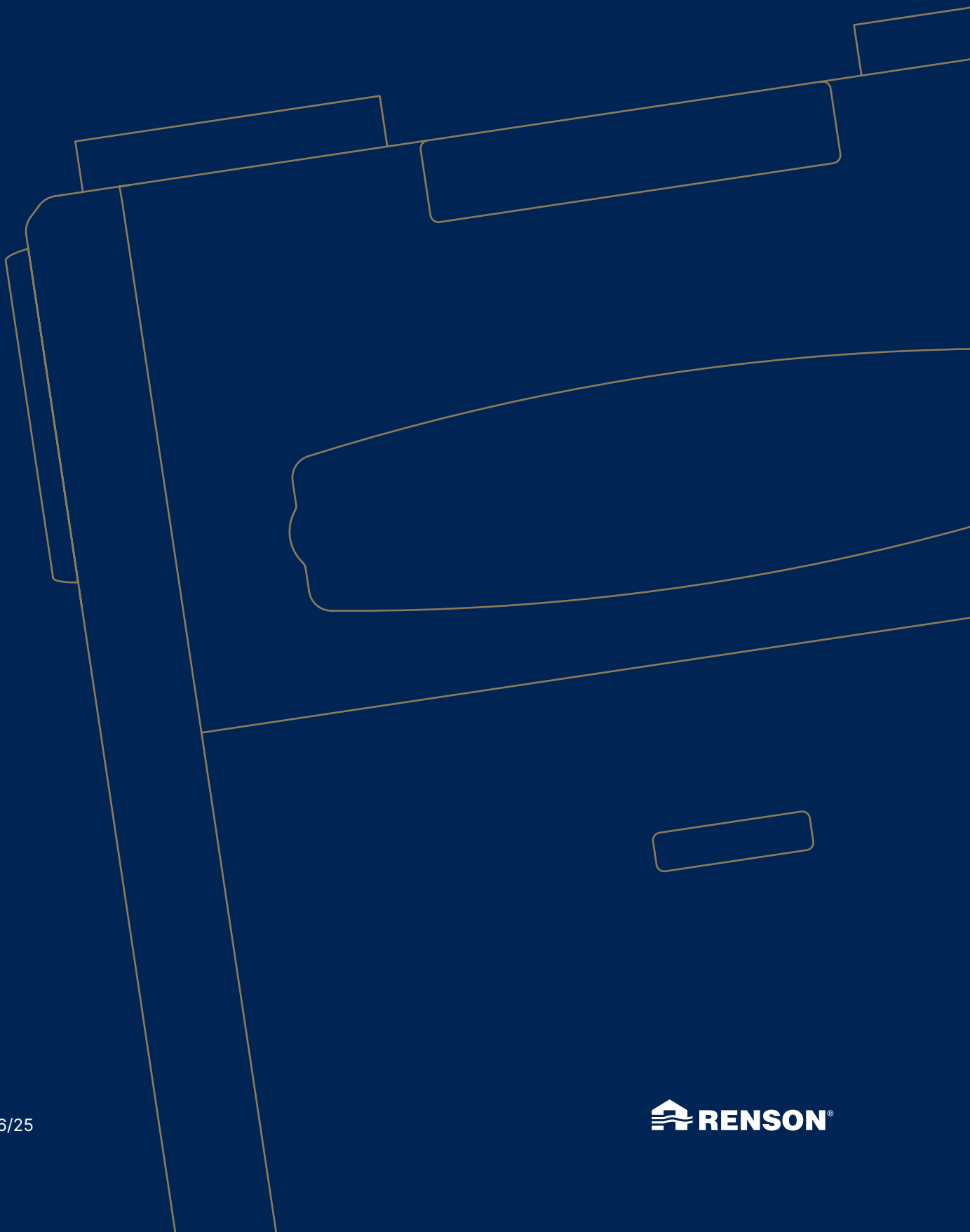
FLUX + WALL

INSTALLATION & MAINTENANCE MANUAL



06/25

RENSON®

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GENERAL

1 • General

The RENSON® Flux+ Wall is a balanced ventilation system with heat recovery. The unit brings fresh air into the home mechanically and removes polluted air from the home mechanically using 2 integrated fans.
The Flux+ Wall is a professional product and must only be installed by a qualified installer.
There are 3 manuals for the Flux+ Wall: two for the installer and one for the user.

- The **installation manual** contains all the necessary information for installation, troubleshooting and maintenance.
- The **quick start guide** provides a clear step-by-step plan for the installer to assemble the unit.
- The **user manual** has all the necessary information for the use of the unit, simple maintenance and troubleshooting.

1.1 • Purpose of this manual

This manual contains instructions and recommendations for correctly sizing the Renson Flux+ Wall Unit and then safely mounting, commissioning and maintaining it.
Please read this manual carefully before connecting or maintaining the unit.

This manual starts with a general description of the Renson Flux+ Wall Unit. Read these chapters first to familiarise yourself with the function and location of the most important parts.
This is followed by Renson Flux+ Wall Unit procedures:

- to install.
- to calibrate.
- to commission.
- to maintain.

1.2 • Training

- Only a certified installer may install, operate and maintain the unit unless otherwise stated. The proper functioning of the Renson Flux+ Wall largely depends on correct installation and start up. Our experienced trainers are ready to provide you, the installer, with all the training and associated tips & tricks.

  More info: https://renson.net/gd-gb/pro/renson-academy

1.3 • Version control

This manual is only available electronically as a PDF file.
RENSON® reserves the right to make technical changes to the products described. The most recent manual is available for download at www.renson.eu.

1.4 • Language version

This Dutch version is the original version. Any other language versions are translations. In case of incompatibility, the Dutch version is the standard version.

1.5 • Symbols used

Read the manual.

Tip: non-essential, useful information.

Warning: Failure to perform the procedure correctly may result in undesirable results or damage to the Renson Flux Wall Unit.

Danger: failure to perform the procedure correctly may result in personal injury.

The **CE mark** indicates that, according to the manufacturer, a product meets all EU requirements in terms of safety, health and environmental protection.

UKCA mark: the product complies with the regulations of the relevant laws in England, Wales and Scotland.

Warning for dangerous electrical voltage.
The product operates at high voltages.

Device to be used indoors.

This electrical appliance must be returned separately from residual waste by the owner.

1.6 • Abbreviations

The following abbreviations are used in this manual:

Abbreviation	Meaning
	CERTIFICATION
AREI	Belgian General Regulations for Electrical Installations
UKCA	UK Conformity Assessed
EAC	Eurasian Conformity Certificate
EMC	Electro-Magnetic Compatibility
	AIRFLOW WTW SYSTEM
EHA	Exhaust air, polluted extraction air that is blown outside
ETA	Extracted air, polluted extraction air from the home
ODA	Outdoor air, fresh air that enters the home
SUP	Supply air, fresh air that is blown into the home
HA	House connection (ETA & SUP) – is indicated by a house
BA	Outdoor connection (EHA & ODA) – is indicated by a tree
	MATERIALS WTW SYSTEM
EPP	Expanded and thermally insulating Polypropylene
	SI UNITS AND GENERAL CONCEPTS
Pa	Pascal, unit for pressure (1 Newton on 1 m^2)
ppm	Parts per million, a measure of concentration
CO_2	Carbon dioxide, a measure of human presence
VOC	Volatile Organic Components, a measure of pollutants in the home
WTW	Heat recovery, a method for reusing heat

1.7 • Definitions

The following terms are used in this manual:

Term	Meaning
System D+	Ventilation system with mechanical supply + mechanical extraction of air
Unit	Renson Flux+ Wall - 34594 – Flux+ Wall 475 - 34595 – Flux+ Wall 650 - 34596 – Flux+ Wall 475 ERV - 34597 – Flux+ Wall 650 ERV
Ventilation system	The unit with associated pipes and control elements
Pipe pressure	Every pipe system in a home has a characteristic pressure drop (pipe characteristic).
Plenum box	Distribution box to achieve both the supply and extraction air in the different rooms.
Valves	Adjustable openings that facilitate both supply air and extraction air in the different rooms.
Pulsion/Supply/SUP	Supplying air into the home
Extraction/ETA	Extracting air from the home
Bypass	A classic bypass provides an option to bypass the heat exchanger if no cold or heat exchange is necessary.
Thermal efficiency	The efficiency of the transfer of the heat or cold will result in thermal efficiency
Condensation drainage point	Depending on the temperature and humidity, the exchange of air flows and heat transfer results in the production of condensation, and the moisture must be removed via a condensation drainage point.
Filters	To protect the valuable unit (heat exchanger, fans, sensors), it is necessary to replace the 2 filters in the unit at regular intervals (see maintenance chapter).
Frost protection	If necessary, the unit will operate with imbalance at critical temperatures to prevent the heat exchanger from freezing.
Constant Flow	Regardless of the variation in pressure due to indoor conditions or contamination of filters, the unit will always ensure the desired air flow rates are used. This also ensures the thermal efficiency is optimal at all times.
Wall installation	The device can be wall-mounted (see chapter 6. Installation for more details.) Thanks to the head box with top and side connections, the unit can be mounted to the ceiling. It can also be placed on the ground using the mounting base (35672).

INSTALLER

2 • Set up and installation (Safety)

2.1 • General instructions and safety instructions

The unit in this packaging complies with the prescribed CE safety regulations and UK Conformity Assessment.

Flux+ Wall meets the legal requirements for electrical devices.

AREI
The socket used to connect the unit to the mains voltage must comply with the provisions of the AREI.

UKCA (UK Conformity Assessed)
The unit in the packaging complies with the prescribed UKCA safety regulations.

2.2 • Safety regulations

DANGER

- Ignoring the warnings below may result in malfunction or loss of performance as well as fire, electric shock or injury.
- A unit that has not been installed in accordance with the installation instructions is not covered by the warranty.

- This unit is intended for indoor domestic use. If you have a different situation, please contact RENSON®.
- Only an installer who has completed a Renson FLUX training course may install, connect, commission and carry out maintenance on the Flux in deviation from the user manual.
- The Flux must NOT be placed in areas where the following are present or may occur:
  - Excessively greasy atmosphere
  - Corrosive or flammable gases, liquids or vapours
  - Ambient temperatures above 40°C or lower than 0°C (the Flux must be installed in a frost-free place!)
  - Relative humidity higher than 90% or outdoor installation (condensing environment)
- The unit and associated parts and controls must not be used in places where they may be subject to water jets.
- All wiring must be installed by a qualified person.
- When mounting, take into account the conformity of noise requirements according to the applicable standard (Belgium: NBN S01-400-1, Section 8).
- For the supply of fresh air and extraction of polluted air, the supply and extraction of the outside air must be provided via the roof (roof ducts) or via the wall (wall ducts). You must ensure the roof penetrations are sufficiently water-repellent and that the pressure drop is kept to a minimum.
- Only appropriate RENSON® accessories can be used with the unit.
- Changes to the Flux are not permitted.
- The unit cannot be opened without tools. Opening the unit may result in damage to the unit and/or personal injury.
- Observe national/regional/company regulations when working in confined spaces.
- The Renson Flux must be installed in accordance with the construction, safety and installation provisions generally and locally applicable in the municipality/city and/or all other bodies.
- If the power cable is damaged, it must be replaced by the manufacturer, its service representative or similarly qualified persons in order to avoid a hazard.
- The Renson Flux is constructed in such a way that it is impossible to come into contact with moving or live components during normal usage and without performing specific actions.
- The device must be installed so that it is touch-safe. This means, among other things, that under normal conditions no one can reach moving or live parts of the fan unit without taking a conscious action, such as:
  - Disassembling the cover plate.
  - Disconnecting an air duct and/or cover plate on the supply or discharge points during normal use.

WARNING

- The ventilation system must function permanently, which means the Flux must never be switched off (legal obligation according to NBN D50-001 Chapter 4.2 System D).
- The unit is only suitable for use in domestic homes. The unit is not suitable for industrial use, such as in swimming pools or saunas. Installation in an industrial environment may damage the unit.

2.3 • Device operation

- It is the installer's job to inform the user how the unit works and how it can be maintained (see user manual Chapter 'Maintenance'.)
- Only use the product for the applications for which it is designed as stated in the manual.
- Maintenance instructions must be followed precisely to prevent damage and/or wear.
- It is recommended to conclude a maintenance contract.

2.4 • Specific measures

PLEASE NOTE

Ensure the Renson Flux+ Wall remains easily accessible at all times so maintenance and servicing can be carried out smoothly.

- The Renson Flux complies with the legal requirements imposed upon electrical equipment.
- The Flux must not be installed at a height exceeding 2000m.
- Only appropriate RENSON® accessories can be used with the unit.
- Use RENSON® Easyflex air ducts to guarantee air transport according to the best air tightness class D.
- Provide RENSON® Aeroo valves for both extraction and pulsion. This results in lower energy consumption and lower noise production from the fans.
- Provide RENSON® Aludec air flexibles. •Provide RENSON® Aludec air flexibles if you require acoustic damping. •Provide RENSON® Isodec air flexibles if you require thermal insulation.
- Provide RENSON® roof and/or wall duct to minimise pressure drop. This results in lower energy consumption and lower noise production from the fans.
- The installer must ensure that the air exhaust of the fan unit is placed at a sufficient distance from the exhaust and supply of the heating boiler and sanitary air vent in accordance with the applicable regional regulations.
- It must not be possible to touch the fan with your hand. Therefore, an air duct network must always be connected to the Renson Flux before commissioning. The minimum channel length is 0.5 m.
- When the Renson Flux is combined with compartmentalisation products to reduce the risk of fire spreading: Ensure the fire damper/butterfly valve/cuff/etc. has sufficient free air passage to limit pressure loss. The incorrect choice of type can lead to poor functioning of the Renson Flux.

Consult our website https://renson.net/gd-gb/products/ventilation/mechanical-ventilation for more information.

2.5 • Electrical

DANGER

- Connect the unit to a 230 VAC 50/60 Hz power supply using the included power cable or directly to the fuse box (see chapter 'Connection Diagram' of the installation and maintenance manual). Any other power connection will cause damage to the unit.
- The unit must function continuously, i.e. based on the applicable legislation (NBN D50.001), and permanent ventilation must be provided. In order to ensure proper functioning of this sensor-controlled system, the unit must never be switched off.
- Always switch off the power supply to the unit before you start working on the ventilation system. Leaving the unit open while it is operating could result in personal injury. Make sure the unit cannot be switched on accidentally. The unit can be disconnected from the power supply network by removing the power cable from the wall socket or by switching off the fuse. If there is any doubt, check whether this has actually happened.
- If no permanent wiring is provided and the power cable is damaged, it can only be replaced with a Renson power cable (item code 17798). If this is not respected and different wiring is used, any warranty and/or liability for the poor functioning of the product will be void.

Electronic components
Static electricity can cause damage to electronics.

WARNING

When working with electronics, always take protective measures such as wearing a grounded wrist strap.

2.6 • Personal Protective Equipment (PPE)

- Wear a helmet and safety shoes when certain parts are lifted or hoisted during installation. It is important that you wear a helmet, even when the unit is placed on the ceiling.
- Always wear gloves when handling metal parts such as the mounting plate as they may have sharp edges.

2.7 • Privacy Statement

- When the unit is connected to the internet, the unit automatically sends various unit data to Renson.
- For more information about this data processing, see www.renson.eu/privacy or contact us at privacy@renson.be.
- If a customer's Renson Flux+ Wall is connected to your account via the user app, you have access to the personal data of that customer and you are a data processor within the context of the GDPR. In this case, you must comply with the responsibilities of a data processor imposed by privacy legislation. We initially recommend that you unlink your customer's unit from your account (via user app or user web portal) before the customer starts using the home. If you do not do this, you are responsible for complying with the requirements of privacy legislation.

TIP

The air quality sensor data is used to display (history) graphs to the user. As an installer, you do not automatically have the right to access the sensor data of a Flux+ Wall you installed, in accordance with the General Data Protection Regulation (GDPR).

3 • General description of the Renson Flux+ Wall Unit

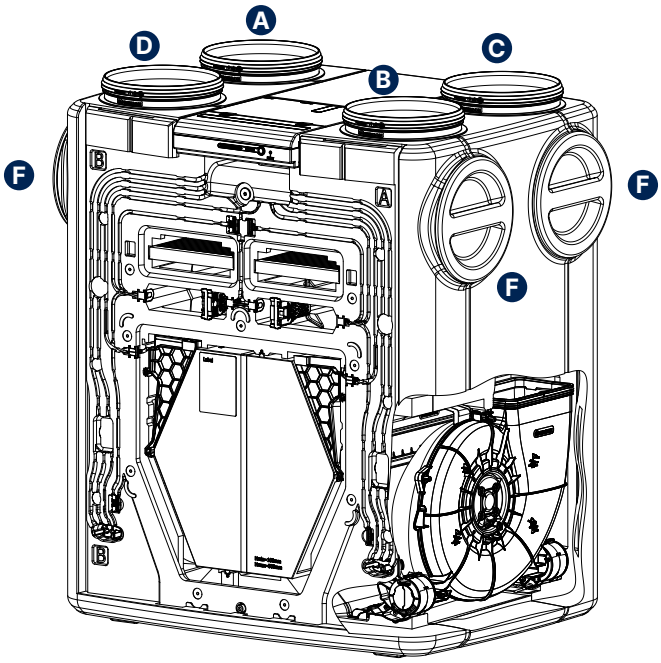
3.1 • Demand-driven ventilation and heat recovery

The Renson Flux+ Wall is a balanced ventilation system with integrated heat recovery with counterflow heat exchanger. The unit brings fresh air into the home mechanically and removes polluted air from the home mechanically using 2 integrated fans. To guarantee optimal efficiency, the system must run in balance as much as possible (supply = extraction). The Renson Flux+ Wall is a professional product and must only be installed by a qualified installer.

Proper functioning of the Renson Flux+ Wall can only be guaranteed if sufficient and correctly dimensioned passage openings are provided in the interior doors of the home. A door grille or a gap can be placed under the door with a minimum airflow of 25 m³/h at 2 Pa.

