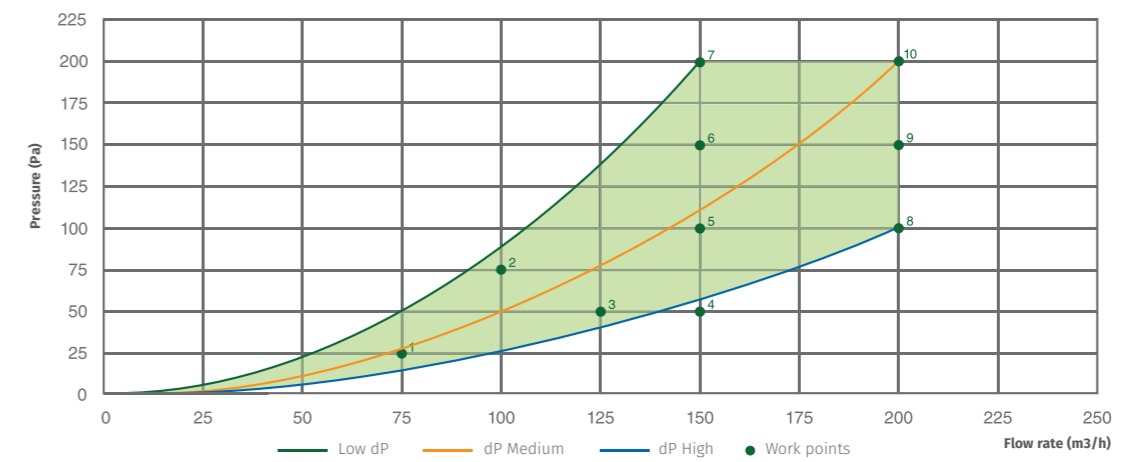
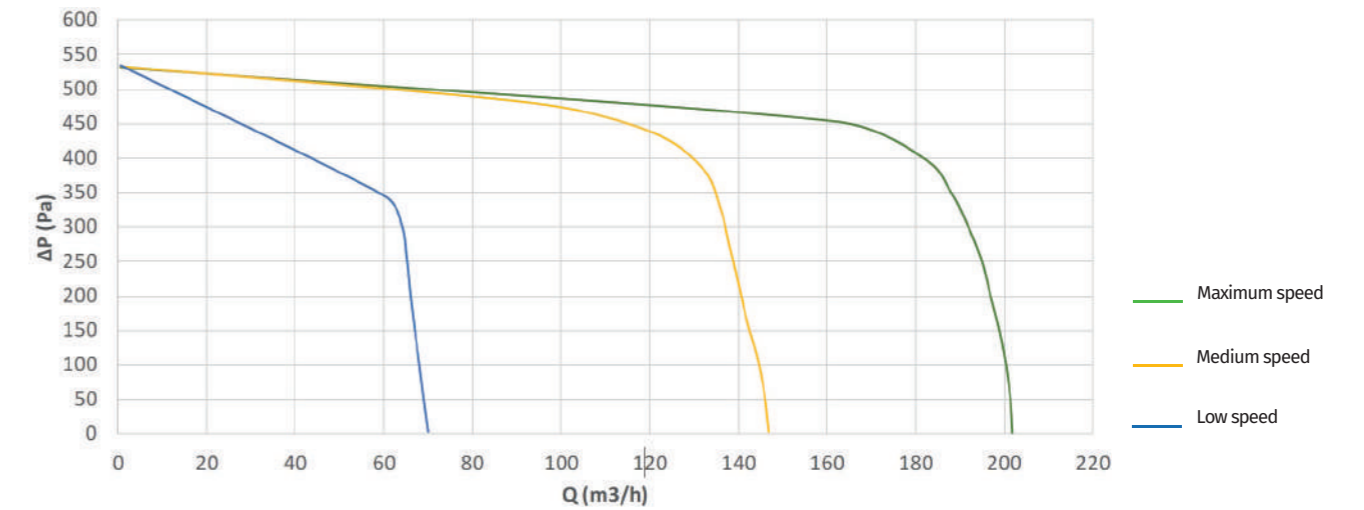
Important! For the correct efficiency of the ventilation system it is recommended not to disconnect the Unit, except for its maintenance

3 MODEL

3.1 TECHNICAL SPECIFICATIONS

Blauberg PASSIV+ 200					
Supply voltage	230V/ 50 Hz				
Ingress protection	IP 40				
Dimensions (L x H x D)	1000 x 600 x 210 mm				
Duct connection diameter	Ø 160				
Diameter of condensate connection	1/2"				
Weight	24 Kg				
Filter class	Coarse 65% (G4)				
Fan position (standard)					Boost mode
Wireless smart multi-controller (optional)	0	1	2	3	Maximum
Ventilation flow (m3/h)	30	75	100	150	200

Blauberg PASSIV+ 200

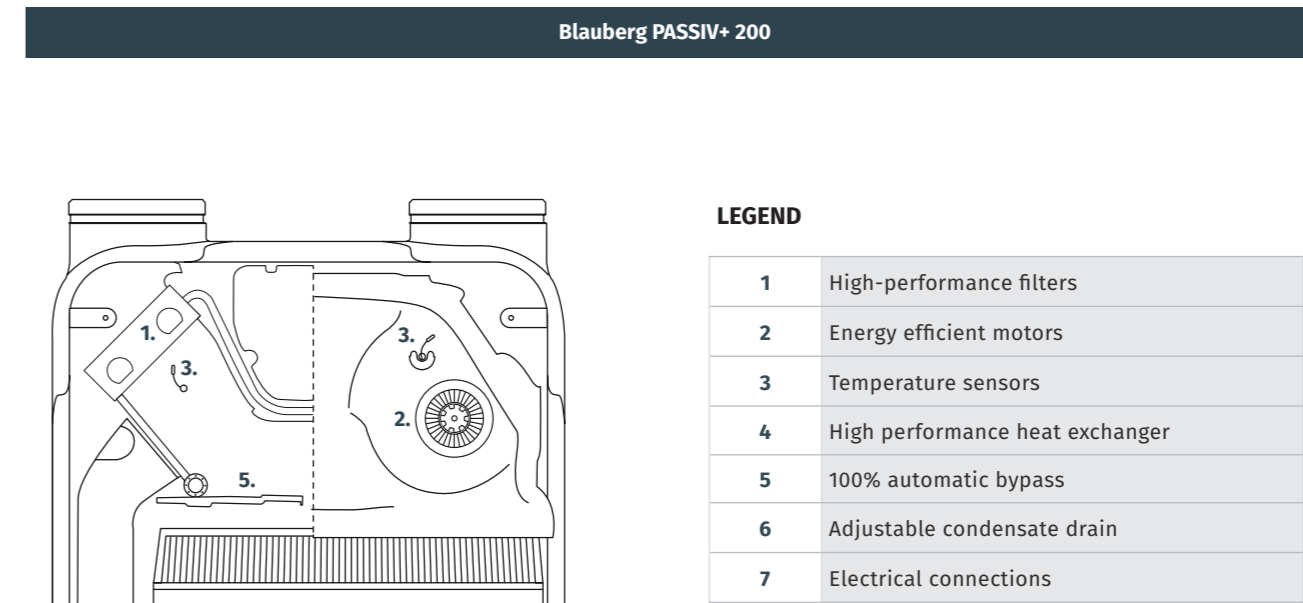
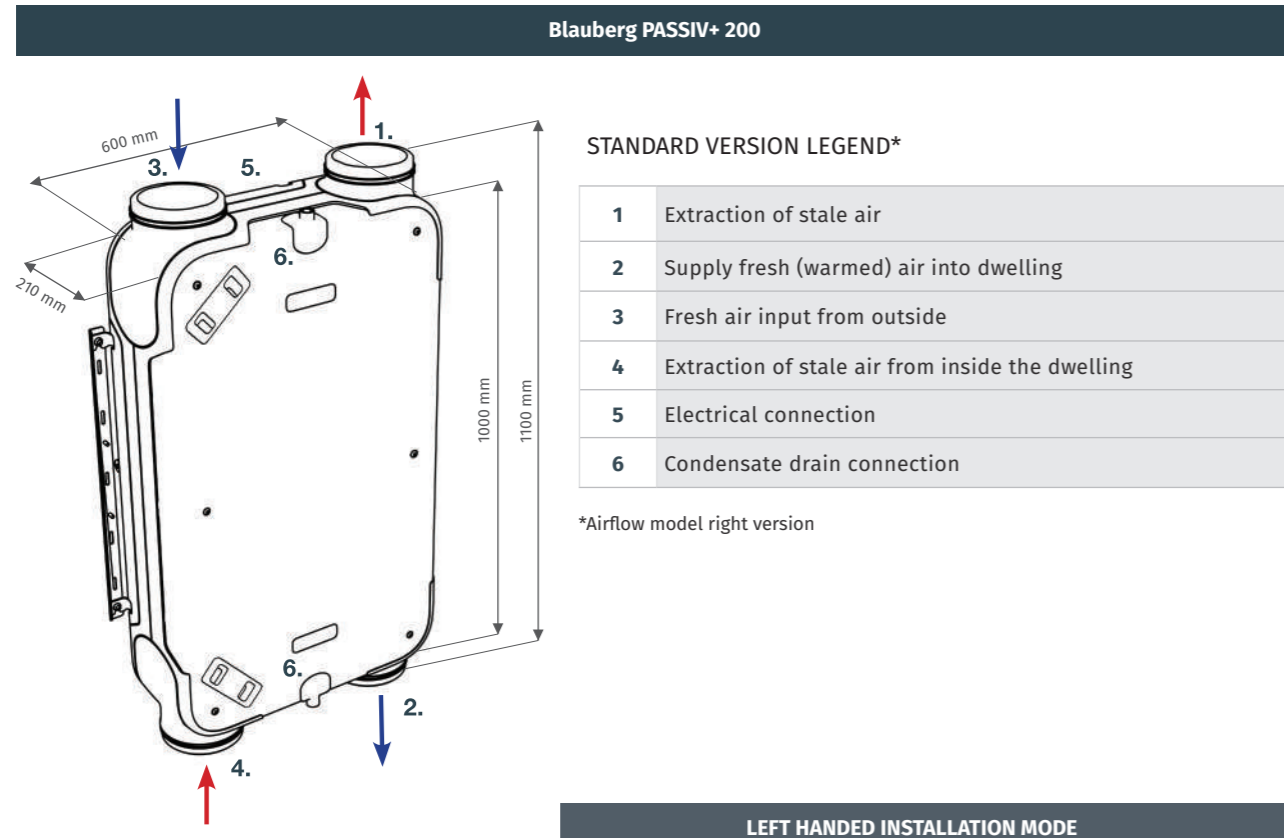


