

# SAVE VTR 100/B

Installation instructions

GB

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## 1 Overview

### 1.1 General Description

Read the instructions carefully and in its entirety.

For description of advanced settings and installation of accessories see ***Service and Accessories Installation manual***.

All documents can be found in our online catalogue at [www.systemair.com](http://www.systemair.com).

### 1.2 Warranty

For the assertion of warranty claims, the products must be correctly connected and operated, and used in accordance with the data sheets. Further prerequisites are a completed maintenance plan with no gaps and a commissioning report. Systemair will require these in the case of a warranty claim.

### 1.3 Type label

Before calling your service representative, make a note of the specification and production number from the type label, which can be found next to the external connections and inside of the unit.

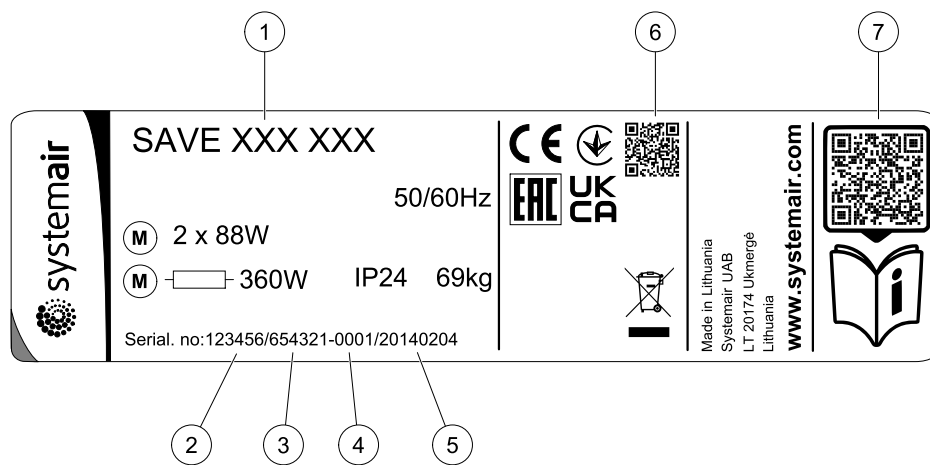


Fig. 1 Type label

Position	Description
1	Product code (product specification)
2	Product item number
3	Production order number
4	Serial number
5	Production date (YY.MM.DD)
6	Scannable code for manufacturing order (MO) number and software version
7	Scannable code for the spare parts list and documentation

## 2 Important Safety Information

- Observe and respect local conditions, regulations and laws.
- Safety elements may not be dismantled, circumvented or deactivated.
- Wear protective equipment during all work in the vicinity of the unit.
- Do not allow children to play with the device.

### 2.1 Intended Use

- Abide by the system-related conditions and requirements of the system manufacturer or plant constructor.
- Keep all the warning signs on the device and in a legible condition.
- The device is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

- The system should operate continuously, and only be stopped for maintenance/service.
- Do not connect tumble dryers to the ventilation system.
- Make sure that filters are mounted before starting the unit.

## 2.2 Admonitions



### Danger

- Make sure that the mains supply to the unit is disconnected before performing any maintenance or electrical work!
- All electrical connections and maintenance work must be carried out by an authorized installer and in accordance with local rules and regulations.



### Warning

- This product is not intended to be used by children or people with reduced physical or mental ability or lack of experience and knowledge, if no instruction concerning the use has been given by the person responsible for their safety or that this person is supervising the operation. Children should be supervised so that they can not play with the product.
- Beware of sharp edges during mounting and maintenance. Use protective gloves.



### Warning

- Risk of injury due to rotating parts that have not come to a complete standstill after mains supply to the unit have been disconnected.

## 3 Technical Data

Model	Fans (W)	Heater (W)	Total (W)	Fuse (mains) (A)
Standard	70	-	83	10
With heater	70	250	333	10

If the unit is to be operated in extreme cold climate conditions (outdoor air temperature ~ -20°C), an internal electrical heater or external pre-heater is needed.



### Warning

- The internal electrical reheater cannot be used if the unit is installed horizontally.

### 3.1 Dimensions and Weight

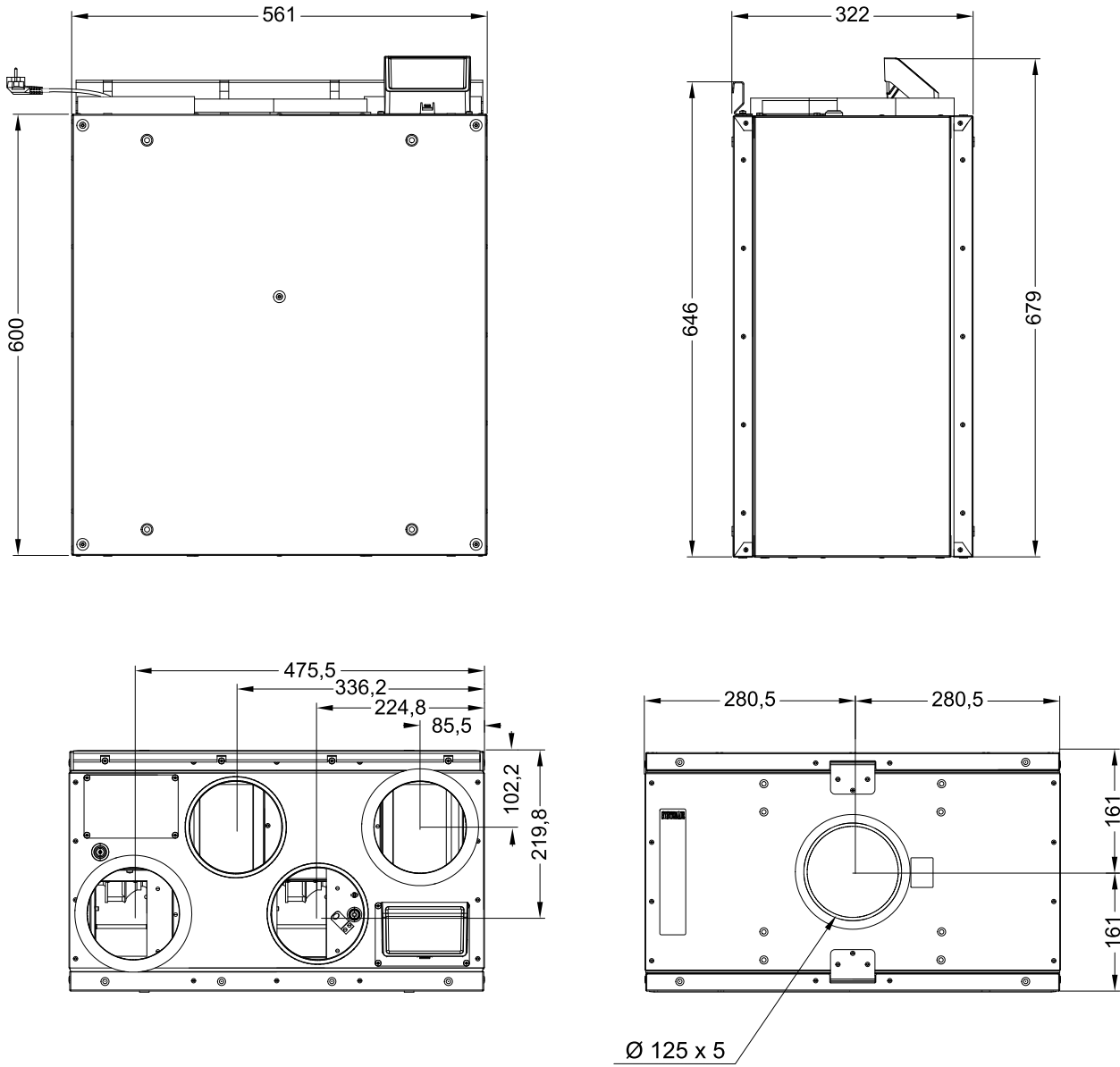


Fig. 2 Dimensions of the unit, right-hand orientation

The unit weight is 39 kg.

### 3.2 Connections and Left/Right-hand orientation

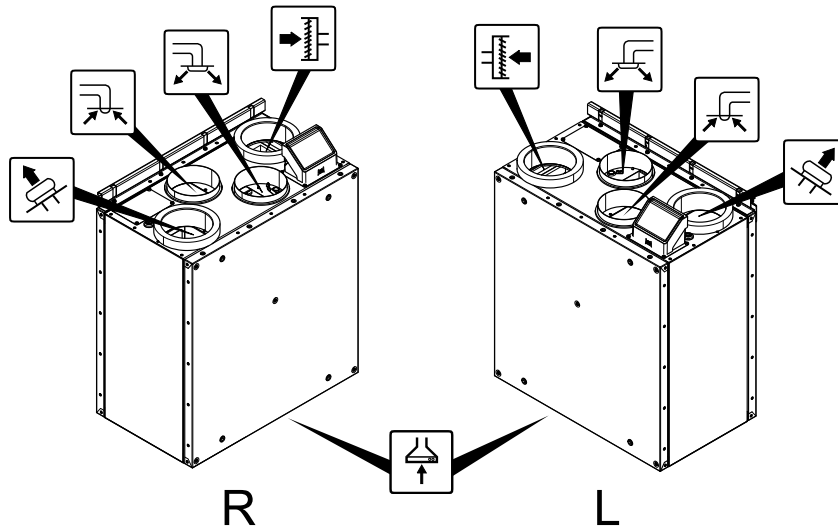


Fig. 3 Left-hand and right-hand orientation

Position	Description
R	Right-hand orientation (Outdoor air connection is situated on the right side of the unit viewed from the front) Default version at delivery.
L	Left-hand orientation (Outdoor air connection panel is situated on the left side of the unit viewed from the front) The unit can be switched to left-hand orientation by changing mounting bracket and connection box location.

Symbol	Description	Symbol	Description	Symbol	Description
	Supply air		Outdoor air		Cooker hood air
	Exhaust air		Extract air		

Duct connections: Ø 125 mm

### 3.3 Installation recommendation regarding condensation

#### 3.3.1 Condensation inside of the unit

When the unit is installed in a cold attic (close to outdoor temperature) the unit should run continuously. If the unit is intended to be stopped by the user manually or due to calendar function we recommend to install air tight dampers at extract and supply air ducts. The dampers will ensure that no air circulates from the warm parts of the building through the unit to outside (chimney effect). If no dampers are installed there is risk of condensation inside the unit and the outdoor ducts during these stop periods. It also might be that cold air from outside could pass the unit and enter into the building. That could cause condensation outside the supply and extract air ducts and even at the valves in the rooms.

