

AERO

AEROVITAL ambience smart DM

Ventilation unit with sound absorption for installation under the ceiling.

Window systems

Door systems

Comfort systems

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1 Target group of this documentation

- This documentation is intended for use by specialists and end users.
- All notes on operation and maintenance as well as the rectification of malfunctions described here are intended for specialists and end users.
- After the successful assembly and installation, the installation company is committed to handing over the operating instructions to the end user.

2 Intended use

- Use the AEROVITAL ambience smart DM exclusively for the ventilation of closed rooms (kitchen, bathroom, living rooms and bedrooms).
- Do not use the AEROVITAL ambience smart DM in environments with corrosive or explosive atmospheres (dust, vapour or gas).
- The AEROVITAL ambience smart DM is not suitable for dehumidification (e.g. for the drying of new buildings).
- Be sure to mount the supplied SIEGENIA weather grille for the protection of the unit from the outer side.
- Do not install the unit in contaminated rooms and ensure that no hazardous substances can be drawn in.
- The unit is not suitable for use in swimming baths and / or damp locations.
- Only operate and/or store the AEROVITAL ambience at temperatures between -15 °C and +40 °C.
- Use the unit only with original accessories from SIEGENIA.
- Comply with the safety regulations for operating electrical equipment and, if necessary, for ladders, steps and work overhead or at certain heights.
- Use the unit only when it is in a technically sound condition.
- Do not modify the unit's components in any way.
- Do not remove any covers or unit components that are not defined in the "Maintenance" chapter. Do not remove the cover of the connecting clamps inside the unit.
- Please make sure that the unit is not switched off for a longer period (several days) in order to enable minimum ventilation and to prevent nesting of insects.
- The unit must be checked by a specialist in the event of a fault.

3 Safety notes

- This unit can be used by children aged 8 and above as well as by people with physical, sensory or mental difficulties or with a lack of experience and knowledge as long as they are supervised or have been instructed in how to use the unit safely and understand the resulting risks. Children must not play with the unit. Cleaning and user maintenance may not be carried out by unsupervised children.
- Electrically operated unit. **Risk of fatal injury** from electric shock or fire.
- To prevent **personal injury or damage to property**, always comply with the following instructions
 - insert the Euro mains plug of the standard connecting cable only into a suitable 230 V AC mains power supply socket.
 - If the mains connection cable for the unit is damaged, it must be replaced by SIEGENIA, the company's customer service department, or similarly qualified personnel in order to prevent the development of hazards.
 - If any work is required for the connection of the device to the 230 V AC mains power supply, this may only be carried out by an electrician.
 - All-pole safety isolation is required if the customer is routing the mains cable.
 - The current VDE directives must be observed.
 - Relevant country-specific regulations with regard to installation, functional testing, repair and maintenance of electrical products must be strictly followed for all work carried out on the voltage supply system or house wiring system.
 - Should a solid object or any liquid get inside the unit, stop operation immediately and disconnect the device from the electricity grid.
- **Risk of poisoning from combustion fumes**

A vacuum can be created when this ventilation unit is operated simultaneously with a heat-producing appliance (such as a stove or gas heater). The vacuum could cause exhaust fumes to enter the room, leading to the danger of poisoning.

 - Have the ventilation compound in your home checked by an accredited chimney sweep.
 - For ventilation units that permanently run in exhaust air operation, install a safety device in consultation with the accredited chimney sweep.
- **Risk of injury from wasp or bee stings!**

Insects could nest in the unit if the ventilation slots are closed. The insects could fly out and sting you when you open the unit for maintenance purposes.