OPERATING POINTS	FLOW (m3/h)	PRESSURE (Pa)	POWER (W)	SFP (W/l/s)
1	75	25	12.61	0.61
2	100	75	25.31	0.91
3	125	50	29.16	0.84
4	150	50	39.20	0.94
5	150	100	49.65	1.19
6	150	150	60.92	1.46
7	150	200	72.60	1.74
8	200	100	81.33	1.46
9	200	150	93.10	1.68
10	200	200	106.48	1.92

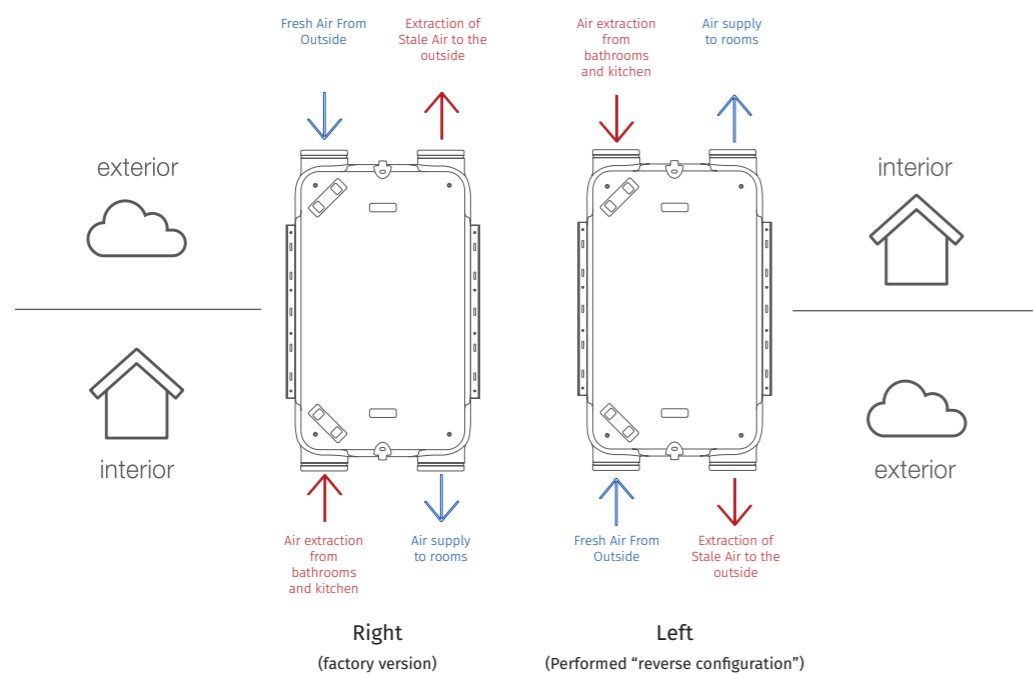
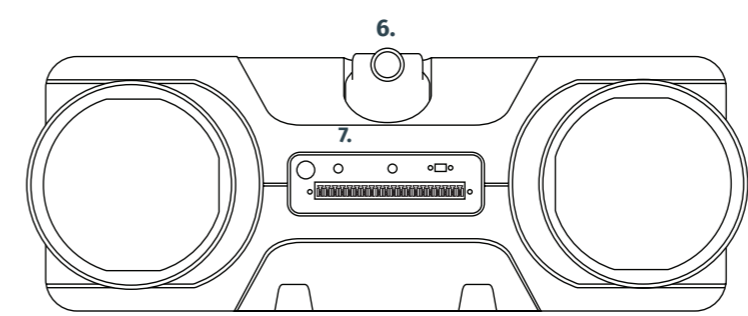
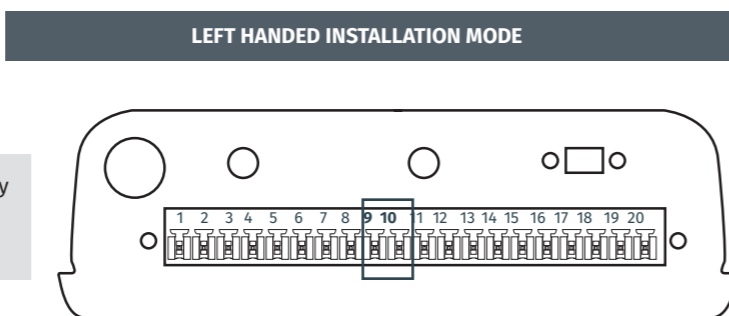
Acoustic level Blauberg PASSIV+ 200							
Ventilation flow (m3/h)		75	125	150	200	200	200
Acoustic level Lw (A)	Static pressure (Pa)	25	50	50	100	150	200
	Case Breakout (dB(A))	33	42	44	46	51	56
	Extract duct (dB(A))	34	43	45	48	50	57
	Supply duct (dB(A))	46	51	59	62	65	66

CONNECTIONS AND DIMENSIONS

3.4 KEY PARTS OF THE UNIT



! Important! To change the unit from right (factory default) to left handed configuration, add electric cable link to pins 9 - 10.



4 OPERATION

4.1 DESCRIPTION

The Unit is delivered ready to connect to power and operates fully automatically. Stale air extracted from the interior transfers the thermal energy to the new air from the outside. In this way, energy is saved in air conditioning, since the new and clean air is blown into the house with a softened temperature (cool in summer, warm in winter).


Depending on the type of control used, up to 5 ventilation positions can be selected. Constant volume regulation allows the air flow of the intake and exhaust fans to be obtained independently of the duct pressure.

4.2 SUMMER BY-PASS CONDITIONS

The Summer By-Pass allows to the fresh air from outside to be supplied without passing through the exchanger. Air is filtered and supplied into the dwelling without recovering any heat.

The Summer By-Pass valve is automatically operated when a certain number of conditions are met (see table below about the By-Pass values).

Summer By-Pass Conditions	
Valve Open By-Pass	<ul style="list-style-type: none"> The outside temperature is above 10°C. In summer, the outside temperature is 3°C lower than the temperature of the air extracted from the house, and lower than the comfort temperature. In winter, the outside temperature is 3°C higher than the temperature of the air extracted from the house, and higher than the comfort temperature.
Valve Closed By-Pass	<ul style="list-style-type: none"> The outside temperature is below 10°C. In summer, the outside temperature is higher than the temperature of the air extracted from the house, and higher than the comfort temperature. In winter, the outside temperature is lower than the temperature of the air extracted from the house, and lower than the comfort temperature.