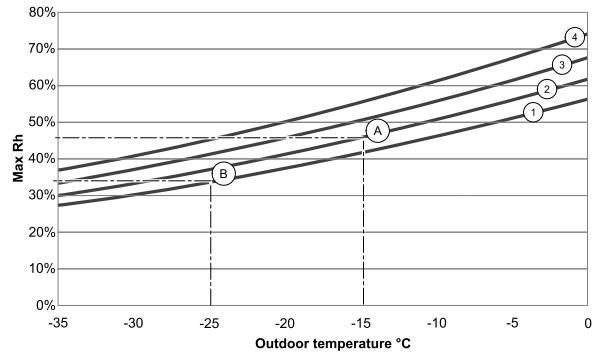
When the unit is not running due to late commissioning in winter time, the supply and extract air ducts should be disconnected and closed due to above mentioned effects until commissioning and regular operation.



### 3.3.2 Condensation outside of the unit

When the unit is installed in warm humid areas (like laundry) together with low outdoor temperature there is a certain point where moisture can condense outside of the casing. The condensation relation to indoor relative humidity, room and outdoor temperature is shown diagram below. The condensation outside of the unit do not occur in zones bellow each curve.

**Important**  
 Recommendation: If condensation occurs, increase ventilation in area close to the unit.



Examples when condensation outside of the unit can occur:

**Example A:** If the unit is installed in room where temperature is 22°C, outside temperature is -15°C, then dew will start accumulating when relative humidity is 46% and higher.

**Example B:** If the unit is installed in room where temperature is 20°C, outside temperature is -25°C, then dew will start accumulating when relative humidity is 34% and higher.

- 1. Room temperature 20°C
- 2. Room temperature 22°C
- 3. Room temperature 24°C
- 4. Room temperature 26°C

## 4 Delivery, Transport, Storage

### 4.1 Transport and storage

The SAVE VTR 100/B should be stored and transported in such a way that it is protected against physical damage. It should be covered so dust, rain and snow cannot enter and damage the unit and its components.

**Important**

- Use the packaging exclusively as transport protection and not as a lifting aid.
- Load and unload the air handling unit carefully.

### 4.2 Delivery/Unloading

The appliance is delivered in one piece containing all necessary components, wrapped in plastic on a pallet for easy transportation.

#### Checking delivery

- Check the packaging and the air handling unit for transport damage. Any findings should be noted on the cargo manifest.
- Check completeness of the delivery.

Verify that all ordered equipment is delivered before starting the installation. Any discrepancies from the ordered equipment must be reported to the supplier of Systemair products.



**Warning**  
 When opening the transport packaging, there is a risk of damage from sharp edges, nails, staples, splinters etc.

#### Unpacking

- Check the air handling unit for visible transport damage.
- Only remove the packaging shortly before assembly.
- Beware of sharp edges during mounting and maintenance. Use protective gloves.

## 5 Prerequisites for Installation

To ensure a proper and fail-free operation, it is important that the unit is installed according to these instructions.

### 5.1 Location and Space Requirements

The SAVE VTR 100/B is to be mounted above a stove.

Continue to follow instructions how to find the correct height and depth for mounting bracket installation.

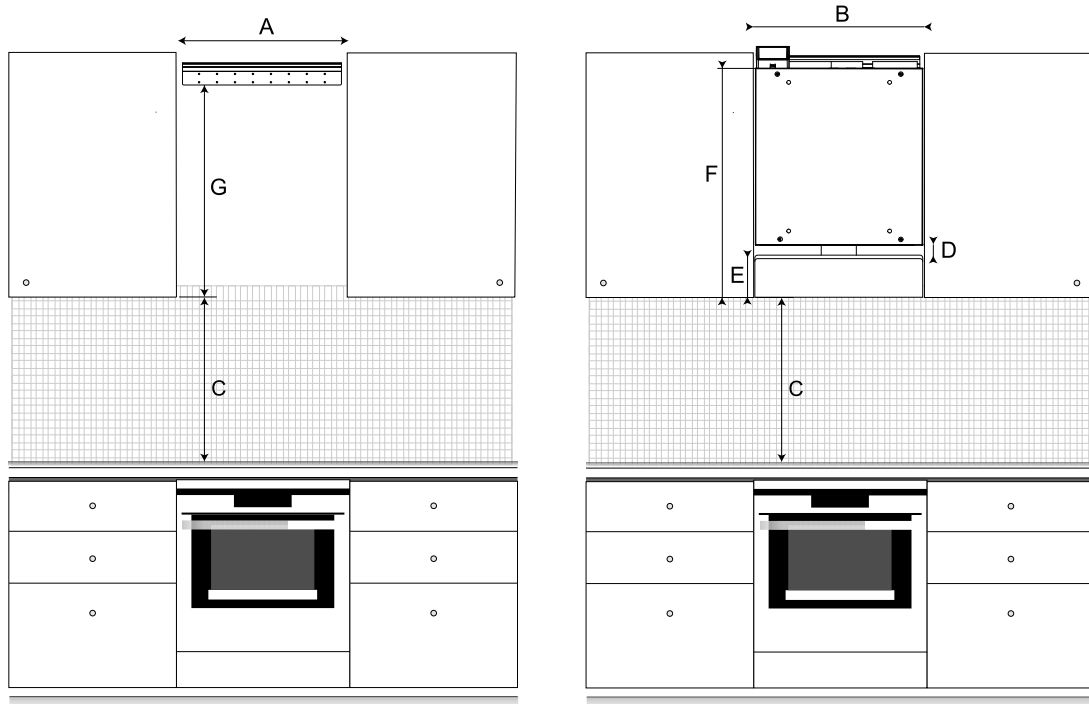



Fig. 4 SAVE VTR 100/B in a kitchen environment

		MONOLIT-B	251-10/B	392-10/B
A	Minimum distance between cabinets (mm)	600	600	600
B	SAVE VTR 100/B unit width (mm)	561	561	561
C, Electrical stove	Minimum distance between stove surface and cooker hood (mm)	450 (Recommended 500)	450 (Recommended 500)	450 (Recommended 500)
C, Gas stove	Minimum distance between stove surface and cooker hood (mm)	650	650	650
D	When flexible duct is used, distance between the unit and cooker hood is decided by the installer (minimum 100 mm).	100	100	10
E	The cooker hood height (mm)	130	150	97
F	Total height of the unit with cooker hood connected by minimum 100 mm flexible duct distance (D)	830	850	707
G	Distance to the mounting bracket from the underside of the cooker hood or underside of the cupboard if it is aligned with the cooker hood (mm)	795	815	670
	 <b>Note:</b> This distance must be increased according to the increased measurement D if flexible duct is used.			

**Important!**

- The unit requires regular maintenance and therefore kitchen furniture panel between cabinets where the unit is located must be removable.
- Depending on the cupboard depth and selected kitchen furniture panel installation method, the SAVE VTR 100/B unit may have to be shifted forward using wood blocks at the back.

- Solutions how to hang this panel are described further in this document, see 7.6 *Installation of a kitchen furniture panel*, page 17.

**Make sure to find a correct depth for installation of the SAVE VTR 100/B unit before proceeding with the mounting bracket installation on the wall.**

The SAVE VTR 100/B is supplied with approximately 1 – 1,5 m of power cable and fitted with a plug for 230 V~, single phase earthed connection located at the top of the unit.

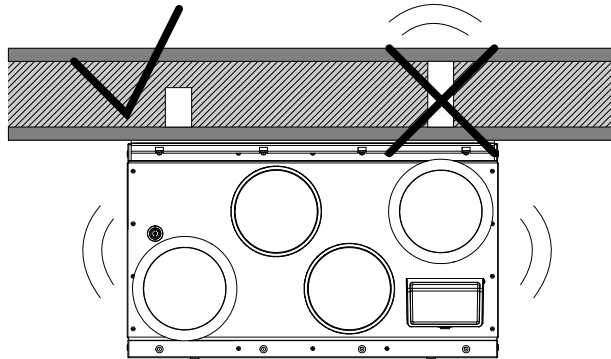
Recommended installation location for the outdoor air intake is the northern or eastern side of the building and with a distance to openings for discharge of stale ventilation air, kitchen ventilator, central vacuum system, waste water drainage and other pollution sources like exhaust from traffic etc. Stale discharge air should ideally be led via a roof unit to the outside and with a good distance to any outdoor air intake, windows etc.

## 5.2 Wall preparation for mounting bracket

The unit should be installed in such a way that there is no vibration noise coming from the wall on which the unit is installed.

### Important

Make sure to read all instructions before proceeding with installation procedure. Installation steps can vary depending on the type of installation.



## 5.3 Outdoor Air Intake Location Recommendation

Recommended installation location for the outdoor air intake is the northern or eastern side of the building and with a distance to openings for discharge of stale ventilation air, kitchen ventilator, central vacuum system, waste water drainage and other pollution sources like exhaust from traffic, etc. Exhaust air should ideally be led via a roof cowl to the outside and with a good distance from the outdoor air intake, windows, etc.

## 5.4 Access to Power supply

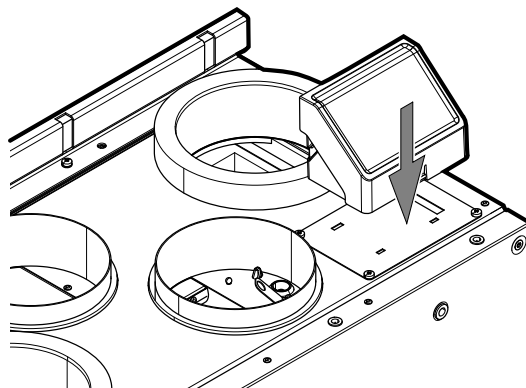
The SAVE VTR 100/B is supplied with approximately 1 – 1,5 mcable and plug for 230V, single phase earthed connection.

Make sure a power outlet is reachable by the plug.

## 6 Connection box installation and switching orientation from Right-hand to Left-hand

A connection box for accessories is delivered separated from the unit to prevent damage during delivery. Mount the connection box before proceeding with installation.

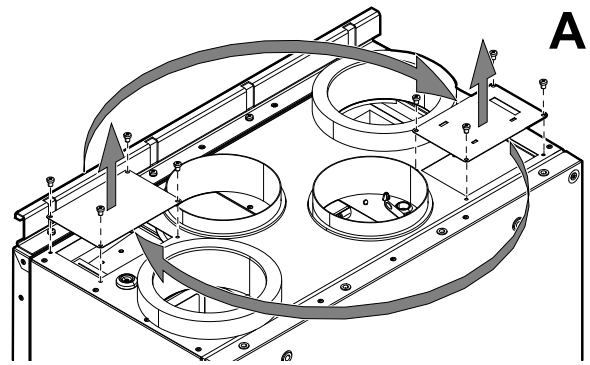
- 1 Pull out a cable from bellow of the connection box mount plate. It may be necessary unscrew the plate first to get access to the cable.
- 2 Insert the cable into the connection box and plug the cable to the connection board.
- 3 Insert the connection box into prepared holes on the plate. Be careful not to pinch the cable. The connection box should be firmly locked in place.



