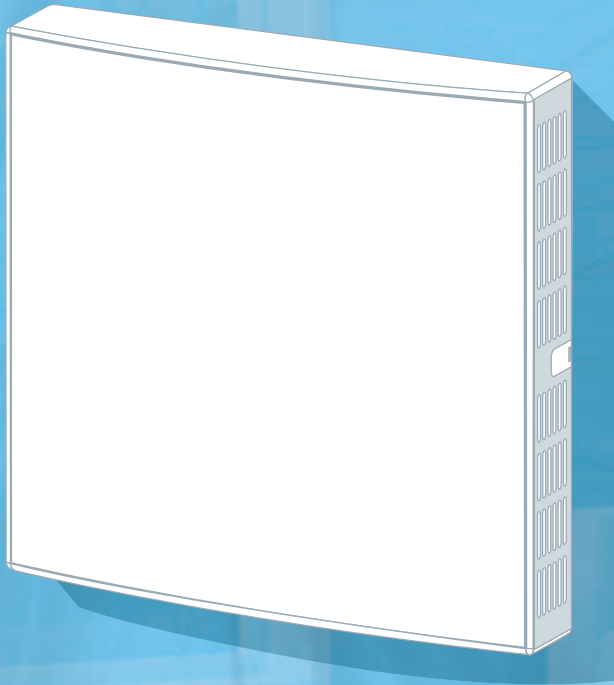




DECENTRALIZED VENTILATION UNIT **VARIO-VENT DUO** OPERATING AND INSTALLATION INSTRUCTIONS



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1. Introduction

Dear Customer,

We would like to congratulate you on your purchase of your decentralized ventilation unit Vario-Vent DUO.

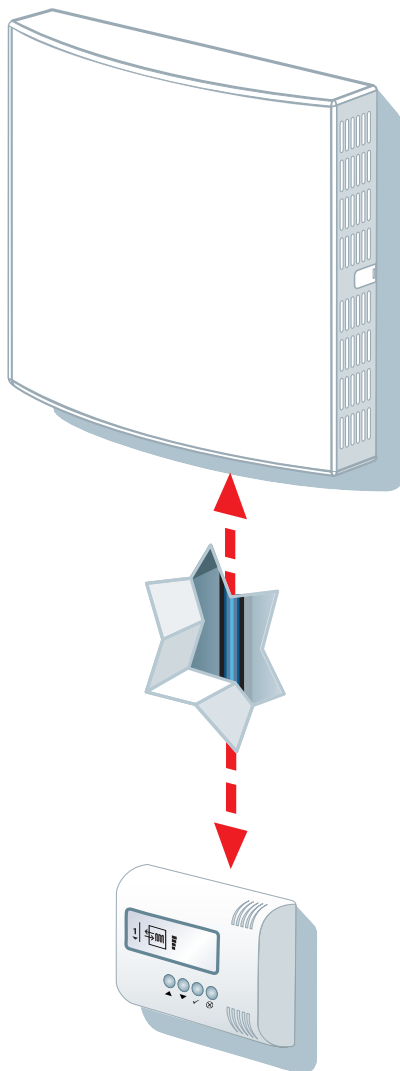
You have chosen a high quality product "Made in Germany".

Hygienic cleanliness, easy and whisper quiet operation are convincing arguments for choosing this product.

Modern production facilities in Germany, carefully selected materials and examined quality are the basis of our five-year warranty from the original purchase date.

2. Delivery contents

- 1 x Casing tube
- 1 x Ventilation unit Vario-Vent DUO
- 2 x Porcelain heat exchanger
- 1 x Plaster guard with level
- 1 x Cover plate
- 2 x Lid for electronic box
- 1 x Outer hood, plastic or stainless steel
- 1 x Inner hood
- 4 x Closing flaps for the inner hood
- 4 x Filter holder
- 2 x Filter G3
- 1 x Control panel
- 6 x Screws and dowels
- 2 x Clamps
- 1 x Drilling template
- 6 x Wedges
- 1 x Sealing tape
- 1 x Operating and installation instructions manual



3. Safety Instructions

Please read your Operating and Installation Instructions carefully and follow the directions. Please keep your manual in a safe place. You may need it in the future for other useful information and tips.