 The equipment automatically detects the season (winter/summer) and it will work according to the selected by-pass temperature.

4.3 FROST PROTECTION

To prevent icing in the exchanger when there are very low temperatures outside, the Blauberg PASSIV+ 200 is equipped with frost protection.

The thermostatic sensors measure the temperatures in the exchanger and if necessary a progressive imbalance is established automatically. When the temperature reaches -2 degrees the unit would stop and check every hour if the temperature is suitable for re-start.

5 INSTALLATION

5.1 GENERAL

The installation must be carried out in accordance with:

- UK Building Regulations Part L & F.
- Current wiring regulations.
- Competent Persons Scheme.
- Safety provisions for low voltage installations.
- Condensate connection to waste water drain.
- Installation requirements of the Blauberg PASSIV+ 200 Unit.


5.2 POSITION OF THE UNIT


The Blauberg Passiv+200 can be fixed directly on the wall or ceiling using the fixing brackets included for this purpose.

 **Warning!** Depending on the weight of the Unit, the installation of the Unit must always be carried out by 2 people.

To obtain a result without vibrations, the mounting surface of the wall or ceiling should have a minimum mass of 200kg/m². It is not enough that the wall or ceiling is made of concrete or with metal structures. In these cases, additional measures such as reinforcement by double plate or additional supports will be necessary. The following points should be taken into account:

- The Unit must be leveled, both in length and width.
- The installation space must be chosen so that a good evacuation of condensates can be carried out, with a siphon and a slope for condensation water.

 **Warning!** Ensure that the slope of evacuation of condensates is not positive, nor parallel to the Unit.

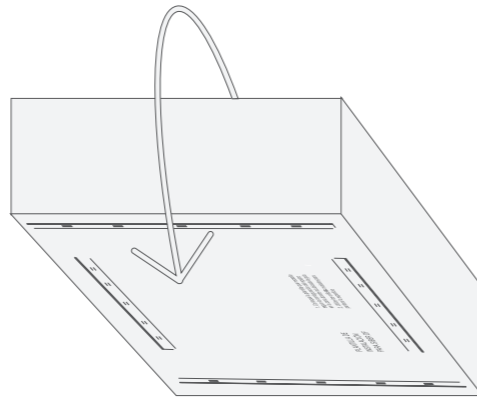
 **Warning!** The Unit is only designed for wall or ceiling mounting. Never install it directly on the ground.

- The installation space must be protected from weather and ice.
- Ensure that there is sufficient space around and under the Unit to ensure that filter change or cleaning and maintenance of the Unit can be performed correctly.

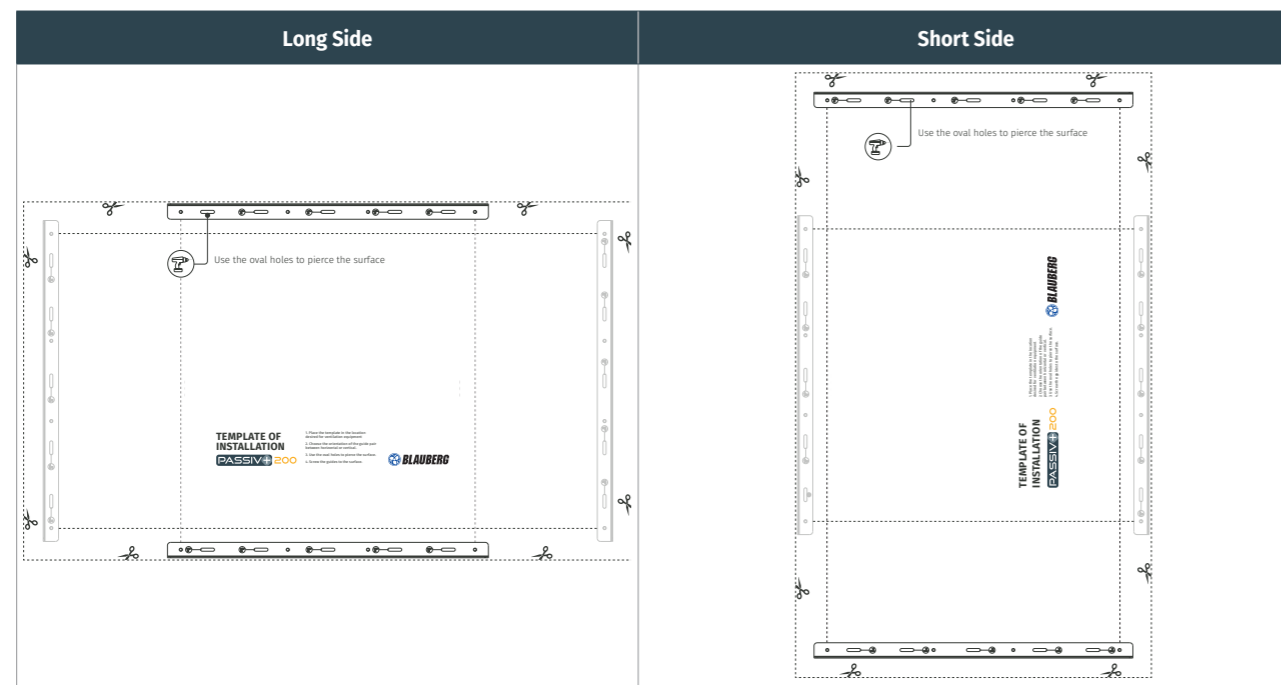
5.3 CEILING MOUNTING



1 Use the installation template, located on the back of the box



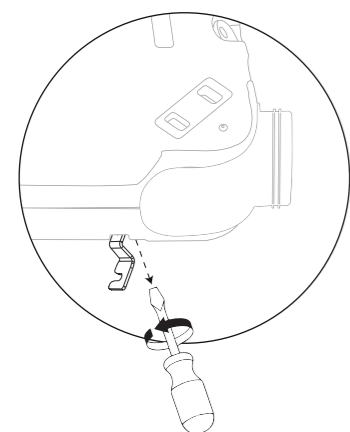
2 Mark the area where the fixing brackets will be placed with the help of the installation template.



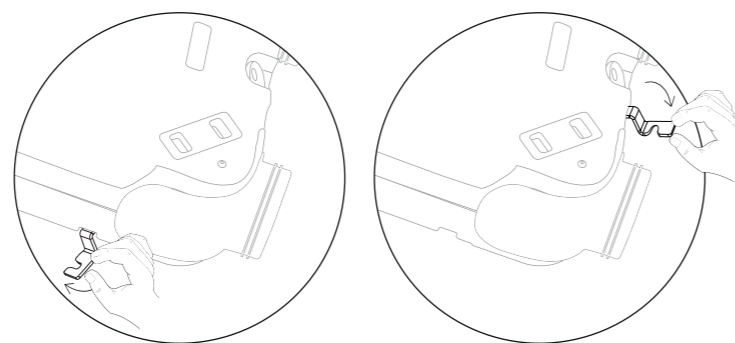
⚠ In case of not using the template, the fixing brackets must be left in parallel at 630mm distance on the long sides (standard version) and 1,035mm away on the short sides.

The Unit comes by default, with the Silentblock hooks placed on the long side. To change it to the short side you must follow the following steps:

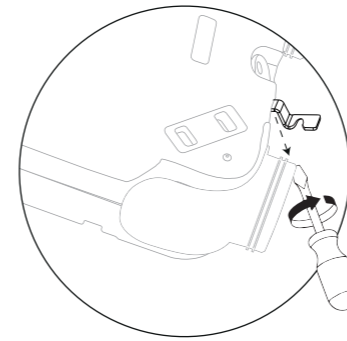
2.1 Unscrew the Silentblock hooks



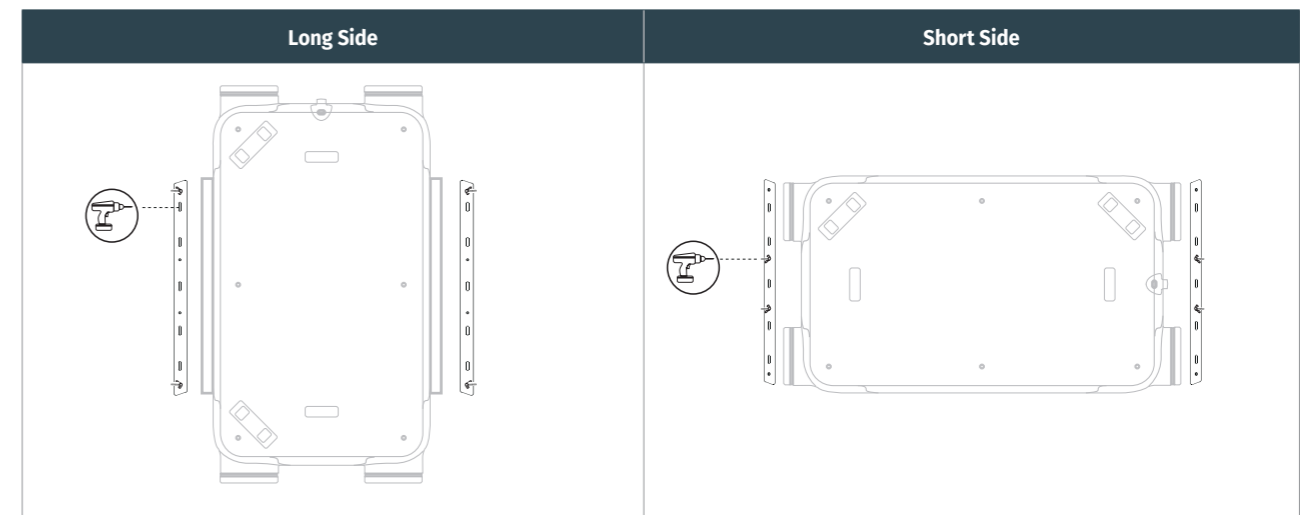
2.2 Change the Silentblock hooks to the short side, reattaching with screws.



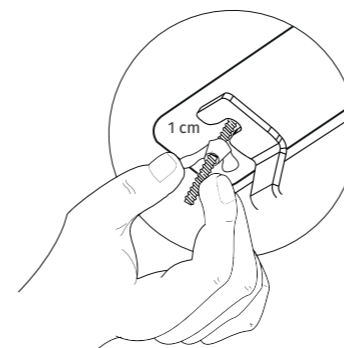
2.3 Screw the Silentblock hooks into the desired new position.



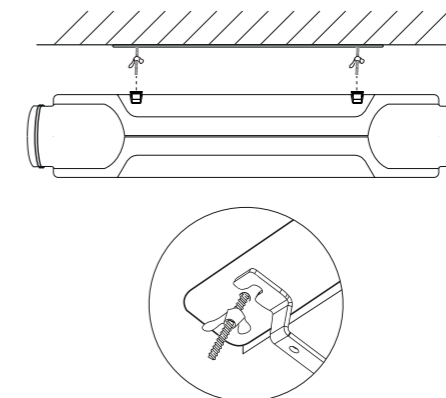
3 Pierce the marked surface and screw the fixing brackets through the oval holes.



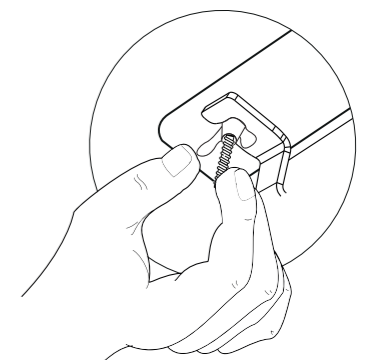
4 Loosen the wing nuts and leave 1 cm of space



5 Place on top of the guide and slide until it fits with the threaded rod.



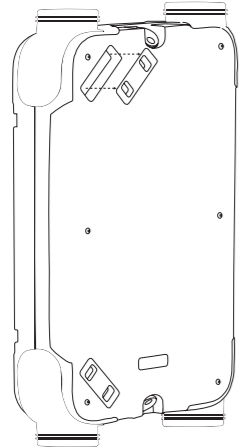
6 Tighten the wing nut



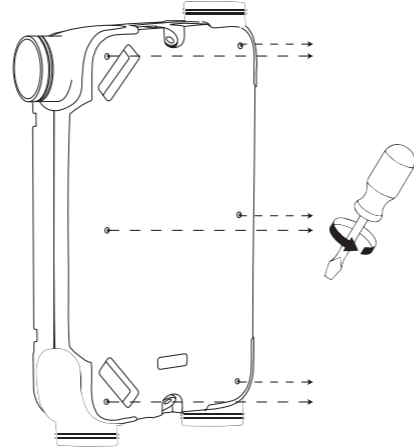
6 ORIENTATION OF DUCT CONNECTIONS

To change the default direction of the duct connections (from right handed to left handed) you must follow these steps:

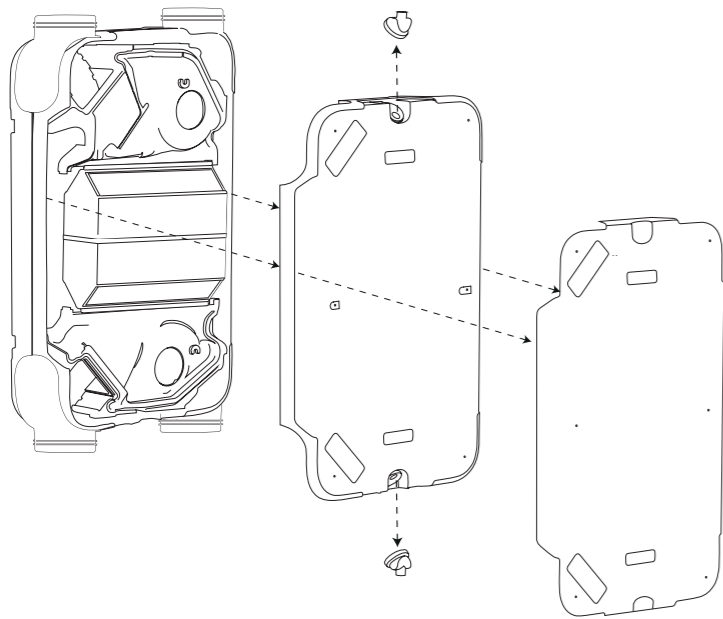
- 1 Remove filter caps



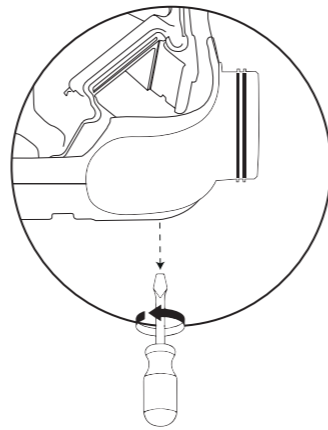
- 2 Unscrew the outer case



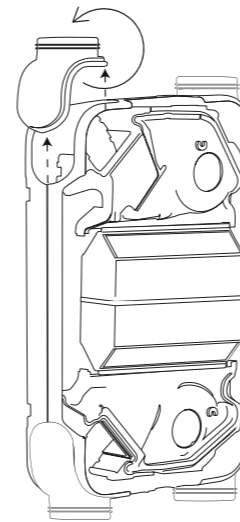
- 3 Remove the outer case and front housing section, exposing the inside



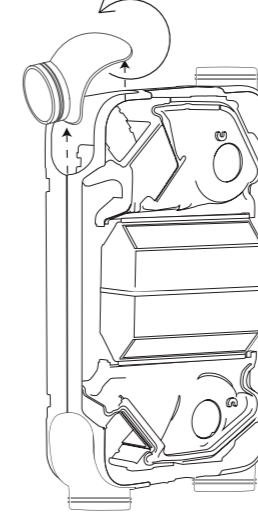
- 4 Unscrew the duct connection from the backside of the unit



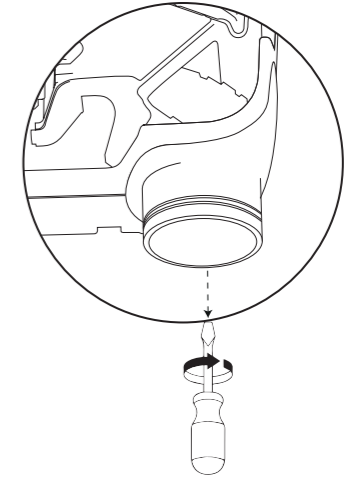
- 5 Lift the duct connection



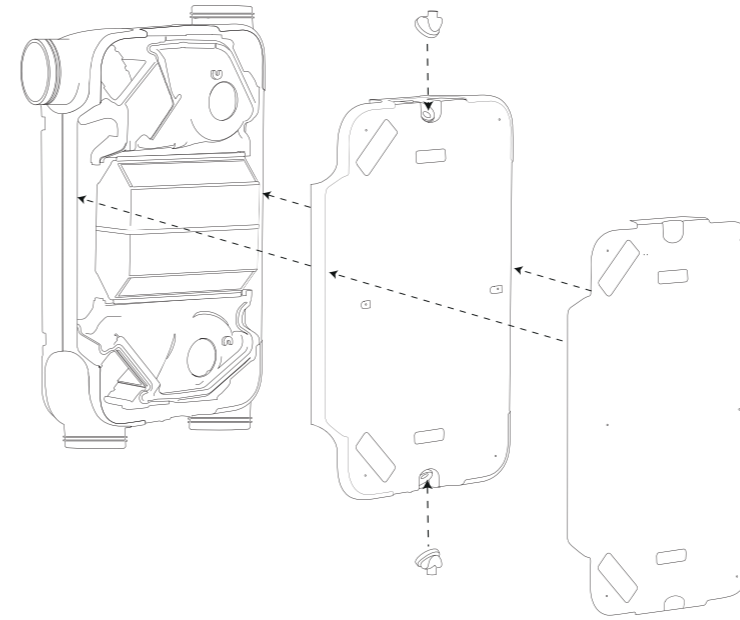
- 6 Turn the duct connection to its new position



