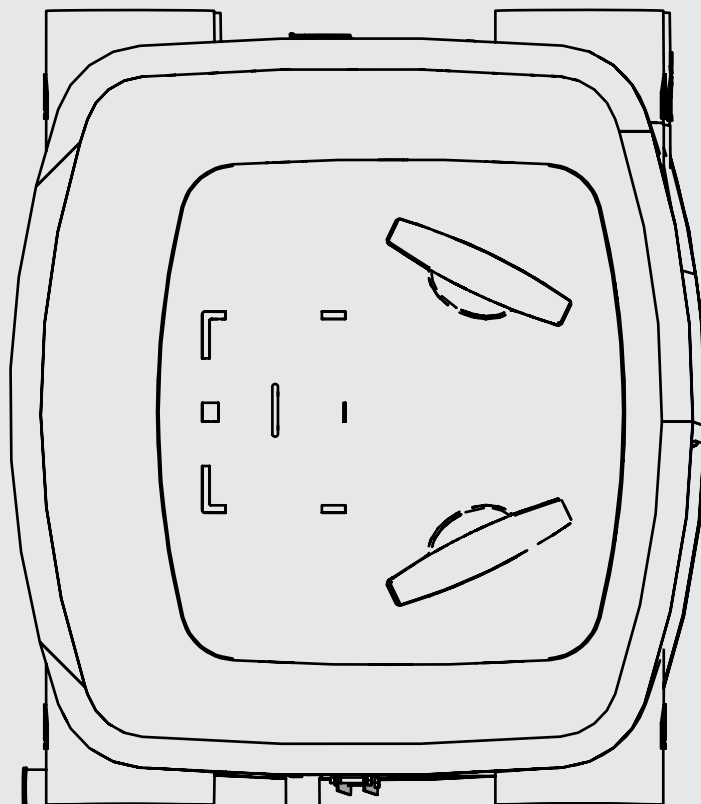


HEATRAESADIA

SMARTER | CLEANER | WARMER

HRU ECO 4

Installation manual



Introduction

This manual is intended for use by the installer of the ventilation system. It contains important information concerning installation, use, maintenance and troubleshooting for the ventilation system.

The installer is responsible for installing and commissioning the unit.

The following definitions are used in this manual to draw attention to hazards, instructions or indications related to people, products, installations and/or the surroundings.

Warning!

Indicates a hazard that can cause injury and/or severe damage to the product, system or surrounding area.

Caution!

Instructions important for the installation, functioning, operation or maintenance of the product. Failure to observe these instructions can result in minor injury and/or severe damage to the product, system or surrounding area.

Note

Instructions important for the installation, functioning, operation or maintenance of the product. Failure to observe these instructions can result in minor damage to the product, system or surrounding area.

Tip

Instructions that may be important for the installation, functioning, operation or maintenance of the product, but are not related to injury or material damage.

Tip

Do not forget to register the product via the Heatrae Sadia website www.heatraesadia.com.

Although this manual has been drawn up with the utmost care, no rights may be derived from this document.

Heatrae Sadia reserves the right to modify products and manuals without prior notice.

Due to our continuous product improvement process, this document may not match the appliance you received. You can download the latest version of the manual from www.heatraesadia.com.

Contents

1. Safety and other regulations	5
1.1. Safety	5
1.2. Standards and guidelines	6
2. Product information	7
2.1. Models	7
2.2. Accessories	7
2.3. Technical data	8
2.4. Capacity	9
2.5. Dimension drawings	10
2.6. Parts	11
2.7. Controls	12
3. Installation	15
3.1. Installation requirements	15
3.2. Installing the ventilation unit	15
3.3. Connecting the condensate drain	20
3.4. Connecting the ducts	21
3.5. Electrical connection	22
4. Operation	23
4.1. Ventilation speeds	23
4.2. Devices	23
4.3. Sensors	24
4.4. Pairing and unpairing wireless devices and sensors	24
5. Commissioning	25
5.1. Preparation	25
5.2. Putting into service	25
5.3. Adjusting the capacity	26
5.4. Setting the supply/exhaust balance	27
6. Inspection and maintenance	28
6.1. Inspection and maintenance schedule	28
6.2. Inspecting, cleaning and replacing filters	29
6.3. Resetting the filter indication	30
6.4. Cleaning the insect filter	30
6.5. Replacing the frost valve motor	30
6.6. Inspecting and cleaning air valves	31
6.7. Inspecting and cleaning the fans	31
6.8. Inspecting/cleaning ducts	33
7. Service parts	34
8. Faults	36
9. Warranty	41
10. Declarations	42

1. Safety and other regulations

1.1. Safety

- Work may only be performed on the ventilation system by qualified installers in accordance with the regulations mentioned in this manual. Only original accessories and parts as specified by the manufacturer may be used for this purpose.
- Do not use the product for purposes other than those for which it is intended, as described in this manual.
- Be careful when using electrical appliances:
 - Never touch the appliance with wet hands.
 - Never touch the appliance when barefoot.
- This product and/or system may be operated safely by children aged 8 years and older and by people with physical, sensory or mental disabilities or a lack of experience/knowledge if under supervision or after having received instructions regarding safe use, and if they are aware of the product and/or system hazards.
- Cleaning and maintenance by the user may not be done by children or people with physical, sensory or mental disabilities or a lack of experience/knowledge without supervision.
- Do not allow children to play with the product and/or system.
- Do not use the product in the vicinity of flammable or volatile substances such as alcohol, insecticides, petrol etc.
- The safety instructions must be followed in order to prevent physical injury and/or damage to the product.
- The product includes moving parts. Please therefore wait at least 10 seconds after disconnection prior to opening or touching the product as these parts will continue to move for some time.
- Secure the appliance against being switched on accidentally.
- Maintenance instructions must be followed to prevent damage and excessive wear and tear.
- The product may not be modified.
- The product is only suitable for use with a 230 V, 50 Hz AC power supply system.
- Ensure that the electrical system to which the product is connected meets the necessary conditions.
- Do not expose the product to the elements.
- Do not place any objects on top of the device.
- Inspect the product regularly for faults. In the event of faults, switch the product off and contact your installer or Heatrae Sadia Customer Service immediately.
- Switch the product off if:
 - The product is not working properly.
 - You want to clean the outside of the product.
- Ensure that the electrical circuit does not become damaged.
- Do not use the device to extract air from boilers, heating systems etc.

- Ensure that the device drains into a sewer system which leads outside, and is suitable and installed for this purpose.
- Ensure that air valves and grilles are not obstructed, and that they are clean.

1.2. Standards and guidelines

Warning!

The specifications and settings of the appliance comply exclusively with the standards and statutes of the country in which the appliance is sold.
Use outside this country may lead to very dangerous situations.

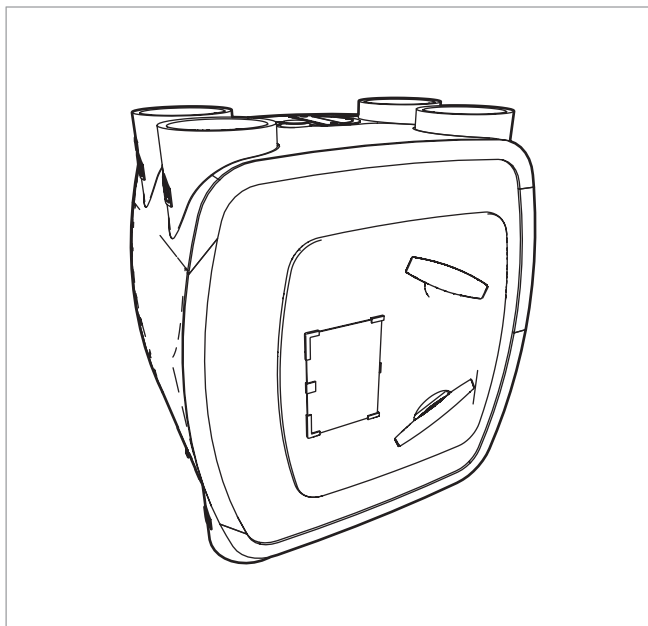
The installer must ensure that the entire installation complies with the legal requirements, regulations as referred to in this document and other applicable documents provided by the manufacturer.

Supplements, amendments and legal requirements and regulations which come into force later on are deemed to be applicable at the moment of installation for all legal requirements and regulations.

After installation, no health, safety or environmental risks may be present in accordance with the applicable CE standards. This also applies to other products included in the installation.

2. Product information

The HRU ECO 4 consists of a central balanced ventilation unit with heat recovery, an installation kit and a condensate drain port.



2.1. Models

HRU ECO 4 versions		
Item	Type	Description
7030000	HRU ECO 4 Apt	Balanced ventilation unit with heat recovery; RF, Apartment
7030001	HRU ECO 4 House	Balanced ventilation unit with heat recovery; RF, House

2.2. Accessories

Item no.	Type	Description
95980003	RFT W	Wireless control switch with three settings and timer function. (White)
95970204	RFT AUTO	Wireless RF control switch with 2 settings, an automatic mode and a timer function.
95970002	Wired Controller	Wired three-position switch for installation
95970201	RFT-CO2 230V	RFT CO ₂ sensor 230 V
95970203	RFT-RV BAT	RFT-RV battery-powered sensor
95970202	RF-PIR BAT	RF-PIR battery-powered presence sensor

2.3. Technical data

Description	Symbol	Unit	HRU ECO 4	
			Apartment	House
DIMENSIONS AND WEIGHT				
Dimensions [HxWxD]	—	mm	848 x 730 x 479	
Weight	—	kg	24	
CONNECTIONS				
Top duct connections	—	mm	4x Ø 150 inner / Ø 180 outer	
Bottom duct connections	—	mm	2x Ø 150 inner / Ø 180 outer (from/to dwelling)	
Condensate drain	—	mm	Ø 40 mm outer	
GENERAL				
IP classification	—	—	IP31	
Safety class			Double insulated	
Installation class			II	
Filter class	—	—	Standard G3	
RF (built in)	—	—	30 m in free space, 868 MHz	
Supply voltage	—	—	230 V AC - 50Hz (+/-10%)	
Power connection	—	—	Five-wire power cable, stripped	
TECHNICAL PARAMETERS				
Thermal efficiency of heat recovery	η_t	%	94	
Electric power input of fan drive at maximum flow rate	—	W	154	

Caution!

In case of safety class 1, the appliance must be connected to an earthed socket outlet.

Warning!

Never use an extension cable for connection of the unit.

2.4. Capacity

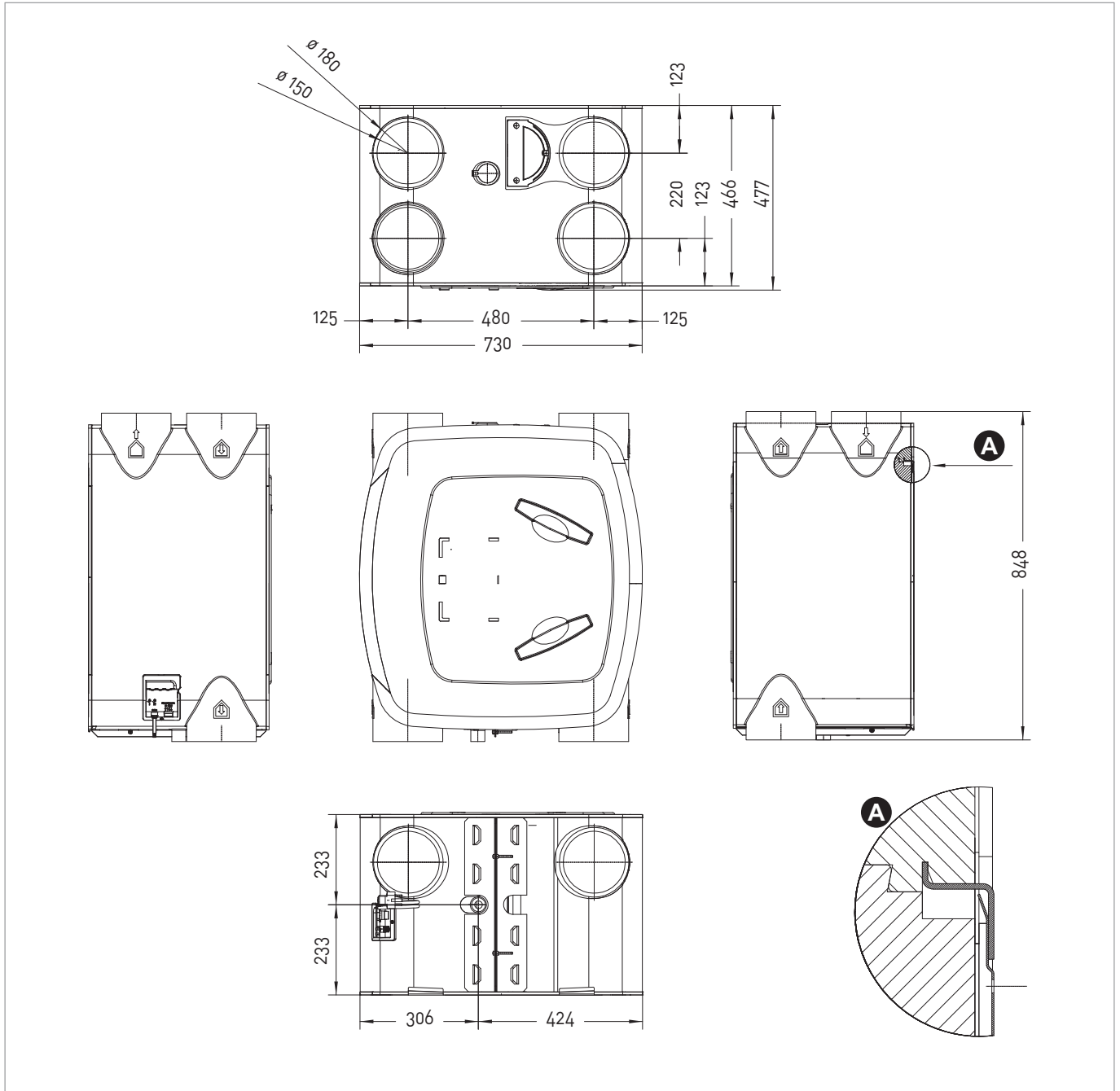
HRU ECO 4	Capacity [m ³ /h]	Pressure [Pa]	Power [W]
Level 1 minimum	50	10	8
Level 1 standard	75	20	12
Level 1 maximum	150	40	29
Mode 2 *	150	80	38
Level 3 minimum	225	100	74
Level 3 standard	275	100	106
Level 3 maximum	350	100	154

* Level 2 is a calculated value, depending on the set minimum and maximum capacity.