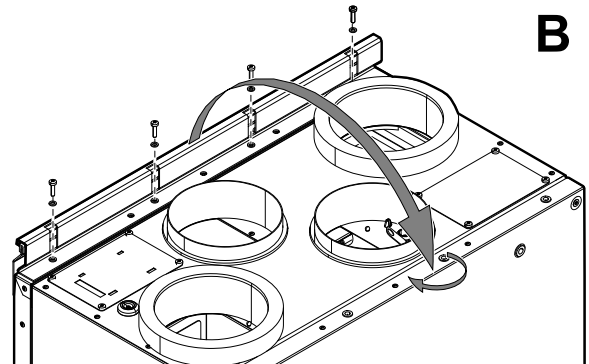
By default the unit is delivered as a right version model. It can easily be switched to left version if needed.

## 8 | Connection box installation and switching orientation from Right-hand to Left-hand

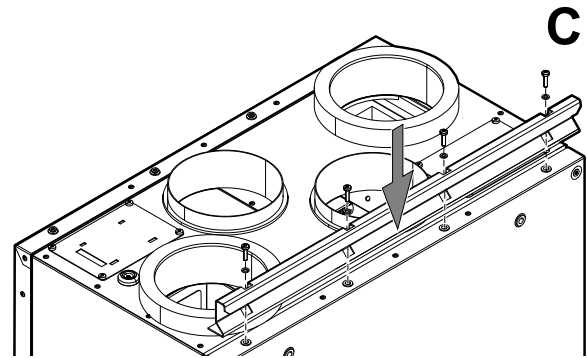
- 1 Unscrew the connection box mount plate and a cover plate on the other side of the unit. These plates have to be swapped. A cable can be found under the cover plate. Lead a cable through a hole in the connection box mount plate. It will be used to connect the connection box to the unit. (figure A)



- 2 Unscrew the mounting bracket. It has to be installed on the other side cover (figure B).



- 3 Rotate the mounting bracket, use previously removed screws and washers to install bracket on the cover (figure C).
- 4 Insert the connection box into the mount plate and connect the cable. The unit can now be mounted from the other side (left version).



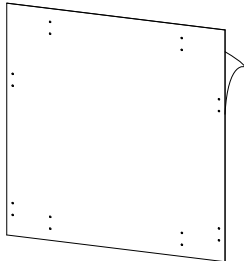
## 7 Installation

### Important

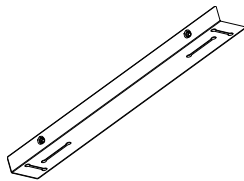
- The device may only be installed by qualified, instructed and trained personnel. The persons must know the relevant safety directives in order to recognise and to avoid risks.

Verify that all ordered equipment are delivered before starting the installation. Any discrepancies from the ordered equipment must be reported to the supplier of Systemair products.

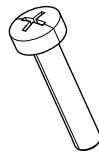
**Table 1 Included parts**



Sticker for kitchen furniture panel **x 1**



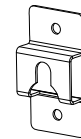
Brackets for panel mounting **x 2**



Screw (bolt) M6x30  
DIN 7985 **x 4**



Nut M6 DIN934 **x 4**



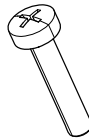
Modular hook for kitchen furniture panel **x 4**



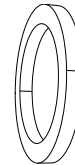
Screw 3,5x16 /13  
SPAX for modular hook **x 12**



Spacer for cooker hood **x 4**



Screw (bolt) M5x25  
DIN7985 for 392-10/  
B mounting **x 4**



Cooker hood circular insulation **x 1**

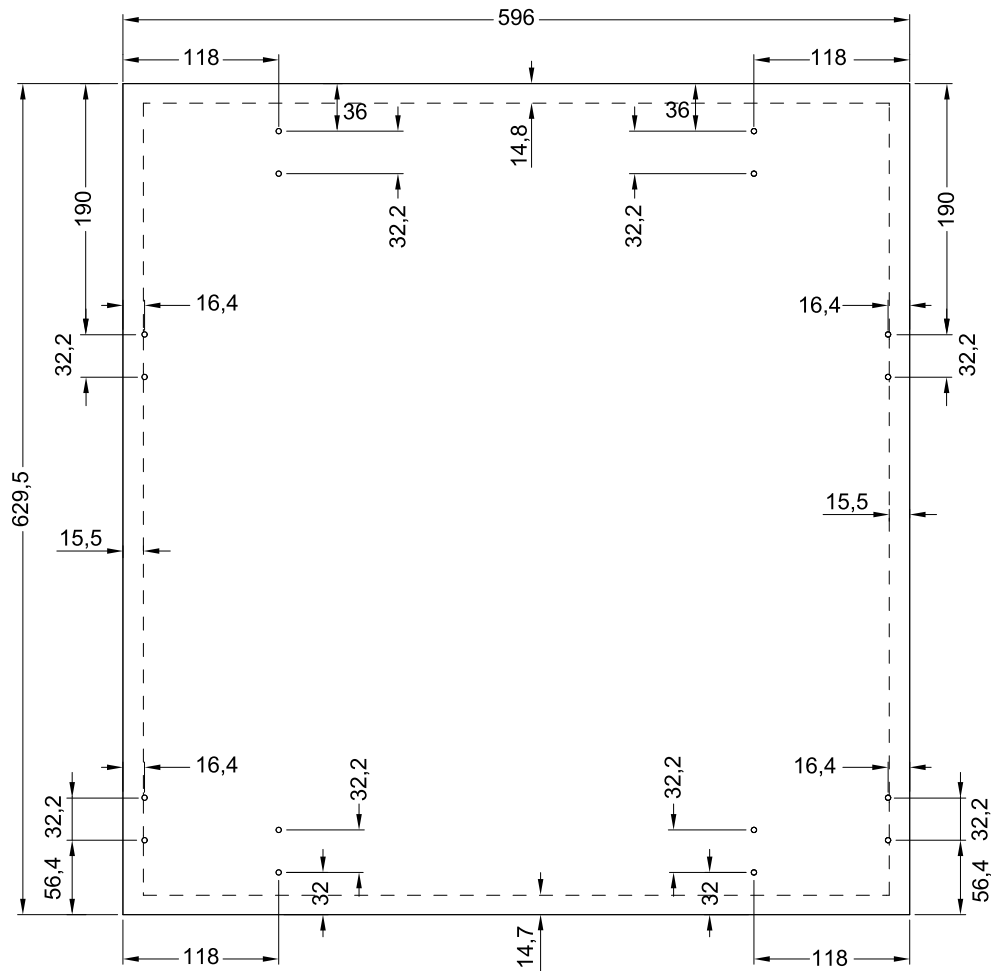


Fig. 5 Sticker dimensions

Dashed lines mark the outline of SAVE VTR 100/B unit.

### 7.1 Wall preparation for mounting bracket

1. Prepare the surface where the unit is to be mounted. Make sure that the surface is flat, vertical and that it supports the weight of the unit. Perform the installation in accordance with local rules and regulations.

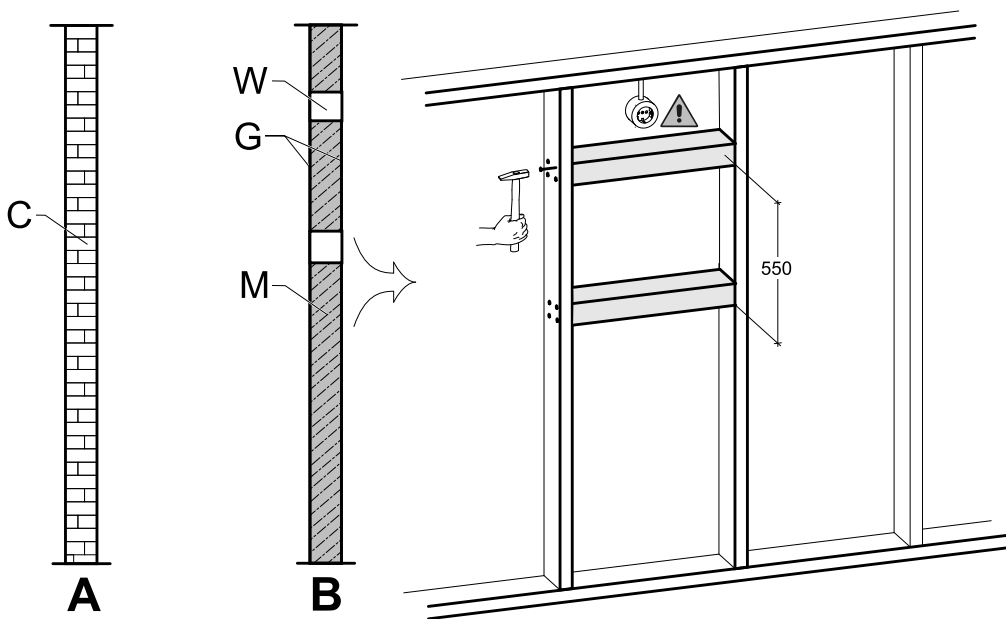


Fig. 6 Surface preparation.

C – concrete/bricks, W – wood block, G – gypsum, M – mineral wool

If the wall is from a thick concrete or bricks, no special preparation is needed (figure 6, pos. A), otherwise make necessary adjustments (figure 6, pos. B). The unit weights 39 kg.

Make sure there is a power socket is located nearby the unit, preferably above it. It must be earthed. SAVE VTR 100/B power cable length is 1 – 1,5 m and it comes out from the top left side in right version units and from the right top side in left version units. Choose power socket location accordingly.