3.2 • Operating principle

The Renson Flux+ Wall is equipped with 2 sensor circuit boards:
- four sensors (ODA: RH + TEMP + VOC + CO_2) which measure the air drawn in from outside.
- four sensors (ETA: RH + TEMP + VOC + CO_2) that measure the air drawn in from the interior.



Pos.	Name	Function
A	ETA	Extraction of polluted air from the interior.
B	ODA	Fresh air flow from outside
C	EHA	Contaminated extraction air blown outside
D	SUP	Provide fresh air in the home

Maintaining air quality

- The Renson Flux+ Wall Unit is CO_2-controlled. The sensor measures the CO_2 content 24/7 and uses intelligent demand management. The major benefit is that both the sound level within the home and energy consumption are always as low as possible.
- By default, ventilation continues above the basic level until the CO_2level has fallen below 800 ppm. By comparison, outdoor air CO_2 levels are between 350 and 450 ppm.
- The ventilation system aims to maintain acceptable humidity levels.
- The ventilation system uses the central VOC sensor to ensures pollutants (such as those emitted by furniture) are also removed.

3.3 • Fan control

Constant flow technology

Using constant flow technology, the Flux+ Wall ensures that the selected flow rate is continuously monitored, even as the filters become contaminated over time. Or when the pressures in the homes change due to doors being opened or closed, for example.

3.4 • Breeze function

By default, the Flux+ Wall comes equipped with a Breeze function. The Breeze function supports natural cooling of the home during summer.

What does the breeze function entail?
When outdoor temperatures are soaring in the summer, the Flux+ Wall helps by introducing fresh air during the night.; all connected rooms are ventilated at a higher flow rate (nominal flow rate).

Activating the Breeze function
Breeze control occurs automatically if the indoor temperature (measured by the internal sensors) is greater than the minimum temperature (e.g. 24°C) and greater than the outdoor temperature (also measured by the internal sensors). The minimum temperature can be set as desired in the app. When the Breeze function is active, it lasts for a minimum of 1 hour.

3.5 • Bypass function

A bypass ensures that during hot summer periods, relatively cool outside air (often at night) is routed directly indoors, without using the heat exchanger. The Flux+ Wall has 2 flap batteries for this purpose, allowing the device to separate air flows.

3.6 • Service properties

Start up via installer app:

The app guides the installer through the start up for a rapid, high-quality & reliable installation.

RENSON INSTALLER APP FOR EASY CALIBRATION DURING INSTALLATION

RENSON INSTALLER PORTAL FOR INSTALLATION PREPARATION + POST-INSTALLATION VENTILATION REPORT
https://installer.renson.eu

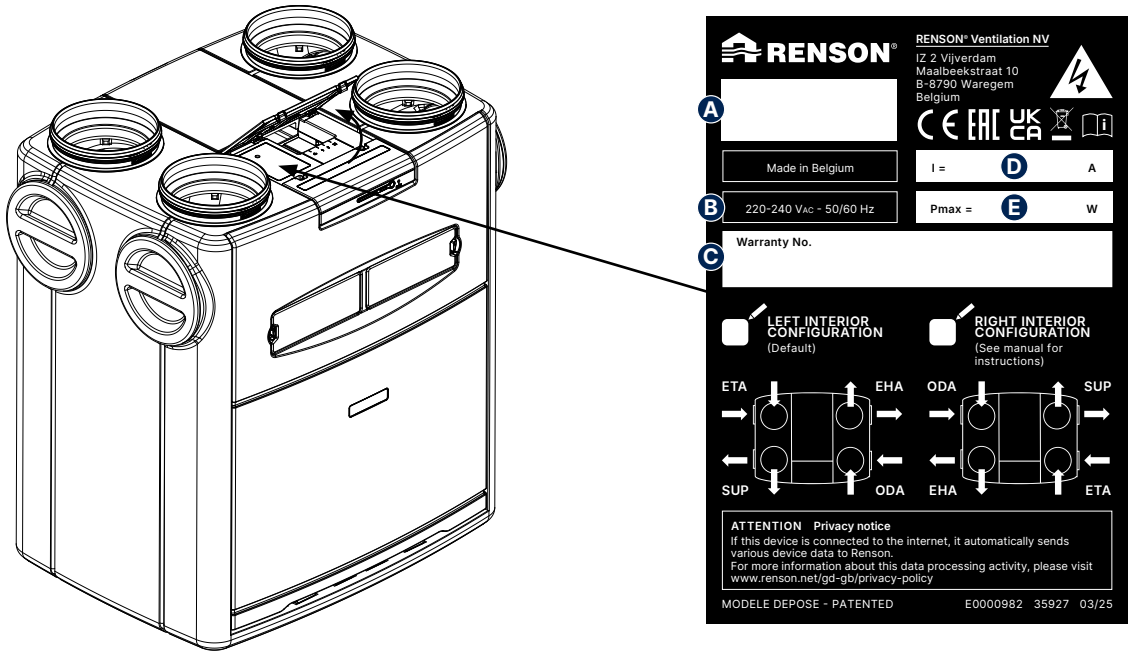
Renson Installer Portal web portal - DIGITAL PASSPORT

The Renson Installer Portal web portal guides the installer from start to delivery. Some features:
- Project creation & pre-configuration
- Sending measurements report digitally
- Monitoring of connected devices

This ensures digitalisation and administrative **simplifying of the paperwork**

3.7 • Identification

3.7.1 • Identification label



Pos.	Info	Pos.	Info
A	Model / Type	D	Max. amperage
B	Mains voltage	E	Maximum power consumption
C	Warranty number		

NOTE

- Never remove the identification plate of the unit.
- Make sure the identification plate is always accessible.

3.7.2 • Information to be provided when contacting RENSON®

Always provide the warranty number when you contact RENSON®, or when requesting service for your unit.

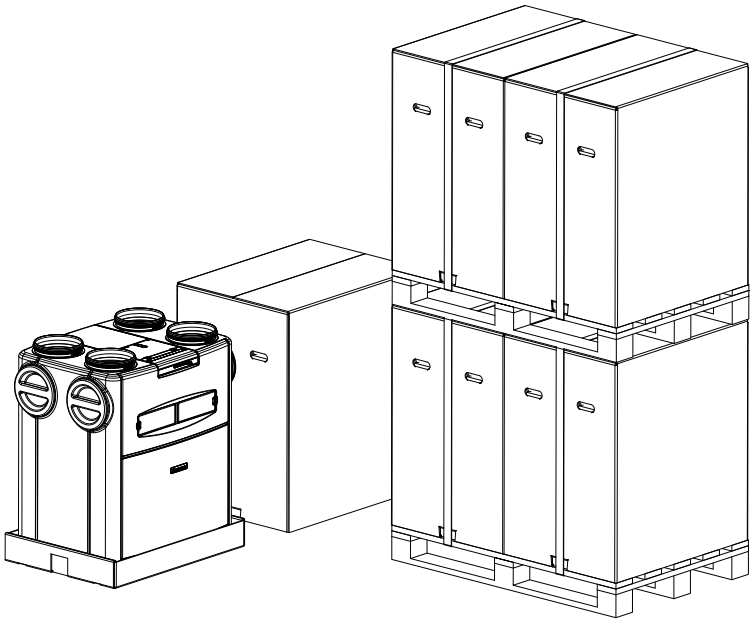
3.8 • Warranty terms and conditions

- The warranty period for the customer is 2 years.
- All pipes must be supported and mounted according to best practise. If any actions other than those mentioned are carried out, RENSON® is not responsible and the warranty will be void.
- Only an installer who has completed a Renson FLUX training course may install, connect, commission and carry out maintenance on the Flux+ Wall in deviation from the user manual.
- Only appropriate RENSON® accessories and controls can be used with the unit.
- See chapter 2, safety and assembly instructions.

4 • Material, packaging and transport

4.1 • Transport

Please observe the necessary caution when transporting and unpacking the device. No more than 2 units may be stacked on top of each other when stacking the units on a pallet for transport. 1 unit weighs 29 kg. Avoid severe shocks during transport and handling. When transporting with a forklift, the units must remain attached to the pallet. The units are attached to the pallet by means of 2 straps. The packaging has been adjusted so that the unit can be transported without damage under normal circumstances. Preferably transport and store the unit with the pallet.



4.2 • Material, packaging and environment

After unpacking the device, make sure that the packaging material is disposed of in an environmentally-friendly manner. By recycling the packaging, raw materials are conserved and the amount of waste is reduced. The packaging consists entirely of EB corrugated cardboard and paper. No UPVC or plastic foams are used to package and protect the unit.

4.3 • Disposing of the unit

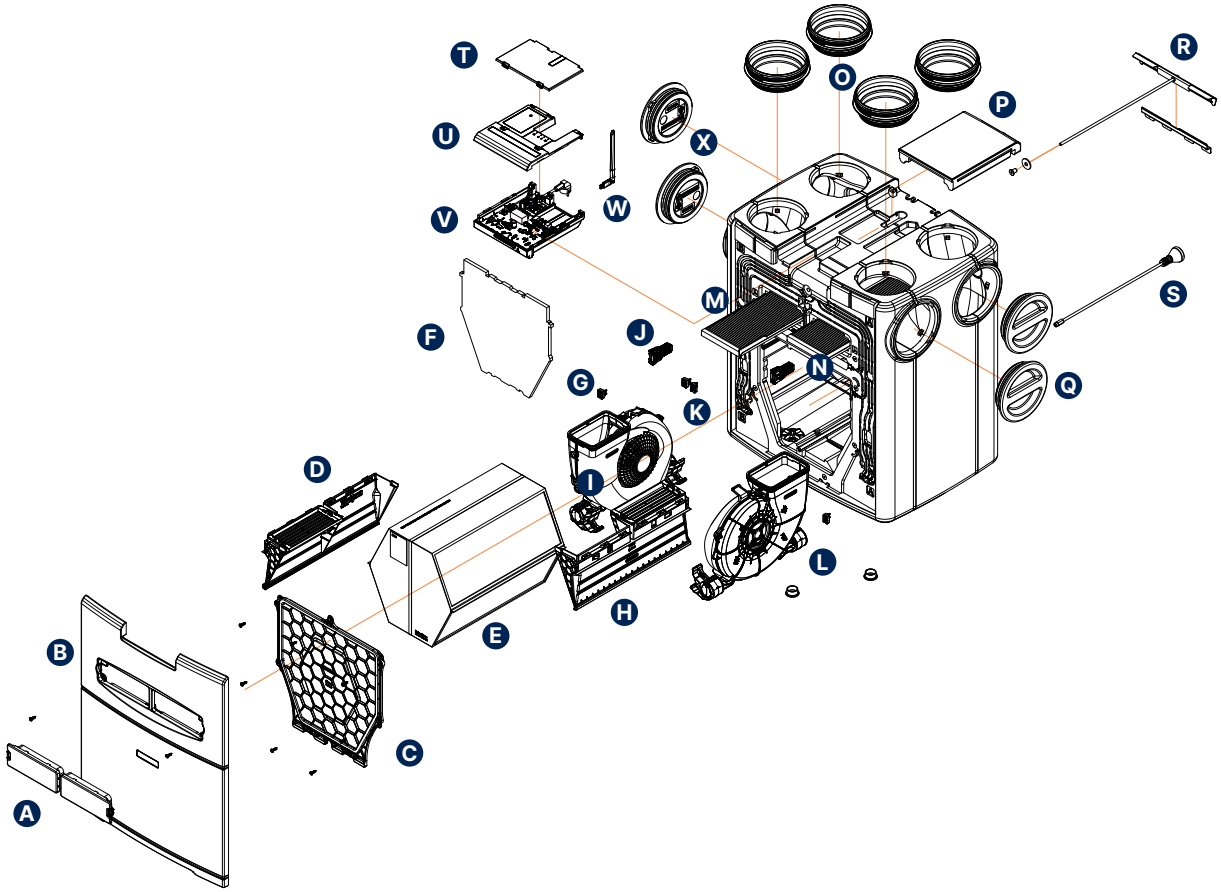
Old electrical and electronic devices often contain valuable materials. However, they also contain harmful substances that are necessary for the functioning and safety of the unit. Never dispose of the discarded unit with regular waste.

Dispose of the unit in an environmentally-friendly manner by taking it to the appropriate collection point.

5 • Ventilation unit description

5.2 • Components of the Flux + Wall unit

Exploded view of the Flux+ Wall Unit:

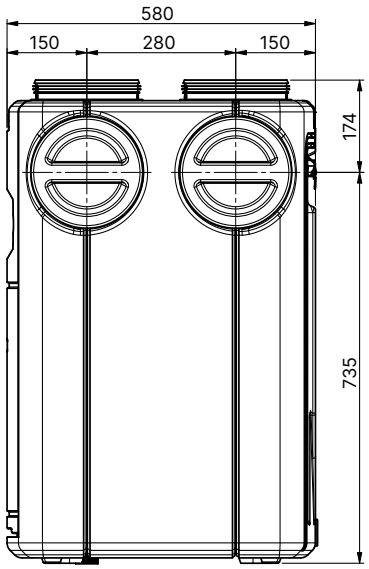


A	Filter covers	M	Filter
B	Front plate	N	Filter
C	Condensation plate	O	Flanges
D	Bypass valve	P	EPP cover
E	Heat exchanger	Q	Caps
F	Foam	R	Wall bracket
G	Pressure sensor	S	Adjustable foot
H	Bypass valve	T	Shield cover
I	Fan	U	PCB cover
J	CO_2, RH & VOC sensor	V	Circuit board
K	Pressure sensors	W	Dongle
L	Fan	X	Caps

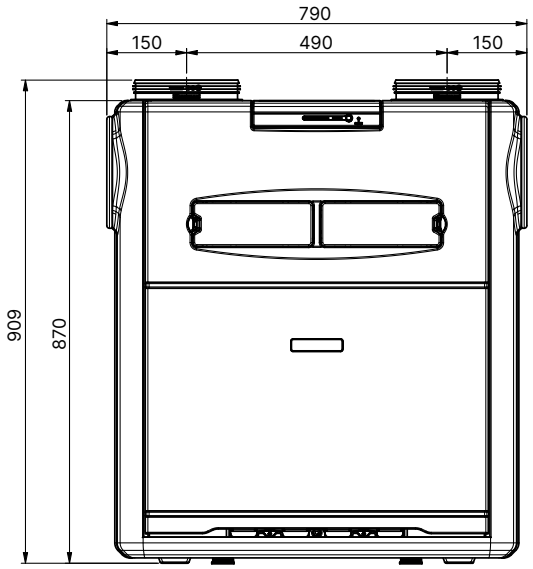
A list of the parts available can be found at:

5.3 • Dimensions

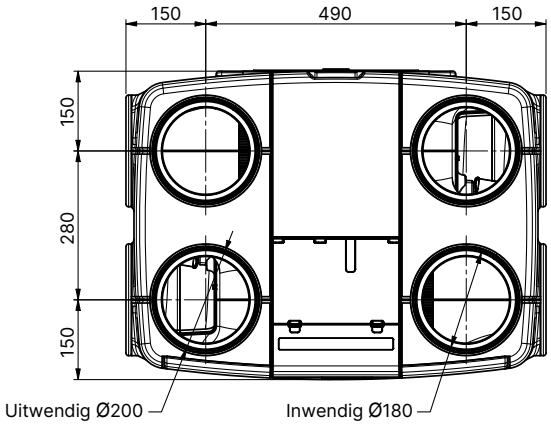
Side view



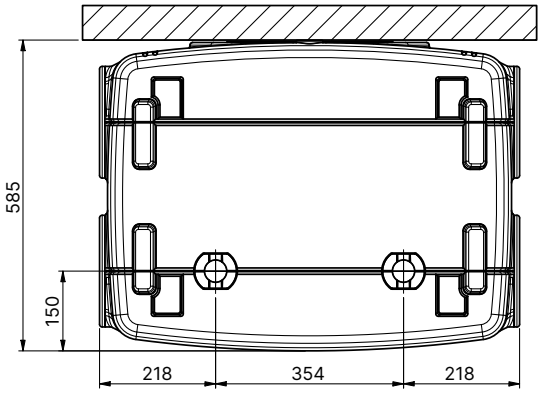
Front view



Top view



Bottom view



INSTALLER

5.4 • General installation conditions

Read the safety and installation conditions carefully.

- Choose the installation space in the technical room or elsewhere (near the roof or wall penetrations). Position the unit centrally in relation to the rooms to be ventilated so the duct lengths are distributed as homogeneously as possible and resistance across the duct network is limited.
  To limit possible noise transmission, do not place the unit above or in a bedroom.
- Make sure there is sufficient space around the unit to connect the ventilation ducts without problems and to carry out inspection and maintenance. Avoid obstacles that prevent access or removal of the unit.
- The unit must be placed in a frost-free room.
- The condensation drainage point must be connected to the home drainage point network.
- The Flux+ Wall must not be connected to an extractor hood or dryer.
- Air supply and exhaust for the unit must always be directed outside.
- The dimensions of the required supply ducts are highly dependent on the intended extraction air flow rate and the total lengths. Follow best practices and the guidelines included with the materials used
- Avoid sharp bends in the pipes just before the fan unit.
- Insulated pipes should be used to prevent condensation in the ducts:
  – for the connections of the supply and extraction pipes from outside to the ventilation unit
  – if pipes are placed outside the insulated volume of the home
- Minimum density for wall/ceiling of 100 kg/m², because of firmness for mounting & sufficient mass for further vibration damping.

NOTE

Placement of the Flux+ Wall and the associated air ducts must be arranged in such a way that the air ducts can be connected with a minimum number of bends. This limits the resistance across the air ducts and capacity and noise problems are avoided.

TIP

Renson recommends always providing 1 m of acoustic damping material Acoudec in the pulse & extraction side. Together with respecting the correct ducting rules to obtain an acceptable pressure drop, this ensures quiet operation of the ventilation system. Always place the sound absorber as close to the fan unit as possible.