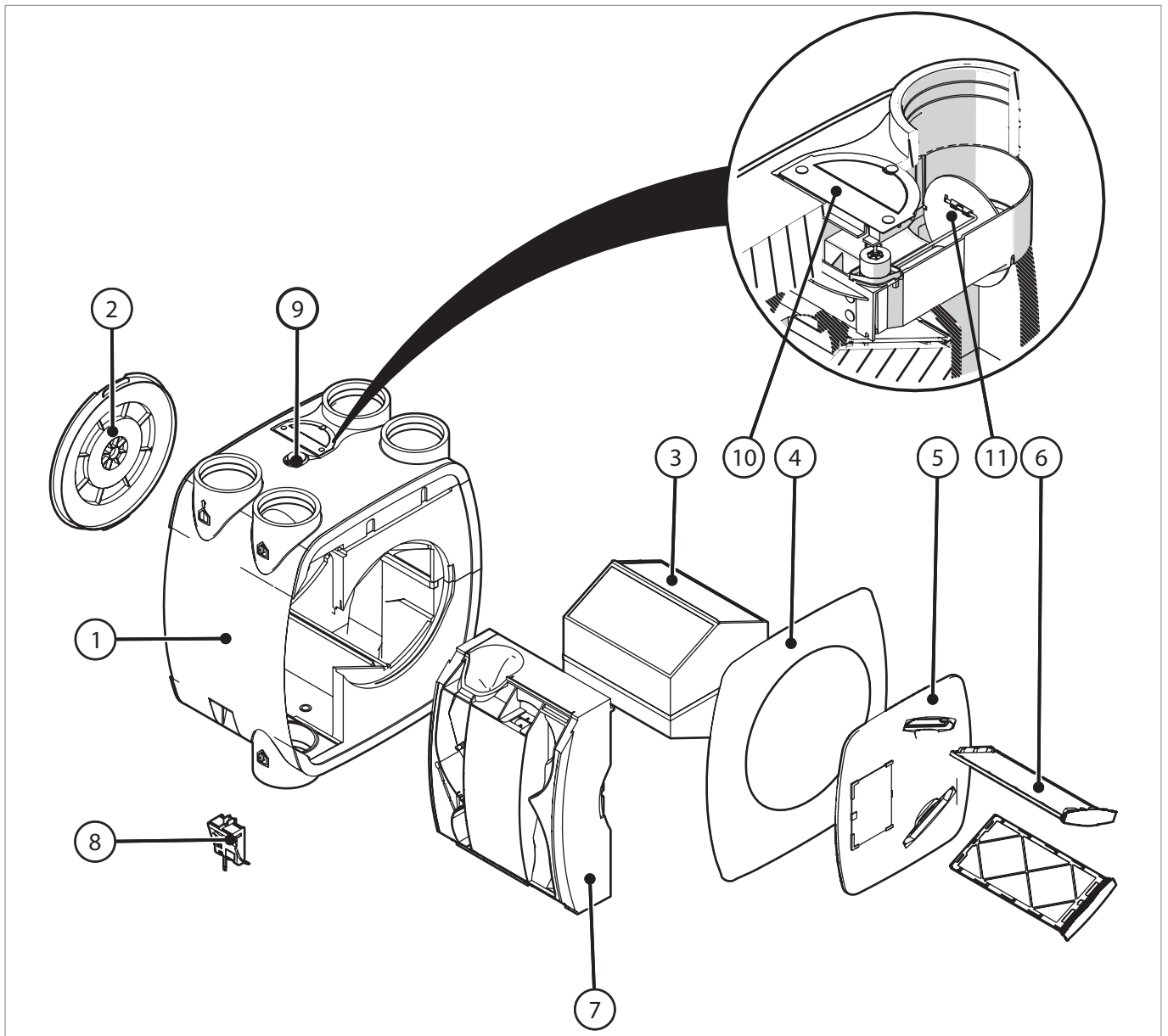
Levels 1 and 3 can be adjusted using the potentiometers on the control panel.

(see Adjusting the capacity on page 26).

2.5. Dimension drawings



2.6. Parts



Key

- 1 Ventilation unit
- 2 Rear bayonet ring
- 3 Heat exchanger
- 4 Front panel
- 5 Front door
- 6 Filter
- 7 Motor module
- 8 Connection cover with control board and power cable
- 9 Insect filter
- 10 Frost valve
- 11 Bypass valve

2.7. Controls

The HRU ECO 4 is normally equipped with a three-level control which allows the flow rates at low speed and high speed to be adjusted as desired with potentiometers on the unit. In addition, the ventilation unit has some automatic controls that operate continuously in the background.

2.7.1. Heat recovery

Before the stale air is discharged outside, it is filtered and passes through the heat exchanger. The fresh outside air is also filtered and passes through the heat exchanger before entering the dwelling. In the heat exchanger, the two air streams pass alongside each other but are not mixed together. This allows heat from the exhaust air to be transferred to the fresh supply air, so this energy is not lost.

This heat recovery process is very efficient. Up to 97% of the extracted heat is returned to the dwelling.

Note

Despite the heat exchange process whereby Supply air from outside is pre-heated, the balanced ventilation system may not be regarded as a heating system. It is a ventilation system that contributes to a comfortable and healthy living environment in a dwelling.

2.7.2. Summer bypass control

The aim of the summer bypass control is the ventilation of the dwelling with less heat transfer or none whatsoever.

The Heatrae Sadia HRU ECO 4 heat recovery unit is supplied as standard with a bypass valve which is fully integrated into the unit. This valve operates fully automatically. The bypass allows the outdoor air intake to go around the heat exchanger. The exhaust air always passes through the heat exchanger.

This automatic control will primarily be activated at night in the summer. The outside air is usually cooler than the warm inside air at this time.

Note

The summer bypass control is not a cooling device, but it does ensure that the dwelling remains cool for longer on summer nights.

2.7.3. Frost control

The aim of the frost control is to prevent the heat exchanger freezing, which would mean no ventilation could take place.

If the temperature of the supply air in the heat exchanger comes too close to the freezing point, the appliance will open the frost valve at the top of the unit in a controlled manner to suck in warm room air, which is mixed with the cold air sucked in from outside. At the same time the supply fan starts running faster (the fan speed is boosted so that the amount of fresh outside air remains the same). Thanks to this preheating of the cold outside air, the warm air extracted from the dwelling does not have to warm up the cold fresh air as much. The automatic control ensures that the temperature of the supply air in the heat exchanger remains safely above the freezing point.

If the outside temperature drops even further, the supply fan will slow down and will ultimately be reduced to a minimum speed.

If the temperature drops even further, the exhaust fan speed will be increased and the supply fan will continue to run at minimum speed.

If the outside temperature becomes extremely low, the supply fan will be switched off but the exhaust fan will continue running. The frost valve is also closed in this case.

After a defined time, the supply fan will start running again at minimum speed and the frost valve will be opened again to check whether the frost risk has gone away.

If the outside temperature rises, the above procedure is followed in the reverse order until the frost risk is gone. The resident always determines the exhaust air volume.

2.7.4. Filters

The HRU ECO 4 has two filters, one for each air stream. Both filters are positioned in the ventilation unit so that they protect the exchanger against soiling. In addition, the filter in the air supply channel protects the user against dust and other impurities found in the air drawn in from outside.

There are various types of filters:

- **G3 filter.**
This filter is supplied with the appliance as standard and it is very suitable as a 'construction dust filter' in the initial period following completion of the new housing. After around three months, the filter should be replaced with a G4 or F7 filter.
- **G4 filter.**
This coarse filter is mainly used to filter relatively large dust particles from the air. This protects the heat exchanger in particular against incoming dirt.
- **F7 filter.**
This fine filter stops fine dust particles as well as coarser dust particles (fine dust, pollen). This is particularly beneficial for people with allergies who are sensitive to this.

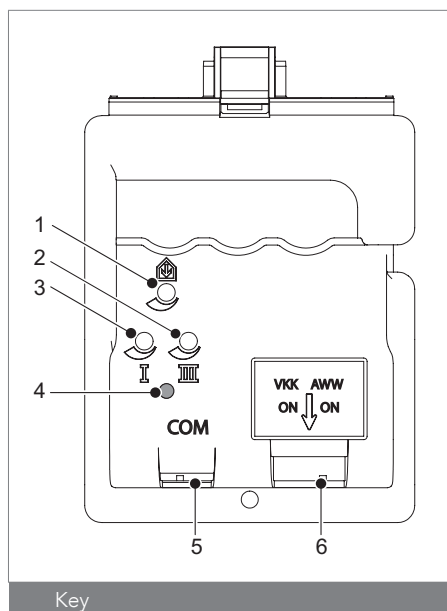
During the product's lifetime the filters will become dirty, which reduces the capacity of the ventilation unit. It is therefore essential that the filters are cleaned as indicated and ultimately replaced.

Warning!

HRU ECO 4 should always be fitted with the appropriate filters. Without filters, the appliance can be irreparably damaged.

2.7.4.1. Filter warning

The controller of the ventilation unit uses a counter to keep track of when the filters need to be cleaned or replaced. If it detects that a filter is dirty, an LED (4) on the ventilation unit starts blinking orange.



- 1 Balance supply setting
- 2 Potentiometer for high speed setting
- 3 Potentiometer for low speed setting
- 4 Status LED / Dirty filter indication
- 5 Communication port
- 6 DIP switch settings (VKK & AWW)

Note

It is advisable to check the LED on the ventilation unit on a regular basis.

Caution!

If a dirty filter is detected, a signal is also sent to the resident by suddenly reversing the operation of the control: when the **Low Speed** button on the remote device is pressed, the ventilation unit starts running at **high speed**, and when the **High Speed** button is pressed the ventilation unit starts running at **low speed**. When this happens, check the LED on the ventilation unit. If it is blinking orange, the filter needs to be cleaned or replaced.

2.7.4.2. Status LED

The appliance is equipped with a status LED on the control panel.

The status LED can display the following messages:

Pattern		Function
Green	Orange	
Blinks 1x/s	Blinks 1x/s	Identification
Blinks 1x/s		Pairing mode
Lit 6 s	Blinks 1x/s	Frost mode
Lit 5 s	Blinks 2x/s	Bypass mode
Lit		Normal operation
Pattern		Function
Red	Orange	
Blinks 1x/s	Blinks 1x/s	Exhaust fan fault
Blinks 1x/s	Blinks 2x/s	Supply fan fault
Blinks 2x/s	Blinks 2x/s	Exhaust temperature sensor fault
Blinks 2x/s	Blinks 3x/s	Supply temperature sensor fault
Blinks 3x/s	Blinks 1x/s	Sensor fault
	Blinks 1x/s	Filter dirty

3. Installation

3.1. Installation requirements

Take the following into account when positioning the system:

- Install the ventilation unit:
 - in a closed installation (where the system can cause as little sound nuisance as possible);
 - in a frost-free area;
 - in the vicinity of a 230 V AC 50 Hz connecting box; the length of the power cable is 1.5 m;
 - in the vicinity of a trap with a sewer connection (for connecting the condensate drain);
 - so that it remains accessible for service and maintenance;
 - on a wall with sufficient load-bearing capacity (min. 200 kg/m²).
- The duct systems and the exhaust and supply points must be correctly dimensioned.
- The correct fixing materials must be present.

Caution!

In order to prevent condensation, the duct from outside and the duct leading outside must be thermally insulated and vapour-tight right up to the ventilation unit.

Tip

To avoid noise complaints, Heatrae Sadia advises fitting silencers at the connections of the two ducts coming from the dwelling.

Tip

When positioning the ventilation unit, ensure that enough space is kept free for servicing the system. A minimum of 500 mm clearance at the front of the ventilation unit is necessary for this purpose.

3.2. Installing the ventilation unit

3.2.1. Unpacking and checking

- a) Carefully remove the appliance from the box.
- b) Check that the nameplate information and the type correspond to the sticker on the outside of the box.
- c) Check the appliance for damage and completeness.
- d) Check that the installation and/or user manual(s) and the required accessories (condensate drain port, installation kit, etc.) are included with the ventilation unit.
- e) Place the ventilation unit upright on the ground.

3.2.2. Mounting positions

Caution!

Mount the ventilation unit on a concrete surface, not on a wooden or plaster surface or a surface with insufficient load-bearing capacity (<200 kg/m²), since that may lead to excessive noise.

Caution!

Always ensure that the ventilation unit is installed with the ducts connected to the correct air inlets and outlets.