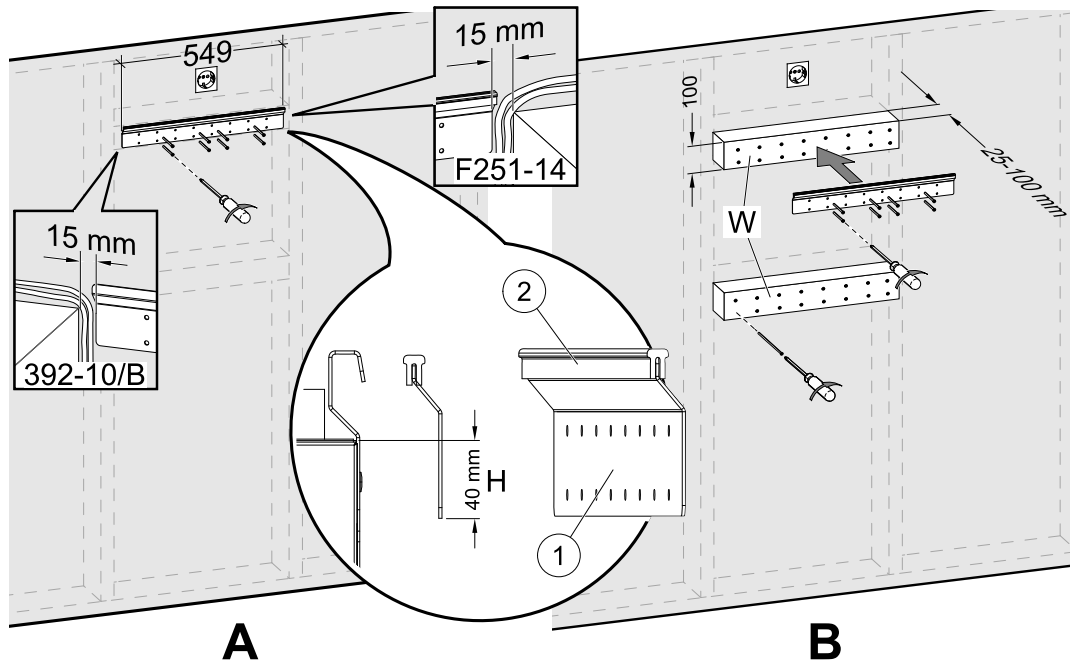


Fig. 7 Installation of mounting bracket without or with wooden blocks

2. Screw the mounting bracket (pos. 1) with the anti-vibration pad (pos. 2) to the wall (figure 7, pos. A). **Screws are not included**, choose them based on your wall type. Use appropriate holes to screw the bracket firmly to the wall. Bottom side of bracket should be 40 mm (H) below top of unit position.

Leave 15 mm gap between the mounting bracket and the cupboard for the cooker hood wires.



#### Note:

Make sure that the mounting bracket is completely horizontal once mounted on the wall. Check with a spirit level.

In case the depth of cabinets is much greater than the unit, install wooden blocks (pos. W) to compensate the missing distance (figure 7, pos. B). Then install the mounting bracket on the upper block. Choose thickness of blocks according to your needs.

Thickness of wooden blocks should be 25–100 mm. If needed distance is lower than 25 mm, adjust bolts instead of using wooden blocks (see figure 19).



#### Caution

Be sure to select the appropriate type and length of the screws so that they could hold additional wood blocks and the unit itself.

## 7.2 Installation with MONOLIT-B cooker hood

### Product name and number

- MONOLIT - B White – 326800
- MONOLIT - B S.Steel – 326801

### Important

Follow instructions delivered with the cooker hood how to prepare it before installation.

1. Pull the cooker hood power supply and control cables to the top since the mounted SAVE VTR 100/B unit will block access to the back.

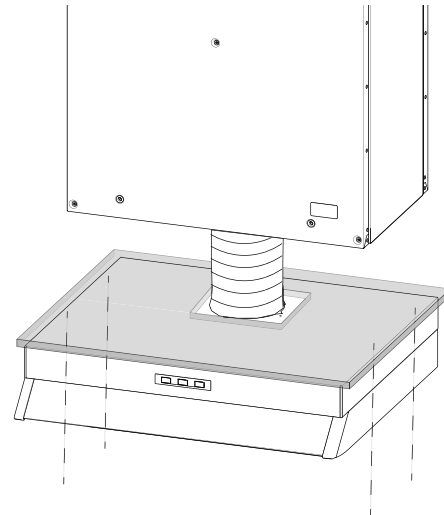


Fig. 8 Installation of the cooker hood

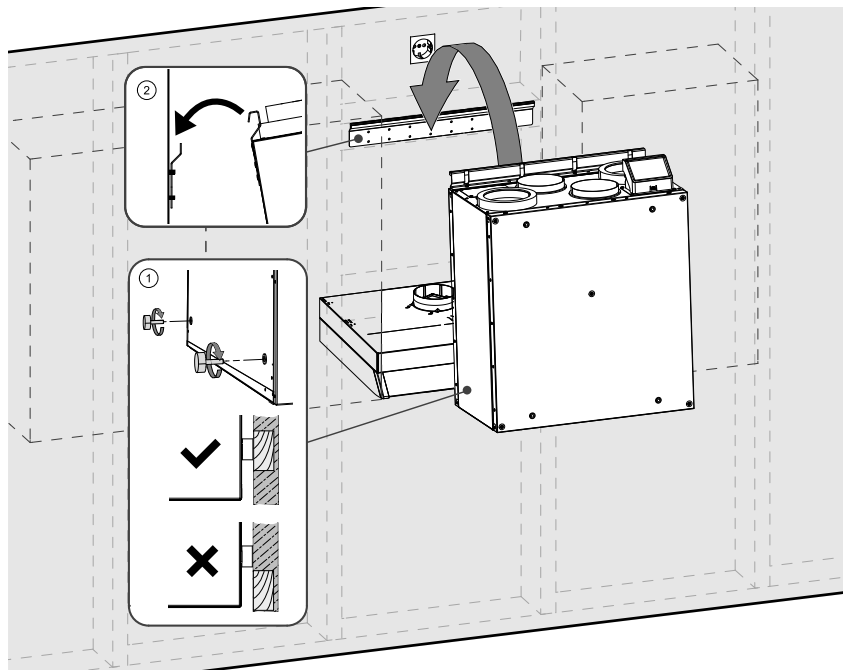


Fig. 9 Placing the unit on the mounting bracket (the cooker hood is not shown)

2. Once all cooker hood cables at the back are led to the top, lift the unit and hang it on the mounting bracket.



### Warning

Beware of sharp edges during mounting and maintenance. Use protective gloves. Consider the unit weight when mounting!

3. Connect the cooker hood to the unit via a flexible duct.



### Note:

Make sure that the unit is completely vertical and horizontal once mounted on the wall. Check with a spirit level.

Make sure there is at least 2 mm gap between the unit and the cupboard to prevent vibration noises.



### 7.3 Installation with 251-10/B cooker hood

#### Product name and number

- 251-10/B White Cookerhood – 96698
- 251-10/B Stainless Cookerhood – 96699

Before hanging the ventilation unit on the wall, the cooker hood must be mounted on the wall or in the cabinet, as the cooker hood power and control cables must be routed to the top and the already installed ventilation unit will block access.

Follow instructions delivered with the cooker hood how to prepare it before installation.

1. Use mounting mechanism which is delivered together with the cooker hood (figure 10, pos. X).

Pull the cooker hood power supply and control cables to the top since the mounted SAVE VTR 100/B unit will block access to the back.

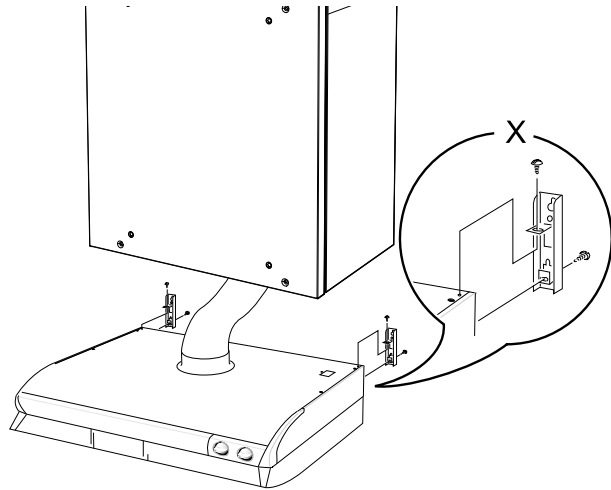


Fig. 10 Installation of the cooker hood

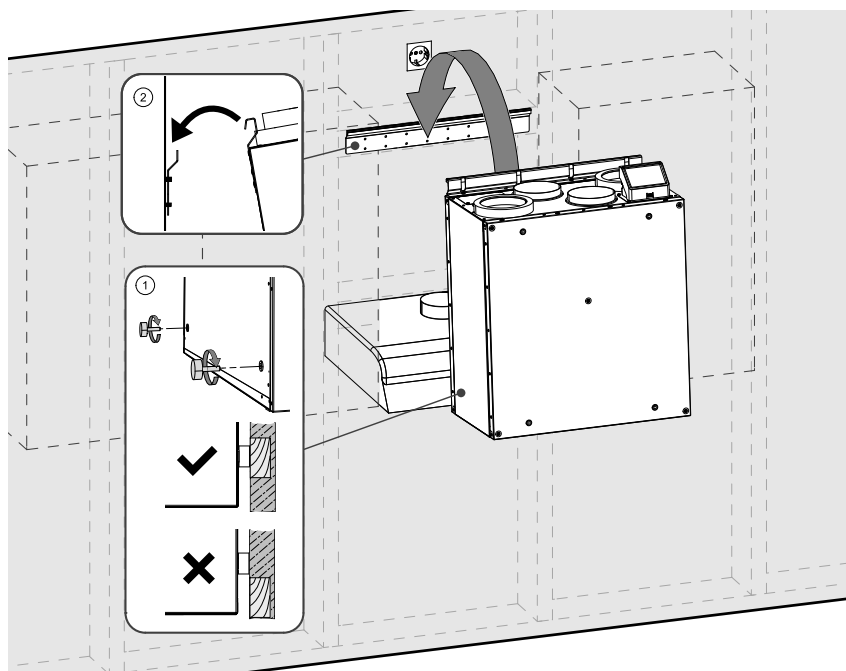


Fig. 11 Placing the unit on the mounting bracket (the cooker hood is not shown)

2. Once all cooker hood cables at the back are led to the top, lift the unit and hang it on the mounting bracket.



#### Warning

Beware of sharp edges during mounting and maintenance. Use protective gloves. Consider the unit weight when mounting!

3. Connect the cooker hood to the unit via a flexible duct.



#### Note:

Make sure that the unit is completely vertical and horizontal once mounted on the wall. Check with a spirit level.

Make sure there is at least 2 mm gap between the unit and the cupboard to prevent vibration noises.

### 7.4 Installation with 392-10/B cooker hood

#### Product name and number

- 392-10/B Slimline – 77265

Before hanging the ventilation unit on the wall, the cooker hood must be mounted on the wall or in the cabinet, as the cooker hood power and control cables must be routed to the top and the already installed ventilation unit will block access.

**There are two options how to install the cooker hood:**

- The cooker hood is attached directly to the bottom of the unit. This option can be used when the whole unit with a cooker hood will be shifted forward using wood blocks to be aligned with the cupboards or when the cupboard size matches the unit and no adjustments are needed. This way the unit can be simply mounted directly on the wall with already attached cooker hood.
- The cooker hood is attached to the sides of cupboards using included brackets. If the unit and cooker hood is not aligned, a flexible duct must be used since it will be impossible to insert the cooker hood directly into the unit.

Follow instructions in the manual delivered with the cooker hood.