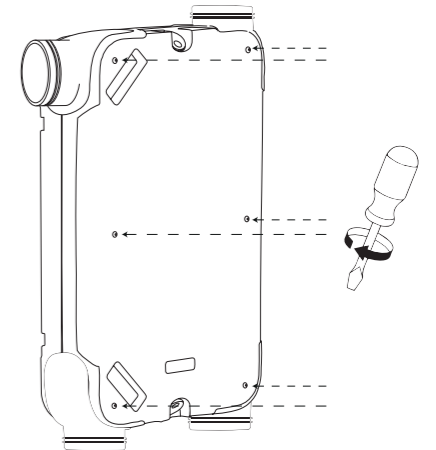
- 7 Screw the duct connection from the back



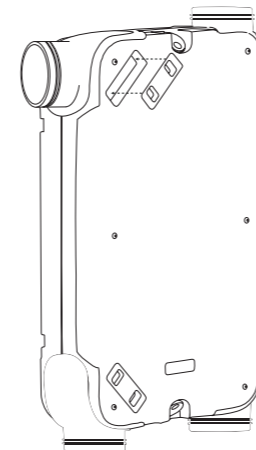
- 8 Reattach the outer case and housing section



- 9 Screw the outer cover



- 10 Replace the filter covers



7 CONDENSATE DRAIN CONNECTION

The Blauberg PASSIV+ 200 must always be provided with a condensate drain. Condensation water must be drained from the unit. A 3/4" male thread condensate drain connection (not included with the Unit) must be connected to a waste water drain.

! Important! Always use a removable condensate drain between the siphon and the unit for proper maintenance.

The condensate drain pipe may be mounted underneath. The installer can adjust the condensate drain to the desired position. The drain should end at the water level of the siphon.

Use a condensate drain pipe with a diameter of 32mm.

! Take particular care in the case of ceiling mounting, that the drain of condensates is below the level of the Blauberg PASSIV+ 200.

! Attention! Only one condensate drain is connected, the other drain must remain closed with the plug.

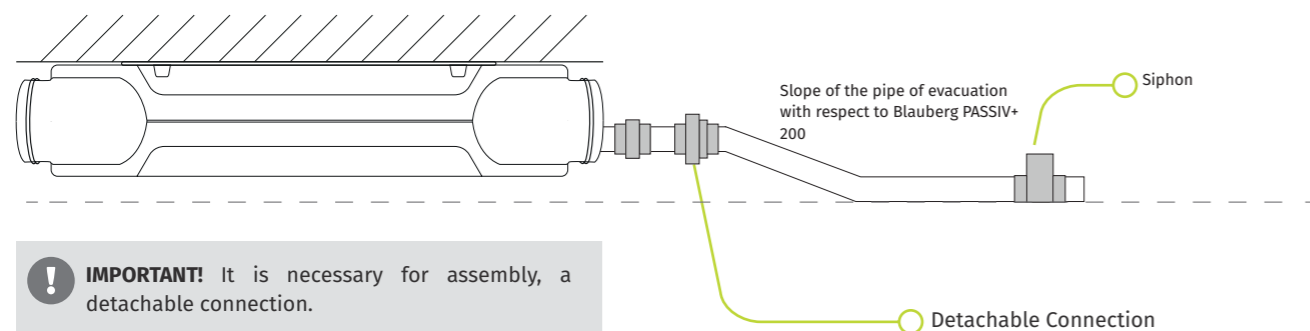


! Attention!
 In the case of ceiling installation: install the condensate siphon on the side of the ducts that connect to outside. The other drain should be sealed with the plug.
 In the case of wall installation: install the condensate siphon in the lower drain position. The other drain should be sealed with the plug.



! Attention! In order for the equipment warranty to remain in force, the installation of an original Blauberg dry siphon (Dry Ball Siphon) is necessary.

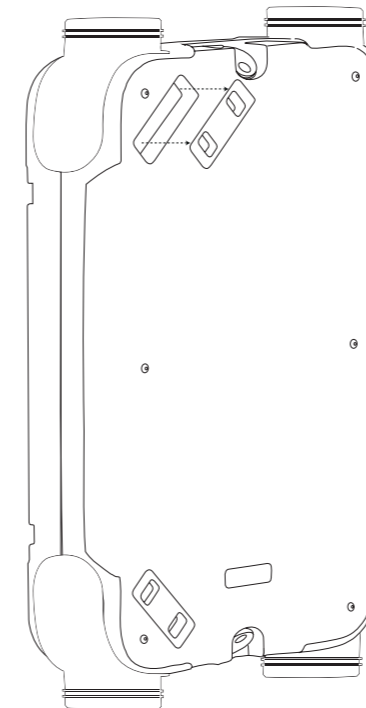
In the event that the drain of condensation is executed in another way, if there are any faults caused or related to the drain of condensation Blauberg excludes itself from any responsibility and it will be the responsibility of the installer or company that has carried out the installation to solve any problem and the costs derived from this problem.



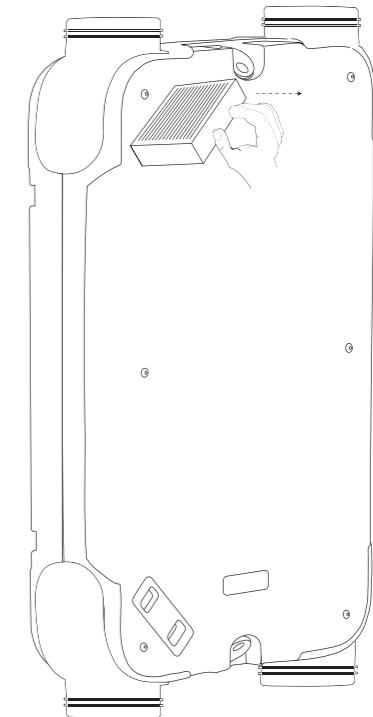
! IMPORTANT! It is necessary for assembly, a detachable connection.

8 CHANGING FILTERS

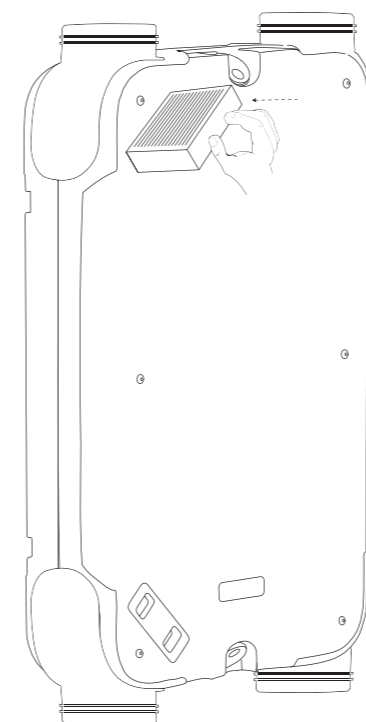
1 Remove the filter cover.



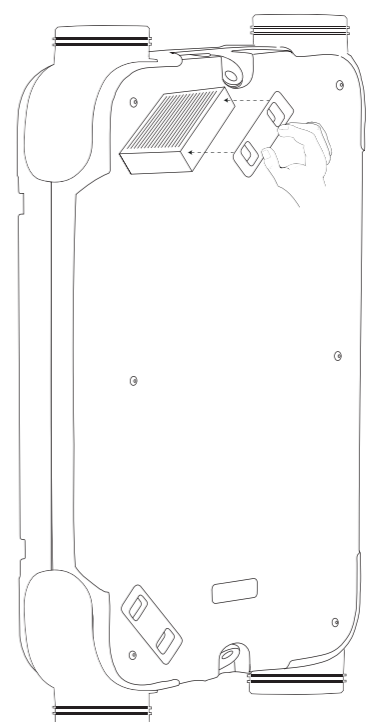
2 Pull the filter outwards.