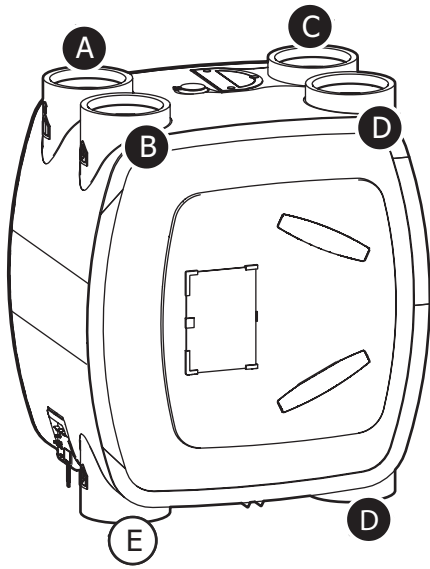
The ventilation unit is mounted on the wall.

Depending on the duct installation, the ventilation unit can be wall mounted with the standard configuration (as delivered in the package) or the inverse configuration (see Converting for inverse mounting on page 17).

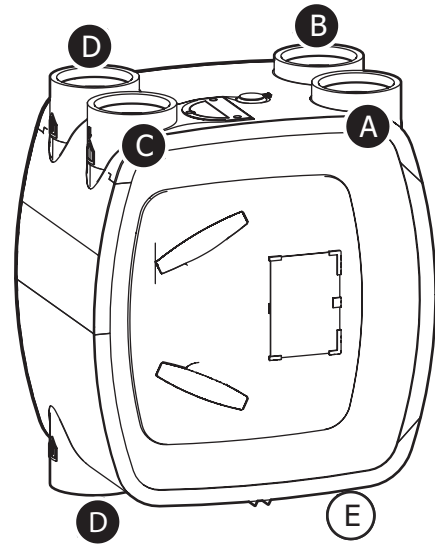
The symbols on the side of the ventilation unit indicate where the ducts from the dwelling should be connected.

Mounting positions

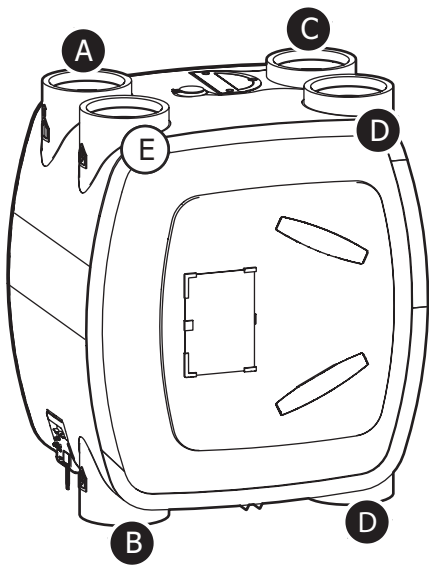
Standard high-rise



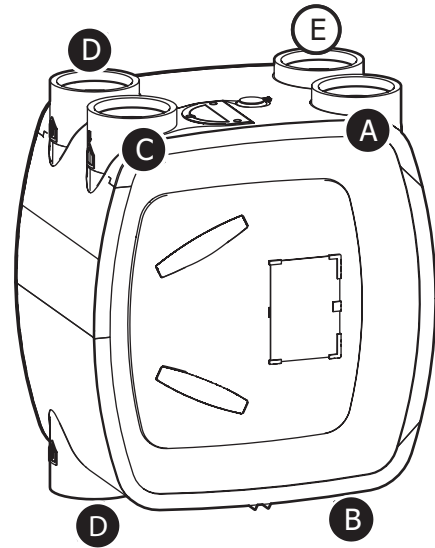
Inverse high-rise ⁽¹⁾



Standard low-rise



Inverse low-rise ⁽¹⁾



1) See Converting before mounting.

Key



A Exhaust air to outside



C Supply air from outside



B Supply air to dwelling



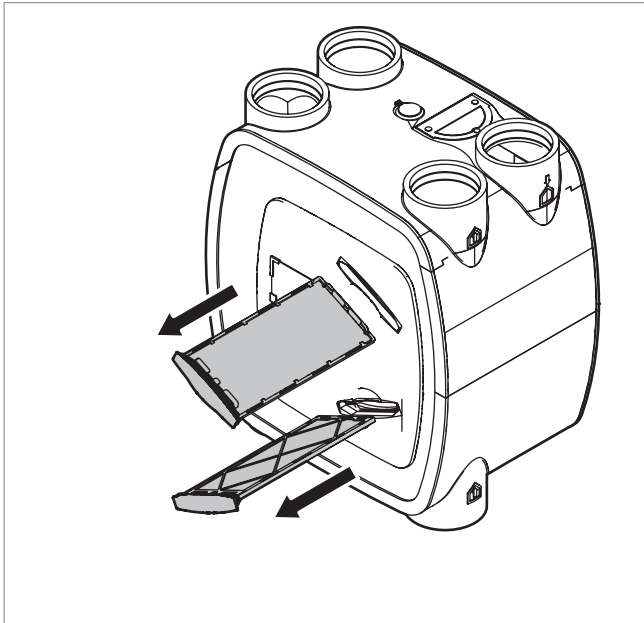
D Exhaust air from dwelling

E Closed

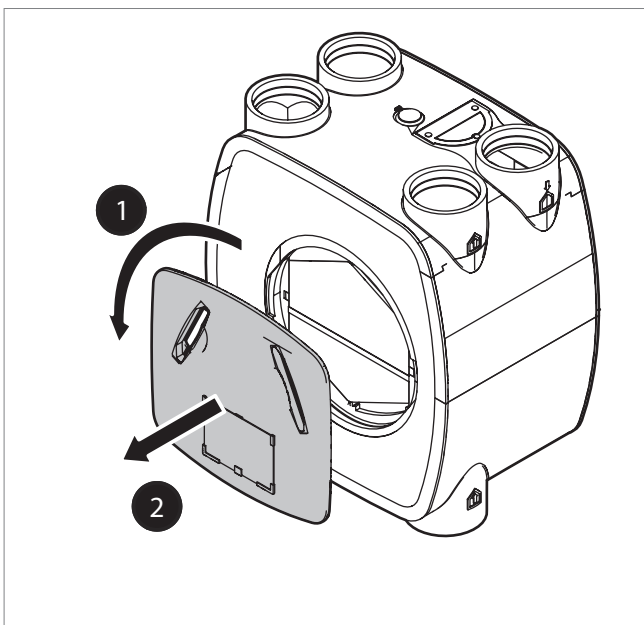
3.2.3. Converting for inverse mounting

The HRU ECO 4 heat recovery unit is supplied as standard with the motor module on the left side. If it fits better with the duct systems, the ventilation unit layout can be inverted easily without any tools before it is mounted on the wall. If that is not necessary, this section can be skipped.

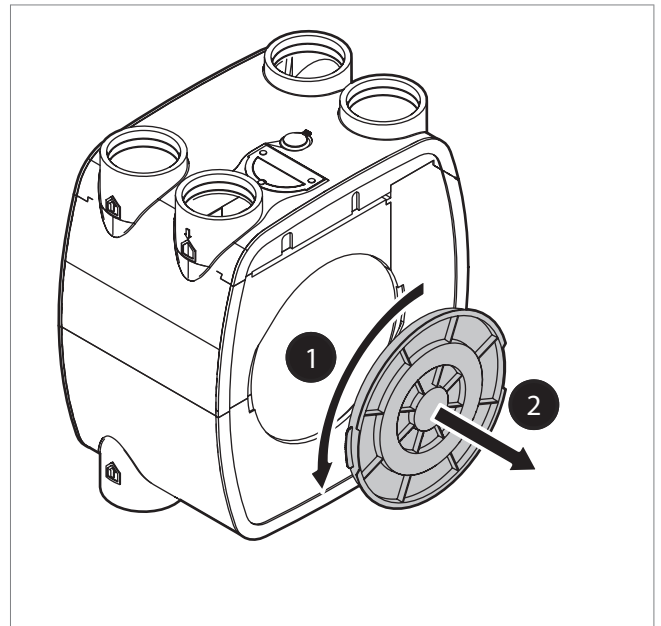
- a) Remove both filter holders.



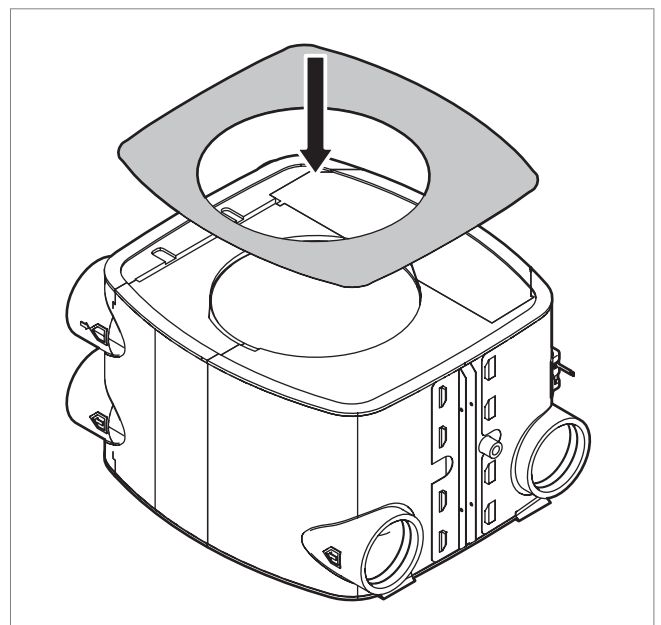
- b) Turn the front door with the bayonet fitting 90 degrees to the left (anti-clockwise) and remove the front door.



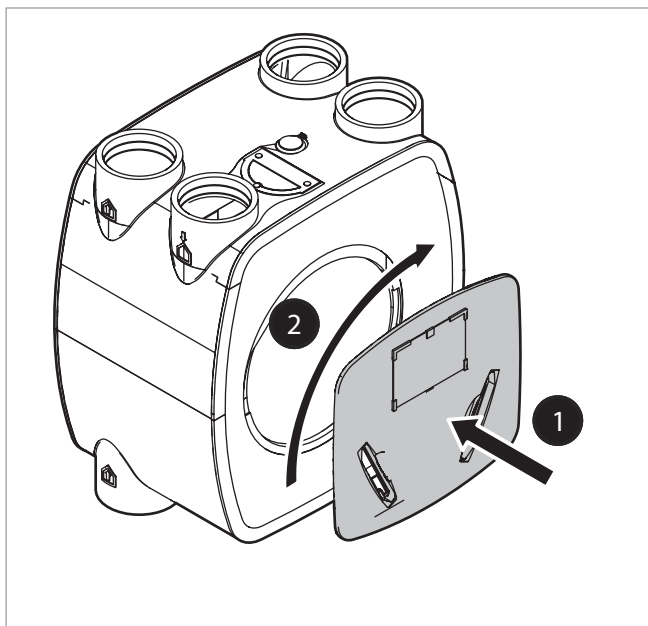
- c) On the rear, turn the bayonet ring 90 degrees to the left (anti-clockwise) and remove it.



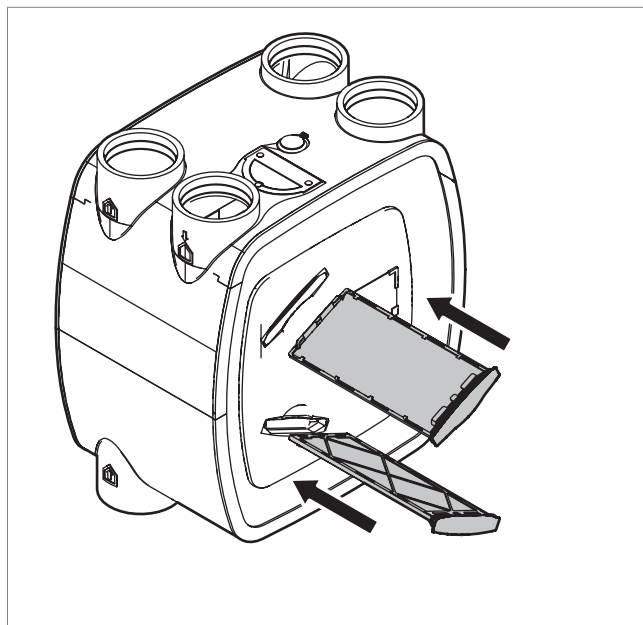
- d) Move the front panel upright (without rotating it) to the other side and fit the front panel by pressing the edge under the black edge of the housing. This is most easily done with the ventilation unit resting on the ground.



- e) Place the front door on the new front side as illustrated. Turn the front door 90 degrees to the right (clockwise) so it is nicely vertical. Ensure that the circular foam gasket is present in the gap between the door and the heat exchanger.

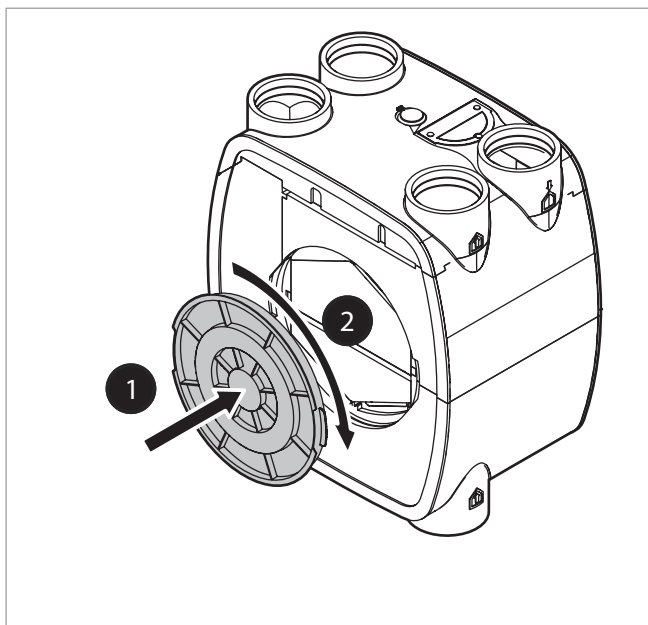


- g) Fit both filter holders.