In addition to choosing high-quality components (Easyflex, Acoudec, Isodec, etc.), correct installation is also essential for a well-functioning ventilation system. Correctly dimensioning the piping system plays an important role in this regard. Correct sizing of the pipe system significantly reduces fan consumption and improves acoustic comfort. The mechanical supply lines in ventilation systems D to the living areas in particular deserve extra attention. After all, mechanical supply is sensitive to acoustic discomfort. The table below provides an overview of the maximum recommended air flow rates through the Renson pipe components. Please note that this table does not address pressure drops. To limit the pressure drop across the channels, the length and especially the number of bends per channel must also be limited. If in doubt, please get in touch with your point of contact.

https://www.renson.eu/Renson/media/Renson-documents/BENG/renson_leidingsysteem/Tabel1_Dimensioneringstabel_Renson_leidingsysteem_NL.pdf

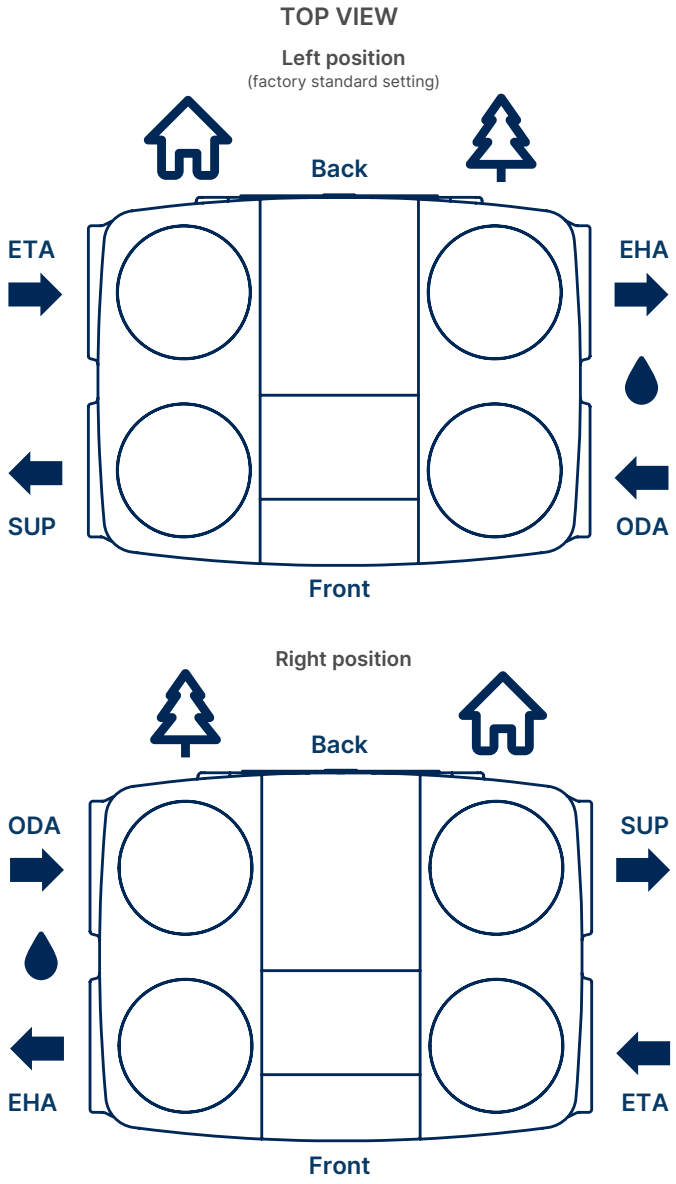
6 • Installation

6.1 • Choice of installation

De Flux+ Wall is a device that can be mounted to the wall or on the floor using the optional mounting base (item code: 35672). Moreover, Flux Wall can easily be changed from a left-hand configuration to a right-hand configuration. Defining the configuration is one of the steps when setting up a device in the Renson Installer App.

6.1.1 • Wall installation

Condensation drainage point is provided on the side where EHA is connected. Choose condensation drainage point number 2 for the left version; choose condensation drainage point number 3 for the right version.

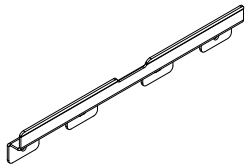


6.2 • Preparing the unit for installation

6.2.1 • Parts

What do you need?

The necessary parts for this installation are included in the standard packaging of the unit.

Number	Description	Quantity	Illustration
①	Suspension bracket	1	

6.2.2 • Tools

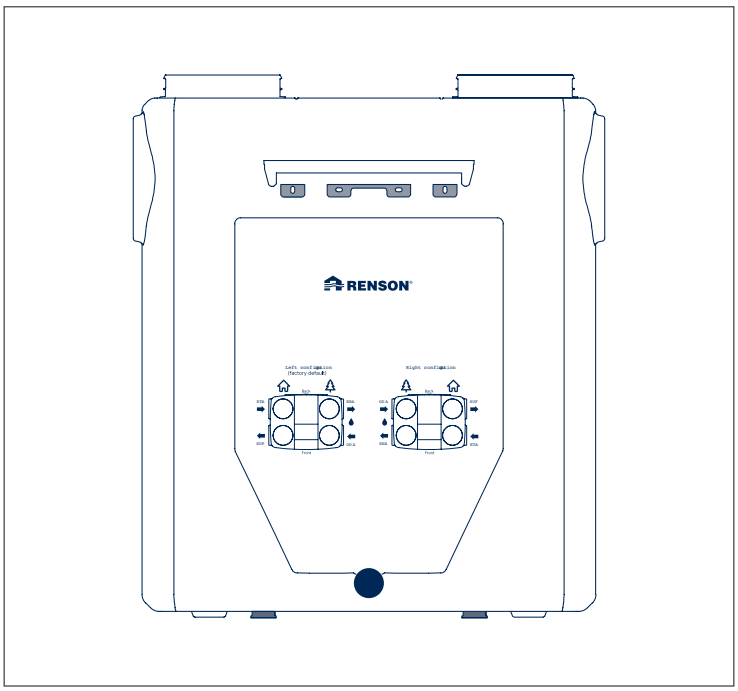
- Drill
- Screwdriver machine with bits
- Pencil, marker for marking

6.3 • Marking the suspension bracket

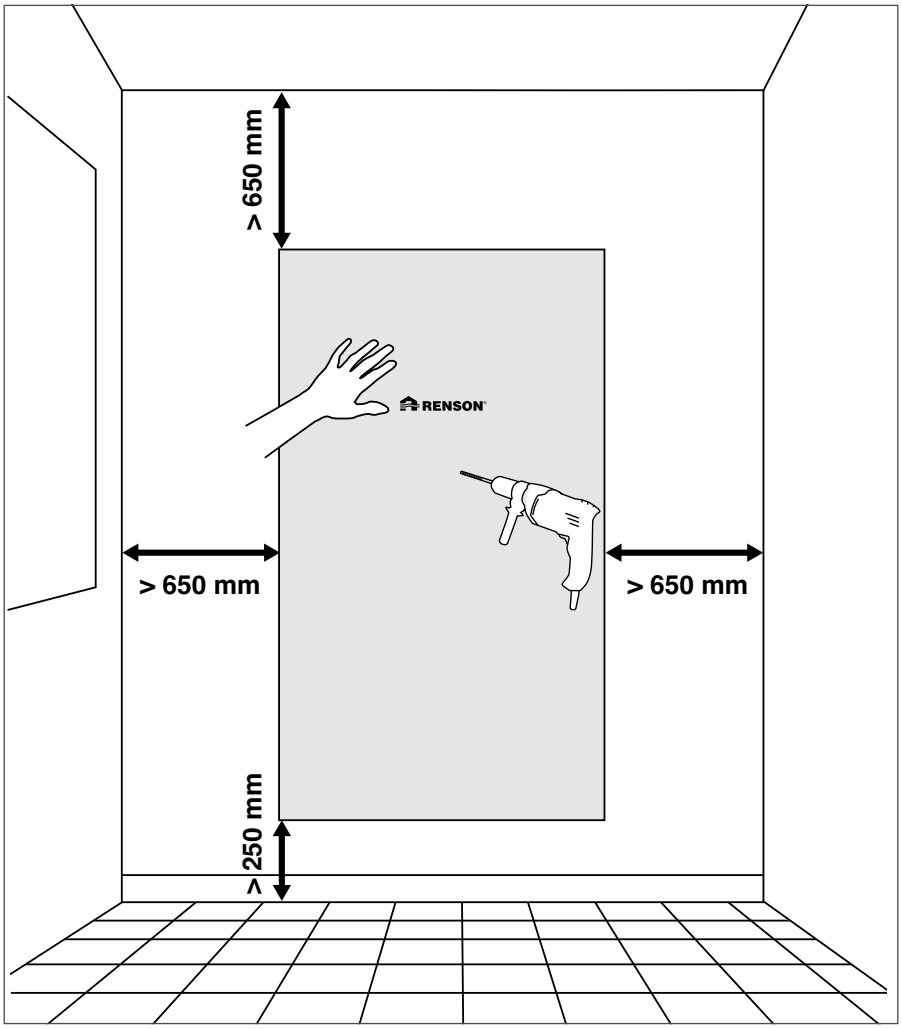
When marking out the position for the Flux+ Wall, a minimum distance of 650 mm between the wall and the unit must be maintained to allow sufficient space for connecting the ducts.

After a choice has been made about the location of the ventilation unit, the location of the suspension bracket can be determined with:

1. The template (which is cut from the box)



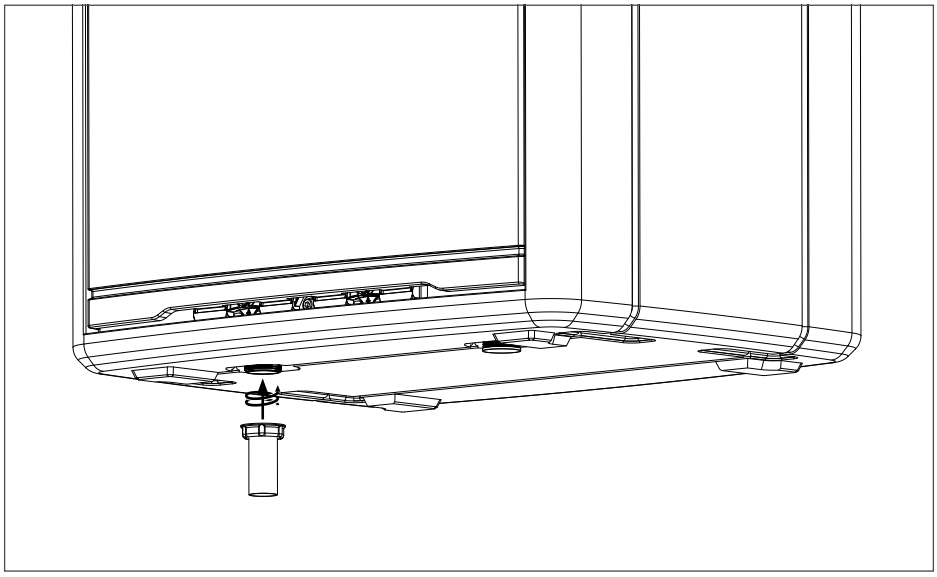
2. The simplest way to mark the drill holes on the wall is to hold the wall bracket at the correct height against the wall, using a spirit level, and transfer the hole positions with a pencil.

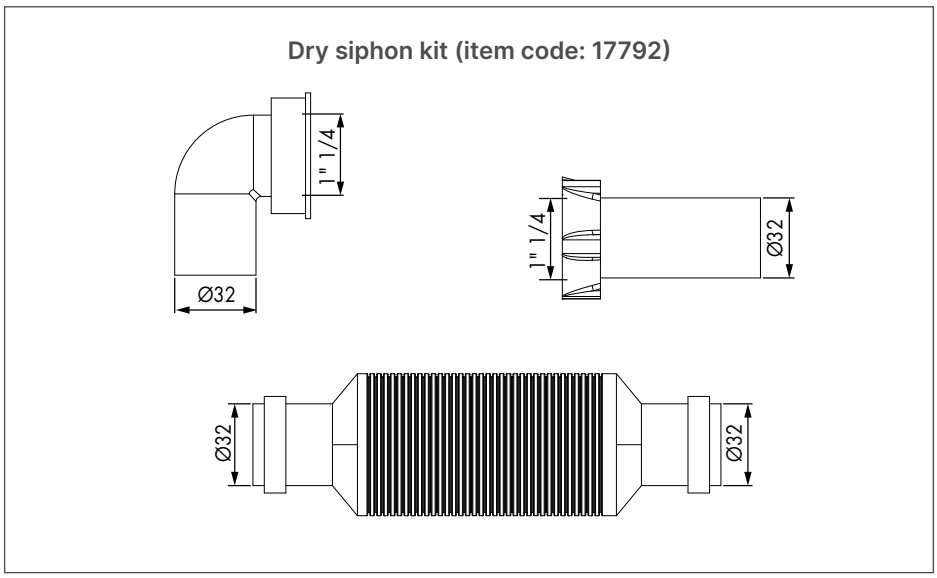


6.4 • Condensation drainage point

The Renson Flux+ Wall has 2 condensation drainage points. The unused drainage point is closed off using the pre-assembled plastic cap. Be careful not to damage the plastic cap when removing it in order to prevent creating a leak when putting it back.

Each condensation point consists of a 1.25 inch (32 mm) external thread. An extraction point with a siphon or odour seal must be mounted to it. In the image, you can see an adapter piece that is included with the dry siphon kit (item code: 17792). Optionally, you can order this kit at Renson.



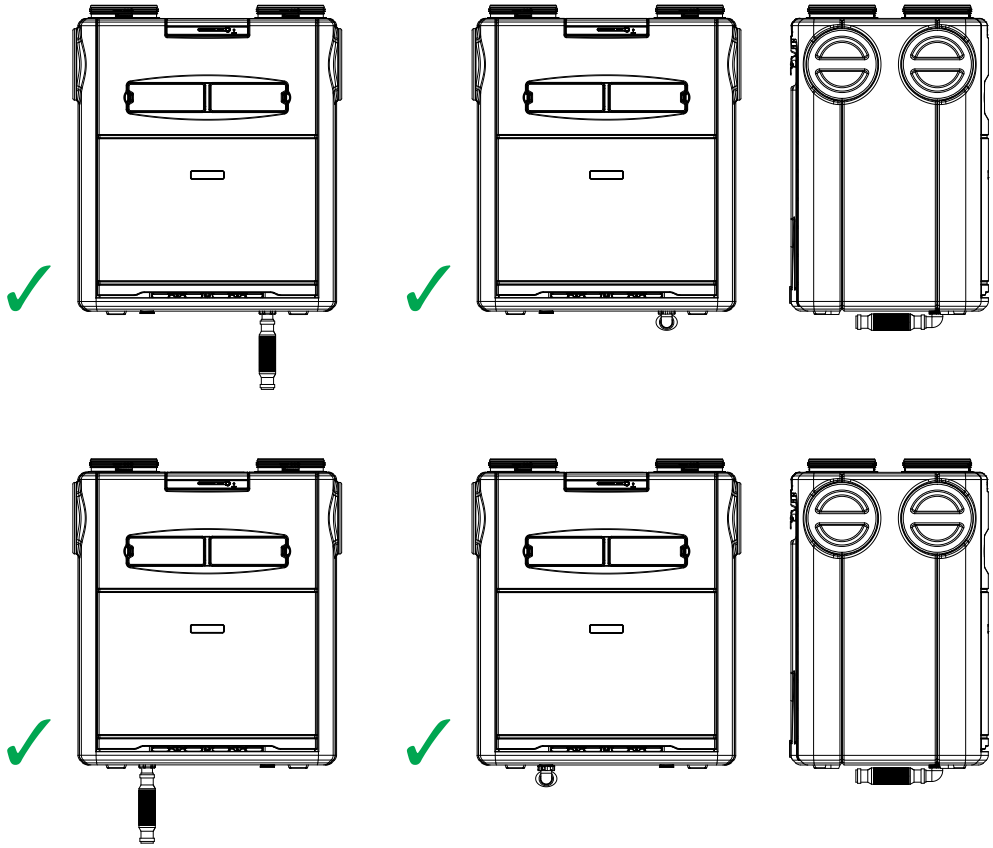


TIP

For proper water drainage without odour nuisance, it is highly recommended to use the Renson dry siphon kit (item code: 17792) for the Flux+ Wall. Follow the instructions on the supplied sheet carefully to ensure proper functioning of the unit.

To ensure proper water drainage, make sure that the unit is installed at least 100 mm above the ground (for an angled connection), or at least 250 mm above the ground for a straight connection, so that condensate drainage can always be carried out correctly. The water drainage point must slope at least 1 cm/m to ensure a good drainage point.

Wall installation



6.5 • Installation dimensions

Provide **at least 100 mm (for angled connection) or 250 mm (for straight connection)** at the bottom of the unit at the level of the condensate connection.

In addition, a minimum distance of 650 mm must be maintained between the unit and the wall and/or ceiling on each side where a duct connection is present. If this duct connection consists of a Renson Isodec, Acoudec or Easyduct in Ø 180 mm (lower flow rates) or Ø 200 mm (guideline), respecting this minimum distance ensures a small pressure drop and easy installation and disassembly for any service to be carried out.

The Flux+ Wall has a total of four internal plenums, each with Ø 180 mm internal diameter and Ø 200 mm external diameter connections. The unit is supplied with 4 installation flanges and 4x EPP caps by default. The following items can be connected to the installation flanges: The connection must always be finished airtight, e.g. by using ALU tape.