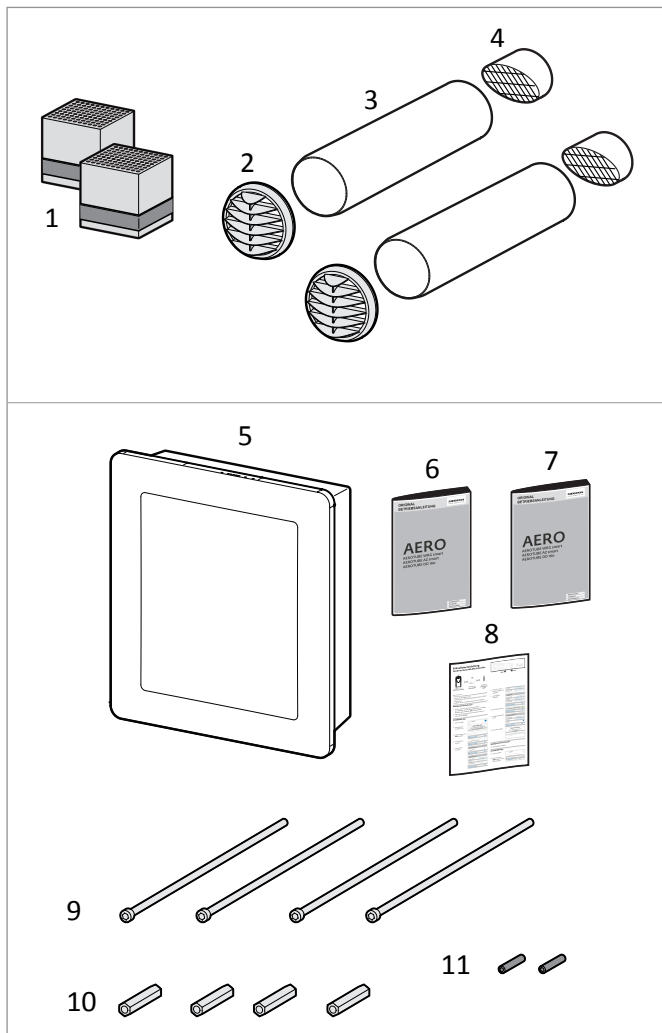
 - To prevent insects from nesting in the unit, do not leave the ventilation slots closed for several days in succession.
 - Wear protective clothing to open the device if the ventilation slots have been closed for several days in succession.
- Danger due to third party attacks on SIEGENIA WIFI devices! Please observe the following notes to protect your system against attacks by third parties:
 - every SIEGENIA WIFI device is protected by two passwords (user and administrator). It is essential that you change these passwords after the initial setup. Do not leave in the default setting.
 - If the SIEGENIA WIFI devices are integrated in your home WIFI, this must be encrypted for operation.
 - Please choose secure passwords consisting of lower case and capital letters, numbers and special symbols.
- Slipping hazard – In order to prevent personal injury, it is essential to ensure that condensate does not flow onto pavements and freeze when outdoor temperatures are below 0 °C.
- Danger of injury in case of damage of the ventilation slits. Switch off the unit and contact the customer service.

4 General notes

All the dimensions in this documentation are specified in millimetres (mm).

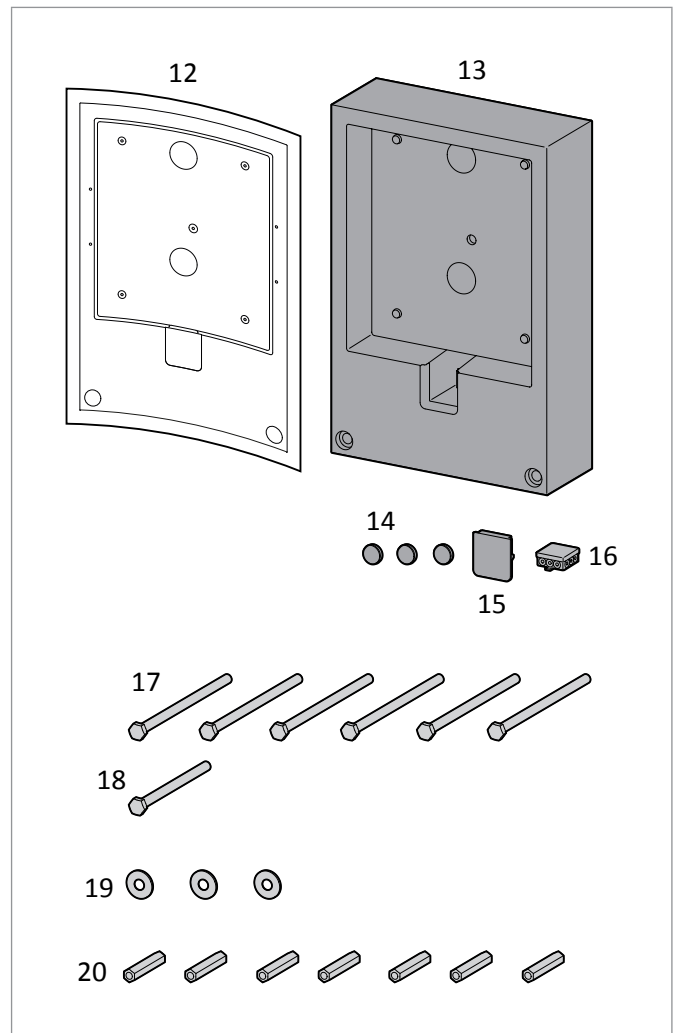
5 Scope of delivery

5.1 AEROVITAL ambience smart DM



Item	Name	Quantity
1	Storage stone	2
2	Weather grille	2
3	Pipe	2
4	Insect screen	2
5	AEROVITAL ambience	1
6	Assembly instructions	1
7	Original operating instructions	1
8	Quick start instructions	1
9	Cheese head screw M6 x 250	1
10	Distance sleeve M6 x 50	4
11	Grub screw M4 x 20	2