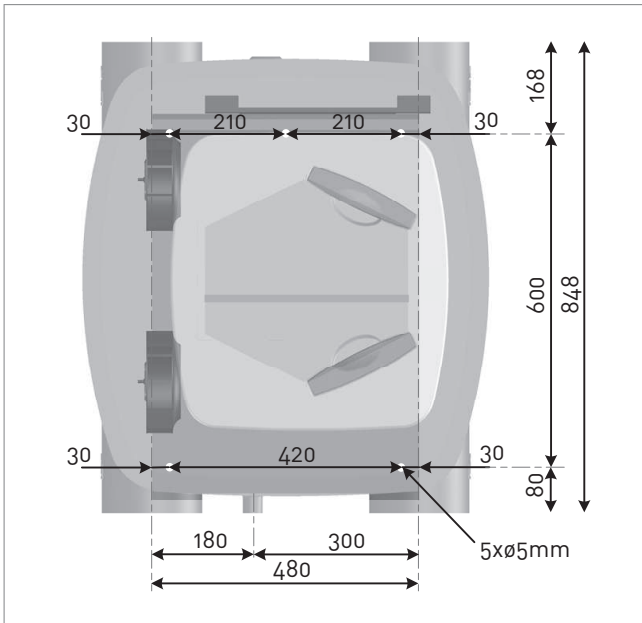
The inverted ventilation unit is now ready for mounting.

- f) Fit the bayonet ring on the new rear side as illustrated. Turn the bayonet ring 90 degrees to the right (clockwise) to secure it. Ensure that the circular foam gasket is present in the gap between the bayonet ring and the heat exchanger.

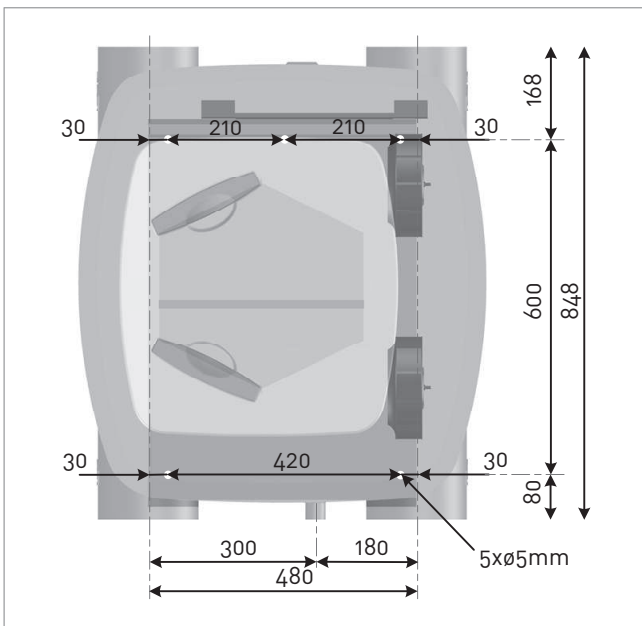


3.2.4. Wall mounting

- a) Determine the exact location of the unit, taking the installation requirements into account.



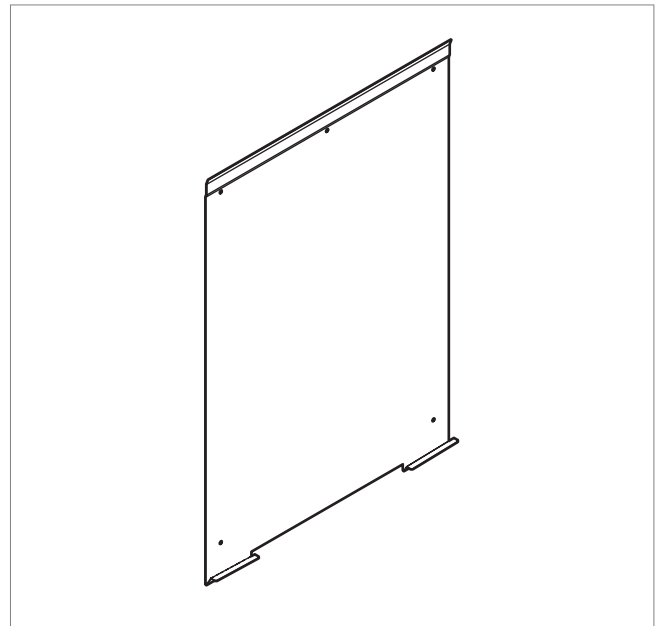
Standard mounting.



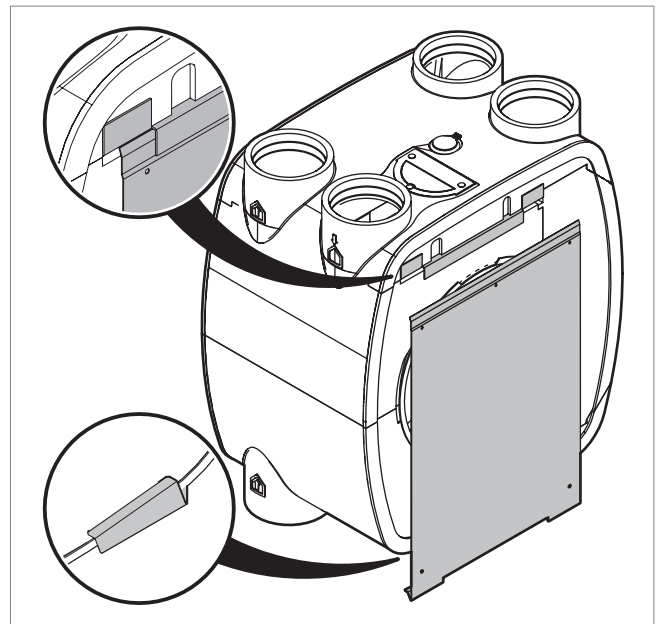
Inverse mounting.

The edge of the installation kit corresponds to the centre line of the ducts. The notch in the bottom edge of the installation kit indicates the position of the condensate drain (to the left with a standard unit, to the right with an inverse unit).

- b) Fix the wall plate *horizontally* on the wall with five bolts (mounting hardware not included).



- c) Hook the mounting bracket over the wall plate to hang the ventilation unit on the wall. The mounting bracket is already fitted on the appliance. Ensure that the ventilation unit is resting on the supports at the bottom of the wall plate.



The side edges of the wall plate correspond to the centre lines of the duct ports.

3.3. Connecting the condensate drain

! Caution!

If the ventilation unit is situated outside the thermal shell of the dwelling (for example in a non-insulated attic), the condensate drain must be thermally insulated up to the ventilation unit.

During winter, moisture in the exhaust air from the dwelling may condense in the heat exchanger. The ventilation unit has an integrated condensate drain for this.

! Caution!

Ensure that the condensate hose is mounted with a downward slope toward the drain.

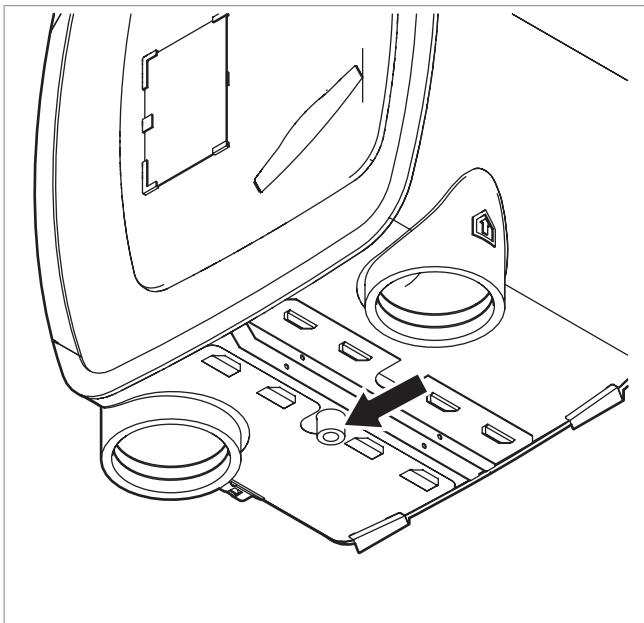
! Caution!

The condensate hose should not have any sharp kinks in it.

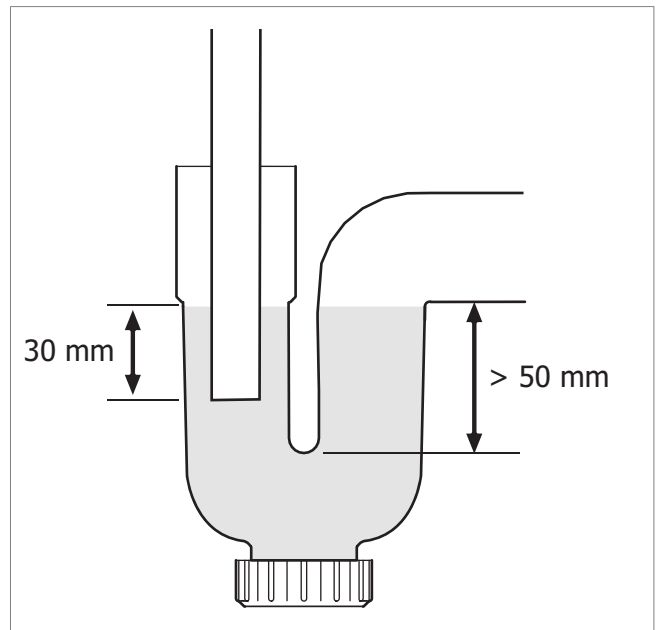
! Caution!

A suitable trap (horizontal or vertical) must be fitted to enable sloped connection of the condensate hose to the condensate drain. For use with a vertical trap, the unit must be raised sufficiently with timbers.

- a) Fit the condensate drain port (not included) on the condensate drain nozzle of the ventilation unit.



- b) Connect a condensate hose (minimum 20 mm inner diameter) to the condensate drain port.
- c) Route the condensate hose to a water trap with a water level of least 50 mm. Insert the hose far enough into the trap.



- d) Fill the trap with water.

! Warning!

Ensure that the condensate hose is always inserted well below the water level in the trap (at 30 mm). Otherwise leaks will occur.

! Warning!

Always mount the appliance on the wall, never standing or lying on the floor.

3.4. Connecting the ducts

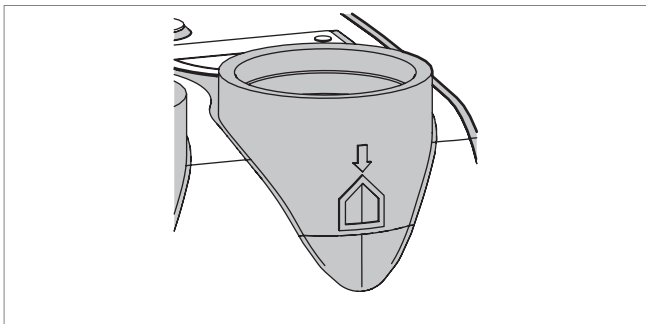
⚠ Warning!

When using the unit in multi-unit housing, it must be ensured at all times that there is no backflow into the dwelling from the central exhaust air duct. In this case, a mechanical check valve must be installed in the air outlet duct of the unit.

⚠ Caution!

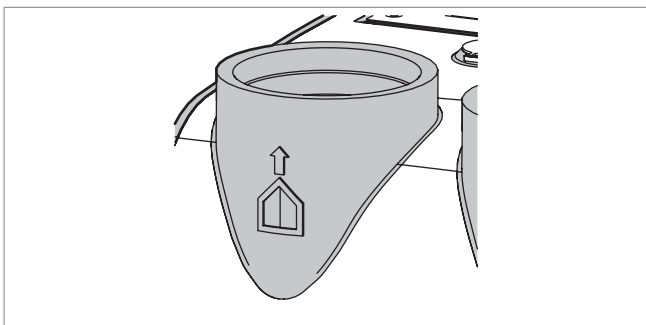
In order to prevent condensation, the duct from outside and the duct leading outside must be thermally insulated and vapour-tight right up to the ventilation unit.

3.4.1. Supply air from outside



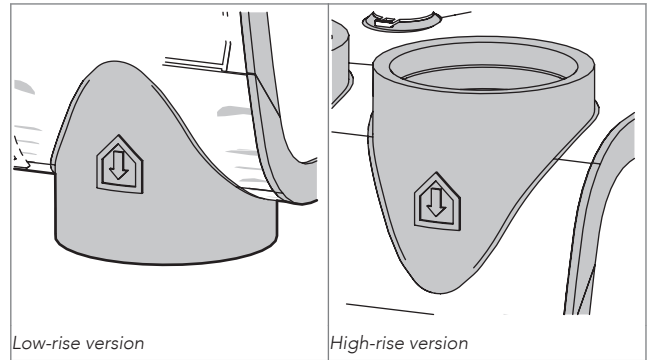
The ventilation unit draws in air from outside through this nozzle. This duct must be thermally insulated and vapour-tight to prevent condensation from forming on the outside of the duct.