### 7.4.1 Installation between or in a cupboard without a base with a cooker hood attached directly to the unit

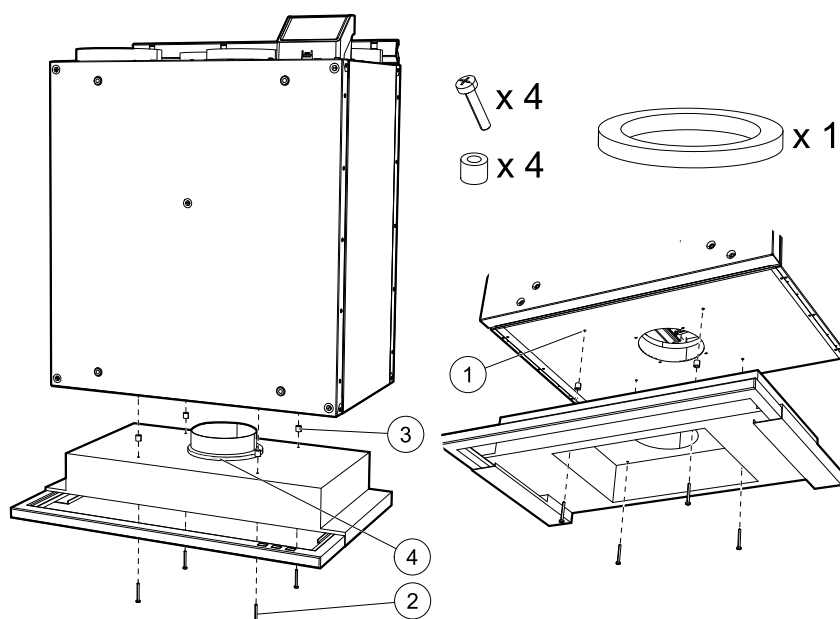


Fig. 12 Attaching the cooker hood directly to the unit

1. Remove the cooker hood filter to access holes at the top of the cooker hood from inside.  
Insert included screws (figure 12, pos. 2) into the cooker hood holes, place included plastic spacers on the each protruding screw to prevent over-tightening (figure 12, pos. 3).
2. Place a circular insulation on the cooker hood connector to prevent air leaking (figure 12, pos. 4).
3. Insert the cooker hood duct connector into the unit and tighten the screws.  
Screw the cooker hood directly to the bottom of the unit using prepared holes (figure 12, pos. 1).

#### Mounting the unit with attached cooker hood

1. Pull the cooker hood power supply and control cables to the top since the mounted SAVE VTR 100/B unit will block access to the back.

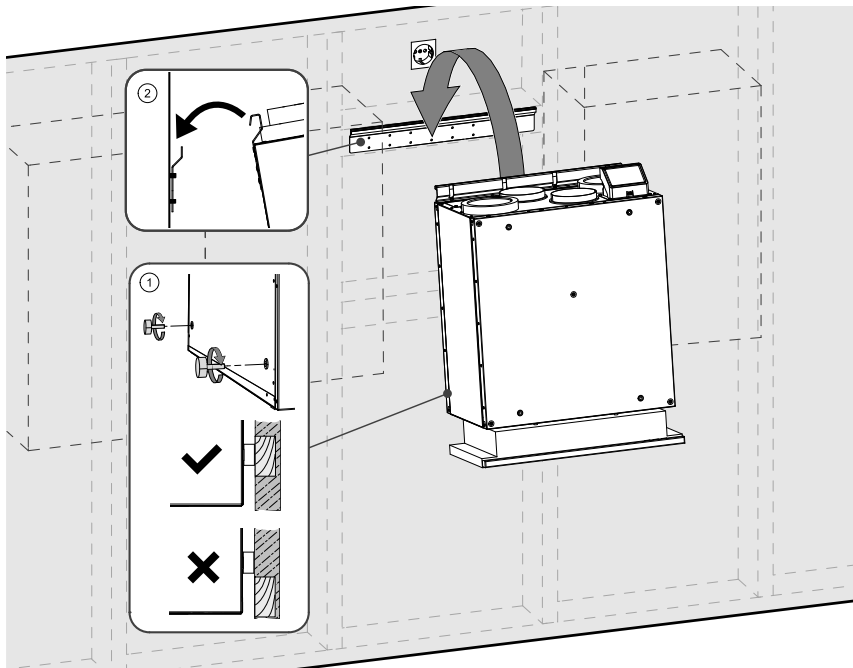


Fig. 13 Placing the unit on the mounting bracket

2. Once all cooker hood cables at the back are led to the top, lift the unit and hang it on the mounting bracket.



**Warning**

Beware of sharp edges during mounting and maintenance. Use protective gloves. Consider the unit weight when mounting!



**Note:**

Make sure that the unit is completely vertical and horizontal once mounted on the wall. Check with a spirit level.  
Make sure there is at least 2 mm gap between the unit and the cupboard to prevent vibration noises.

**7.4.2 Installation between or in a cupboard without a base using brackets**

When the cooker hood cannot be attached directly to the unit, use included brackets. Flexible duct is needed to connect the cooker hood with the SAVE VTR 100/B unit when using this type of installation.

1.

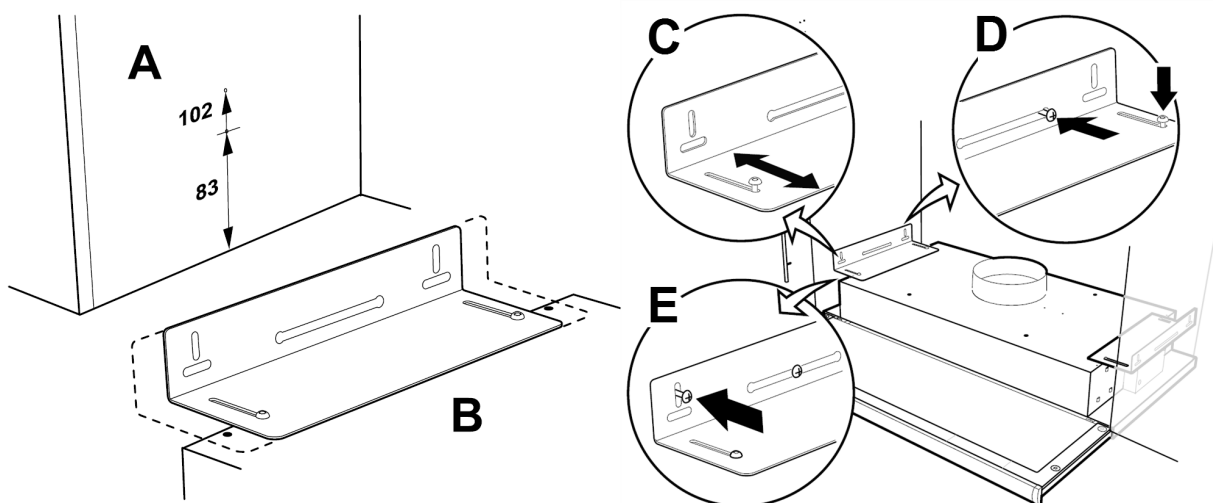


Fig. 14 Installation using brackets

Mark out and fasten screws so that they protrude a few millimetres from both cupboard sides (figure 14, pos. A). If it is intended to align the underside of the cooker hood with the underside of the row of cupboards, use the upper

measurement 102; see figure 14, pos. A. The cooker hood brackets are adjustable to fit various cupboard depths (figure 14, pos. B).

2. Move the cooker hood brackets without fully tightening the screws and adjust the brackets so that they fit the sides of the cupboards (figure 14, pos. C). Hang the cooker hood in the pre-installed screws in the side of the cupboard. Tighten the screws in the bracket and on the wall (figure 14, pos. D). Lock the brackets into position using the locking screws (figure 14, pos. E).

#### Mounting the unit with the cooker hood installed using brackets

1. Pull the cooker hood power supply and control cables to the top since the mounted SAVE VTR 100/B unit will block access to the back.
2. Once all cooker hood cables at the back are led to the top, lift the unit and hang it on the mounting bracket.
3. Connect the cooker hood and the SAVE VTR 100/B unit using flexible duct.

#### 7.4.3 Optional installation in a cupboard with a base

- 1.

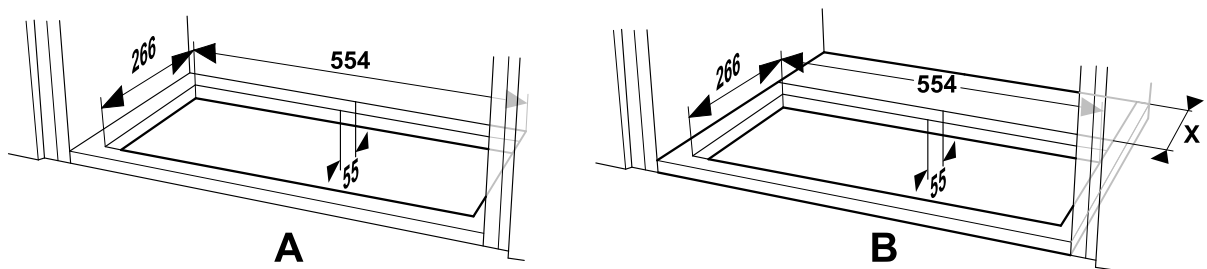


Fig. 15 Dimensions of a hole in the base of the cupboard

Using a saw, cut out a hole in the base of the cupboard. When the SAVE VTR 100/B unit is mounted directly on the wall, the minimum distance from the wall to the hole has to be 55 mm (figure 15, pos. A).



#### Note:

Be sure to add the thickness (dimension X) of your wooden blocks if they were used (figure 15, pos. B).

2. Attach the brackets as far into the cooker hood as possible. Insert the cooker hood up into the hole in the base of the cupboard. Pull out (figure 16, pos. A) and use screws to fasten the brackets to the sides of the cupboard (figure 16, pos. B). Tighten the brackets in the cooker hood.

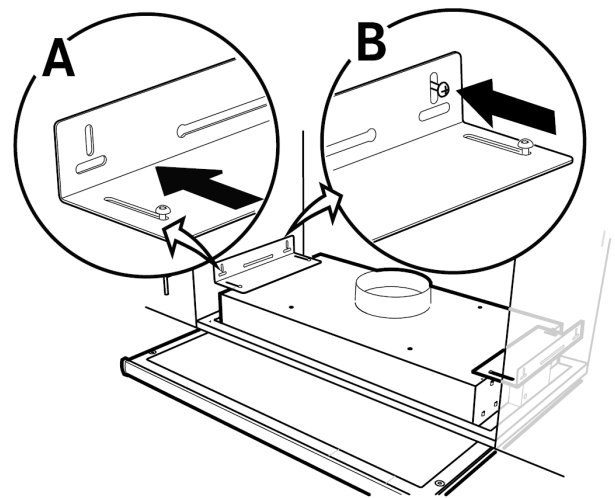


Fig. 16 Installation using brackets

## 7.5 Wiring and configuration

Connect control signal wires from the cooker hood to UI2 and 24 V on the external connection board (figure 17). For more information about connection board see 8.2 *External connections (Connection board)*, page 21.