The Vario-Vent DUO is designed to ventilate rooms. This system is installed into the exterior wall. This wall must have a minimum width of 27 cm and may not be wider than 56 cm.

A 230 volt electric power supply is needed. The control voltage has 12 volt.

The use of the Vario-Vent DUO is only permitted with the use of the dust filter. This filter must be cleaned regularly and or replaced.

The respective regional construction regulations that apply must be followed.

The unit can only go into operation after all construction work has been completed.

The unit is not suitable or permitted to be used to dry out the building during the construction phase.

For maintenance always disconnect the power supply.

With the use of a fireplace please check with a chimney sweep or specialist for safety reasons.

This device is not intended to be used by persons (including children) with limited physical, sensory or mental aptitude or lack of experience and/or knowledge unless they are supervised by a person responsible for their safety or have received instruction from this person as to how the device is used.

The manufacturer cannot be made liable to damages due to improper installations or failure to follow the manufactures guidelines for proper use.



4. Installation

4.1 Installation instructions

On-site preparation:

- A core drilling of 290 to max. 300 mm must be drilled in order to install the Vario-Vent DUO.
- The electrical supply of 230 volt must be laid properly according to the specifications.
- A 6 x 0,1 mm² control line must be installed between the Vario-Vent DUO and the control panel.

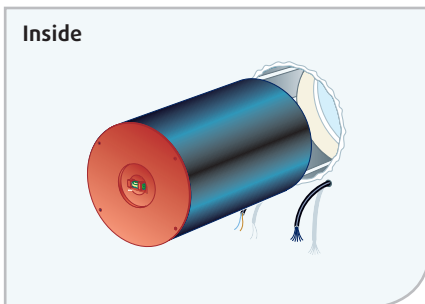
- A separate 2 x 0,1 mm² control line must be available when using the additional input. This is an additional switching input that can be used with the software as opened or closed.
- For the exact measurement please use the included drilling template.

Please examine the Vario-Vent DUO after it is unpacked for any external damage that may have occurred during transport. If you notice any damages please contact us on our service number located on the type label. Please let us know the extent of damage and the serial number of the ventilation unit.

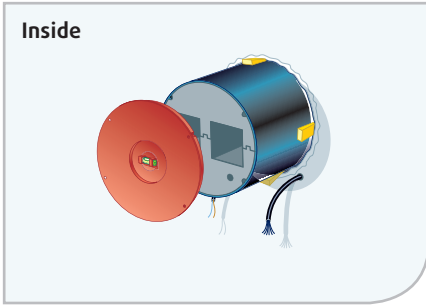
4.2 Ventilation unit installation



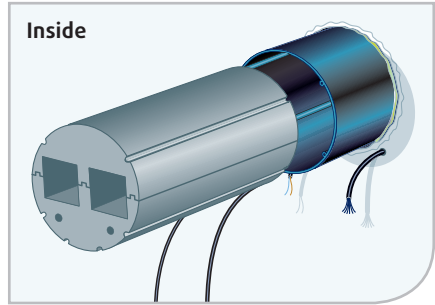
- Make a core drilling of 300 mm diameter with a 1% decline toward the outside.
- Cable for left side:
2 x 0,75 mm² for 230 volt
- Cable for right side:
6 x 0,1 mm² to the control panel
- Optional: additional cable right side:
min. 2 x 0,1 mm² additional input.
- Take the measurements from the drilling template.
- Connection cables must be installed by the customer on site.



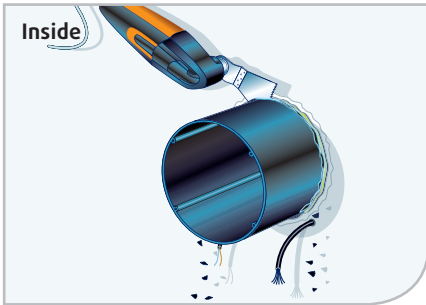
- Insert the casting tube from the inside to the outside. The casting tube must be flush to the exterior finish wall.
- The ventilation unit must be inserted into the casting tube. The ventilations fans must be pointed toward the exterior wall.