3 Place the new filter in the slot and push in.



4 Replace the filter covers



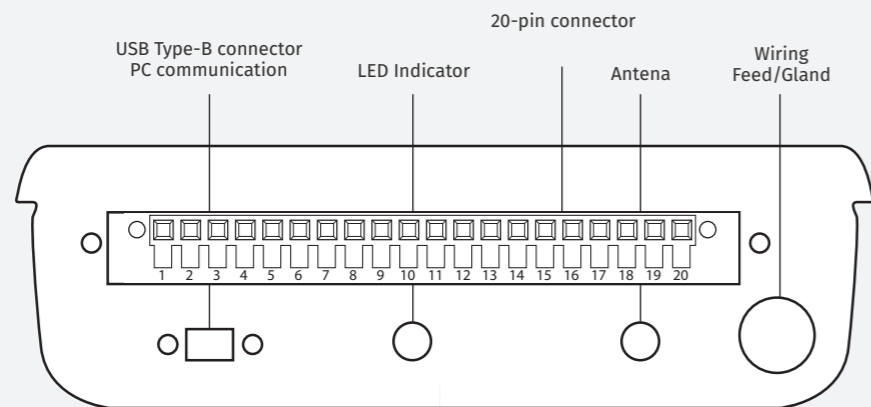
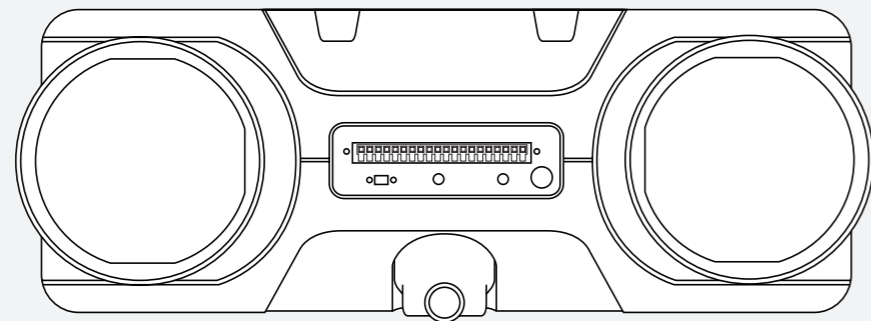
9 ELECTRICAL CONNECTION

9.1 CONNECTION TO THE POWER SUPPLY

The electrical installation must correctly comply with the corresponding standards.

Warning! The fans and regulation circuit will operate at 230/250V 50 Hz. If handling or maintenance work is performed, the unit must be disconnected from the mains electrical supply.

IDENTIFYING COLORS OF THE CABLE	
BROWN	Live
BLUE	Neutral
GREEN / YELLOW	Earth



Integrated smart control card.

10 MONITOR YOUR HOME - WIRELESS SENSORS / CONTROLS

Take care of your health and that of others, monitoring the air quality of your home!

The Blauberg PASSIV+ 200 can be equipped with several wireless (optional) accessories:

- Wireless CO2 sensor
- Wireless Humidity Sensor (RH)

Blauberg PASSIV+ 200 Optional Sensors	
Wireless CO2 Sensor	PASSIVCO2
Wireless Humidity Sensor (RH)	PASSIVHR



The Blauberg Intelligent Wireless Multicontrol communicates via RF (radio frequency) with the Ventilation Unit and can choose 5 different flow rate positions linked to the unit. It is a user and installation interface for monitoring and configuring the connected heat recovery unit. It has multiple functions connected to the Unit.



The Blauberg CO2 Wireless sensor monitors the CO2 level of the indoor air in the home. It measures the CO2 of the rooms of the house and sends its measurements via RF (radio frequency) to the Blauberg PASSIV+ 200 Unit. The Unit will react and vary the ventilation flow rate to guarantee indoor air quality.



The wireless RH (Relative Humidity) sensor monitors the relative humidity of the indoor air in the home. It measures indoor humidity in the home and sends its measurements via RF (radio frequency) to the Blauberg PASSIV+ 200 Unit. The Unit will react and vary the ventilation flow rate to regulate indoor air quality.

NUMBERING AND DESCRIPTION OF CONNECTOR PINS

CONNECTOR	DESCRIPTION	PLAQUE	CONNECTOR	DESCRIPTION	PLAQUE
PIN 1	Home automation input 10 v	X-26	PIN 11	Unused	
PIN 2	Home automation input 0V	X-26	PIN 12	Common selector 3V V1 230V	X-9
PIN 3	Entry dry contact home automation	X-25	PIN 13	Selector 3V V2	X-9
PIN 4	Entry dry contact home automation	X-25	PIN 14	Selector 3V V3	X-9
PIN 5	External anti-frost temperature sensor	Previsión	PIN 15	Preheating output 230V	X-17
PIN 6	External anti-frost temperature sensor	Previsión	PIN 16	Ground preheating output	X-17
PIN 7	Output signal postheating 10V	X-16	PIN 17	Neutral preheating output	X-17
PIN 8	0V postheat signal output	X-16	PIN 18	Output 230V close external actuator	X-28
PIN 9	NA/NC mirror mode	X-32	PIN 19	Output 230V open external actuator	X-28
PIN 10	NA/NC mirror mode	X-32	PIN 20	Neutral output external actuator	X-28

11 SMART CONNECTIVITY

You can turn the house into a smart home (optional) from different gateways available, as well as connect the unit to the mobile device with the Blauberg APP EVO.

- MODBUS - RS485
- KNX - Evo Connect
- Ethernet bridge (specifies Blauberg APP EVO connection)

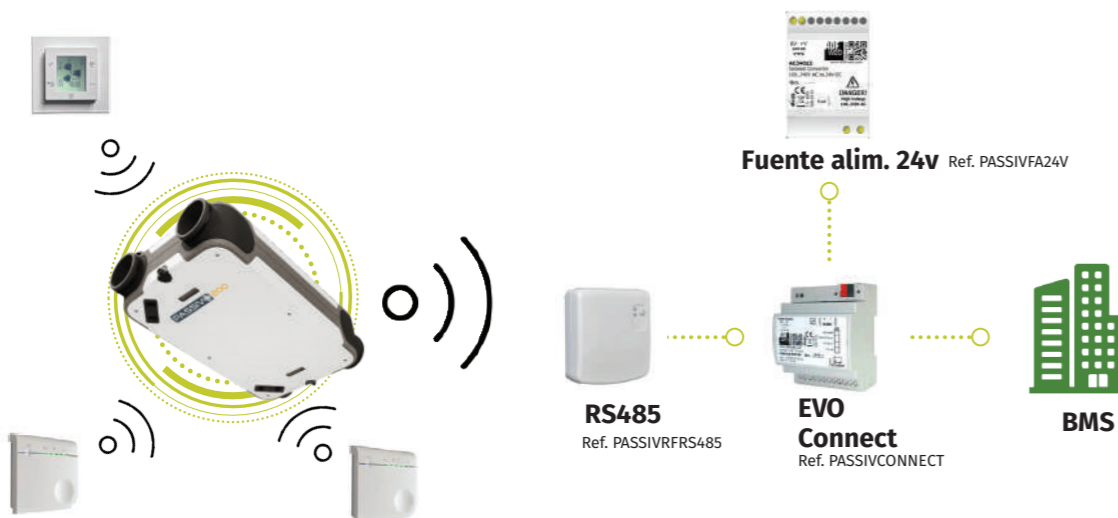
11.1 MODBUS - RS485

- » The Blauberg RS485 (PASSIVFRS485) connects to the building management system (BMS) via cabling, in Modbus language for both reading and writing data. It collects information from Blauberg PASSIV+ 200 units and compatible wireless sensors and controls (PASSIVCTRL, PASSIVCO2 and PASSIVHR) that are linked to this ventilation unit.



11.2 KNX - EVO CONNECT

- » The EVO CONNECT (PASSIVCONNECT) device is a modbus / knx converter, it needs to be connected by cable to the gateway (Modbus - RS485) to translate the information collected by the gateway (Modbus - RS485) and send it by wiring to the BMS. Collects information from Blauberg PASSIV+ 200 units and compatible wireless sensors and controllers (PASSIVCTRL, PASSIVCO2 and PASSIVHR) that are linked to this unit. ventilation.
- » The Evo Connect requires a 24V power supply for proper operation.



11.3 ETHERNET BRIDGE - BLAUBERG APP EVO

Thanks to the intelligent control system, online monitoring of the most important elements is achieved, enabling the control and monitoring of the indoor air quality of the house through the Blauberg APP EVO.