3.4.2. Exhaust air to outside



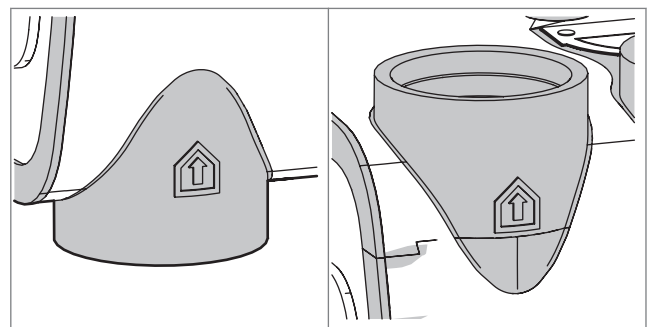
The ventilation unit draws the exhaust air outside via this nozzle. This duct must be thermally insulated and vapour-tight in order to prevent condensation from forming on the inside and outside of the duct. It is advisable to use a roof duct that prevents leakage of condensate or rainwater. Otherwise the components of the duct systems between this outlet nozzle and the roof duct must be installed watertight. Any condensation water will be discharged through the condensate drain of the unit.

3.4.3. Supply air to dwelling



The ventilation unit supplies warmed air to the dwelling through this nozzle. For optimal comfort a sound damper should be fitted on this duct.

3.4.4. Exhaust air from dwelling



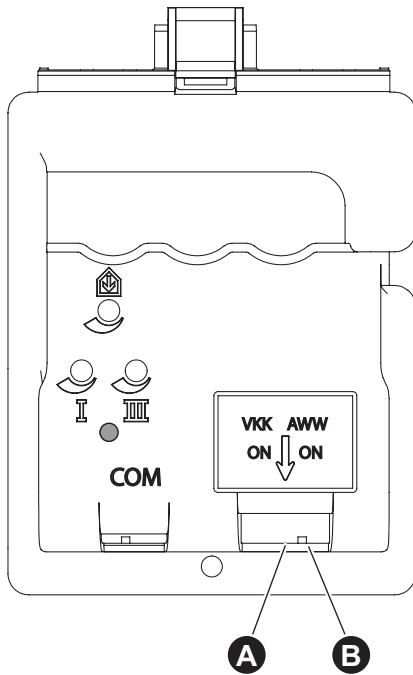
The ventilation unit draws exhaust air out of the dwelling via one of these nozzles. This duct does not normally need to be thermally insulated. Thermally insulated and vapour-tight ductwork is only necessary if the ventilation unit is located outside the thermal shell of the dwelling (for example in a non-insulated attic).

Note

For optimal comfort a sound damper should be fitted on this duct.

3.4.5. DIP switch settings

The two DIP switches are located on the circuit board in the connection cap on the side of the ventilation unit.



Note
The VKK coupler fitting is not used outside the Netherlands.

3.5. Electrical connection

The ventilation unit can be connected to a connecting box using a stripped cable.

Five-wire cable connections				
Wire	Colour	Mode	Phase	From/To
⊥	Green/ Yellow		Earth	Supply/Unit
N	Blue		Neutral	Supply/Unit
L	Brown	Low	Unswitched lead	Supply/Unit/ Switch
B	Black	High	Switched lead	Switch/Unit
M	Grey	Mid/ Auto	Switched lead	Switch/Unit

VKK DIP switch setting

The ventilation unit and the CH boiler both need supply and exhaust ducts from and to the outside. The purpose of the coupler fitting is to simplify the duct systems of the HRU ECO 4 and the CH boiler.

Caution!
The CH boiler must be suitable for controlling the coupler fitting. For more information, please contact Heatrae Sadia.

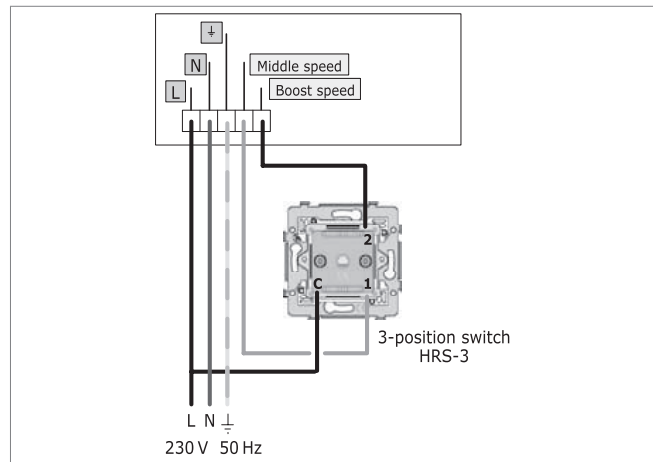
The VKK coupler fitting combines the exhaust of the ventilation unit with the supply and exhaust of the CH boiler (two-duct system). That way there is only one supply and exhaust duct necessary for the ventilation unit (maximum 12 floors).

The VKK-HB coupler fitting (maximum 40 floors) combines the exhaust air line of the ventilation unit with the supply air line of the CH boiler. Both have a separate exhaust system (three-duct system).

If a VKK valve is fitted, the ventilation unit must be set to run the VKK test program.
When a VKK valve is used, the VKK DIP switch must be set to **ON**.

AWW DIP switch setting

If a ground heat exchanger (AWW) is fitted in the outside air intake duct, the ventilation unit must be configured so that the bypass valve opens earlier.
When an AWW is used, the AWW DIP switch must be set to **ON**.



4. Operation

4.1. Ventilation speeds

The ventilation unit can be set to any of the following speeds:

- Level 1, **low speed**: when just one person is present during the day or night, or nobody is present.
- Level 2, **medium speed**: when more than one person is present during the day or night.
or
Auto mode **automatic mode**; control based on connected sensors (CO₂, RH and/or PIR). The capacity is automatically regulated between low and high.
- Level 3, **high speed**: during cooking, showering or bathing, or when many people are present.
- Timer

The duration of the timer can be set as follows.

- Press the timer button once: 10 minutes at high speed.
- Press the timer button twice: 20 minutes at high speed.
- Press the timer button three times: 30 minutes at high speed.

When the timer expires, the unit switches back to the last selected speed before the timer was started unless that was high speed. In that case, the unit switches back to low speed or automatic mode, depending on which of these was most recently selected.

Note

The timer can be stopped at any time by pressing the button for low speed, high speed or automatic mode.

- **Auto-Night.** **Auto-Night** raises the minimum ventilation speed to ensure sufficient ventilation during the night. You can set the unit to **Auto-Night** when you go to bed in the evening. Always ensure that the room grilles are open when using this setting.

To select **Auto-Night**, press the **Auto** button on the wireless control switch or sensor/control device *twice*. **Auto-Night** cannot be set with the wired three-position switch.

Caution!

Auto-Night does not switch off automatically after a defined time. You should manually switch to **Auto** (or another level) in the morning.

Caution!

Auto-Night is only available in combination with a single CO₂ sensor. With multiple CO₂ sensors, the ventilation is automatically adjusted in the bedrooms and **Auto-Night** is not necessary.

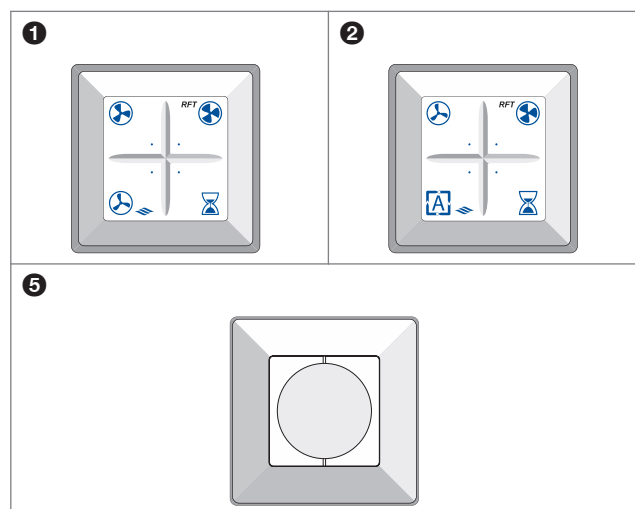
Note

When several devices are used, the ventilation speed on the wired control switch may not match the actual ventilation speed because the ventilation unit has been set to a different speed by another control or sensor.

Note

The actual ventilation speed can always be seen on the (optional) external CO₂ sensor or RH sensor.

4.2. Devices



The ventilation unit has several pre-programmed modes. A number of control switches are available for active adjustment to the right mode/ventilation capacity:

1. Wireless control switch with three settings and timer function.
2. Wireless control switch with two settings, automatic mode and timer function.
3. Wired three-position switch for installation.

A combination of the above options.

You can pair a maximum of 20 wireless control switches and/or sensors with a Heatrae Sadia ventilation unit or system.

4.3. Sensors

The ventilation unit can be controlled by the following available sensors:

- RFT CO₂ sensor; 230 V
- RFT RV sensor; battery-powered
- RF-PIR BAT battery-powered.

For pairing or unpairing a wireless sensor with the unit, see Pairing and unpairing wireless devices and sensors on page 24.

4.4. Pairing and unpairing wireless devices and sensors

4.4.1. Pairing wireless devices

Pairing a wireless control switch should be done in the vicinity of the ventilation unit.

- a) Switch off power to the ventilation unit, wait 15 seconds, and then switch on power again.
- b) Within two minutes, press two diagonally opposite buttons at the same time on the control switch.

The control switch is now paired with the ventilation unit.

For information about pairing and unpairing optional controls, see the documentation included with the controls.

4.4.2. Unpairing RF devices

Unpairing a wireless control switch should be done in the vicinity of the ventilation unit.

- a) Switch off power to the ventilation unit, wait 15 seconds, and then switch on power again.
- b) Within two minutes, press the four buttons of the control switch at the same time.

Now the ventilation unit will no longer respond to the control switch(es). Unpairing one control switch automatically unpairs *all* switches, controls and sensors.

4.4.3. Pairing wireless sensors

Pair wireless sensors with the ventilation unit as follows:

- a) Disconnect power to the ventilation unit by pulling out the plug from the power socket.
- b) Wait for at least 15 seconds.
- c) Restore power to the ventilation unit by reinserting the plug in the power socket.
- d) Ensure that a pairing message is sent from the sensor within two minutes after power to the ventilation unit is switched on. For more information, consult the documentation provided with the relevant sensor.

The sensor is paired and the ventilation unit briefly changes speed to confirm the pairing. The ventilation unit is now ready to respond to the signals of the wireless sensor.

4.4.4. Unpairing wireless sensors

The wireless sensors can only be unpaired at the same time as a wireless control. For more information, see the procedure Unpairing wireless devices.

Note

After unpairing, all wireless devices (switches and/or sensors) must be paired with the ventilation unit again.

5. Commissioning

5.1. Preparation

Before putting into service

- The ventilation unit and accessories must be assembled.
- The duct system must be assembled.
- The condensate drain must be installed and the trap must be filled with water.
- All exterior and interior doors and windows must be shut.
- There must be enough space for air flow beneath the interior doors.
- The adjustable valves in *all* rooms must be fully opened.

Caution!

Increasing the maximum motor speed results in increased noise levels and energy consumption.

Caution!

Before the wireless control switch can be paired, the ventilation unit must have been switched off for 15 seconds.

Caution!

If power is interrupted while you are putting the unit into service, you must wait for at least two minutes after power has been restored. All ventilation units in the immediate vicinity will also be in pairing mode for the first two minutes.

Note

Each wireless device must be paired separately. You can pair and use up to 20 wireless devices.

Note

If you cannot finish pairing the wireless devices within two minutes, you can put the ventilation unit back into pairing mode by switching off power, waiting 15 seconds, and then restoring power. Any devices already paired with the ventilation unit will remain paired. The status LED blinks green during the pairing process.

Note

If a VKK coupling fitting or a heat pump is installed, the DIP switch settings must be adjusted. For more information, see DIP switch settings on page 22.

Note

The VKK coupler fitting is not used outside the Netherlands.

5.2. Putting into service

Follow the steps below to correctly put the ventilation unit into service:

- a) Ensure that the ventilation unit has been switched off for 15 seconds.
- b) Apply power to the ventilation unit.
- c) Pair the available wireless remote devices as described under Pairing wireless devices.

Note

After it is switched on, the ventilation unit remains in pairing mode for 2 minutes. The ventilation unit responds to all pairing requests received during this period, which means that another wireless device (switch or sensor) may unintentionally be paired with your ventilation unit. As a result, your ventilation unit will respond to your own wireless device and to the wireless device of a neighbouring dwelling.

Caution!

If a wireless device of a neighbouring dwelling is unintentionally paired with your ventilation system, you can resolve the problem by unpairing the already paired device and then pairing it again. Unpairing one device also unpairs all the rest, including those of neighbouring dwellings.

5.3. Adjusting the capacity

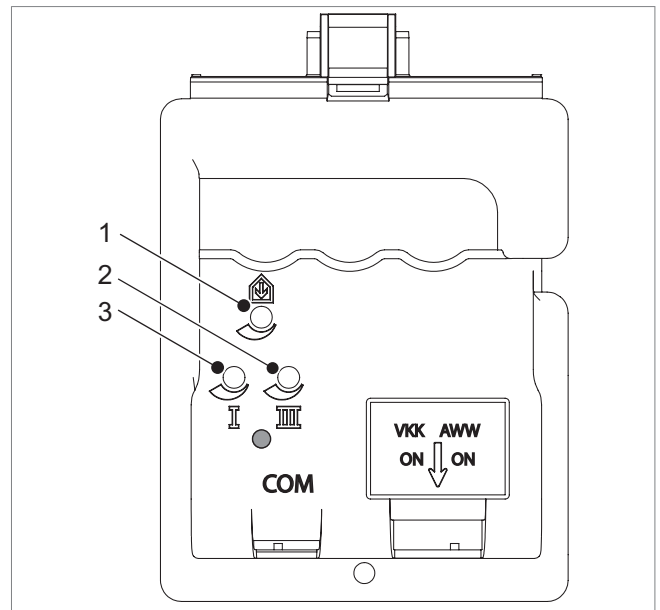
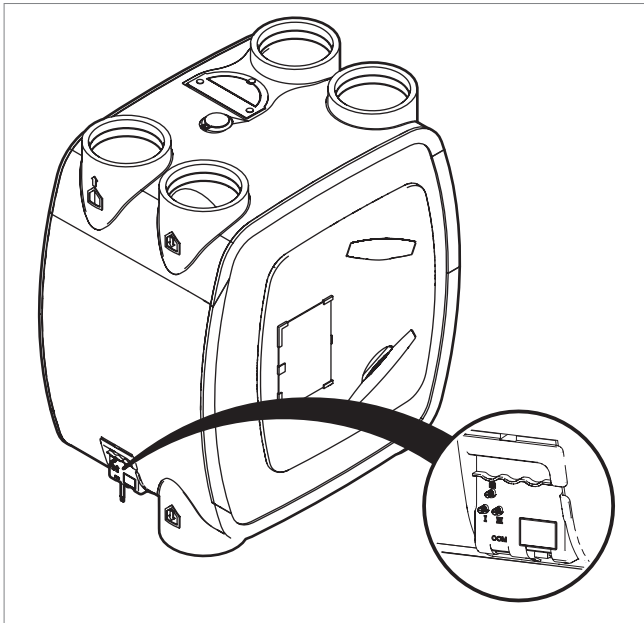
⚠ Caution!