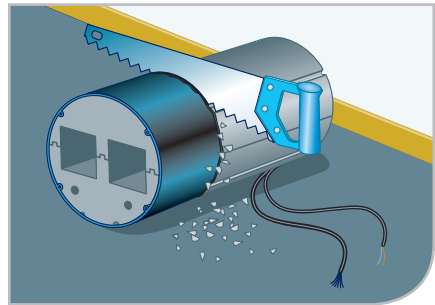
- Use the wedges to keep the casting tube of the ventilation unit in place and make a seal around it using special construction foam.



- Remove the ventilation unit after the foam has hardened.



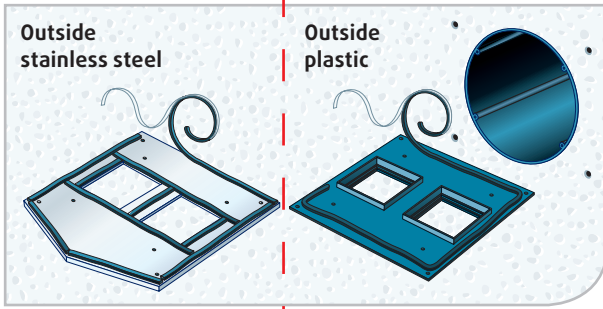
- The casting tube must be shortened on both sides, flush to the finished wall.



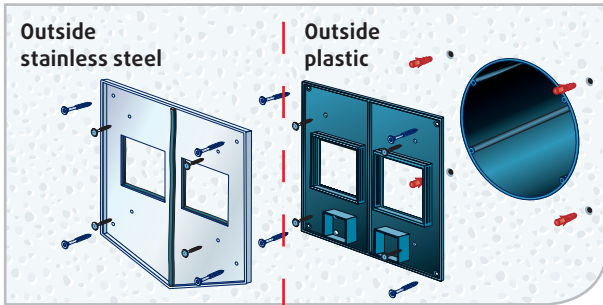
- Use the cutoff piece of the casting tube as a template when shortening the ventilation unit to size.
- Caution: Do not damage the cable.



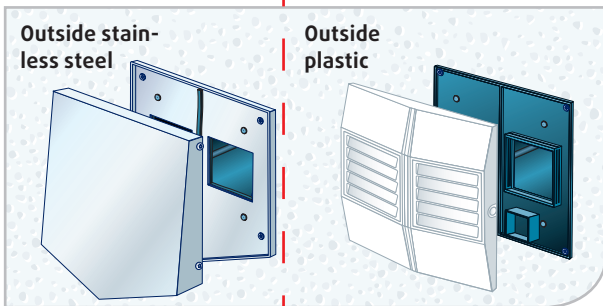
- Insert the shortened ventilation unit from the inside as far as it will go into the casting tube.
- Make sure that the fans are pointing toward the outer side.



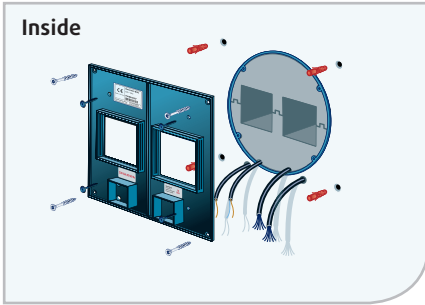
- Apply the sealing tape to the backside of the cover plate.



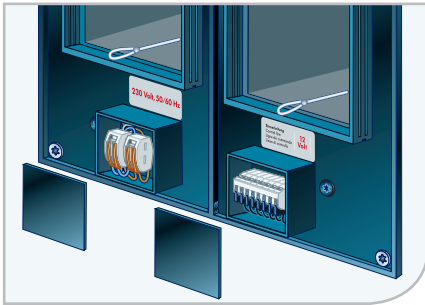
- Mount the cover plate from the outside
- Fasten 4 x onto the wall
- Fasten 4 x onto the casting tube



- Place the plastic cover plate onto the cover plate until it clicks into place.
- Alternative: Screw the stainless steel cover onto the cover plate.