- Control and regulation of unit speeds.
- Monitoring of CO2 and relative humidity of the house.
- » The Blauberg PASSIV+ 200 unit collects information from the various compatible wireless sensors and controls (PASSIVCTRL, PASSIVCO2 and PASSIVHR) via radio frequency.
- » The information is sent to the Ethernet gateway (Bridge Ethernet - PASSIVRFETH), whose device must be connected by cable to the modem of internet connection of the house, transferring the collected data to the "cloud" to give access and monitoring of the data through the Blauberg APP EVO.



Legend	
Wireless	
Wired	

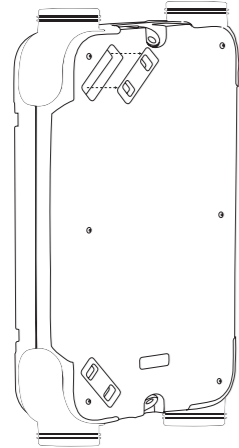
12. MAINTENANCE

12.1 MAINTENANCE OF FILTERS

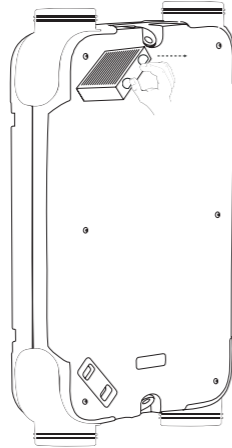
Filters should be cleaned every three to six months and replaced at least once a year.

! Attention!
The equipment should never be started without filters

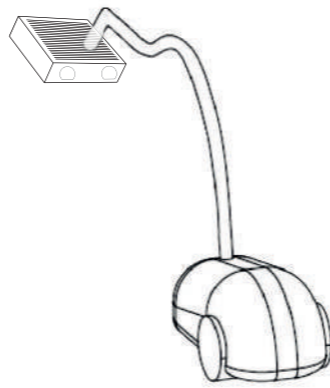
1 Remove the filter cover.



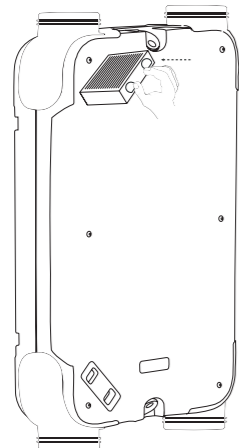
2 Pull the filter outwards.



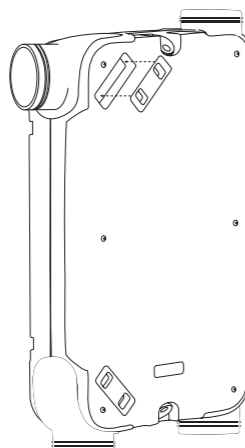
3 Vacuum the filter to remove dirt



4 Place the filter in the slot and push it.

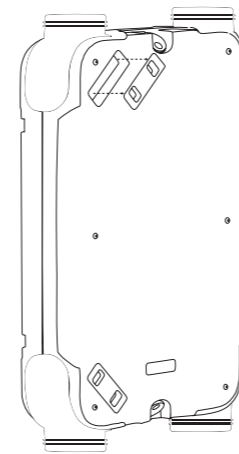


5 Replace the filter covers

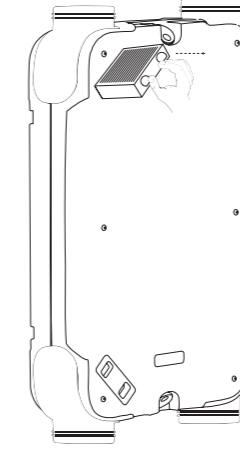


12.2 MAINTENANCE OF THE EXCHANGER

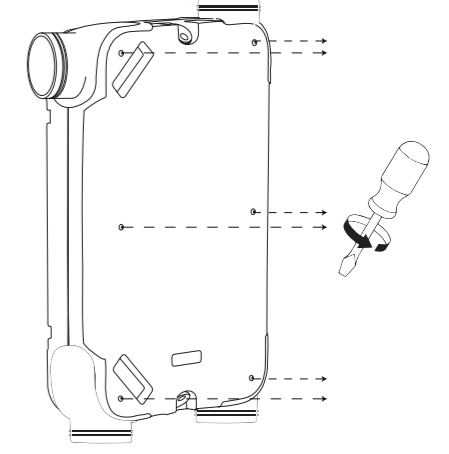
1 Remove the filter cover.



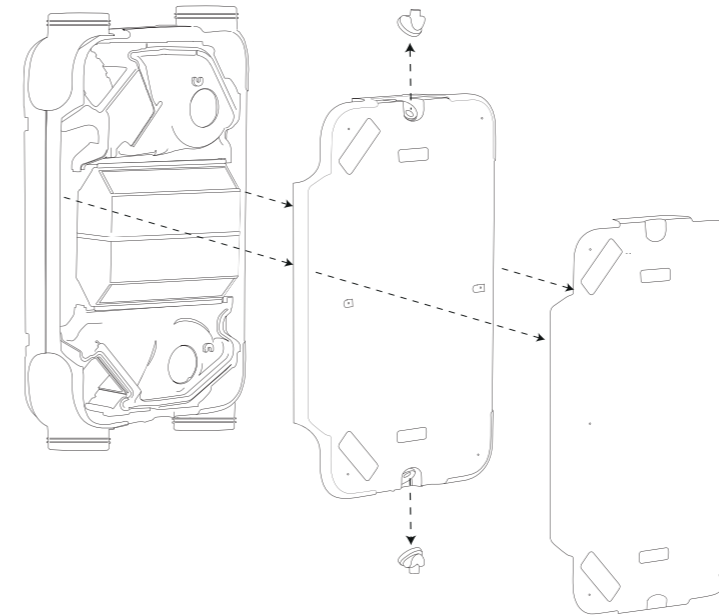
2 Pull the filter outwards.



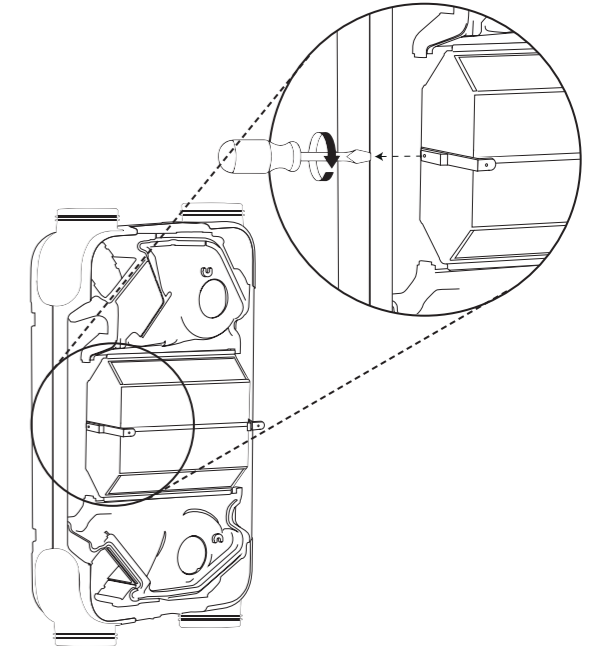
3 Unscrewing the outer case.



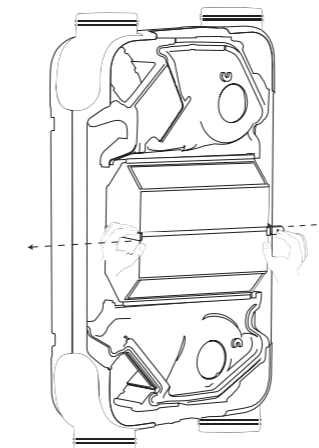
4 Remove the outer housing section from the unit, exposing the inside.



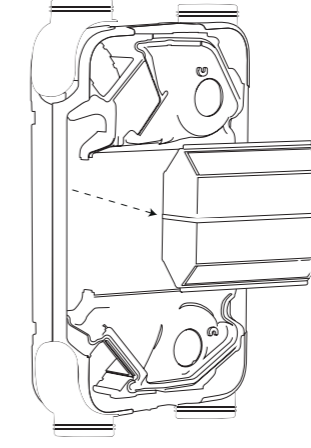
5 Unscrew and remove left support angle.