**Note:**

UI2 default configuration: Cooker hood

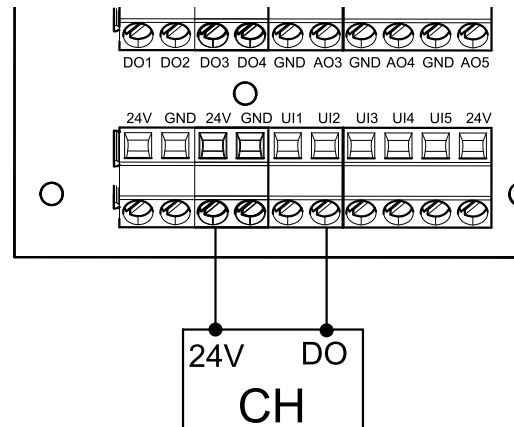


Fig. 17 Connection of the cooker hood

## 7.6 Installation of a kitchen furniture panel

The kitchen furniture panel can be mounted directly on the unit, sides of cabinets or installed as a door. Parts for panel installation directly on the unit and sides are delivered with the unit.

### 7.6.1 Mounting the kitchen furniture panel directly on the unit

Depending on the kitchen cupboard depth, the unit might have to be shifted forward for the panel to be aligned with the cupboards.

Number	Explanation
1	Wall or any other mounting surface
2	Wood block (if needed, 25-100 mm)
3	SAVE VTR 100/B
4	Adjustable bolts (15-25 mm)
5	Kitchen furniture panel (P)

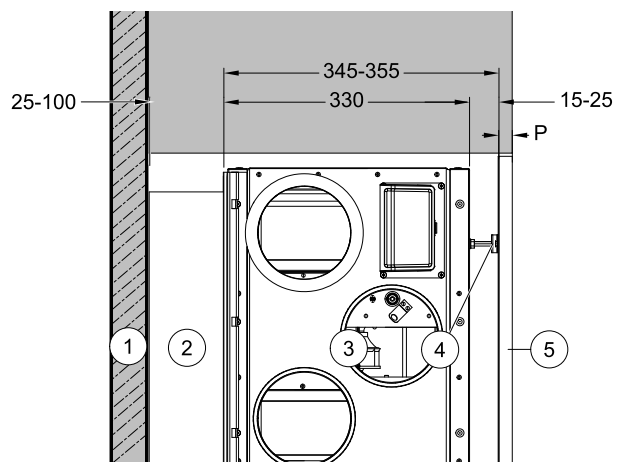


Fig. 18 Top view

Adjust bolts if shifting distance is less than 25 mm or use wood blocks in case the required distance is greater.

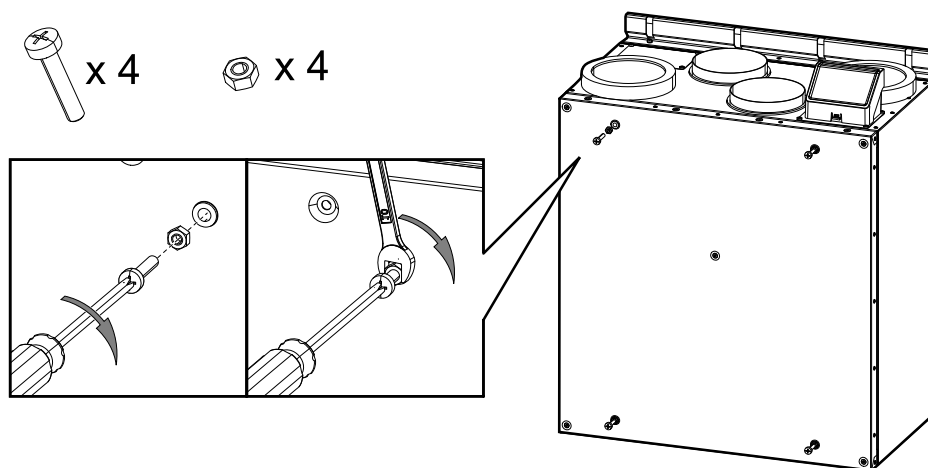


Fig. 19 Installation of bolts

1. Install four M6 bolts into threaded inserts on the unit and lock bolts with hex nuts (figure 19). Bolts protrusion can be adjusted later.

A cross screwdriver and a 10 mm spanner are needed. They are not included in the package.

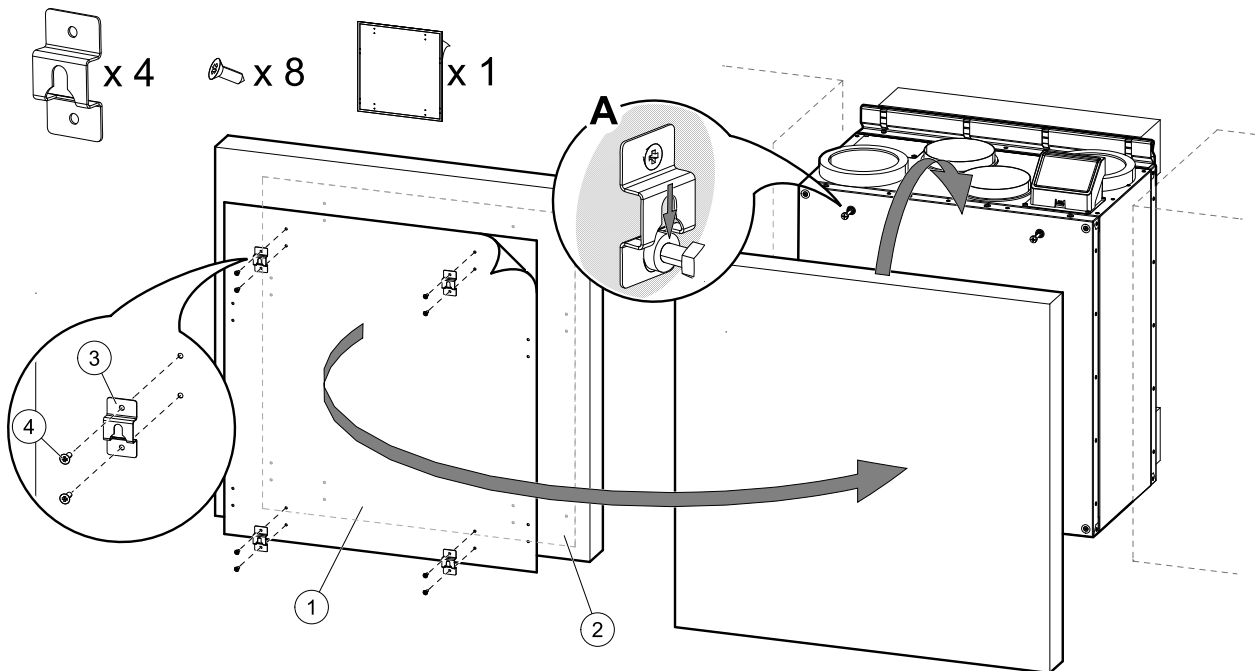


Fig. 20 Installation of hooks and mounting of the kitchen furniture panel

2. Sticker with marked holes (figure 20, pos. 1) is included with the unit. Holes mark spots for screws to secure hooks. Place the sticker on a back of the kitchen furniture panel, figure 20, pos. 2), adjust position of the sticker according to the panel size and position of the unit between cabinets. Size of the sticker is the same as the unit.

Once correct position is found, attach four hooks (figure 20, pos. 3) by fastening each with two screws (figure 20, pos. 4). Hang the kitchen furniture panel on protruding bolts (figure 20, pos. A).

If the kitchen furniture panel does not align with cabinets, take it off and adjust bolts or hooks.



**Note:**

Distance between the unit and the panel can be adjusted from 15 to 25 mm. Use 50 mm bolts if distance needs to be greater.  
50 mm bolts are not included.

## 7.6.2 Mounting the kitchen furniture panel on sides of cabinets

The panel can be installed using included brackets.

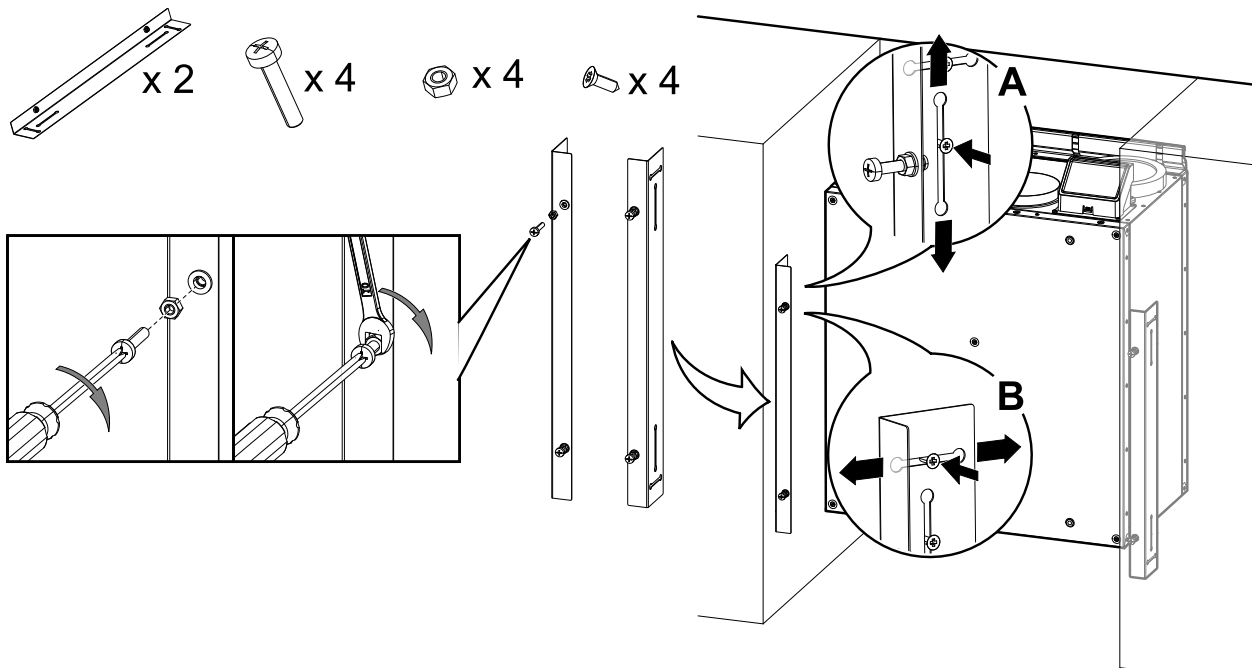


Fig. 21 Installation of bolts and brackets

1. Install four M6 bolts into threaded inserts in brackets and lock bolts with hex nuts (figure 21). Bolts protrusion can be adjusted later.

A cross screwdriver and a 10 mm spanner are needed. They are not included in the package.

Brackets are adjustable vertically (figure 21, A) and horizontally (figure 21, B). Align the brackets with the underside of the unit. Fully tighten screws after adjusting the brackets.