5.2 Assembly set for ceiling installation

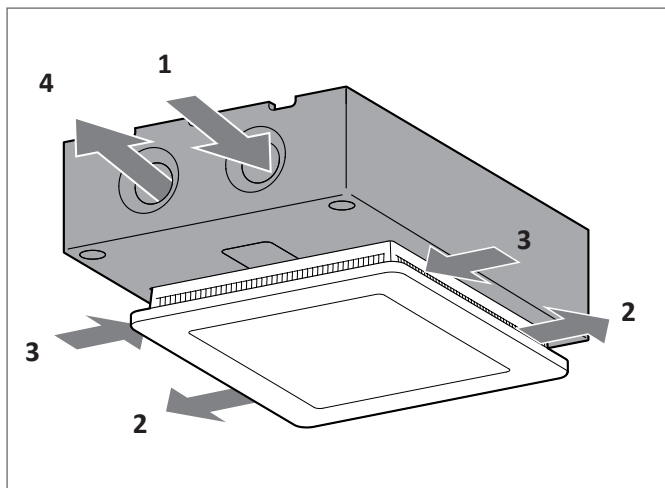


Item	Name	Quantity
12	Drilling template	1
13	Assembly case	1
14	Plug fixing hole	3
15	Cover electrical connection	1
16	Cable junction box	1
17	Hexagon screw M6 x 90	6
18	Hexagon screw M6 x 70	1
19	U-washer M8	3
20	Distance sleeve M6 x 50	7

6 Unit description

6.1 Unit function

6.1.1 Ventilation and aeration with blower and heat recovery



- The outside air (1) is drawn in and enters the room as filtered supply air (2).
- The exhaust air (3) is drawn in and is released into the atmosphere as exhaust air (4).
- Both streams of air flow are drawn through the two heat accumulator stones (heat exchanger) alternately. The outside air is pre-heated here, before entering the room as supply air (especially during cold times of the year).

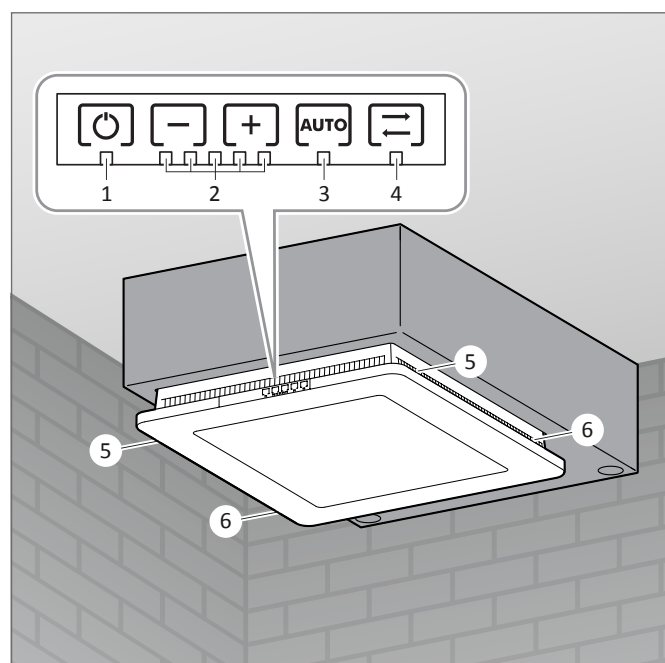
6.1.2 Ventilation in automatic mode

- The blower levels 1 to 5 are controlled in automatic mode. The necessary blower level is dependent on the temperature and air humidity as well as optionally on the CO₂ value and on the TWOC value. The least favourable value is the significant value.
- The blowers are not switched off, but continue to run at a minimum level.
- The temperature and humidity sensor measures the inside and outside temperature as well as the inside and outside humidity.
- The air quality sensor with CO₂ and TVOC regulation determines a derived CO₂ value based on human aspiration (hydrogen H₂). The ethanol content in the air is also taken into account for the determination of the TVOC value.
- TVOC (Total Volatile Organic Compounds) are volatile organic compounds in gaseous form (e. g. ethanol, carbon monoxide, methane, butane and cigarette smoke).

6.1.3 Condensate and frost protection control

- The condensate and frost protection control serves the device protection and secures the functioning of the device even in case of lower outside temperatures.
- The humidity and temperature sensors continuously record the environmental conditions. If the environmental conditions are extreme, the unit is switched off. These conditions could be lower outside temperatures or a particularly high room humidity, for example.