6 Separate the clamping tabs to remove the exchanger



7 Take out the exchanger

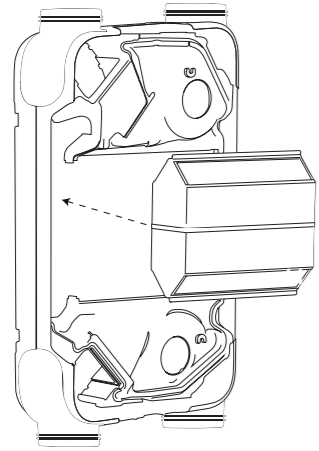


8 Clean the exchanger with water

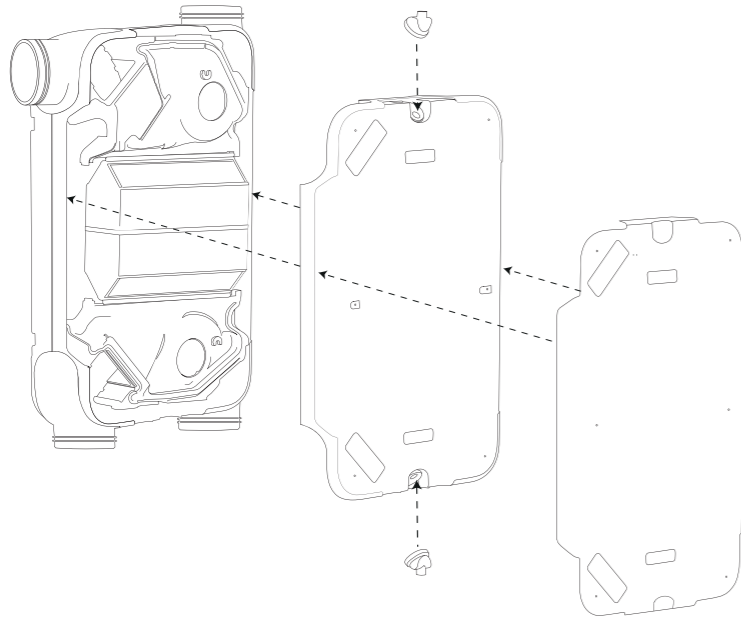


! Attention!
Carefully remove the exchanger; A small amount of condensation water may still remain in it.

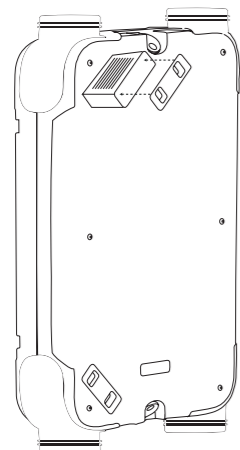
9 Once dried, put the exchanger back in place



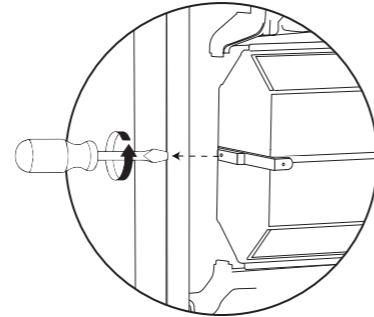
11 Reinstall housing and outer case



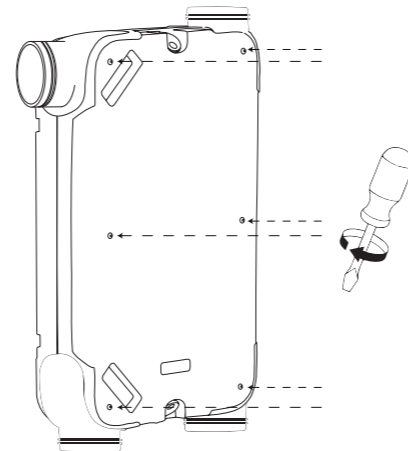
13 Replace the filters



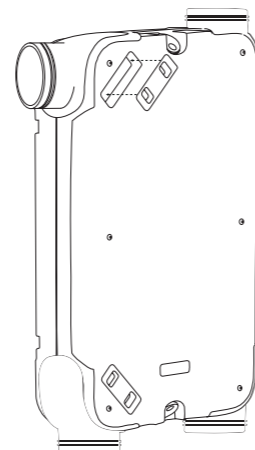
10 Place the angle of support and screw again



12 Screw the outer cover

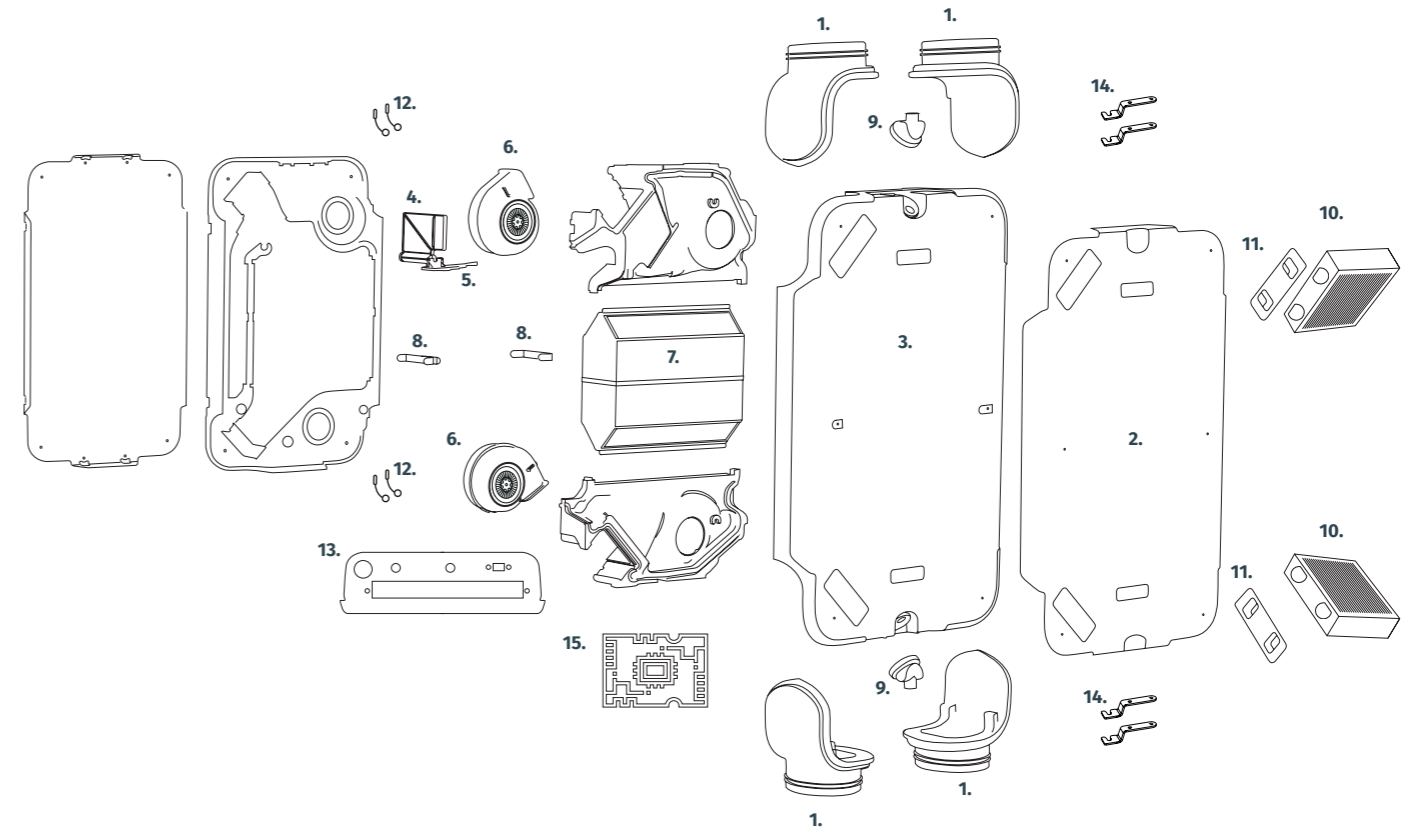


14 Replace the filter covers



12.3 EXPLODED VIEW AND DESCRIPTION

Nº	Item description Blauberg PASSIV+ 200	
1	Adjustable DuctConnections Ø 160	4 units
2	Front cover	1 unit
3	Front housing	1 unit
4	Summer By-Pass Valve	1 unit
5	Motor valve By-Pass	1 unit
6	Energy efficient fan	2 units
7	High performance heat exchanger	1 unit
8	Clamping tabs	2 units
9	Adjustable condensate drain	2 units
10	High performance filter	2 units
11	Filter cover	2 units
12	Temperature sensor	4 units
13	Connection plate	1 unit
14	Anti vibration bracket	4 units
15	Electronic connection board	1 unit



PASSIV+ 200

Sustainable ventilation and air handling systems