- **Renson Isodec**

Renson Isodec	10 m	1 m
Ø 180 mm	29768	10913*
Ø 200 mm	29769	

* sleeve included

- **Renson Acoudec**

Renson Acoudec	1 m	0.5 m
Ø 180 mm	29770	8759*
Ø 200 mm	10914	10915

* sleeve included

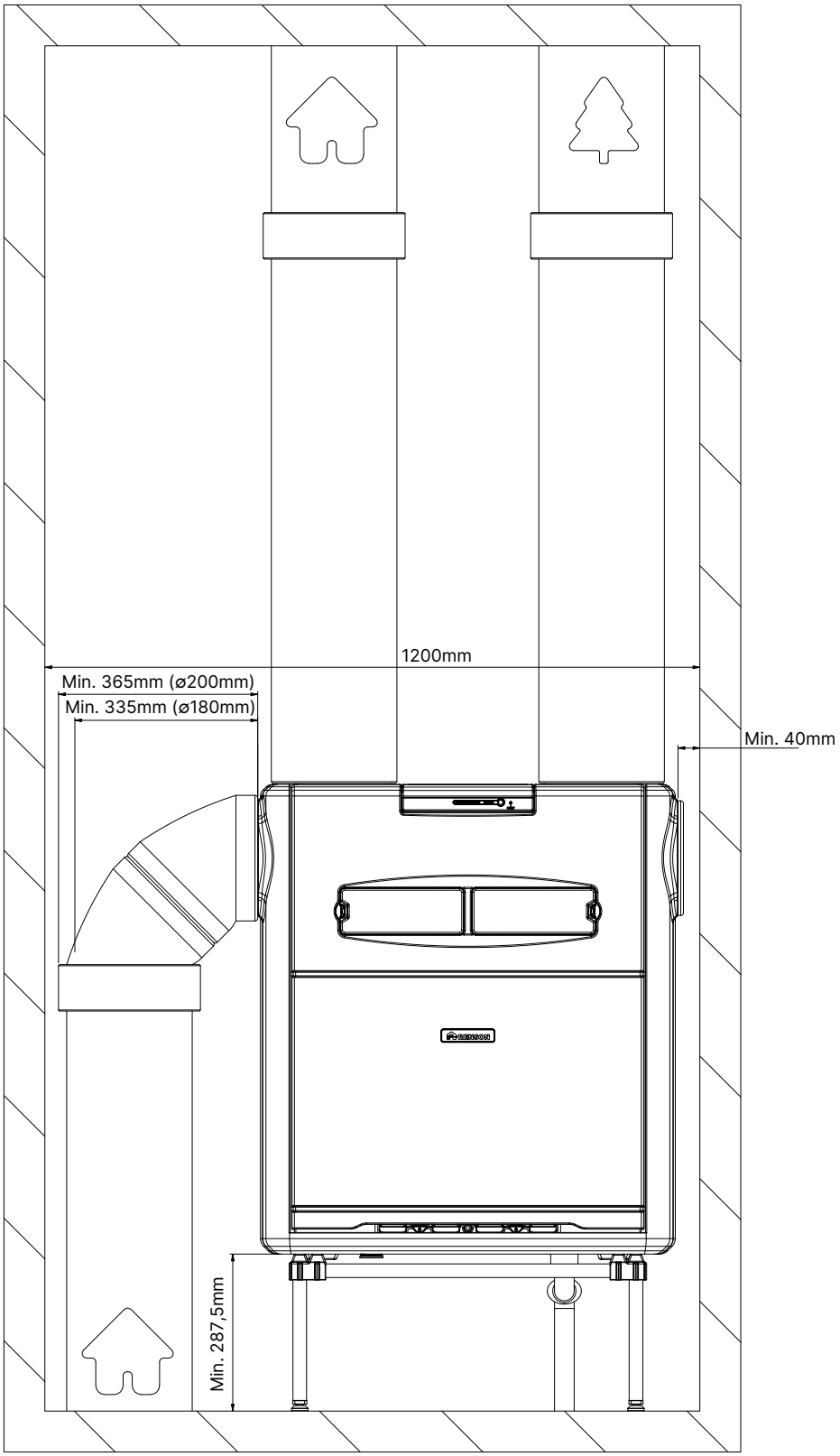
- **Renson Easyduct**

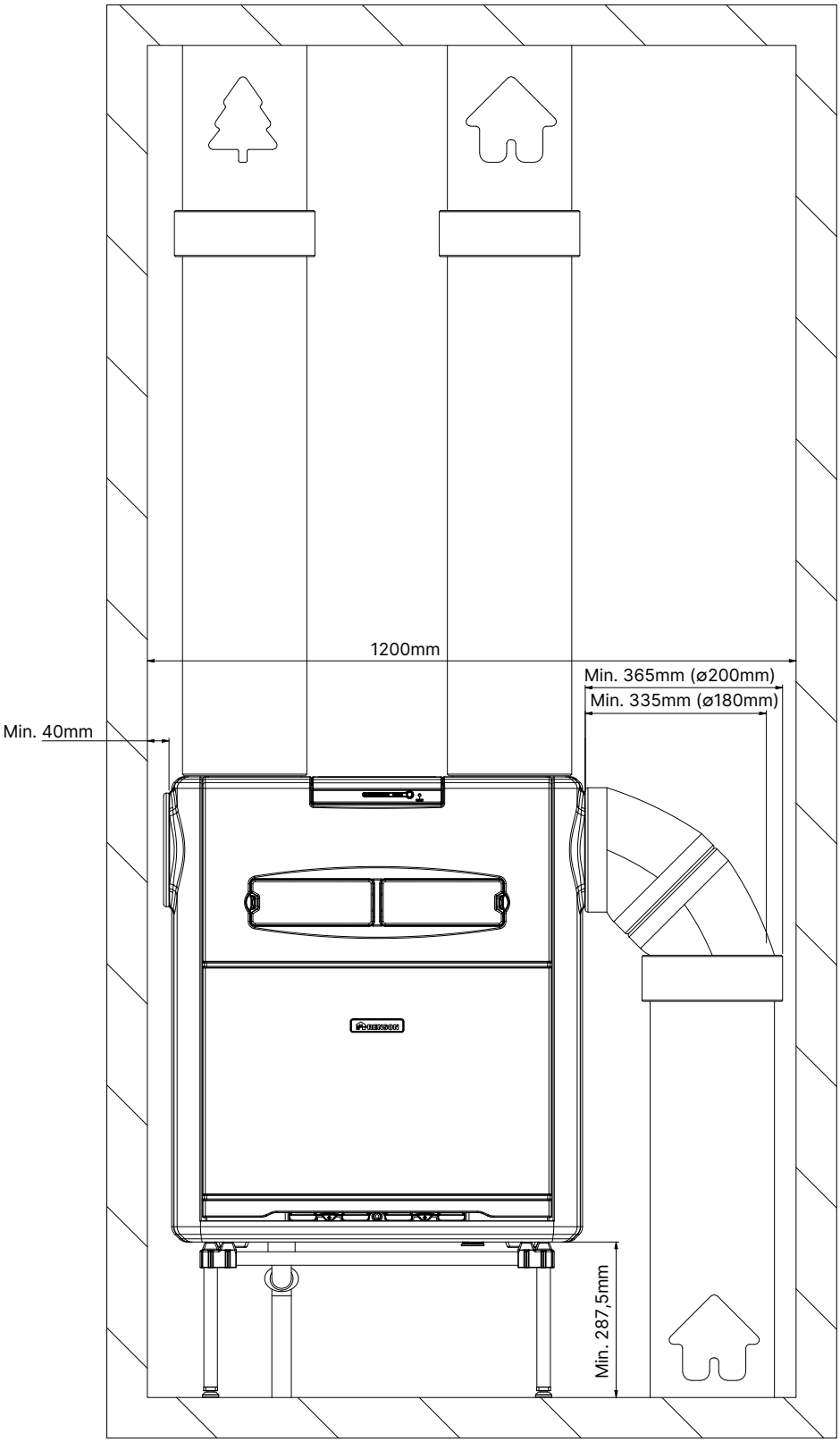
Renson Easyduct	Fixed 1 m	90° bend	Sleeve
Ø 180 mm	34709*	34699*	34706
Ø 200 mm	34708*	34710*	34698

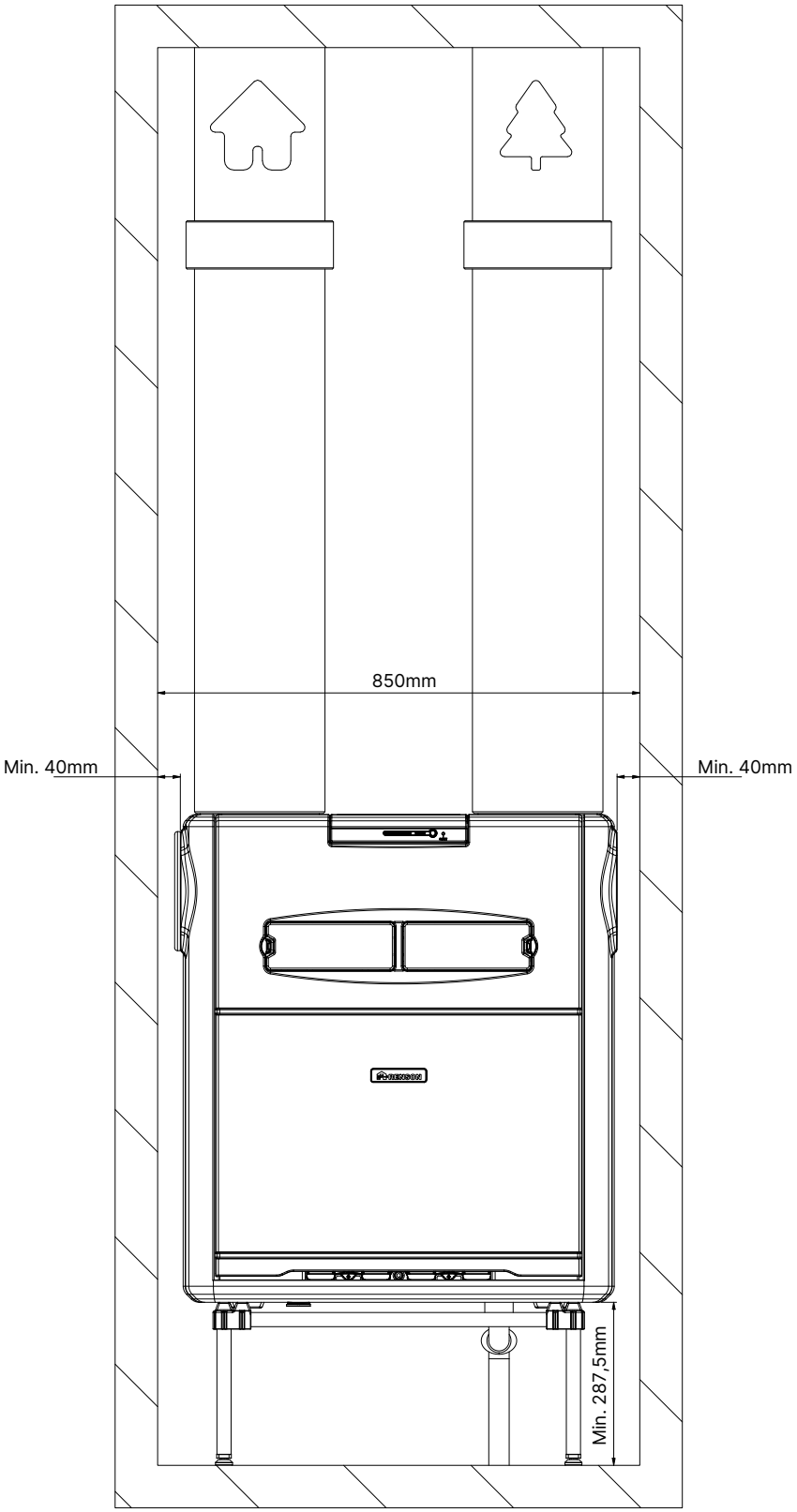
* sleeve included

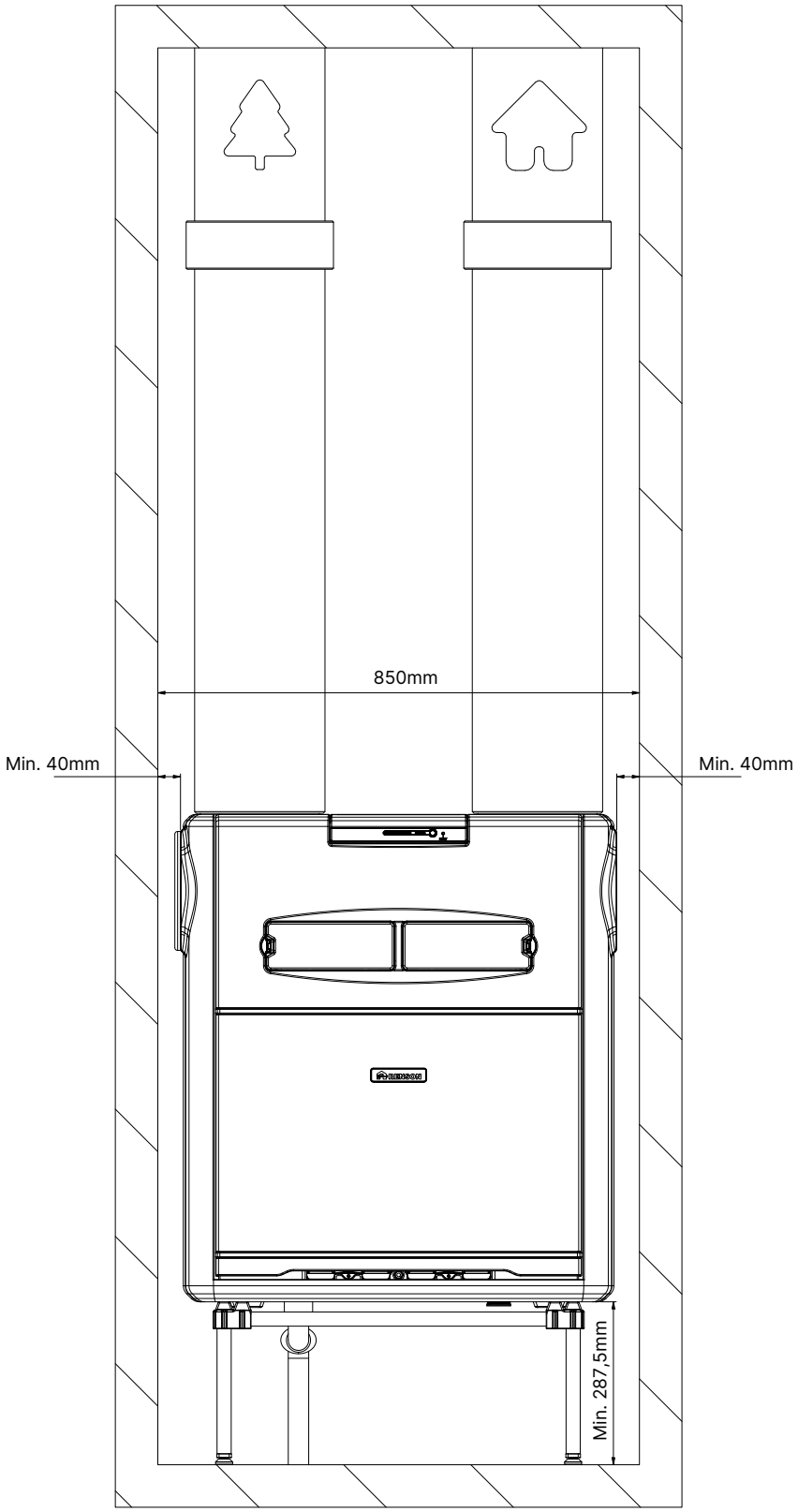
- **•Galva channels Ø 180 mm or Ø 200 mm**

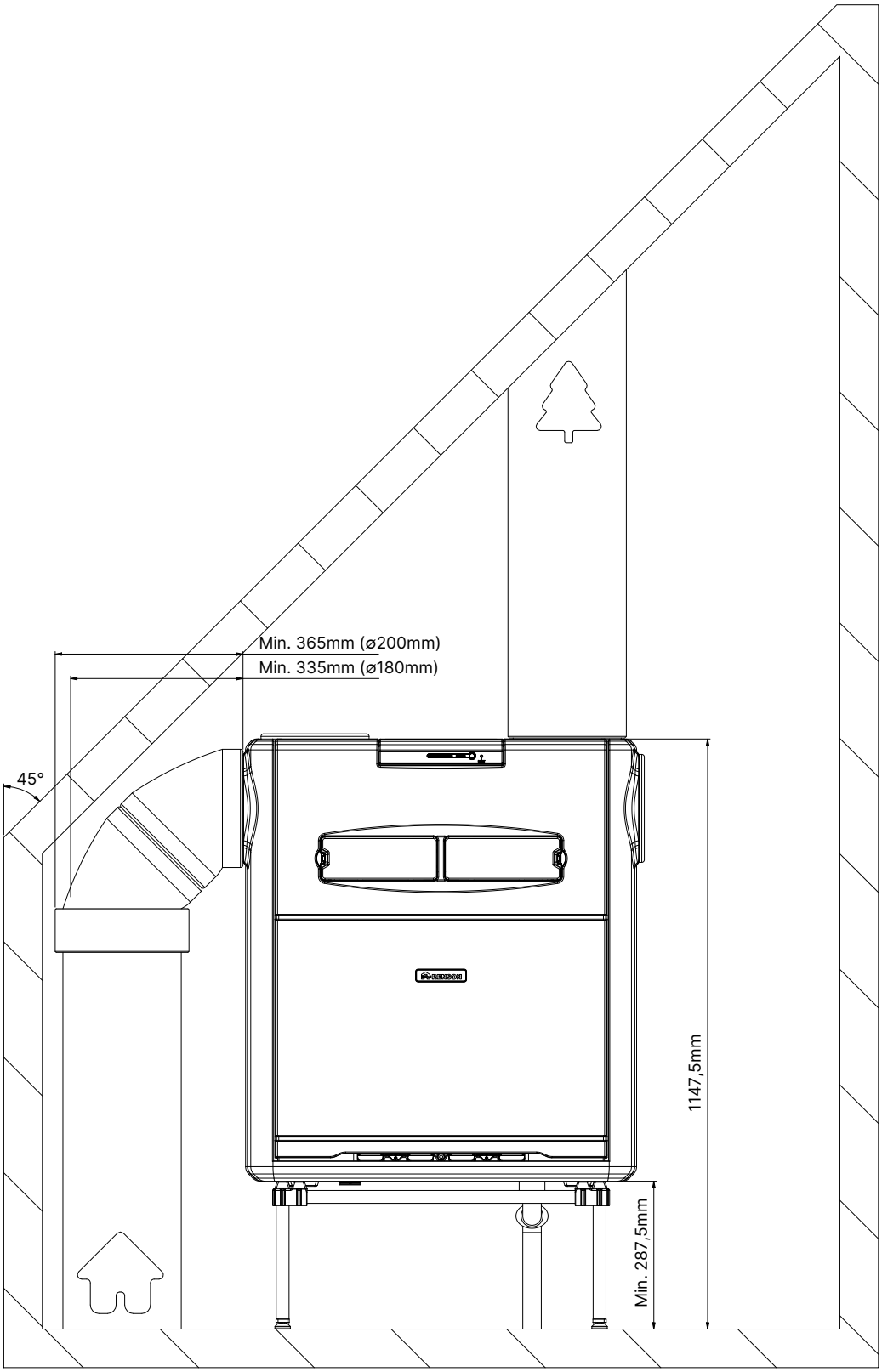
Below are some examples of practical installations, taking into account the minimum distances mentioned above and Renson's recommendation to always provide 1m of Acoudec on both the pulse and extraction side. This ensures a whisper-quiet installation!