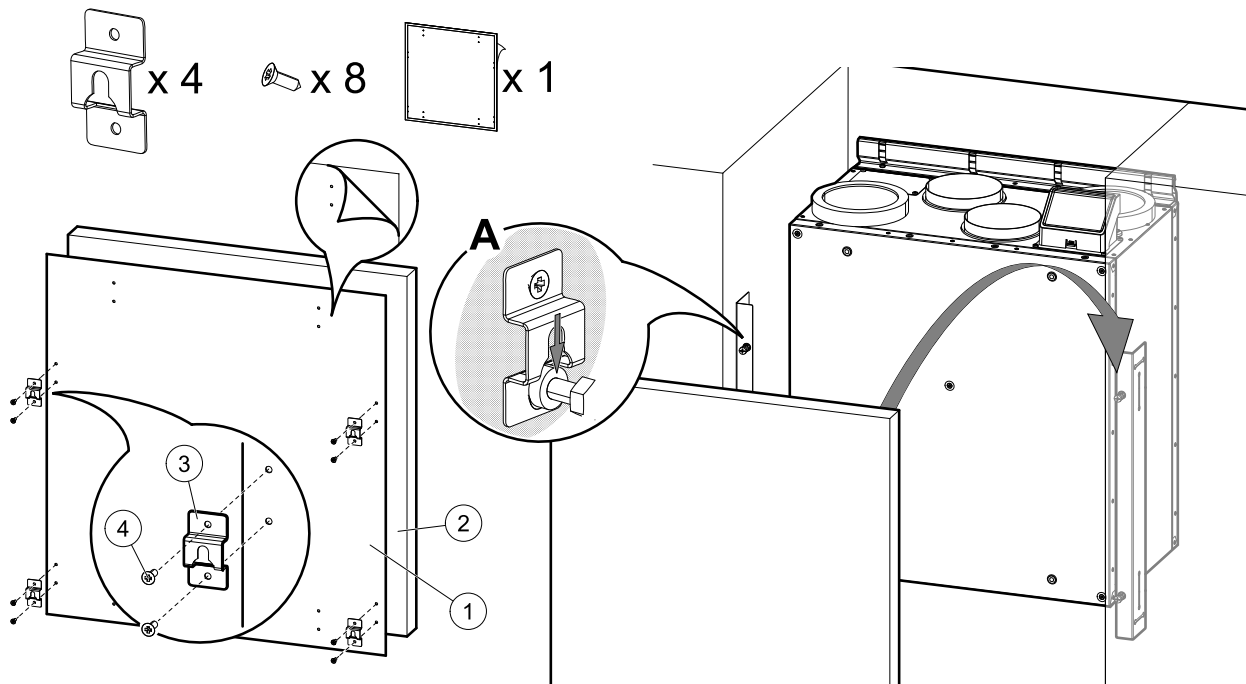


Fig. 22 Installation of hooks and mounting of the cover

2. Install four hooks near the edges on the kitchen furniture panel. Sticker with marked holes (figure 22, pos. 1) is included with the unit. Holes mark spots for screws to attach hooks. Place the sticker on a back of the kitchen furniture panel, figure 22, pos. 2). Size of the sticker is the same as the unit. Manually mark out distances from the edges in case the panel is bigger than the sticker.

Once correct position is found, attach four hooks (figure 22, pos. 3) by fastening each with two screws (figure 22, pos. 4). Hang the panel on protruding bolts (figure 22, pos. A).

If the kitchen furniture panel does not align with cabinets, take it off and adjust bolts, brackets or hooks.

### 7.6.3 Fitting the kitchen furniture panel as a door

Another suggested option is to use hinges instead of brackets and install the kitchen furniture panel as a hinged cupboard door. Hinges or other needed parts for this installation method are not included in the package.

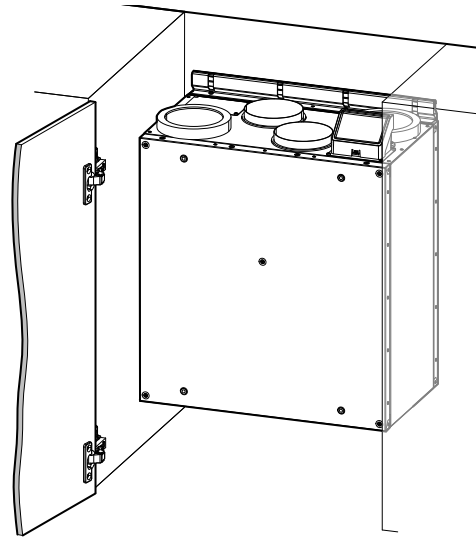


Fig. 23 Kitchen furniture panel as a door

## 8 Electrical connections

The SAVE VTR 100/B is wired internally from factory.

The electrical connection box can be found on the exhaust air outlet side of the unit. The print card can easily be taken out from the unit, without using tools.

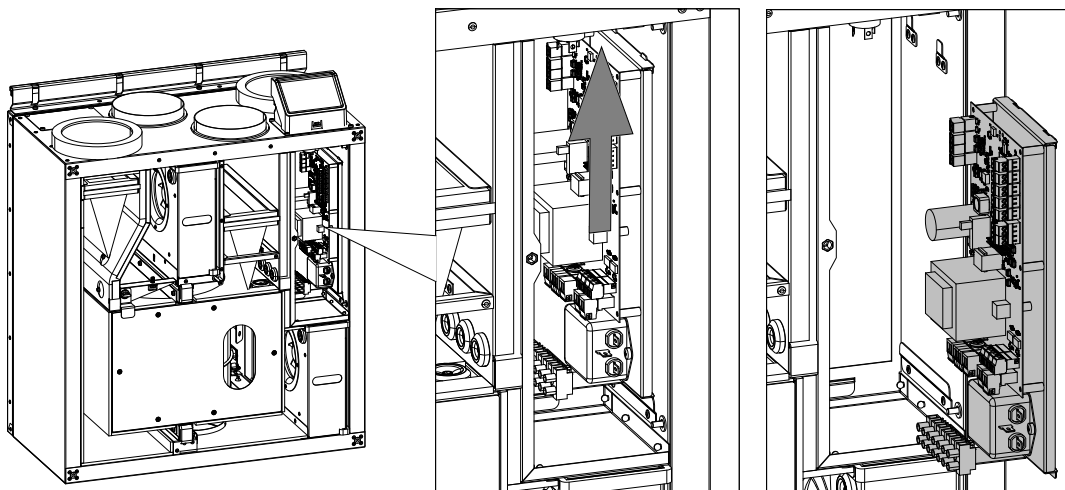


Fig. 24 Main circuit board position

### 8.1 Main circuit board layout

The SAVE VTR 100/B is equipped with built-in regulation and internal wiring.



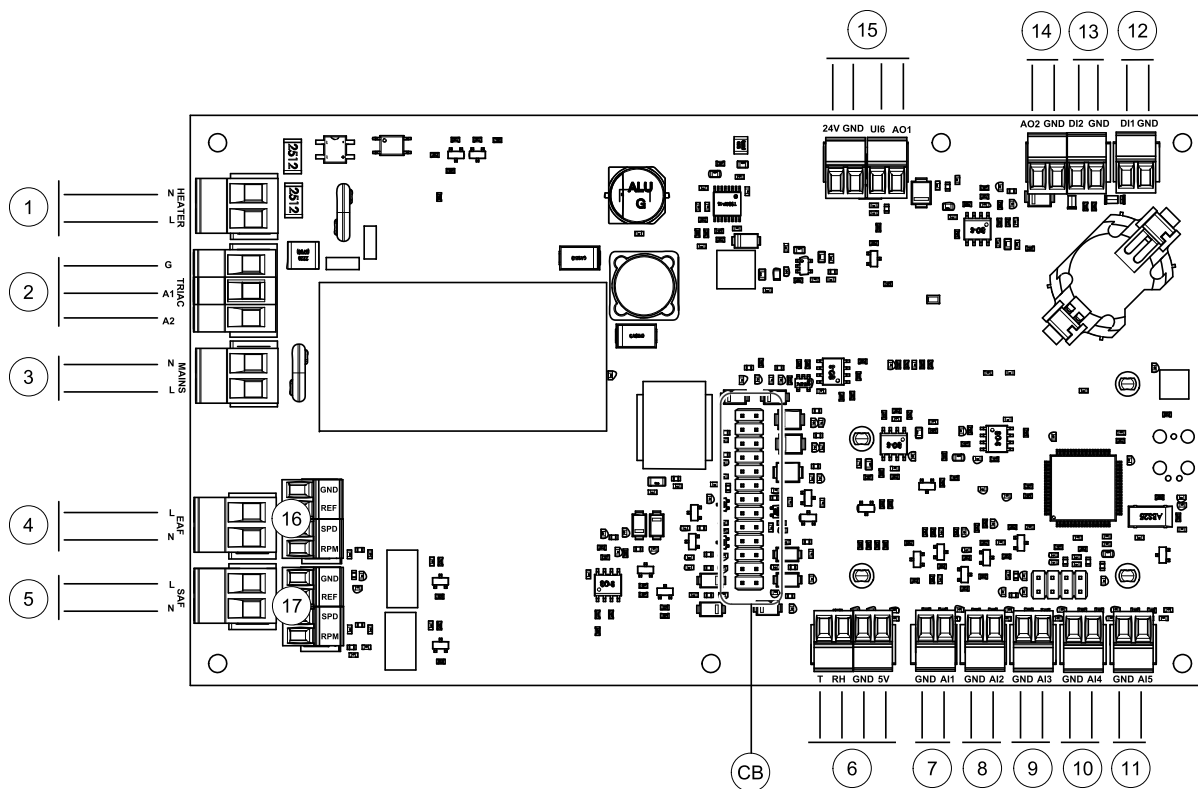


Fig. 25 Main circuit board connections

Position	Description
CB	Connection to the external connection box
1	Terminals for a heater
2	Terminals for a TRIAC
3	Terminals for the mains power supply
4	Terminals for power supply of extract air fan
5	Terminals for power supply of supply air fan
6	Terminals for internal relative humidity/temperature sensor
7	Analog input 1 – Outdoor air sensor
8	Analog input 2 – Supply air sensor
9	Analog input 3 – Freely configurable
10	Analog input 4 – Freely configurable / Overheat temperature sensor (units with heater)
11	Analog input 5 – Freely configurable
12	Digital input 1 – Rotor guard sensor (only for VSR, VTR models)
13	Digital input 2 – Freely configurable / Cooker hood (VTR 150/K unit)
14	Analog output 2 – Freely configurable / Electrical heater controller (VTC 700 unit)
15	Analog output 1 – Rotary heat exchanger control signal (for VSR, VTR type models) / Damper control signal (for VTC, VSC type models), UI6 – Bypass damper feedback signal (for VTC, VSC type models)
16	Terminals for speed control of extract air fan
17	Terminals for speed control of supply air fan

## 8.2 External connections (Connection board)

External connections to the main circuit board are done via connection board situated inside of the unit.