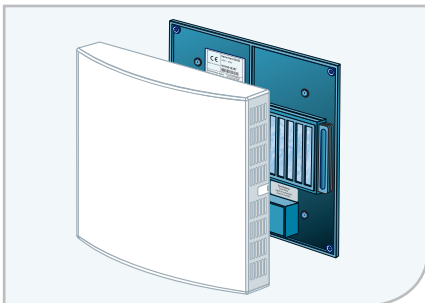
- Mount the cover plate
- Fasten 4 x onto the wall
- Fasten 4 x onto the casting tube
- Insert the cable into the electronic box



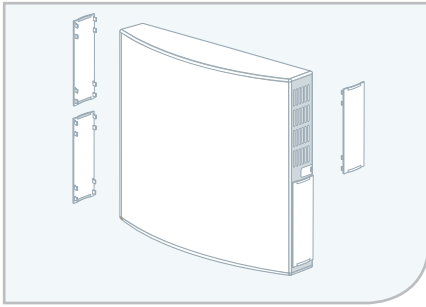
- Connect the cables together according to the identification marking. 1-brown, 2-red (purple), 3-blue, 4-white, 5-green, 6-yellow. The two other colors are for the additional input.
- Close the electronic boxes with the covers.



- Insert filter holder nr. 1
- Insert filter
- Insert filter holder nr. 2



- Mount the inside cover plate by pressing the clips on the right and left side.



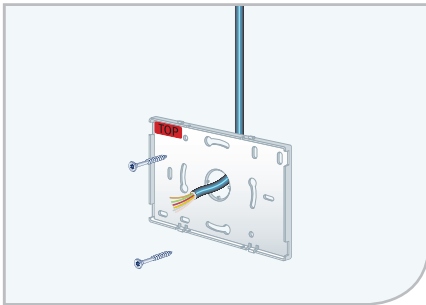
- Information: 4 closing flaps are included to completely air tighten the unit from the inside cover panel.
- Place the flaps on the outside of the interior cover panel to seal the air slots. We also recommend turning the unit off.

4.3 Control panel installation

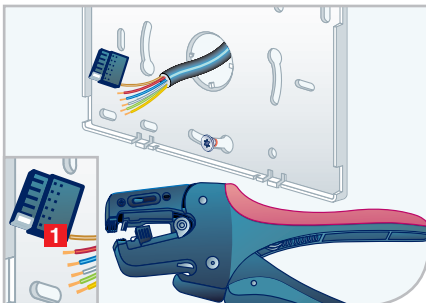
There must be a 6-wire control line (6 x 0,1 mm² minimum) installed from the ventilation unit to the control panel. Max length should not exceed 25 meters.

1-brown, 2-red (purple), 3-blue, 4-white, 5-green, 6-yellow

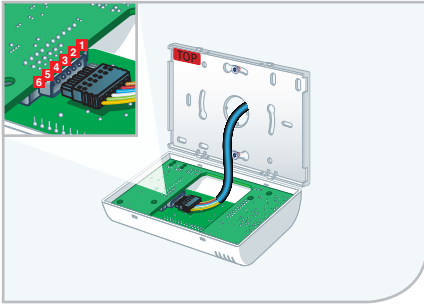
It is recommended to use a flush mounted box when installing the control panel. This makes the installation much easier.



- Break out the middle piece of the frame and guide the cable through. Then attach the frame to wall and or the wall mounted box.



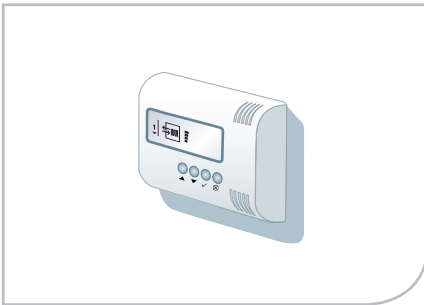
- Connect the wires from left to right into the clamp. Please make sure to follow the number/color code.