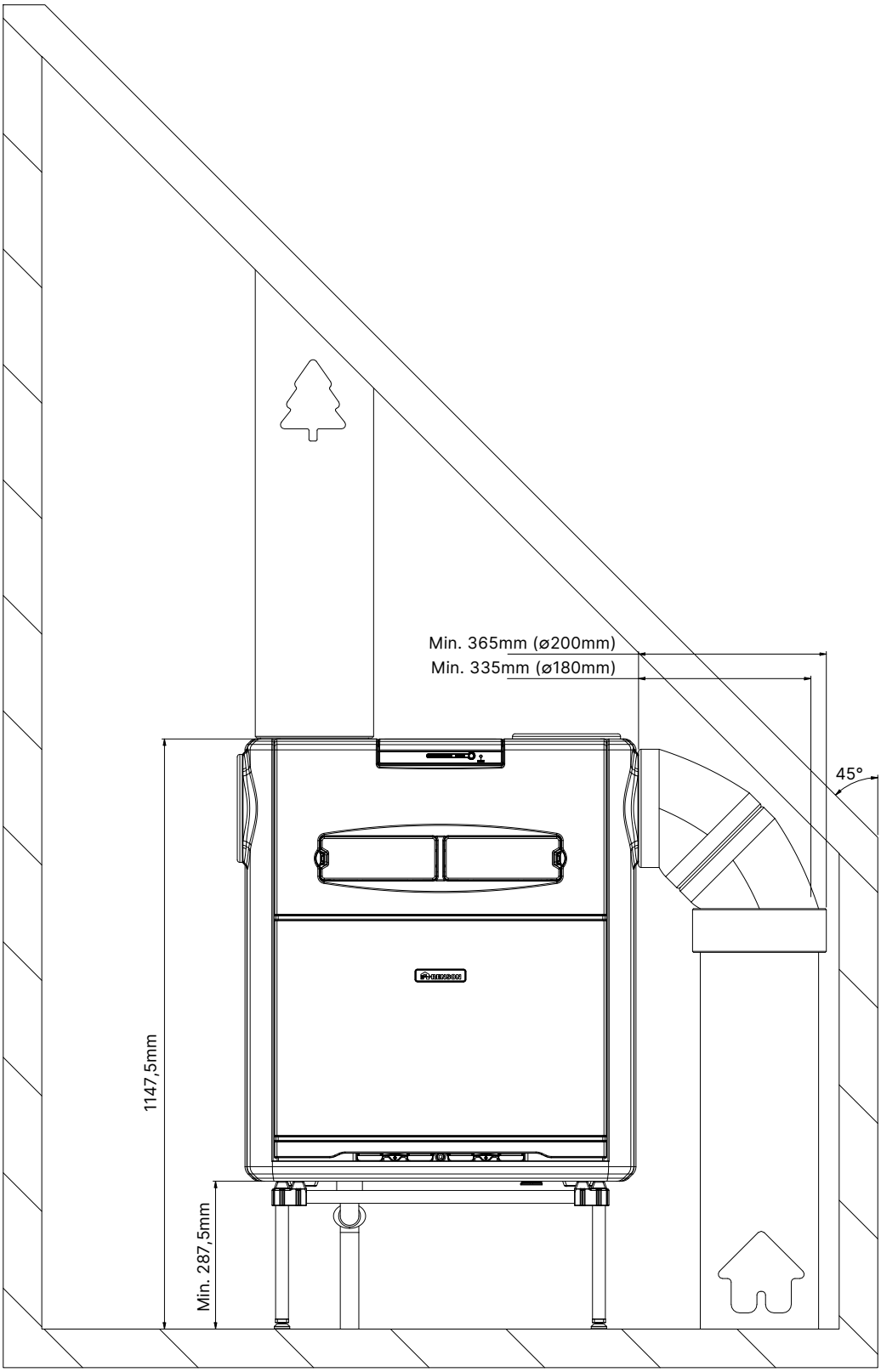

1200mm
Min. 365mm (ø200mm)
Min. 335mm (ø180mm)
Min. 40mm
Min. 287,5mm


1200mm
Min. 365mm (ø200mm)
Min. 335mm (ø180mm)
Min. 40mm
Min. 287,5mm


850mm
Min. 40mm
Min. 40mm
Min. 287,5mm


850mm
Min. 40mm
Min. 40mm
Min. 287,5mm

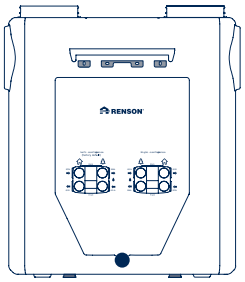

Min. 365mm (ø200mm)
Min. 335mm (ø180mm)
45°
1147,5mm
Min. 287,5mm


Min. 365mm (ø200mm)
Min. 335mm (ø180mm)
45°
1147,5mm
Min. 287,5mm

6.6 • Wall installation

6.6.1 • Parts

What do you need?

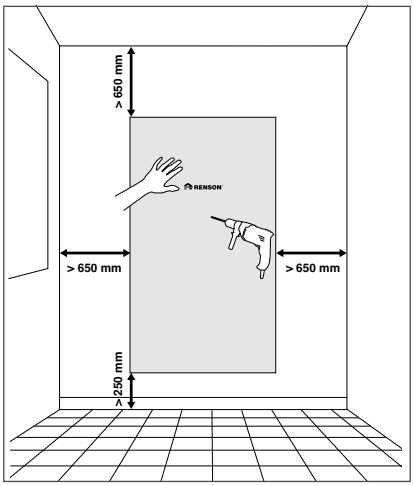
Description	Quantity	Illustration
The drill template that is part of the box	1	

NOTE

Mounting material to hang the unit on the wall is not supplied because this depends on the type of wall. It must be provided by the installer.

6.6.2 • Mounting the unit

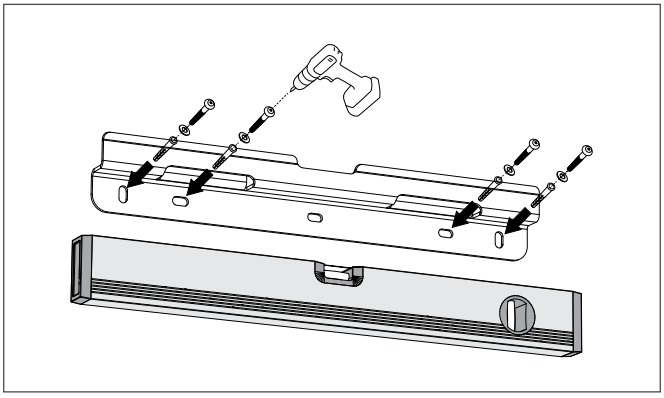
1. See section 6.3 2 for correctly marking out the drill holes.



TIP

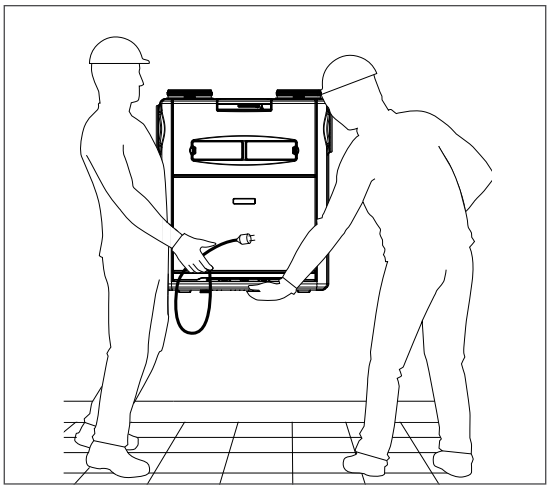
The recesses in the brackets are provided up to M6, it is always recommended to use a flat washer.

2. Fix the bracket to the wall with 4 screws in the holes provided.
   Make sure the bracket is perfectly level on the wall.

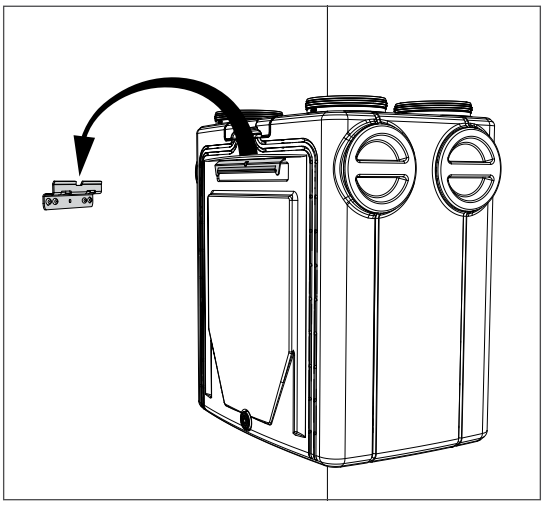


3. Move the unit to the installation location.
   Hold the power cord off the ground while moving the unit. If the cord is left hanging loose, it could easily cause you to slip, trip or fall.

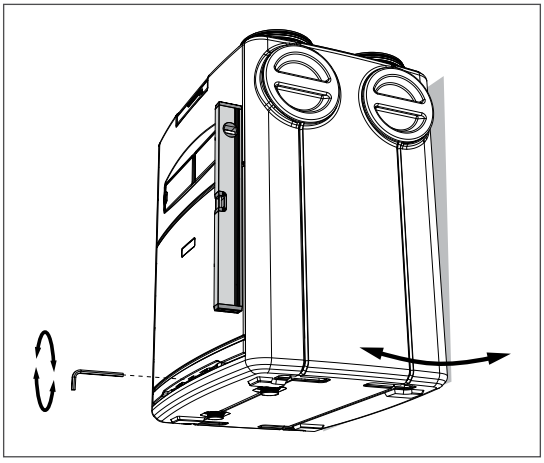
4. Given the weight of the unit (29 kg), we recommend always lifting the unit with two people.



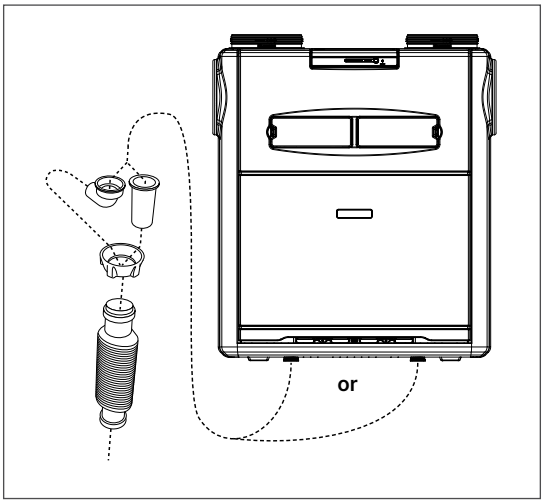
5. Hang the unit with its bracket over the wall bracket that has already been installed.



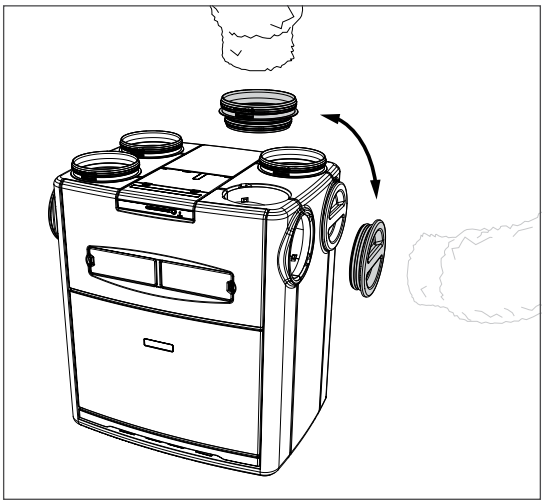
6. Adjust the unit using a 6 mm Allen key so that it is level with respect to the wall. Use the adjustment bolt located at the front on the underside of the front panel.



7. Connect the dry siphon to the correct side of the unit:
   - Standard configuration: Right
   - Non-standard configuration: Left

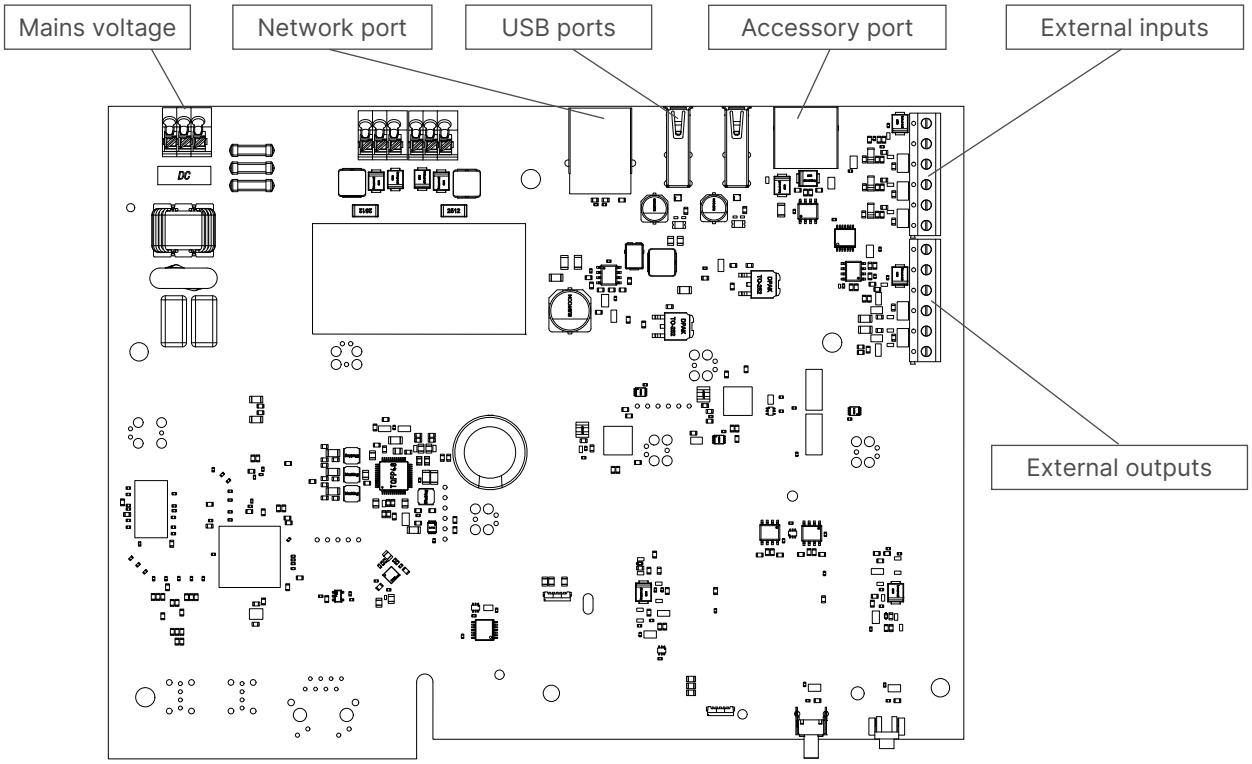


8. Use the supplied flanges to connect the channels. The unused connection points are closed with a sealing cap. For Flux Wall, we recommend ducts of Ø 200mm.



7 • Flux+ Wall connection diagram

7.1 • Flux+ Wall circuit board



- **Mains voltage:** connect to the wall socket or directly to the fuse box.
- **USB ports:** the USB port can be used to:
  - Allow Flux+ Wall to use Wi-Fi to communicate with the home network and/or directly with the app installer. Use the supplied Renson USB Wi-Fi dongle to do this.
  - Allow Flux+ Wall to communicate via RF with the Sense room sensor(s). Use the RF dongle to do this.
- **Network port:**The connection can be used to connect Flux+ Wall to the home network via a network cable.
- **External output:** The Flux+ Wall can control external devices (a detailed description can be found in Chapter 8.10).
- **External input:** The Flux+ Wall can be controlled by external devices via the digital and/or analogue input(s) (a detailed description can be found in Paragraph 8.10).
- **Accessory port:** This is where you connect the accessories of Flux+ Wall.

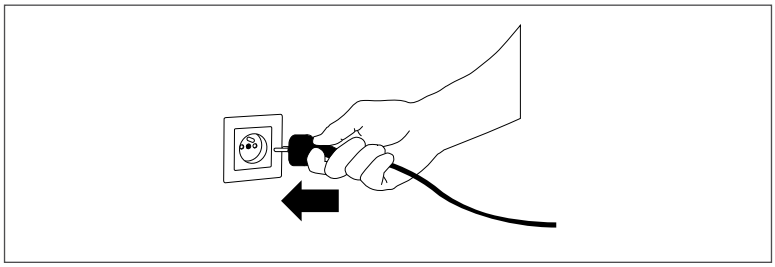
7.2 • Connecting to the network

Please refer to the instructions in Chapter 8.7.