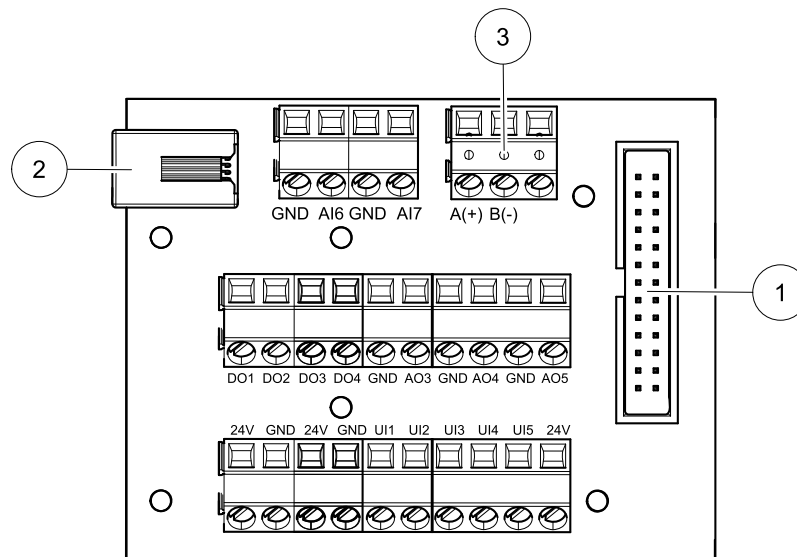


Fig. 26 External connection box and board

Position	Description
1	Connection to the main circuit board
2	Connection for external control panel (HMI) or Internet access module (IAM)
3	Modbus RS485 connection
AI6-7	Freely configurable Analog input. None/Input type selection in HMI.
DO1-4	Freely configurable digital output. DO2 default configuration: Outdoor-/Exhaust Air Damper DO3 default configuration: Activate Cooling DO4 default configuration: Sum Alarm
AO3-5	Freely configurable analog output. Actuator type 0-10V, 10-0V, 2-10V, 10-2V. AO3 default configuration: Heating (only for VTC 200/300/500/700, VTR 100/700 type models). AO4 default configuration: Cooling
UI1-5	Freely configurable universal input. Can be set as analog input (0-10 V) or a digital input (24 V). UI1 default configuration: Pressure guard UI2 default configuration: Cooker hood UI3 default configuration: Fire alarm UI4 default configuration: Refresh
24V	Maximum current 200mA at 24VDC +-10%.

## 9 Before Starting the System

When the installation is completed, check that:

- The unit is installed in accordance with the instructions
- Outdoor and exhaust air dampers and silencers are installed and that the duct system is correctly connected to the unit
- All ducts are sufficiently insulated and installed according to local rules and regulations
- Outdoor air intake is positioned with sufficient distance to pollution sources (kitchen ventilator exhaust, central vacuum system exhaust or similar)
- All external equipment is connected
- The unit is correctly wired

## 10 Commissioning

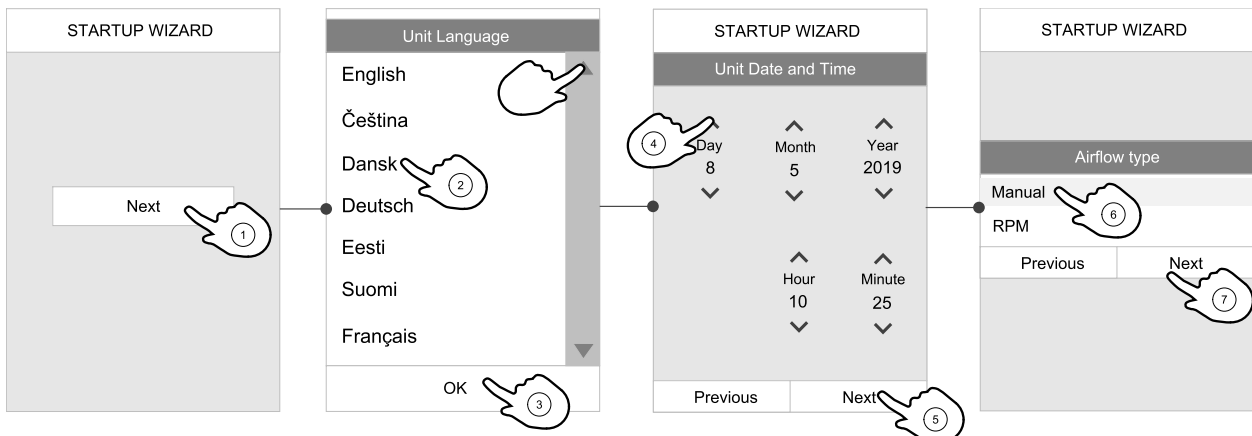
Follow the first startup instructions and fill in the **Commissioning record** as you go through the settings.

The Startup Wizard cannot be skipped.

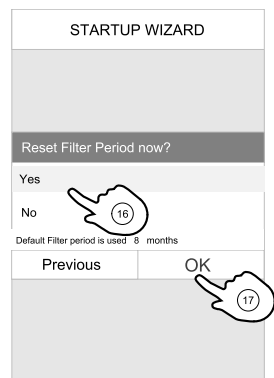
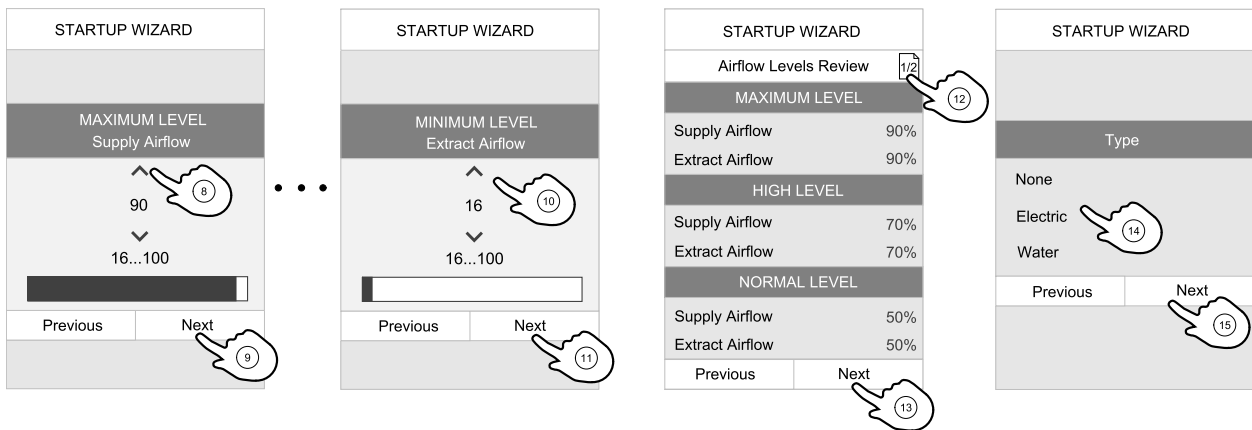


**Note:**

If the SAVE Light control panel is used, the start-up wizard is skipped and the factory settings are used.



Select language, set the time and choose airflow control type. Select revolutions per minute as the type of airflow control only if these values are included with the device.



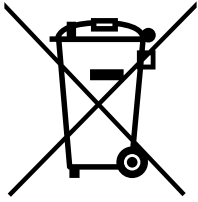
Set speed of supply and extract air fans for each level. When finished, review your settings. It is possible to go back to previous menus and make modifications. Choose heating type or none. Reset filter changer timer if necessary. Finish startup wizard with OK button. All additional changes post-startup wizard must be recorded in the **Commissioning record**.

## 11 Concluding Routines

Perform the following procedures before leaving the site:

1. Ensure that the product is operational and that no alarms are active.
2. If applicable, save the configuration backup.
3. Make sure that the **Commissioning record** is complete.
4. Collect all tools.
5. Inform the appropriate person that work is finished.
6. Follow the procedures for the return and disposal of replacement parts and the disposal of packing.

## 12 Disposal and recycling



This product is compliant with the European WEEE Directive and related national waste legislation. When disposing the unit, follow your local rules and regulations. This product packing materials are recyclable and can be reused. Do not dispose in household waste.



## 13 EU Declaration of Conformity

### Manufacturer



Systemair UAB  
 Linų st. 101  
 LT-20174 Ukmergė, LITHUANIA  
 Office: +370 340 60165  
 Fax: +370 340 60166  
 www.systemair.com

The manufacturer hereby confirms that

SAVE VTR 100/B

comply with all applicable requirements in the following directives and regulations.

### Machinery Directive 2006/42/EC

#### Ecodesign Directive 2009/125/EC

327/2011 Requirements for fans above 125 W  
 1253/2014 Requirements for ventilation units  
 1254/2014 Energy labelling of residential ventilation units

### Low Voltage Directive 2014/35/EU

### EMC Directive 2014/30/EU

### RoHS Directive 2011/65/EU, 2015/863/EU

The following harmonized standards are applied in applicable parts:

#### EN ISO 12100

Safety of machinery - General principles for design - Risk assessment and risk reduction.

#### EN 13857

Safety of machinery – Safety distances to prevent hazard zones being reached by upper or lower limbs.

#### EN 60204-1

Safety of machinery – Electrical equipment of machines – Part 1: General requirements.

#### EN 60335-1

Household and similar electrical appliances – Safety Part 1: General requirements.

#### EN 60335-2-40

Safety of household and similar electrical appliances - Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers.

#### EN 50106

Safety of household and similar appliances – Particular rules for routine tests referring to appliances under the scope of EN 60 335-1.

#### EN 60529

Degrees of protection provided by enclosures (IP Code).

#### EN 62233

Measurement methods for electromagnetic fields of household appliances and similar apparatus with regard to human exposure.

#### EN 61000-6-2

Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments.

#### EN 61000-6-3

Electromagnetic compatibility (EMC) – Part 6-3: Generic standards – Emission standards for residential, commercial and light-industrial environments.

#### EN 13053

Ventilation for buildings – Air handling units – Rating and performance for units, components and sections.

#### EN 13142

Ventilation for buildings. Components/products for residential ventilation. Required and optional performance characteristics

The declaration applies only to product in the condition it was delivered in and installed in the facility in accordance with the included installation instructions. The insurance does not cover components that are added or actions carried out subsequently on the product.

The complete technical documentation is available.

Ukmergė, 20-02-2021

Nerijus Lapackas  
 Technical Manager



Systemair UAB  
Ling st. 101  
LT-20174 Ukmergė, LITHUANIA

Phone +370 340 60165  
Fax +370 340 60166

[www.systemair.com](http://www.systemair.com)