- Insert the clamp onto the back side of the control panel.



- Attach the control panel to the frame. Start from the top of the frame.
- Now activate the 230 volt cable and the Vario-Vent DUO is ready for use.



- Set the desired operating mode.



- The interface of the control panel allows you to view the operations and adjust settings with the service software.
- The service software is to be ordered separately and only to be programmed by a skilled tradesman.

5. Control panel operation

5.1 Control panel display

5.1.1 Main screen display



- The navigation bar is located all the way on the left hand side. This shows the number of the screen you are currently on. It allows you to scroll through the different screens.
- Next to the navigation bar is the operation symbol (current setting) shown (normal operation with heat recovery).
- The middle position (next to the operation symbol) displays the current fan stage. The picture displays the active (running) fan on stage 4. If the unit is set on stage 4 and not in use the display will show only the outline of the bars. When turning the fan stage down one stage, one bar (beginning at the top) will disappear from the display.
- Error symbols and or service requirements are displayed to the right of the fan stage (not displayed in the picture).

5.1.2 Screen 2

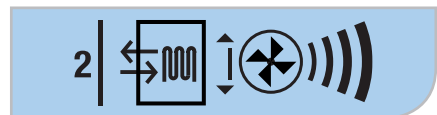


- This picture shows the screen after it has been scrolled to "screen 2" in the navigation bar.
- Confirming with enter (checkmark) allows access to the selections.



- While selecting the operating mode with the up/down buttons the display shows the current operation function that has been selected. The display of the operation symbols changes when pressing the up/down buttons.
- Confirming with enter (checkmark) allows access to the fan stages

Fan stage selection display



- While selecting the fan stages with the up/down buttons the display shows the current stage that has been selected. The display and the fan stages change with the use of the up/down buttons (stage 0 display no bars, stage 4 display four bars).

5.1.3 Screen 3



- Display of the error messages such as filter change, battery lever etc.

5.1.4 Screen 4

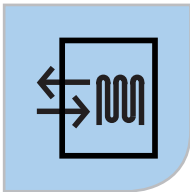


- The fourth screen shows the logo of the distribution partner and the serial number of the unit.

5.2 Control panel

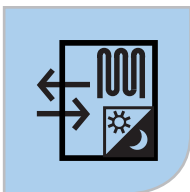
The control panel allows you to choose and set different operating modes.

5.2.1 Operating modes



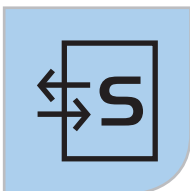
■ Normal operation with heat recovery

The fans are running on the set stage in opposite directions and change directions every 70 seconds. This time may change according to the preset that has been chosen with the software.



■ Normal operation with heat recovery and day/night regulation

The fans are running on the set stage in opposite directions and change directions every 70 seconds. This time may change according to the preset that has been chosen with the software. The fans are on stage 1 between 7 pm and 7 am.



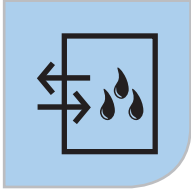
■ Summer operation without heat recovery

The fans are running on the set stage in opposite directions without direction changes.



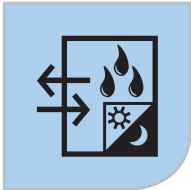
■ **Summer operation without heat recovery and day/night regulation**

The fans are running on the set stage in opposite directions without direction changes. The fans are on stage 1 between 7 pm and 7 am.



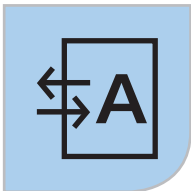
■ **Moisture protection ventilation**

If the humidity rises above the set value, for exp. 55 %, the fans will run in opposite directions at the set fan stage. When the humidity drops below that value the fan will then shut off. The values can be set with the service software by a skilled tradesman.