7.3 • Connecting to the mains voltage

Flux + Wall can be connected in 2 ways:

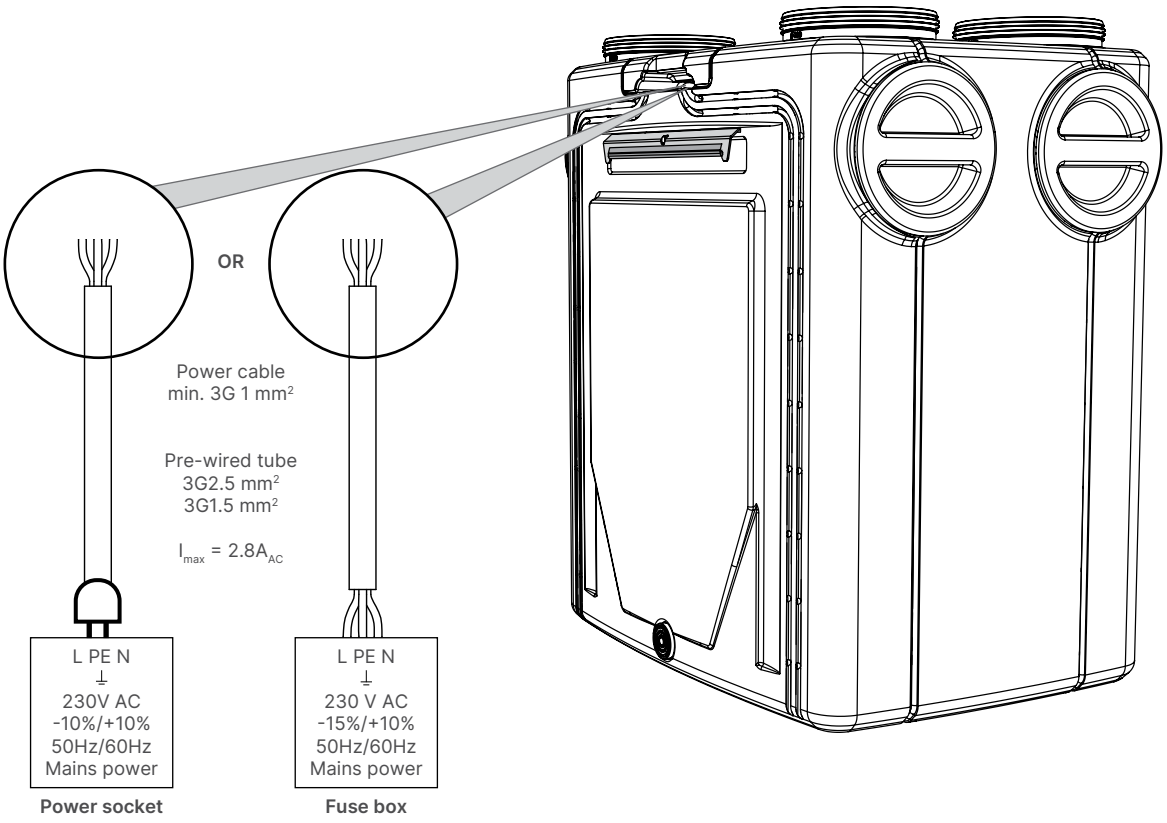
1. By plugging the supplied power cable into the socket (the socket should be located in an easily accessible place). Provide a power socket within 1.5 m around the unit.



2. By connecting directly to the fuse box. The wires of the cable should be stripped 6 mm before they are connected to the connector.

NOTE

If the Flux+ Wall is connected directly to the fuse box, a circuit breaker must be installed in the board to allow the Flux+ Wall to be disconnected from the power supply.
This unit must be of the double-pole type, must be directly connected to the Flux+ Wall, and must be able to withstand category III overvoltages.



The installation and electrical connection of the various components may only be carried out by authorised personnel in accordance with the applicable safety measures.

8 • Starting up the Flux+ Wall

In this chapter we take you, the installer, through the installation flow of the application.
Before following this step-by-step plan, please download the application from the respective store.

Start up and calibration of the unit can only be carried out with the Renson Installer App. In this way, you as the installer are fully unburdened and guaranteed that the calibration has been carried out correctly. By using the app, the entire process will be faster, easier and more correct.

TIP

No internet or (Wi-Fi) network is required to calibrate the unit. A dongle is sufficient for calibration.

Download on the App Store

GET IT ON Google Play

8.1 • Before calibration

Extreme weather conditions, such as strong winds, may affect the operation of the system. Avoid carrying out the calibration of the Flux+ Wall under these conditions.

Before starting the automatic calibration it is important to:

1. Close all the windows and doors
2. Preferably close interior doors
3. Stop all other installations that bring outside air in or send indoor air out.

8.2 • Start up

The unique calibration procedure, together with the constant flow feature, greatly reduces the time for setting the desired design air flow rates.

1. Power up the unit and ensure the Wi-Fi dongle is installed.
   - Start up check: the operating system of the unit has started up (this takes about a minute).
   - The configuration check then takes place: the fans first speed up briefly and then continue to run at the minimum speed. The bypass valves are also calibrated.
2. Feedback (LED) during the start up phase
   - A complete overview of how the unit's LEDs behave during start up can be found in Paragraph 8.6.

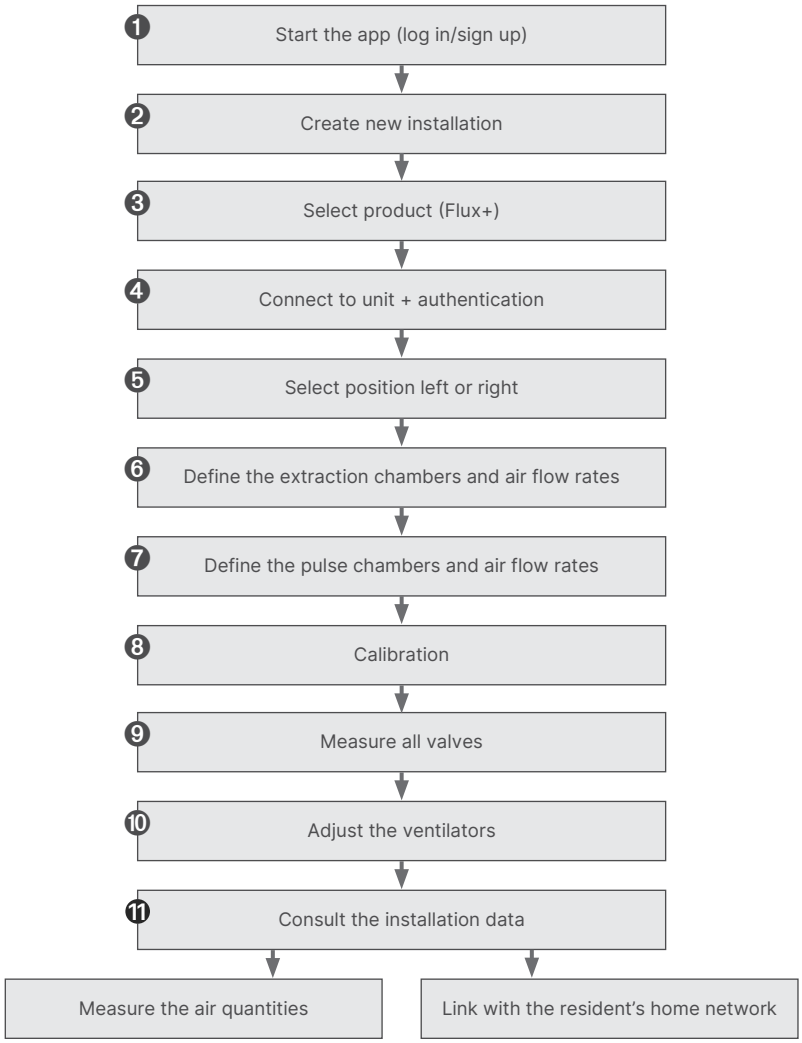
8.2.1 • Calibration via the installation app

The **Renson Installer app**can be downloaded for free from the App Store (Apple) or Google Play (Android). Register to create an account.

Your benefits from calibration with an app:

- Guide through the installation process
- Desired nominal air flow rates can be set/adjusted in a simple manner
- Configuration can be easily adjusted
- Overview of the pressure losses of the installation (after calibration)
- If a fault is detected during calibration, a message with a suggested solution appears
- The installation data is forwarded to the web portal
- An installation report is automatically created digitally in the web portal
- All started installations can be managed in the web portal

The installer is guided through the steps below during installation in the app:



1


Welcome
Skip
RENSON
Log in
Register
Start Demo
Forgot your password?

2


New installation
Client
Address
Belgium
Reference
Start

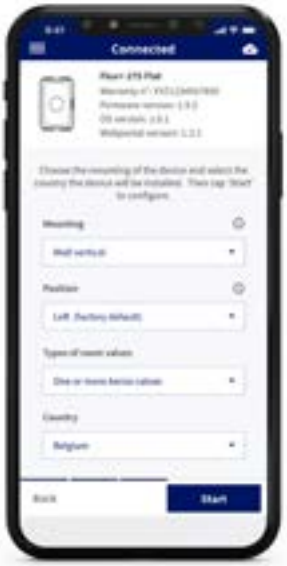
3


Select product

4


Authentication
Can't authenticate

5


Connected
Mounting
Position
Country
Belgium
Start

6


Configure exhaust
Zones exhaust
Flow rate
+ Add subsection/zone
Next

7

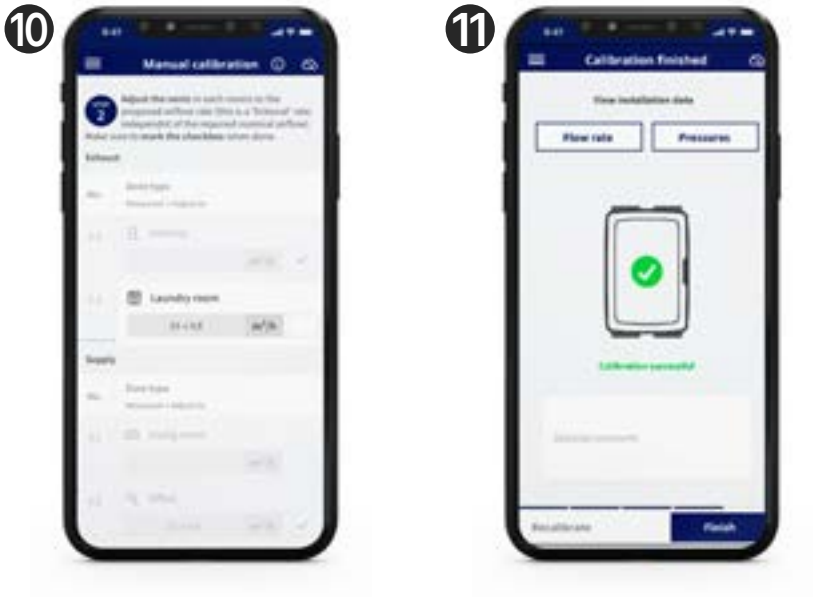

Configure supply
Zones supply
Flow rate
+ Add subsection/zone
Next

8


Pre-calibrating...
Flex+ 27S Flat
27%
1 minute remaining

9


Manual calibration
Laundry room
Bathroom
Toilet 1+
Living room
Office



After successful calibration, you can connect the unit to a home network if there is one available. You also have the option to create an installation report (see 8.3), which can be used for BCCA, SKH, etc.

8.2.2 • Fault codes at start up

Two types of faults are defined:
- **Error:** the unit is experiencing a serious malfunction and will shut itself down
- **Warning:**The unit is experiencing a fault, but can/will continue to operate

The faults can be observed in several ways:

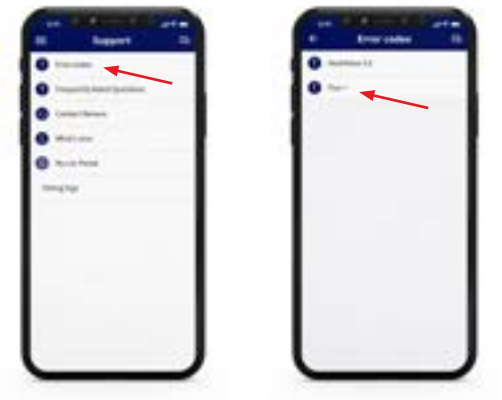
- **Installation app**

  – If a fault occurs **during the initialisation process**, a message will appear.

  How to continue the installation process?

Error	Requires corrective action to continue the installation process.
Warning	Taking corrective action is advised. However, the installation process can continue without corrective action.

  – The list of possible malfunctions (and associated solutions) can be found through the 'Support' menu in the Renson Installer App. The app must be connected to the internet (via Wi-Fi or mobile 4G/5G).



- **Fan unit**

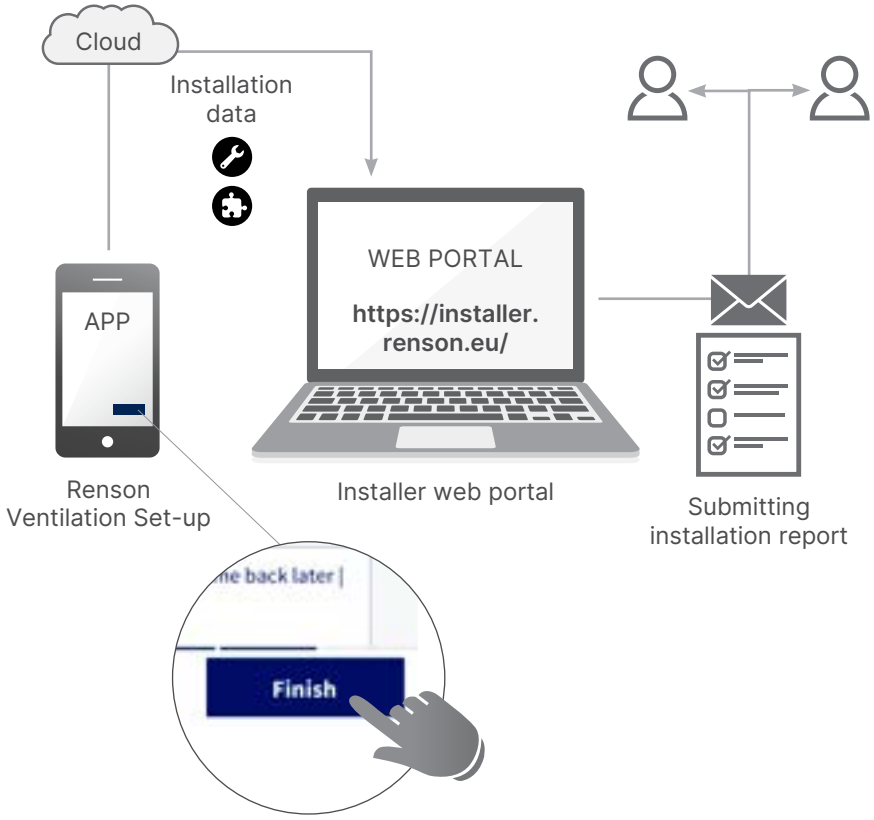
  The LED bar always shows the status of the unit, see Section 8.6.

REMARK

If the unit is without power for a short time, all error messages will be deleted.

8.3 • Installation report

Starting up the Flux+ Wall with the Renson Installer App has the great advantage that all installation parameters are kept up to date in the installer's web portal (Paragraph 8.4).
A digital installation report with the installation data can then be automatically created in the web portal and sent to the parties involved.



8.4 • Installer web portal

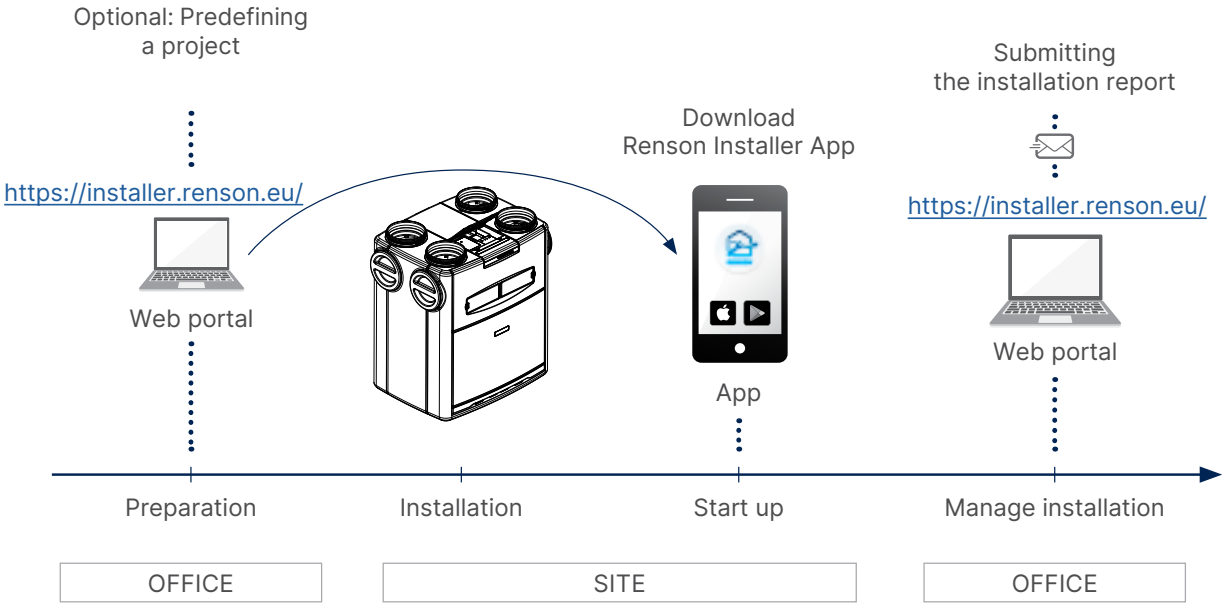
The web portal for the installer offers the following benefits:

- Projects can be created in advance at the office, with all pulse and extraction valves and their corresponding values ready in the app. This will ensure there is no loss of time on site.
- Installation data can be tracked
- Management of all installations
- Digitisation of paperwork (preparatory administrative work)

Start up the web portal using the link https://installer.renson.eu/

The account created in the installation app or web portal grants access to both.