The capacities (high and low) of the ventilation unit must be set up during commissioning.

Note

If the capacity needs to be increased, first try opening the air valves more to see if this helps achieve the required capacity. Increasing the motor speed results in higher energy consumption and an increased noise level.

On the side of the ventilation unit there are two potentiometers for adjusting the minimum and maximum capacity of the unit (low speed and high speed). The design calculations for the system or flow rate measurements will indicate whether these capacities need to be adjusted.



Key

- 1 Supply/exhaust balance setting
- 2 High speed setting
- 3 Low speed setting

5.3.1. High speed setting



If necessary, adjust the high speed setting with the right-hand potentiometer. The standard setting of this potentiometer is 275 m³/h. The adjustment range is 225 to 325 m³/h (at 100 Pa).

5.3.2. Low speed setting



If necessary, adjust the low speed setting with the left-hand potentiometer. The standard setting of this potentiometer is 75 m³/h, and it has a lower limit so that it is not possible to have insufficient ventilation. The adjustment range is 50 to 100 m³/h.

Note

The adjustment ranges for low and high speed are chosen so that the maximum capacity at low speed is the same as the minimum capacity at high speed. When the low and high speed settings are the same, there is no difference in capacity between the three modes (low, medium and high).

 **Caution!**

Only adjust the potentiometer for high mode when the ventilation unit is loaded (connected to a duct system). If you adjust it when the ventilation unit is unloaded ("free discharge"), the current consumption may become too high. Current limiting on the circuit board will then cause irregular and jerky motor operation.

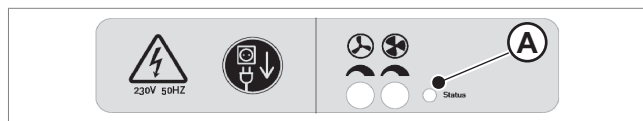
5.4. Setting the supply/exhaust balance



If necessary, use the top potentiometer to adjust the air balance between supply and exhaust. By adjusting the potentiometer you can cause the supply fan to run faster or slower than the exhaust fan. This is mainly necessary when the resistance of the supply duct is not the same as the resistance of the exhaust duct. By reducing the speed of the supply fan (for example, with a short air supply duct with low resistance), you can avoid the need to restrict the supply grille in order to attain a proper air balance in the dwelling. That has a positive impact on energy consumption and noise level. When the potentiometer is in the middle position, both fans run at the same speed.

6. Inspection and maintenance

Proper functioning of the ventilation system, its capacity and its service life can only be assured if the system is inspected and maintained in accordance with the following instructions. These instructions are based on normal operating conditions.



A Status LED

Caution!

If the ventilation system is being used under harsh operating conditions or in a very dirty environment, extra maintenance may be required.

Note

The status LED on the control panel indicates when the filters need to be cleaned or replaced.

6.1. Inspection and maintenance schedule

Inspection schedule		User	Installer
G3 filter	Check for soiling	1 week	—
G4 filter		9 months	1 year
F7 filter		6 months	1 year
Ventilation unit	Check for soiling and leakage	6 months	1 year
Motor module	Check for soiling/imbalance	—	1 year
Bypass valve/Frost valve	Check functioning and for soiling	—	1 year
Heat exchanger	Check for soiling	—	1 year
Air valves	Check for soiling	3 months	1 year
Ducts	Check for soiling	—	4 years

Maintenance schedule		User	Installer
G3 filter	Clean (first 3 months)	1 week	Where necessary
	Replace (with G4 or F7)	3 months	Where necessary
G4 filter	Clean	9 months	Where necessary
	Replace	18 months	Where necessary
F7 filter	Clean	6 months	Where necessary
	Replace	12 months	Where necessary
Insect filter	Clean	12 months	Where necessary
Ventilation unit	Clean condensate hose	—	1 year
Fan module	Clean	—	4 years
Heat exchanger	Clean	—	1 year
Bypass valve/Frost valve	Clean	—	1 year
Air valves	Clean	3 months	1 year
Ducts	Clean	—	8 years

6.2. Inspecting, cleaning and replacing filters

Note

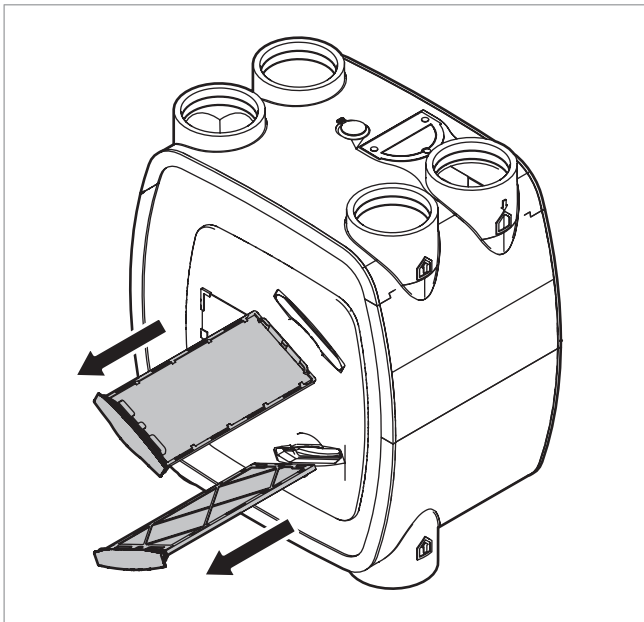
The HRU ECO 4 comes with G3 filters as standard. These filters are very suitable for use as "construction dust filters" after initial completion of the dwelling. After around three months, these filters should be replaced with G4 or F7 filters.

⚠ Caution!

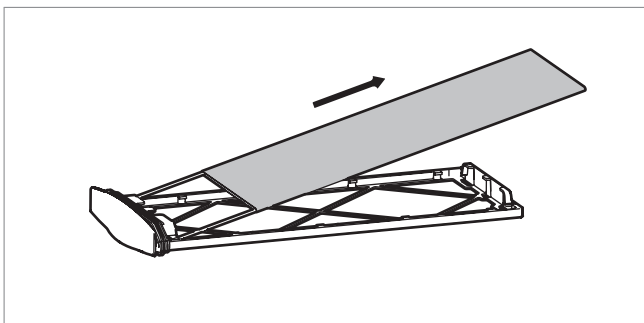
G4 and F7 filters can be cleaned once, after which they must be replaced at the next maintenance interval.

Inspect and clean or replace the filters as follows:

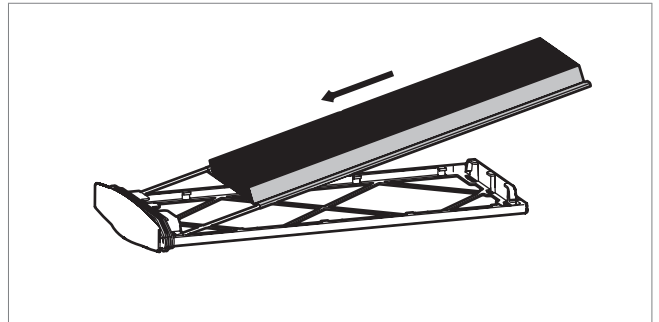
- a) Disconnect power to the ventilation unit.
- b) Remove both filter holders.



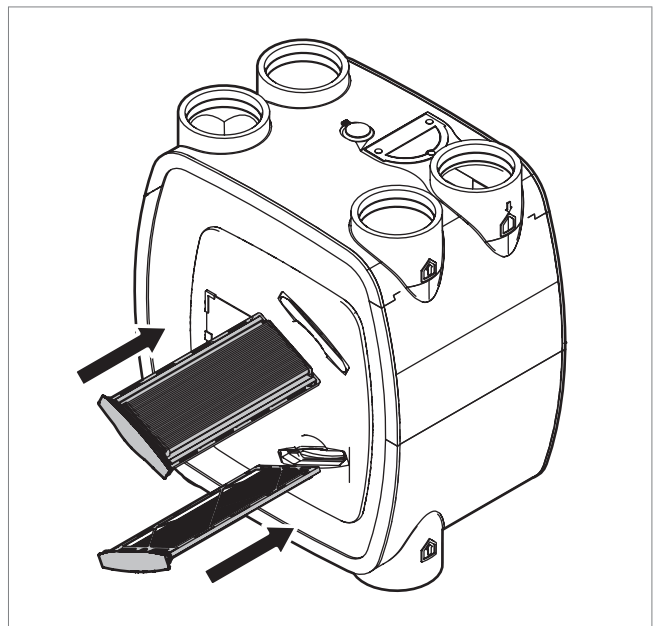
- c) Visually inspect the filters for soiling. If the filters are dirty, they must be cleaned or replaced.
- d) Clean or replace the filters. It is possible to clean the filters by using a vacuum cleaner gently.
- e) If the filter is to be replaced, remove it from the filter holder.



- f) Fit the new filter in the filter holder.



- g) Place both filter holders back into the ventilation unit.



- h) Restore power to the ventilation unit.

⚠ Warning!

HRU ECO 4 should always be fitted with the appropriate filters. Without filters, the appliance can be irreparably damaged.

6.3. Resetting the filter indication

After cleaning or replacing the filter, you can reset the dirty filter indication:

- To perform the reset, you must *first* switch off power to the ventilation unit, wait 15 seconds, and then restore power to the unit.

You then have 10 minutes to reset the filter indication as described below:

- Wired switch: Turn the wired control switch to a different setting four times, with a pause of at least 6 seconds each time.
- Wireless control switch: Press two adjacent buttons on the control switch at the same time.

Warning!

HRU ECO 4 should always be fitted with the appropriate filters. Without filters, the appliance can be irreparably damaged.

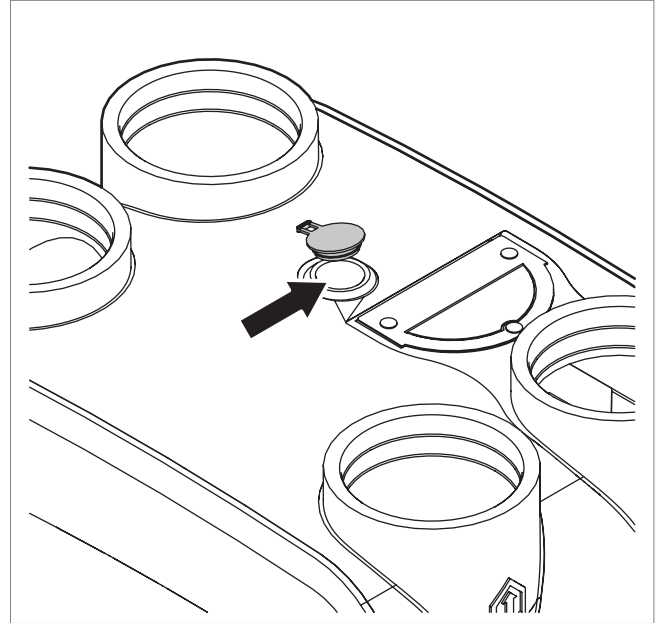
Note

The dirty filter indication cannot be reset via the control panel.

6.4. Cleaning the insect filter

The insect filter must be cleaned once per year. This can be done by the user.

- a) Remove the plug from the power socket or switch off the ventilation unit.
- b) Remove the yellow cap on the top of the ventilation unit.



- c) Then insert the hose of a vacuum cleaner in the hole and switch on the vacuum cleaner. Any insects and other soiling in the filter will be removed by the vacuum cleaner.
- d) Replace the yellow cap.
- e) Put the HRU ECO 4 back into use by reinserting the plug into the power socket.

6.5. Replacing the frost valve motor

The frost valve can be removed from the top of the appliance without tools and without any other actions.

- a) Hold four fingers together and press your fingernails against the frost valve to open the valve. Keep your thumb outside the unit, pressing on the black foam between the valve housing and the adjacent nozzle.
- b) Now carefully pull up on the valve housing while sliding the valve module horizontally toward the nozzle. The motor and the other parts of the bypass are now accessible for inspection.
- c) If necessary, the servo motor can now easily be replaced by unplugging the connector and unscrewing the two cross-head screws.

Warning!

The frost duct must remain free at all times! Nothing may be placed on the frost duct.

6.6. Inspecting and cleaning air valves

Check the air valves regularly (around once every three months) for soiling. If the air valves are dirty, they must be cleaned.

⚠ Caution!

When removing or replacing air valves and grilles, watch out for protruding duct sections. These can be very sharp.