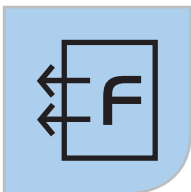
■ **Moisture protection ventilation and day/night regulation**

Same function as the “moisture protection ventilation”. The fans are also on stage 1 between 7pm and 7am. The values can be set with the service software by a skilled tradesman.



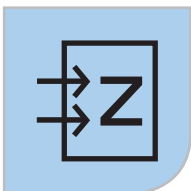
■ **Ventilation while absent**

The fans are running on the set stage in opposite directions just like in the “normal operation”. The fans run at an interval for 15 minutes every 2 hours.



■ **Exhaust air operation**

Both fans are running on the set stage blowing the air toward the outside.



■ **Incoming air operation**

Both fans are running on the set stage blowing the air toward the inside.

5.2.2 Symbols

The control panel allows you to set fan stages and displays error messages. When an error message is displayed the ventilation unit will shut off until the error is fixed. (Except for filter change)

Filter

In connection with the "enter" key: Filter is functioning.

In connection with alarm symbol: Filter change is necessary.

Power supply

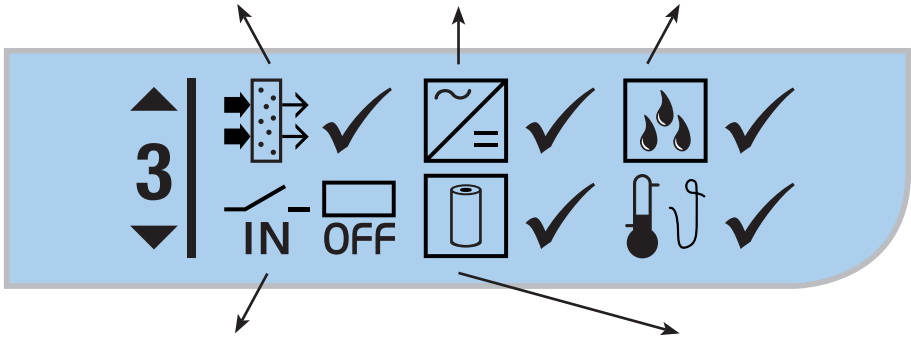
In connection with the "enter" key: Power supply is functioning.

In connection with the alarm symbol: Power supply is disconnected

Moisture sensor

In connection with the "enter" key: Moisture sensor is active.

In connection with the alarm symbol: Moisture sensor is not active.



Additional input

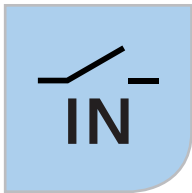
In connection with the "ON" symbol: Additional input is functioning.

In connection with the "OFF" symbol: Additional input is not functioning.

Battery

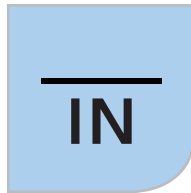
In connection with the "enter" key: Battery is full.

In connection with the alarm symbol: Battery is empty.



■ Opener

For example: A smoke detector or a depression sensor can be connected.



■ Closer



■ **Alarm symbol**

Please check the error message on screen 3. Make sure to eliminate the problem displayed.



■ **Enter**

Functions are operating properly. "Enter" is also used to confirm your selection.



■ **Up/Down**

Toggle up and down through the menu.

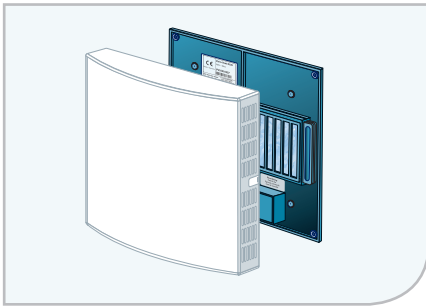


■ **Exit**

Exit out of a function.

6. Care/maintenance

6.1 Cleaning the dust filter



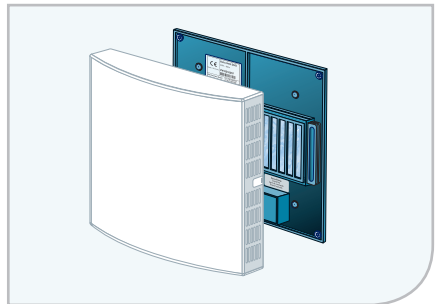
- Remove the inner hood by pressing the latches on the right and left side.