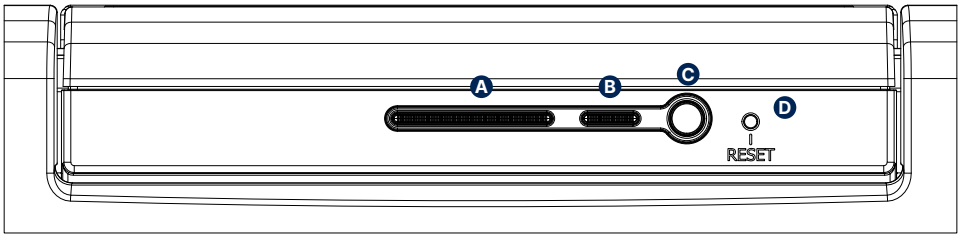
Situation sketch: how/where/when the app and web portal are used within the installation process.

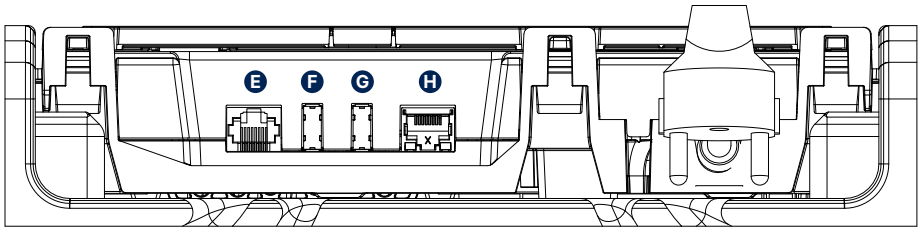


Instructional videos from the web portal:
https://installer.renson.eu/

8.5 • Operating functionalities

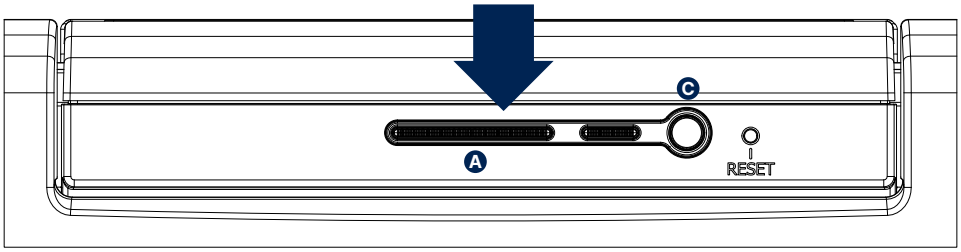
If the unit is connected to the internet, the control panel allows you to communicate with the unit via the push buttons. We recommend this given the extensive functionality associated with it. The unit can be accessed perfectly via the app, which can be found in the Play store (Android) or via the App Store (iOS). In this chapter, we will discuss the physical control and the colour codes of the indicator LED.





Pos.	Name	Function
A	Status LED	Changes colour depending on the status of the unit (see below for more explanation about the different colour codes).
B	Connectivity LED	• Green continuous LED: the device is connected to a network, either via the Wi-Fi dongle or the Ethernet cable. • flashing blue LED: AP is active • Alternating green blue flashing LED: device is connected and AP is active • LED does not light up: AP is not active nor is the unit connected to Wi-Fi
C	Large user push button	• When pressed briefly, this button is used to complete authentication of the device. • After cleaning and replacing the filters, you must reset the filter message by pressing this button for 5 to 15 seconds • If this button is pressed for a long time (>15sec), the access point (AP) is activated for 4 hours. The AP can also be activated by reinserting the plug of the unit into the power socket
D	Reset button	• If this button is pressed briefly, the c-mode will be activated and the unit will operate at its nominal flow rate for 2 hours. • If this button is pressed for 5 to 15 seconds, the Wi-Fi settings are reset. The device will forget the connection to the home network as a result. • If this button is pressed for a long time (>15sec), the unit is returned to factory settings. Use a pen or another small object to push the button.
E	Accessory port	Connection point to connect Renson accessories. E.g. pre-heating element or two-zone valve. **No Ethernet cable**should be connected to the accessory port; it should be connected to the network port (H).
F	USB port 1	This is where the Wi-Fi dongle or RF dongle can be plugged in. It can be placed in any of the USB ports. The USB port can be used to: - Wi-Fi dongle: communication with the home network and/or directly with the installation app. - RF dongle: communication with the Sense room sensor(s)
G	USB port 2	
H	Network port	To connect the unit to the LAN network via a cable. If a Wi-Fi dongle is used via USB port 1 or 2, it is not necessary to connect the unit with a fixed cable. **Tip:** the most stable solution is to connect the unit with a cable.

8.6 • Status LED module



WHITE

The status LED (A) is continuously lit white. The unit starts up. This is what you will see when the unit has just been plugged into the socket.
The LED will go out briefly afterwards. This is when the configuration is checked.
Please note: during the start up phase, a connection cannot be made with your unit via the application.

LIGHT BLUE

The status LED (A) flashes to indicate that you must complete the authentication. To do this, press the large user push button (C). The LED will now briefly light up continuously. This indicates the authentication was completed successfully.

GREEN

The status LED (A) flashes slowly to indicate that the unit was not yet calibrated with the application. This means the air flow rates have not yet been set for the various rooms in the home. When the unit is calibrating, you will see the status LED (A) flashing rapidly. Once the calibration has been completed successfully, you will see the LED light up continuously.

BLUE

The status LED (A) is flashing. This means c-mode has been activated (the mode where the unit provides nominal airflow for 2 hours) and your unit is now running at its set nominal mode. In this mode you can also measure the air flow rates at the various ventilation openings to check whether the airflow rates are as intended.

RED

The status LED (A) is slowly flashing red. This indicates that a critical problem has occurred with the unit. We recommend using the application to obtain more information about the error that has occurred (see Warning Paragraph 8.2.2).

CONTINUOUS YELLOW

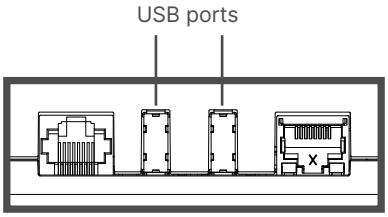
The status LED (A) is continuously lit in yellow. This indicates that a problem has occurred with the unit. You can easily investigate what the problem is via the app on your smartphone (see Error Paragraph 8.2.2).

FLASHING YELLOW

The status LED (A) is rapidly flashing in yellow. This is an indication that the filters need to be cleaned. Cleaning/ replacing filters is described in Paragraph 9.2. Next, press and hold the large user button (C) for 5 seconds to indicate that the filter has been properly cleaned; the filter alert will be reset automatically.

8.7 • Connect to network (Smart Connect)

8.7.1 • Wi-Fi dongle



Wi-Fi dongle is already factory-connected and installed with Flux+ Wall.
The Wi-Fi dongle can then be used to connect the Renson Flux+ Wall with:

1. Renson Installer App
   The app guides how the installer can make the connection between the app and Renson Flux+ Wall (Renson Flux+ Wall works in “Access Point mode”.)

2. Home network (Wi-Fi)
   The connection to the Wi-Fi home network can be established with both the app for the user and the app for the installer (the Renson Flux+ Wall works in “Client mode”.)

TIP

- If the Renson Flux+ Wall is connected to a network via the user app, a connection between the installer app and the Renson Flux+ Wall can still be established directly via the Wi-Fi dongle.
- If a Wi-Fi dongle is unplugged and then plugged in again:
  - In Access Point mode: the connection must be made again
  - In Client Mode: the connection to the network will be re-established automatically (even if the Wi-Fi dongle is plugged into the other USB port).
- If the Status LED module lights up white, the Renson Flux+ Wall cannot connect to the network.

- **Wi-Fi dongle activation**
  - Plug Wi-Fi dongle in Smart Connect
  - Power up the unit and wait approximately 1 minute
  - The Renson Flux+ Wall automatically opens for 4 hours to connect with the Renson Installer App. Pressing the button ends the open period for establishing the connection.

After the 4 hours have elapsed, the Renson Flux+ Wall can be reactivated for 4 hours by inserting a thin object into the corresponding hole (button B page 52).

- **Reset Wi-Fi dongle**
  Long press (between 5 and 10 seconds) the button in the hole.

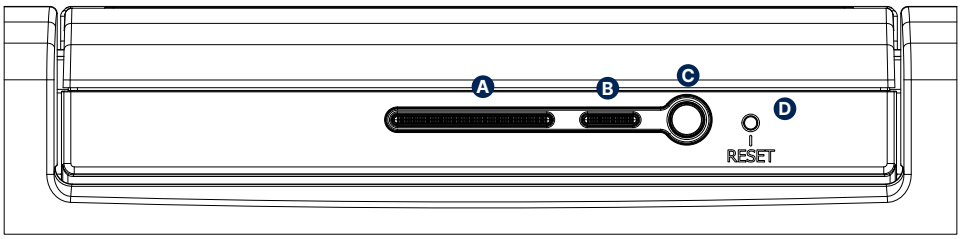
  → Disconnect the link with the home network (Wi-Fi) and/or installer app. Activation then allows you to reconnect to a (different) home Wi-Fi network or the installer app.

  Resetting may be necessary in the following circumstances:
  - To connect the Renson Flux+ Wall to another network.
  - The Renson Flux+ Wall can no longer connect to the installer app or the home network.

8.7.2 • LAN connection

Plug a network cable into the LAN connection for a fixed cabling alternative to the Wi-Fi dongle. The connection can be used to connect the Flux+ Wall to the home network via a network cable.

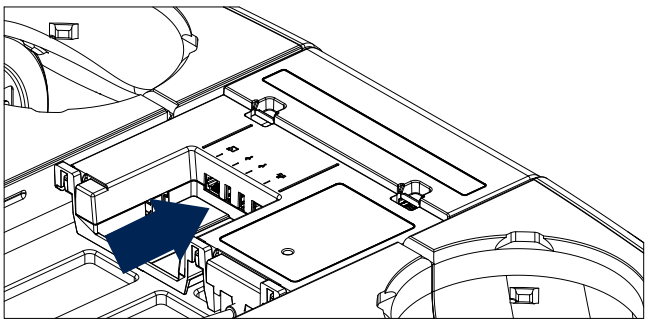
8.8 • USB Smart Connect LED



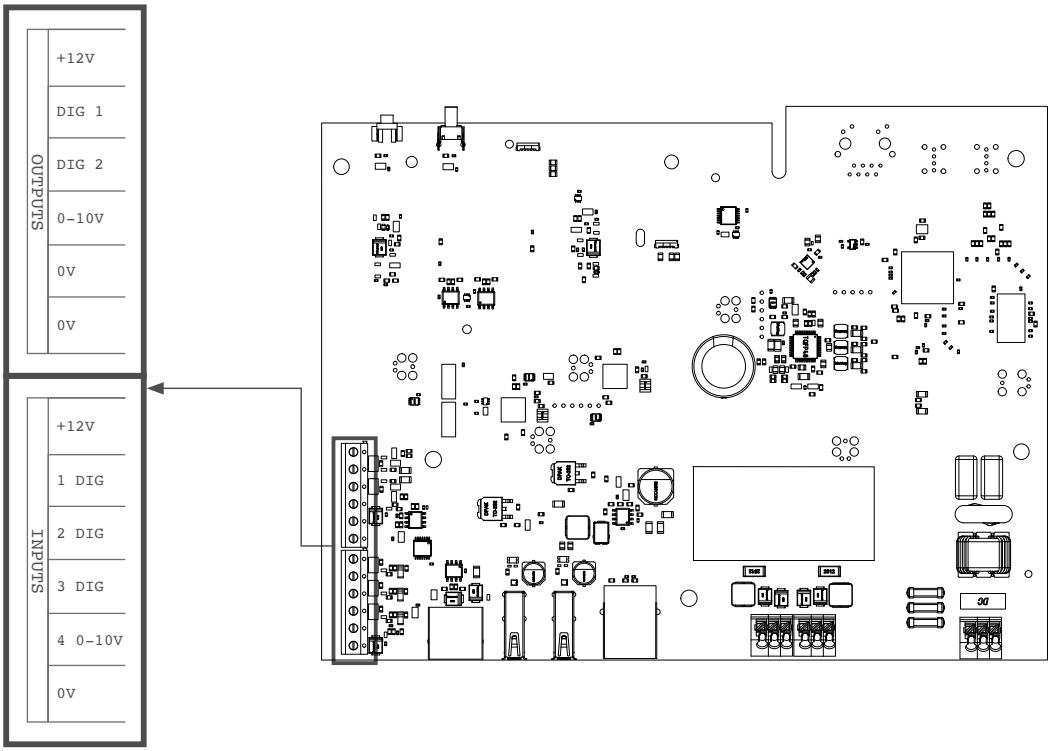
Access point active (connection between smartphone and unit) via (C) or (D)	Client active (connection of unit to home network)	LED code (B)
NO	NO	LED off
NO	YES	Lit (the LED flashes rapidly while connecting)
YES	NO	Flashes slowly
YES	YES	Lit (briefly flashes once the Access point is activated)

8.9 • Connecting the Flux+ Wall with electronic peripherals

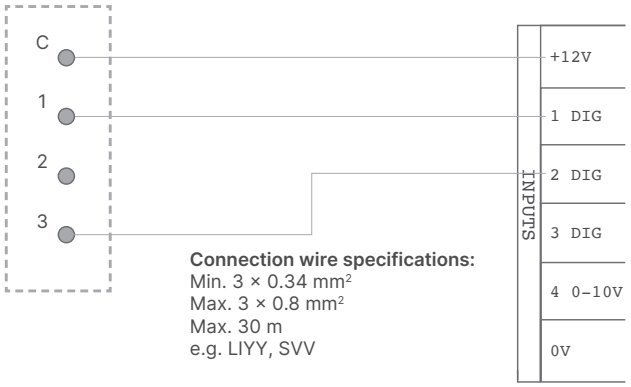
The Flux+ Wall can be connected to electronic accessories. The provided recess can be used to route the cables outside the Flux+ Wall.
You must route the cables this way:



8.10 • Linking via main circuit board in and outputs



8.11 • 3-Position Switch (XVK3)



Connection wire specifications:
Min. 3 × 0.34 mm²
Max. 3 × 0.8 mm²
Max. 30 m
e.g. LIYY, SVV

1. Position: Min. level = 30%
2. Position: Demand management
3. Position: Boost level = 100%

External switch

Flux+ Wall main circuit board

REMARK

This means contact 2 does not need to be connected, contact 3 is connected to '2 DIG'.

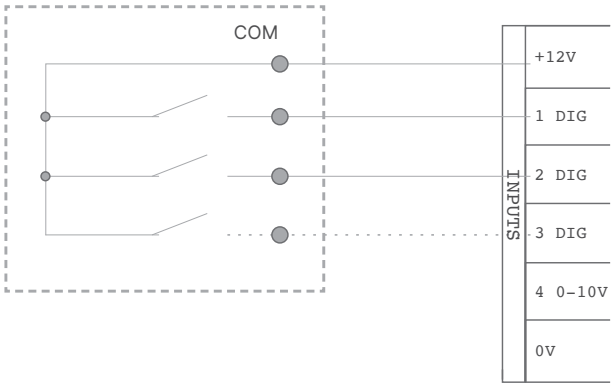
8.12 • Circuit diagrams for home automation

8.12.1 • Digital inputs

The digital inputs can be controlled in 2 different ways:

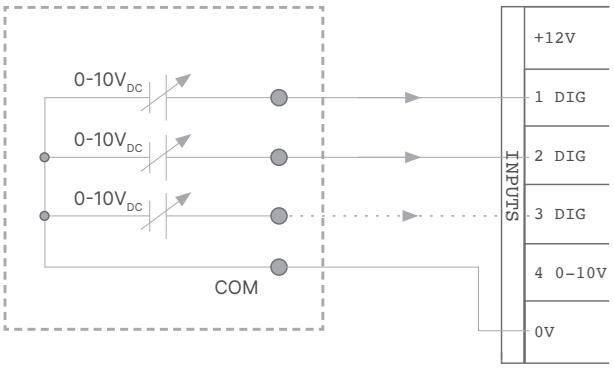
1. **Potential-free contact:** via a continuously closed contact

Principle sketch:



External switch Flux+ Wall main circuit board

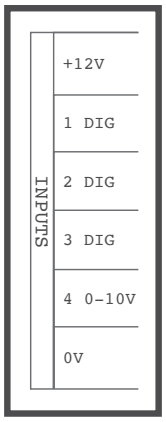
2. **Voltage control:** via a continuous signal;
   → [0-1.5VDC] sends a logical LOW,
   → [5-10VDC] a logical HIGH



External control Flux+ Wall main circuit board

8.12.2 • Analogue input

No function is connected to the analogue input (0-10V).



8.12.3 • Functional logic

The functionality of the inputs is firmly defined:

8.12.3.1 • Digital input

Closed contact or logic HIGH on the input	Flux+ Wall operating status
1 DIG	Minimum position (1) - Demand control inactive
2 DIG	Boost position (1) - Demand control inactive

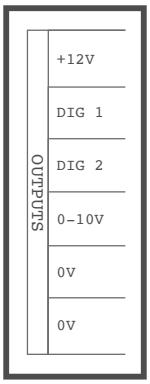
(1) After a period of 12 hours, the demand control of the Flux+ Wall is reactivated.

If there is no control at the input, the Flux+ Wall works in demand control (automatic mode).

8.12.3.2 • Analogue input

No function currently assigned.