⚠ Caution!

When cleaning, do not adjust the air valve settings, and replace the valves in their original ducts.

Proceed as follows to clean the air valves.

In case of light soiling, wipe the valves clean with a slightly damp cloth. If necessary, use a solution of a mild cleaning agent, such as washing-up liquid or all-purpose cleaner.

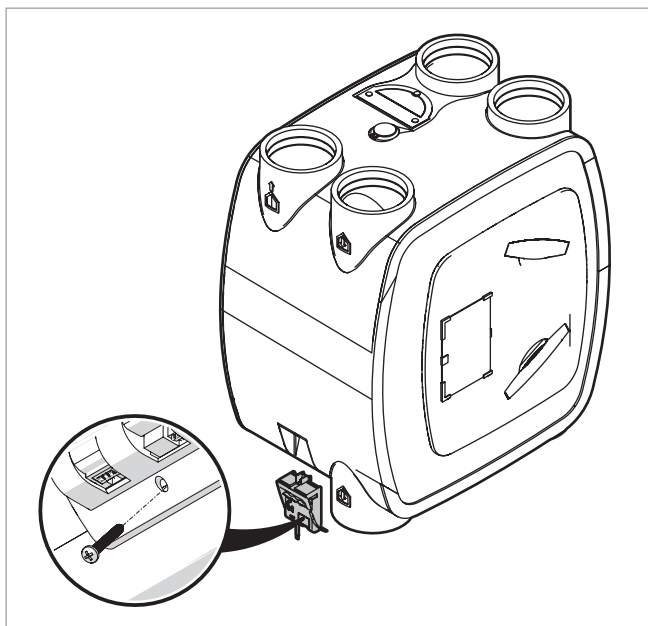
If the valves are soiled with stubborn deposits, remove them entirely from the duct.

- Remove the foam rubber gaskets.
- Fully immerse the valves in a solution of a mild cleaning agent, such as washing-up liquid or all-purpose cleaner. If necessary the valves can be cleaned in a dishwasher.
- Wipe off the valves with a cloth or a soft brush.
- Dry the valves. Fit the foam rubber gaskets back on the valves.
- Place each valve back in the duct where it came from.

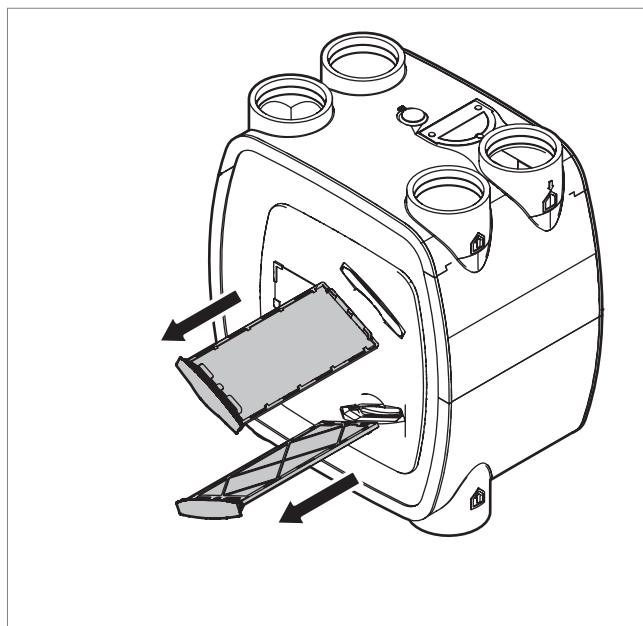
6.7. Inspecting and cleaning the fans

Proceed as follows to inspect and clean the fans:

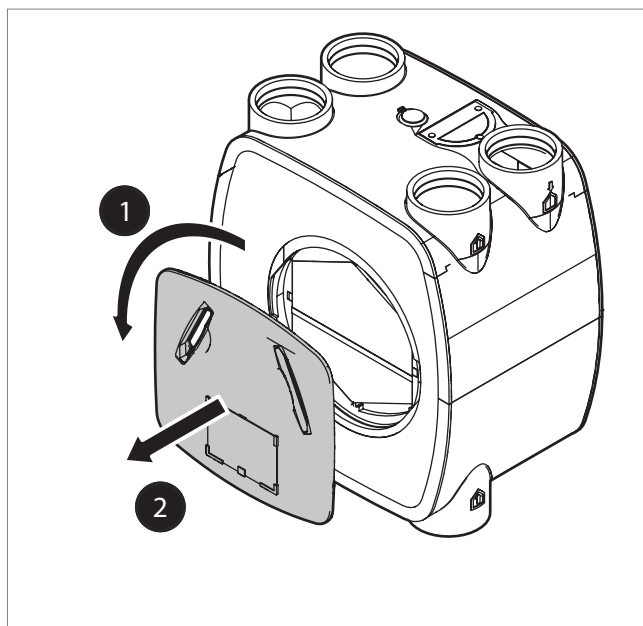
- Disconnect power to the ventilation unit.
- Remove the connection cap with the power cable from the ventilation unit.



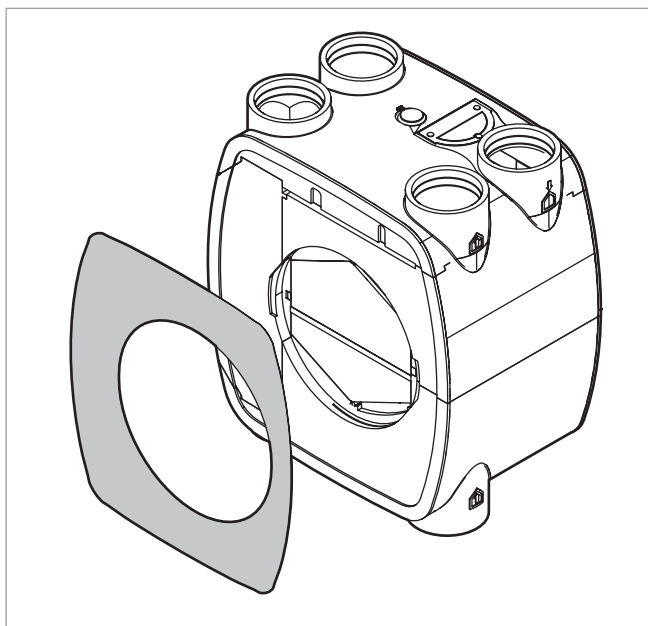
- Remove both filter holders.



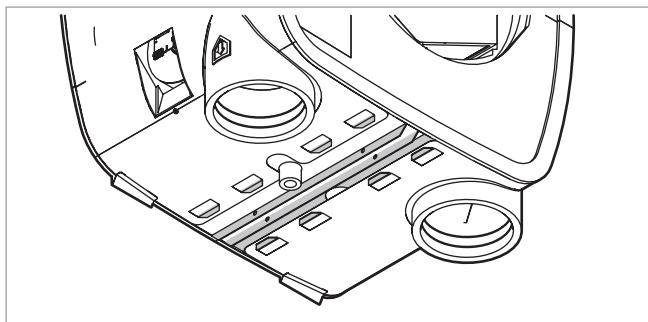
- Turn the front door with the bayonet fitting 90 degrees to the left (anti-clockwise) and remove the front door.



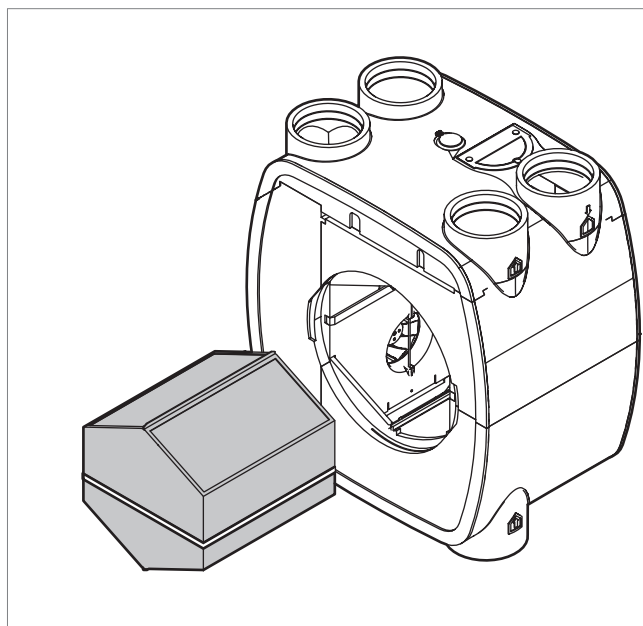
e) Remove the front panel.



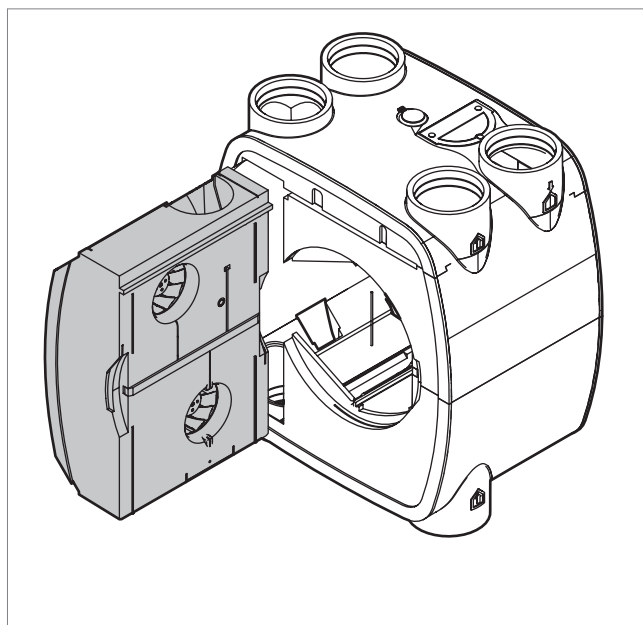
f) Loosen the two nuts of the clamp strap on the bottom about 1.5 cm, but not so far that they come loose from the bolts.



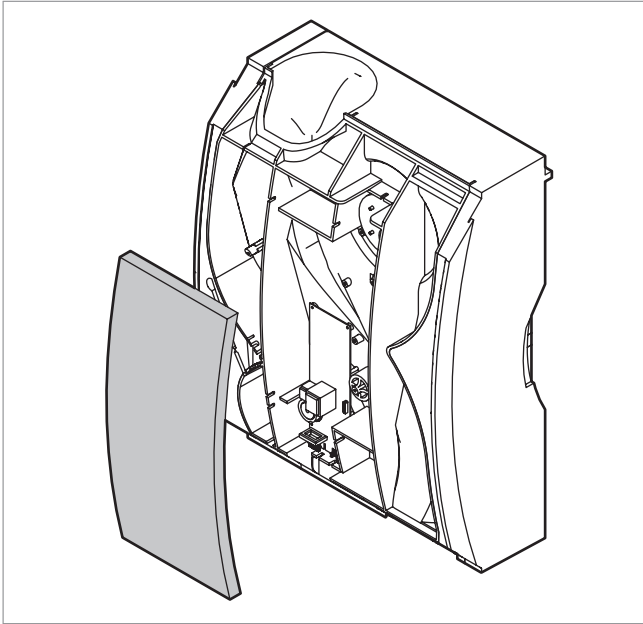
g) Remove the heat exchanger by grasping the clamp strip on the heat exchanger and pulling it out of the ventilation unit. This involves some friction. It is therefore necessary to restrain the housing so that the ventilation unit remains against the wall. Carry the heat exchanger by the clamp strip, not by the grey areas.



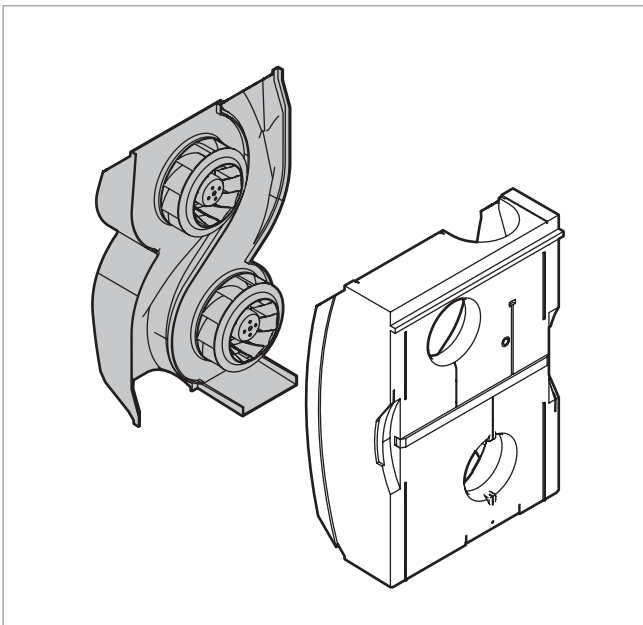
h) Detach the electrical cable from the motor for the bypass and frost valve. The connector is near the supply fan (at the top).
i) Slide the motor module out of the ventilation unit while restraining the rest of the housing so that the ventilation unit remains against the wall.



- j) Remove the insulation panel.



- k) Turn over the circuit board and unplug the connector of the frost protection sensors and the connector of the motor for the bypass and frost valve. Those are the connectors on the wires that pass through the black foamed plastic housing.
- l) Now the hard plastic plate, complete with the fans, power supply and controller, can be separated from the black foamed plastic enclosure.



- m) Inspect the impeller vanes of both fans.
- n) Clean both fan impellers carefully with a vacuum cleaner.

! Caution!

When cleaning the fan make sure the balancing clamps have not been displaced or come loose.