- Remove the filter holder from the side and take out the dust filter.
- The filter can be rinsed out under running water.

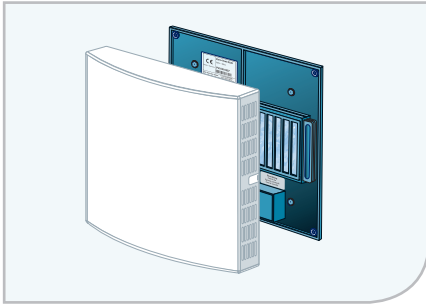


- Make sure to reinsert the filter and filter holder after it is completely dry.
- Re-insert the filter and filter holder.



- Clean the entire inner hood with a damp rag.
- Mount the inner hood by pressing the latches on the right and left side.

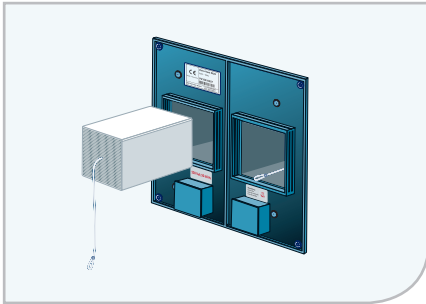
6.2 Cleaning the porcelain heat exchanger



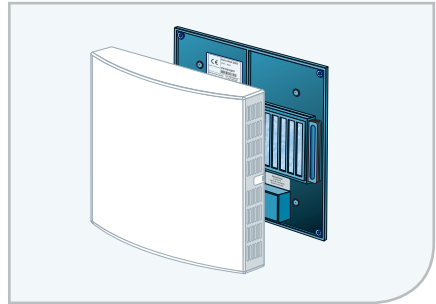
- Remove the inner hood by pressing the clips on the right and left side.



- Remove both filter holders and filters.



- Pull out the porcelain heat exchanger.
- Clean the heat exchanger with a vacuum cleaner or place them into the dishwasher (by 30°C without dishes).
- Reinsert the heat exchanger, filter and filter holder. Make sure to push the heat exchanger as far back as possible.



- Clean the entire inner hood with a damp rag.
- Mount the inner hood by pressing the clips on the right and left side.

6.3 Filter change



- The alarm symbol lights up behind the filter symbol.



- You can select the alarm symbol with the enter button (checkmark).



- Press the enter button (checkmark) again to reset the exchange interval.

7. Error message



- The main screen displays all error/alarm messages.
- Switch to screen 3 to see which error/ alarm message is displayed.



- The alarm symbol is displayed behind each symbol. (See 5.2.2)

8. First aid

In case of an error display, please use this help list to see if the problem can be solved by following these steps mentioned below.

Problem	Possible cause	Help aid
Fans are not working	No power supply	Please check the power supply
	Wrong operation mode	Please check the operation mode
	Installation error	Please check the wiring
	Fan is stuck	Please remove the object
	Control panel is broken	Please replace the control panel
	Fan is broken	Please call customer service
Low air flow rate	Wrong operation mode	Please check the operation mode
	Filter is blocked	Please clean the filter
	Porcelain heat exchanger is blocked	Please clean the porcelain heat exchanger
Control panel not functioning	Control panel is hung up	Press the enter button (checkmark) & the exit button (X) at the same time and hold for 2 seconds. The control panel will then restart.

9. Warranty

Our "general conditions" apply to our scheduled date of delivery unless otherwise specified. Our conditions are found on our website: www.zsa-online.de. The unit has a 5 year manufacturer's warranty from the time of commissioning, however begins at the latest 3 months after ex-works delivery date.

During the warranty period faulty units may be replaced or repaired. Please contact your contract partner.

After the warranty period has expired, repairs carried out or repairs not covered by the warranty are invoiced.

10. Inspection certificate

All technical data are factory specifications. Technical data are subject to change!