8.12.4 • Digital output



Functional logic:
- Contact DIG 1: display if there is an error/warning on the device (incl. notification filter)
- Contact DIG 2: device filter warning

9 • Maintenance

9.1 • Periodicities

Regularly replacing the filters forms the foundation for proper maintenance of any D system. This ensures no unnecessary contamination will occur in the relatively sensitive heat exchanger. This maintains efficiency and energy consumption. In addition, there are other inspections and cleaning tasks that should ideally be carried out on components such as the valves, the condensate drain, fans, air ducts, and so on.

Part	Action	Frequency				
		M	3M	J	3J	9J
DEVICE-SPECIFIC						
Filters	Visual inspection	●				
	Vacuum		●			
	Replace			●		
Condensate drain	Check			●		
Fans	Visual inspection			●		
	Clean				●	
Heat exchanger	Visual inspection			●		
	Clean				●	
NOT DEVICE-SPECIFIC						
Valves	Inspection		●			
	Clean			●		
Supply and extraction louvres	Inspection		●			
	Clean			●		
Ventilation ducts	Inspection				●	
	Clean (bacteriological)					●

The frequency for each part can be found via the link below:
https://renson.net/gd-gb/blog/ventilation-system-maintenance-vital-but-often-forgotten

9.2 • Cleaning and replacing filters

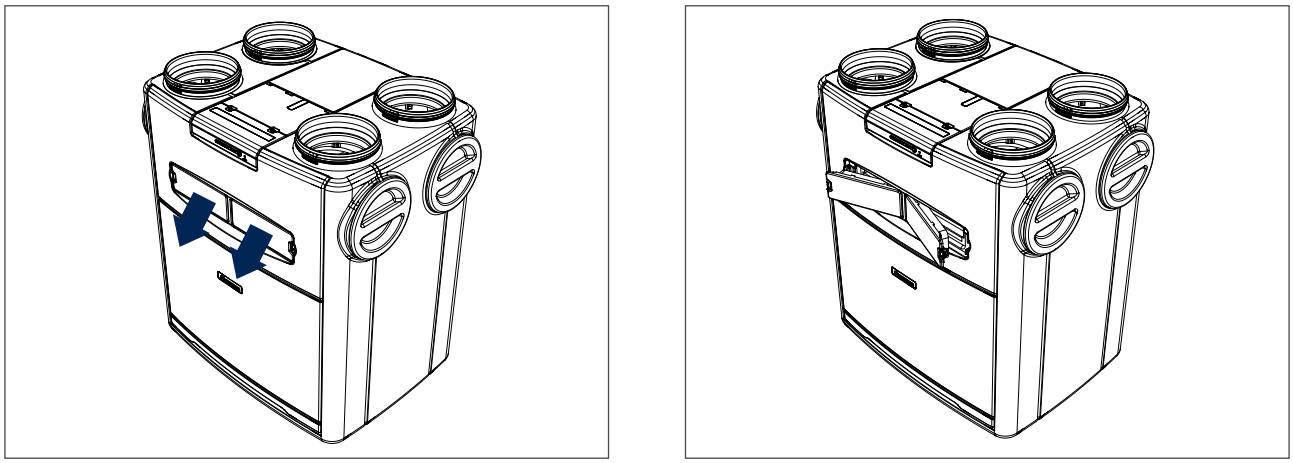
Do not use sprays, abrasives, detergents, solvents or chlorine-containing cleaning agents. They can cause damage to the unit. Clean Flux+ Wall with a damp cloth and a little solvent-free soap.

You can dry clean the filters with a vacuum cleaner or you can replace them. In either case, you will need to remove the filters as shown below. The filter must be replaced in response to a filter message. As a result, the unit displays that the filter needs to be replaced (see Paragraph 8.6 for more information about the filter message). If the installation was connected to Sense Space Sensors, the filter notification will also be indicated on the display of the Sense Space Sensors.

NOTE

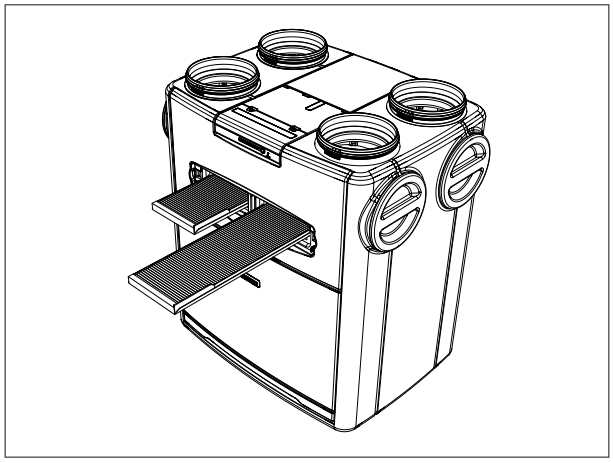
Ensure there is no voltage applied to the unit. To do this, remove the plug from the wall socket or switch off the circuit breaker.

1. Remove the filter covers.



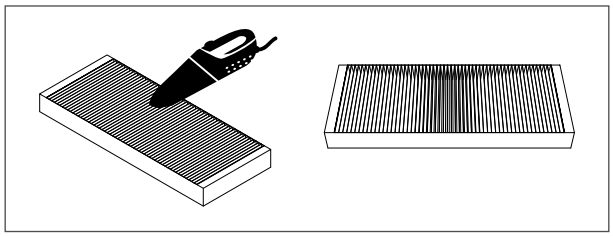
Removing the filter covers.

2. Replace or clean the filters, according to the stated maintenance intervals (see Paragraph 9.1 Periodicities)



Removing the filter to clean or replace the filter.

3. Clean the filters using a vacuum cleaner. If you vacuum the filters regularly, the filter may show signs of wear. If so, replace the filter to continue to guarantee the correct functioning of the system.



4. Once you have ensured the filters are properly in place, replace the filter covers. The filters cannot be placed in the wrong direction. An innovation by Renson.

5. Press the large button (see Section 8.6) to reset the filter message. This means you can enjoy the unit again without any worries.

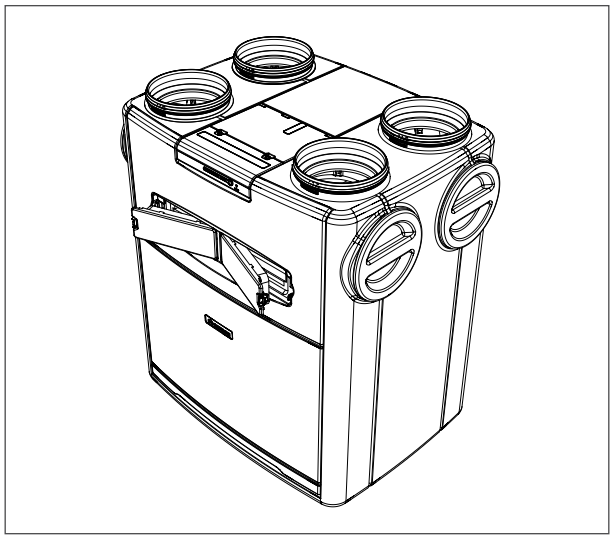
9.3 • Cleaning the heat exchanger

You can clean or replace the heat exchanger. In either case, you must follow the procedure below to remove the heat exchanger. It is important to inform the end customer that cleaning the heat exchanger must not be carried out by the end customer.

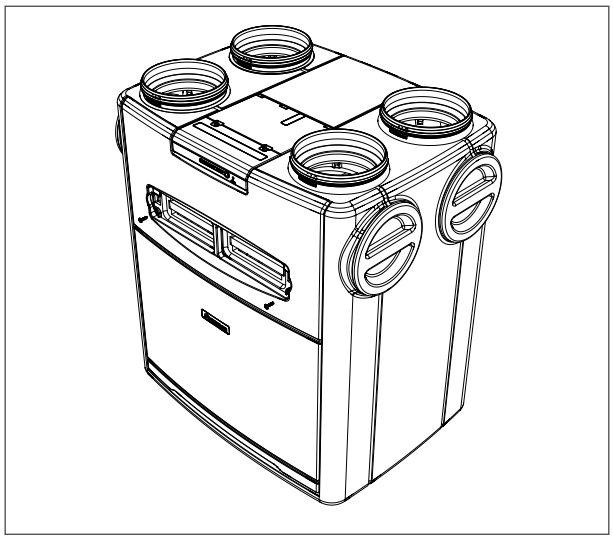
NOTE

Ensure there is no voltage applied to the unit. To do this, remove the plug from the wall socket or switch off the machine.

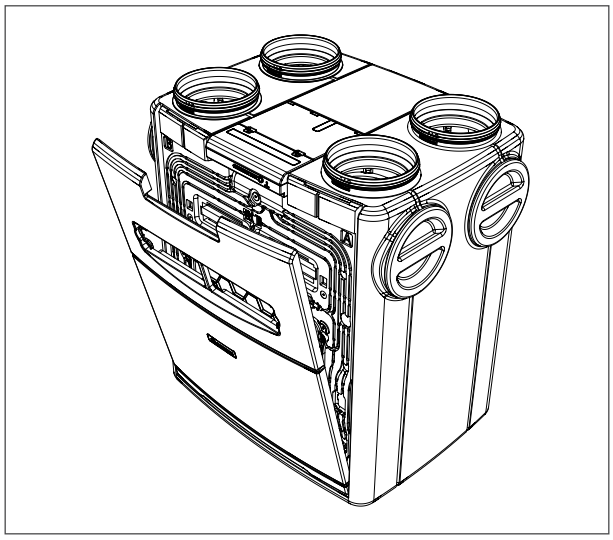
1. Remove the two small filter covers at the front of the unit.



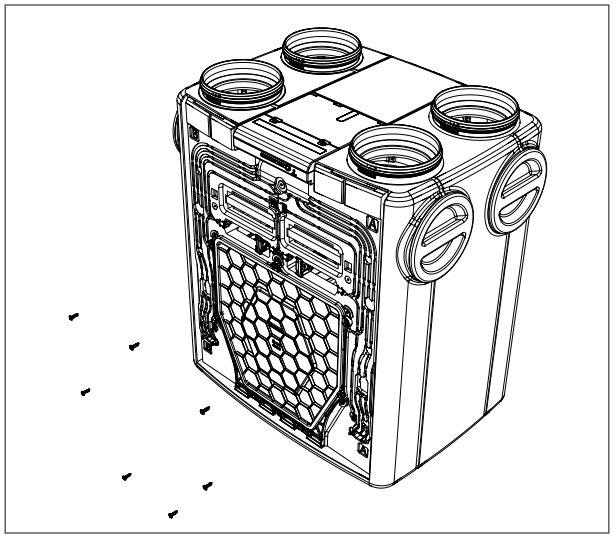
2. Loosen the two screws (PH2) that became visible after removing the filter covers.



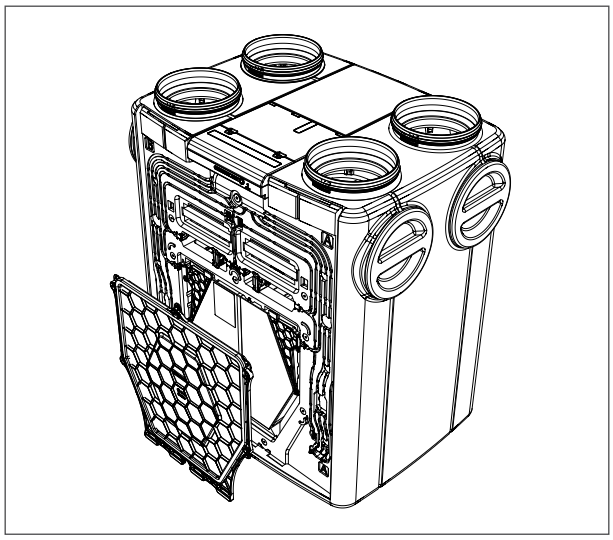
3. Remove the front plate. All internal components now become visible.



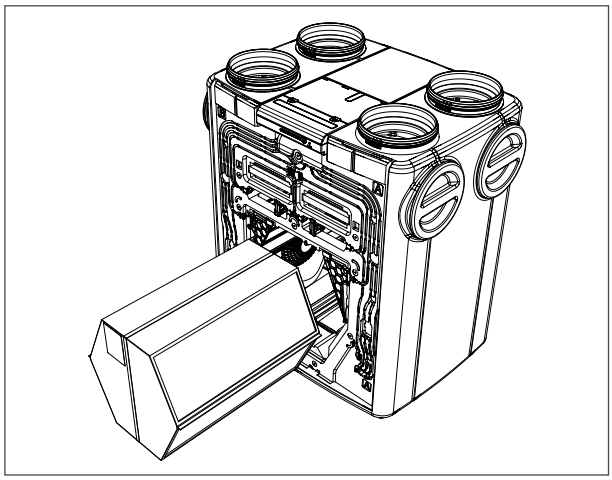
4. Loosen and remove the remaining 7 screws (PH2).



5. Remove the condensate plate to access the heat exchanger.

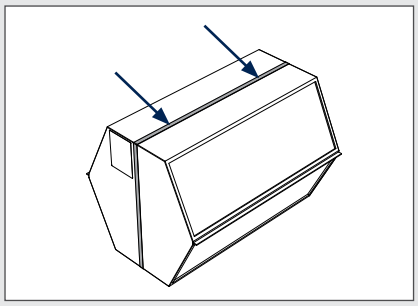


6. Remove the heat exchanger.



TIP

You can hold the heat exchanger by the white strap.



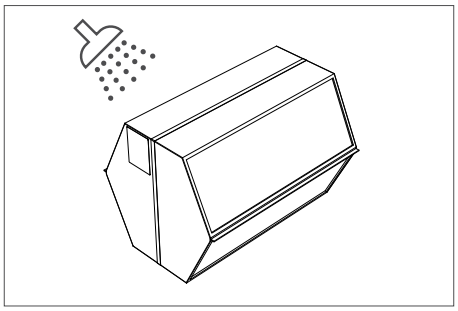
7. You can now clean the heat exchanger with clean warm water (max. 40°C) and washing up liquid. Under no circumstances should you use aggressive or dissolving cleaning agents!

- Rinse the heat exchanger sufficiently with clean warm water (max 40°C).

NOTE

Shake the water out of the heat exchanger and let it dry before placing it back in the unit.

- Make sure you place the heat exchanger back in the same position



8. Return all components in reverse order and close the unit.

10 • Technical documentation

10.1 • Technical specifications

	Flux+ Wall 475	Flux+ Wall 650
Maximum ventilation flow rate	475 m³/h (at 200 Pa)	650 m³/h (at 200 Pa)
Thermal efficiency (in accordance with EN13141-7)	**Belgium** - in accordance with Annex G of Annex V of the Energy Decree (in accordance with EN13141-7)	
	89% at 300 m³/h 88% at 350 m³/h 86% at 400 m³/h 85% at 475 m³/h	86% at 400 m³/h 85% at 475 m³/h 84% at 500 m³/h 83% at 550 m³/h 82% at 600 m³/h 81% at 650 m³/h
	Netherlands - in accordance with Chapter 11 of NTA 8800 regarding construction regulations (in accordance with EN13141-7)	
	91.2% at 333m³/h	88.7% at 455m³/h
Maximum power consumption	2 × 82 W	2 × 130 W
Sound level In accordance with the EcoDesign directive	50.0 dB(A)	53.5 dB(A)
Energy rating (in accordance with directive 2010/30/EU)	A+	A+
Connection voltage	220-240 Vac - 50/60 Hz Power cord 2 m included (EU plug)	
Dimensions	870 × 790 × 580 mm (H x B x D)	
Weight	29 kg	
Installation	Wall mounting Left or right set-up via software setting Floor installation using an accessory	
Connections	Ø180 mm inner dimension of the unit or Ø200 mm via supplied flanges Top and side connection possible per connection point Condensate connection Ø32 mm (1 1/4" external)	
Bypass	Yes, completely (100%)	
Breeze function	Automatic passive cooling by temporary nominal ventilation in case of cooling demand	
Frost protection	Standard due to imbalance Hybrid frost protection with optional accessory: internal electrical frost protection 1.6 kW	
Automatic control (constant flow)	Yes	
Fan	Latest generation of extremely quiet & energy-efficient EC motors with backward-curved fan blade	
Maximum fan operating pressure	Up to 300 Pa – Recommended operating pressure at design airflow: ≤ 200 Pa – Guidance value for very good operating pressure at design air flow rate (cf. TV no. 258): 100 Pa up to 150 Pa	
Reading out the calibration pressure	Via installation app & Renson installer web portal	
External connections	– 1x network port – 2x USB connections – 3x digital inputs & outputs for ventilation position control or feedback of error and filter notifications – Accessory port	

The full technical data sheet is available via this link:

https://dam.renson.net/m/4e5d78a7c2271c5e/original/TF_Flux-_Wall_en.pdf

10.2 • Controls

Resident's app:
- Read the air quality in the home
- Personalisation and (temporary) manual adjustment of the ventilation air flow rate

Optional:
- Potential-free wired 3-position switch for manual adjustment of the ventilation extraction rates (see Paragraph 8.11)
- 4-position switch, included in the room sensors

10.3 • Room sensors

The Renson Sense room sensors can be combined with the Flux+ Wall to regulate the local air quality via ventilation air flow rate. These 230V-powered sensors communicate with the ventilation unit via a robust wireless connection. The RF Dongle serves as a bridge between the ventilation unit and the room sensors. Renson offers preconfigured kits in which the connection between the Sense and RF Dongle is already made. Adding room sensors further improves air quality and lowers the E-level.

More info regarding the Sense Room Sensor can be found via the following link:

10.4 • Frost protection

By default, the Flux+ Wall is equipped with a frost protection mechanism to prevent ice formation in the heat exchanger. Ice formation reduces the efficiency of your ventilation system and can damage the heat exchanger. Each Flux+ Wall unit is equipped with basic frost protection through unbalance operation.

All photos shown are for illustration purposes only and merely serve as an example of a practical situation.
The actual product may vary due to modifications to the product.
Renson® reserves the right to make technical modifications to the products shown.
The most recent brochures are available for download at **www.renson.eu**

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