- o) Check whether the fan is still balanced by spinning one of the two impellers. If the impellers wobble significantly (and this is causing noise complaints), the entire motor module must be replaced.
- p) Assemble the motor module and the ventilation unit in the reverse order.
- q) Restore power to the ventilation unit.

6.8. Inspecting/cleaning ducts

It is advisable to check the ducts in the housing once every four years. The ducts must be cleaned once every eight years.

! Warning!

When cleaning the ducts, always block off the appliance or remove the motor plate so that the interior of the appliance (RH sensor) does not become soiled.

7. Service parts



Exploded view

No.	P	R	Item number	Description	Order quantity
01	•	•	95609505	Frost valve for HRU	1
02	•	•	95970205	HRU bypass valve	1
03	•	•	95607722	HRU fan	1
04	•	•	95607723	HRU-3 temperature sensor	1
05	•	•	95615088	BV (F)T vv I2C circuit board (HRU ECO 350)	1
06	•	•	95970007	G4 filter set	1
06	•	•	95970010	F7 filter set	1

8. Faults

The status LED on the ventilation unit blinks orange

Cause	Solution
a) The ventilation unit detects that the filters need to be cleaned or replaced.	<ul style="list-style-type: none"> • Clean or replace the filters. For more information, see Inspecting, cleaning and replacing filters. • Reset the dirty filter indication afterwards. For more information, see Resetting dirty filter indication.

The status LED on the ventilation unit blinks once red and once orange

Cause	Solution
a) The ventilation unit detects a fault with the exhaust fan.	<ul style="list-style-type: none"> • Check whether the exhaust fan is properly connected. Connect the fan properly. • Check the fan for soiling and clean it if necessary. • Check the fan for defects and replace it if necessary.

The status LED on the ventilation unit blinks once red and twice orange

Cause	Solution
a) The ventilation unit detects a fault with the supply fan.	<ul style="list-style-type: none"> • Check whether the supply fan is properly connected. Connect the fan properly. • Check the fan for soiling and clean it if necessary. • Check the fan for defects and replace it if necessary.

The status LED on the ventilation unit blinks twice red and twice orange

Cause	Solution
a) The ventilation unit detects a fault with the exhaust temperature sensor.	<ul style="list-style-type: none"> • Check whether the sensor is properly connected. Connect the sensor properly. • Check the sensor for defects, and replace it if necessary.

The status LED on the ventilation unit blinks twice red and three times orange

Cause	Solution
a) The ventilation unit detects a fault with the supply temperature sensor.	<ul style="list-style-type: none"> • Check whether the sensor is properly connected. Connect the sensor properly. • Check the sensor for defects, and replace it if necessary.

The status LED on the ventilation unit blinks three times red and once orange

Cause	Solution
a) The ventilation unit detects a fault with the sensor.	<ul style="list-style-type: none"> • Check whether the sensor is properly connected. Connect the sensor properly. • Check the sensor for defects, and replace it if necessary.

The status LED on the ventilation unit lights up green for 6 seconds and blinks once orange

Cause	Solution
a) Frost mode is active.	<ul style="list-style-type: none"> • This is not a fault. The unit will automatically return to normal operation once the temperature rises above freezing.

The status LED on the ventilation unit lights up green for 5 seconds and blinks twice orange

Cause	Solution
a) Bypass mode is active.	<ul style="list-style-type: none"> • This is not a fault. The unit will automatically return to normal operation.

Neither fan is rotating

Cause	Solution
a) The ventilation unit's plug is not plugged into a power socket.	<ul style="list-style-type: none"> • Insert the plug into a power socket.
b) The power socket is not providing power.	<ul style="list-style-type: none"> • Restore the power at the power socket. • Use another power socket.
c) The fuse on the circuit board is faulty.	<ul style="list-style-type: none"> • Replace the fuse.
d) The ventilation unit PCB is faulty.	<ul style="list-style-type: none"> • Replace the PCB and carry out the commissioning procedure again.

The exhaust fan (bottom) has stopped

Cause	Solution
a) The fan connector is loose or not properly connected.	<ul style="list-style-type: none"> • Fit the fan connector on the correct connector on the circuit board.
b) The fan is blocked or stuck due to heavy soiling.	<ul style="list-style-type: none"> • Clean the fan impeller. Watch out for the balance clips.
c) The fan is defective.	<ul style="list-style-type: none"> • Replace the fan.
d) The ventilation unit PCB is faulty.	<ul style="list-style-type: none"> • Replace the PCB and carry out the commissioning procedure again.

The supply fan (top) has stopped	
Cause	Solution
a) The fan connector is loose or not properly connected.	<ul style="list-style-type: none"> Fit the fan connector on the correct connector on the circuit board.
b) Frost control is active.	<ul style="list-style-type: none"> If the outside temperature becomes very cold, the fan is switched off to avoid freezing of the heat exchanger. The fan will start running again when the outside temperature rises enough.
c) The fan is blocked or stuck due to heavy soiling.	<ul style="list-style-type: none"> Clean the fan impeller. Watch out for the balance clips.
d) The fan is defective.	<ul style="list-style-type: none"> Replace the fan.
e) The ventilation unit PCB is faulty.	<ul style="list-style-type: none"> Replace the PCB and carry out the commissioning procedure again.

The ventilation unit is noisy	
Cause	Solution
a) The fan is blocked or stuck due to heavy soiling.	<ul style="list-style-type: none"> Clean the fan impeller. Watch out for the balance clips.
b) The fan is imbalanced.	<ul style="list-style-type: none"> Replace the fan.
c) The unit is mounted on a wall/ceiling/floor with insufficient load-bearing capacity.	<ul style="list-style-type: none"> If the ventilation unit cannot be relocated, try using vibration dampers to decouple it from the wall, ceiling or floor.
d) The ducts are not correctly connected to the unit.	<ul style="list-style-type: none"> Check the connections and ensure that fixed ducts are clamped to the wall, ceiling or floor.
e) The bypass valve is blocked (rattling noise).	<ul style="list-style-type: none"> The bypass valve strikes the stop during the self-test after power is switched on. Wait 30 seconds and check whether the noise has stopped. Inspect the valve. Clean it if it has become blocked with dirt. Replace the valve if there is a different cause of the fault.

The ventilation unit is not responding to the RF remote controls	
Cause	Solution
a) The battery of the RF remote control is empty.	<ul style="list-style-type: none"> Replace the battery.
b) The RF remote control is not paired with the ventilation unit.	<ul style="list-style-type: none"> Restart the commissioning procedure and pair the RF remote control.
c) The distance between the ventilation unit and the RF remote control is too large or there are too many obstacles interfering with the signal.	<ul style="list-style-type: none"> Try pairing the devices again. If this does not work, move the RF remote control to a location where there are fewer obstacles to interfere with it.
d) The brand names of the RF control switch and the ventilation unit are different.	<ul style="list-style-type: none"> Replace the RF device by one with the same brand name as the ventilation unit.
e) The ventilation unit PCB is faulty.	<ul style="list-style-type: none"> Replace the PCB and carry out the commissioning procedure again.

The fan runs at high speed when low speed is selected and at low speed when high speed or timer mode is selected	
Cause	Solution
a) One of the ventilation unit's internal temperature sensors is faulty.	<ul style="list-style-type: none"> • Replace the faulty temperature sensor.

The fan suddenly starts running much faster or slower (for no apparent reason)	
Cause	Solution
a) The RF remote control from a neighbouring property is paired with <i>this</i> ventilation unit.	<ul style="list-style-type: none"> • Disconnect power to the ventilation unit for 15 seconds. Unpair any paired RF devices (switches and/or sensors) and then pair them again.

The ventilation unit is not responding to the three-position switch	
Cause	Solution
a) The ventilation unit's plug is not plugged into a power socket.	<ul style="list-style-type: none"> • Insert the plug into a power socket.
b) The power socket is not providing power.	<ul style="list-style-type: none"> • Restore the power at the power socket. • Use another power socket.
c) The switch wires of the three-position switch are connected incorrectly.	<ul style="list-style-type: none"> • Connect the switch wires correctly (see wiring diagram).
d) The ventilation unit PCB is faulty.	<ul style="list-style-type: none"> • Replace the PCB and carry out the commissioning procedure again.

The ventilation unit is leaking water	
Cause	Solution
a) The condensate drain is not connected.	<ul style="list-style-type: none"> • Connect one of the two condensate drains.
b) The condensate drain is blocked.	<ul style="list-style-type: none"> • Unblock the condensate drain and try to identify the cause of the problem.

The ducts leading outside are wet (on the outside) and/or are leaking water	
Cause	Solution
a) The ducts leading outside are not thermally insulated or vapour-tight.	<ul style="list-style-type: none"> • Ensure that the ducts leading outside are thermally insulated and vapour-tight over their entire length.
b) The roof feedthrough is not rainproof or vapour-tight.	<ul style="list-style-type: none"> • Replace the existing roof feedthrough(s) with rainproof and vapour-tight roof feedthrough(s).

The valves are noisy	
Cause	Solution
a) No noise dampening hose has been installed in the ducts leading into the dwelling.	<ul style="list-style-type: none"> • Install noise damping hoses on the ducts leading into the dwelling.
b) The air valves are not correctly adjusted.	<ul style="list-style-type: none"> • Put the ventilation unit in commissioning mode and readjust the system settings.

The air quality in the dwelling is not good / air supply and extraction in the dwelling are not working properly

Cause	Solution
a) One or both filters are dirty or blocked.	<ul style="list-style-type: none"> • Clean or replace dirty/blocked filters.
b) The valves are dirty or blocked.	<ul style="list-style-type: none"> • Clean the valves.
c) The air valves are not correctly adjusted.	<ul style="list-style-type: none"> • Put the ventilation unit in commissioning mode and readjust the system settings.
d) The fan is not running.	<ul style="list-style-type: none"> • See "The ventilator is not running".

Cold air is being supplied to the dwelling

Cause	Solution
a) The filter in the extraction outlet is blocked.	<ul style="list-style-type: none"> • Clean or replace the filter in the air outlet.
b) The air valves are not correctly adjusted.	<ul style="list-style-type: none"> • Put the ventilation unit in commissioning mode and readjust the system settings.
c) The bypass valve is in bypass mode when it should not be.	<ul style="list-style-type: none"> • Clean the bypass valve if it is dirty. • Replace the entire bypass valve if it is defective.
d) One of the temperature sensors is faulty.	<ul style="list-style-type: none"> • If the supply air temperature sensor is faulty, replace the wiring harness with the temperature sensor in the motor module. • If the exhaust air temperature sensor is faulty, replace the entire bypass module.

9. Warranty

HRU ECO 4 is supplied with a two-year parts and labour warranty, protecting the product against faulty manufacture and materials. The warranty period applies from the date of installation.

Disclaimer

This warranty does not apply to:

- Disassembly and assembly costs.
- Faults which are caused by incorrect treatment.
- Negligence or accident.
- Faults that have been caused by repairs by third parties without authorisation from Heatrae Sadia.

If the appliance does not function correctly or develops a fault please contact Heatrae Sadia immediately.

Ensure that only genuine spares are used for repairs.

10. Declarations

EG-Verklaring van overeenstemming | Déclaration de conformité CE |
EG-Konformitätserklärung | EC Declaration of Conformity

Heatrae Sadia
Hurricane Way
Norwich NR6 6EA
United Kingdom

Verklaart dat het product | Déclare que le produit |
Erklärt dass das Produkt | Declares that the product:

- **Ventilation unit with heat recovery
HRU ECO 4-Apartment**
- **Ventilation unit with heat recovery
HRU ECO 4 House**

Voldoet aan de bepalingen gesteld in de richtlijnen |
Répond aux exigences des directives |
Entspricht den Anforderungen in den Richtlinien |
Complies with the requirements stated in the directives:

- Low Voltage Directive **2014/35/EU**
- Electromagnetic Compatibility (EMC) Directive **2014/30/EU**
- Directive **2009/125/EC** establishing a framework for the setting of ecodesign requirements for energy-related products
- Directive **2010/30/EU** on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products.
- **Commission Regulation (EU) No 1253/2014** of 7 July 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units
- **Commission Delegated Regulation (EU) No 1254/2014** of 11 July 2014 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of residential ventilation units

Voldoet aan de geharmoniseerde Europese normen |
Répond aux normes Européennes harmonisées |
Entspricht den harmonisierten europäischen Normen |
Complies with the harmonized European standard:

- EN 60335-1:2012 | EN 60335-2-80:2003/A1:2004
EN 60335-2-80:2003/A2:2009
- EN 60730-1:2012
- EN 55014-1:2007 | EN 55014-1:2007/C1:2009
EN 55014-1:2007/A1:2009 | EN 55014-1:2007/A2:2010
EN 55014-2:1998 | EN 55014-2:1998/C1:1998
EN 55014-2:1998/A1:2002 | EN 55014-2:1998/IS1:2007
EN 55014-2:1998/A2:2008
- EN 61000-3-2:2006/A1:2009 | EN 61000-3-2:2006/A2:2009
EN 61000-3-3:2013 | EN 61000-6-1:2007
EN 61000-6-3:2007/A1:2011 | EN 61000-6-3:2007/AC:2012

Voldoet aan de volgende nationale en internationale technische normen en specificaties |

Répond aux normes techniques nationales et internationales et aux spécifications nationales et internationales |

Entspricht den folgenden nationalen und internationalen technischen Normen und Spezifikationen |

Complies with the following national and international technical standards and specifications:

- Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment
2011/65/EU

Norwich, 1 July 2017.

HEATRAESADIA

SMARTER | CLEANER | WARMER

HEATRAE SADIA HEATING
Hurricane Way, Norwich NR6 6EA
www.heatraesadia.com

SERVICE

+44 (0)344 871 1535

EMAIL

customer.support@heatraesadia.com