6.2 Designation of parts

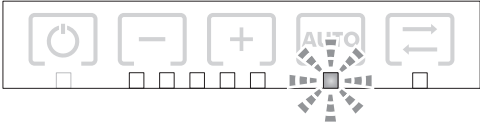
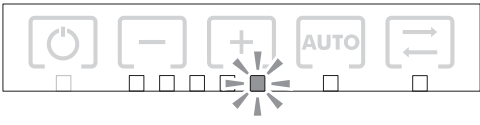
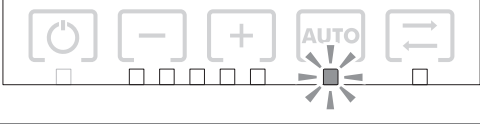
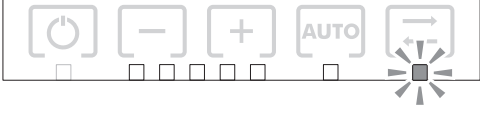


1. On/Off (and brightness sensor¹⁾)
2. Blower levels 1 to 5
3. Automatic mode (AUTO)
4. Heat recovery (WRG)
5. Supply air ventilation slots
6. Exhaust air ventilation slots

1) Depending on the light intensity in the room, the brightness sensor automatically regulates the brightness of the LED indicator. The darker the light in the room, the darker the LED indicator.

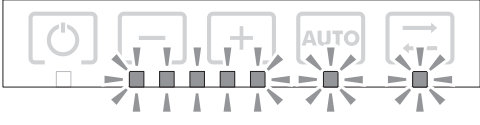
7 LED indicator

7.1 Operating status

LED		Operating status
	»AUTO« flashes	Warm-up phase during the calibration (see calibration, page 9)
	»Blower level« lights up	Selected blower level is active
	»AUTO« lights up	Automatic mode is active*
	»WRG« lights up	Heat recovery is active

* In automatic mode, the blowers are not switched off, but continue to run at a minimum level

7.2 Special function

LED		Operating status
	All LEDs light up briefly	Confirmation of a special function (e. g. keyboard lock, reset)

7.3 Malfunctions

- Malfunctions are displayed in addition to the current operating status.
- For fault messages, see "Rectification of malfunctions", see page 16.

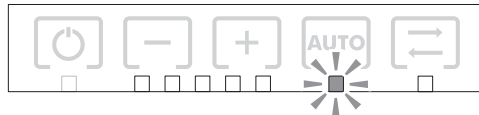
8 Commissioning

8.1 Notes on calibration

- For units with air quality sensors, a one-off calibration of the sensor is performed during the commissioning. The sensor adapts to the environment.
- The room temperature must be between 5 °C and 40 °C.
- The calibration lasts 24 hours.
- The automatic mode already functions during the warm-up phase.
- The air quality is already displayed during the calibration in the SIEGENIA Comfort app.
- The accuracy of the sensor rises with the continuing duration of the calibration.

8.2 Performing the calibration

- Air the room thoroughly for 10 min.
- Connect the AEROVITAL ambience smart DM to the mains electricity grid.
- The exhaust air sensors automatically start a warm-up phase (duration approx. 5 min.):



- The calibration starts automatically.

9 Operation

9.1 Buttons on the unit

Step	Buttons	Button function
Switch on unit		Unit On/Off
Adjust the blower level required or automatic mode		Reduce the blower level (lowest blower level = 1)
		Increase the blower level (highest blower level = 5)
Activate heat recovery		Automatic mode On/Off
		Heat recovery On/Off

Note: following a restart, the device switches into the mode last used (blower level, automatic mode, heat recovery)

9.2 Activating and deactivating the keyboard lock (child-proof lock)

- You can lock the buttons on the unit to protect the ventilation unit against third-party attacks or to prevent the unintentional activation of device functions.
- After the keyboard lock has been activated, the ventilation unit can only be controlled via the SIEGENIA Comfort app.

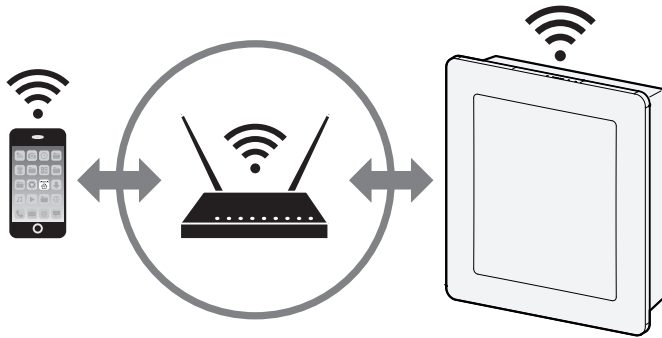
- Select the following key combination to activate and deactivate:



- All LEDs flash for 1-2 seconds following successful activation/deactivation

10 Operation via smartphone or tablet

The AEROVITAL ambience smart DM smart can be controlled by smartphone or tablet and offers additional device functions via the SIEGENIA Comfort app.



10.1 Teaching devices



See enclosed quick start instructions
([H47.MOTS005EN](#))

10.2 Unit functions in the app

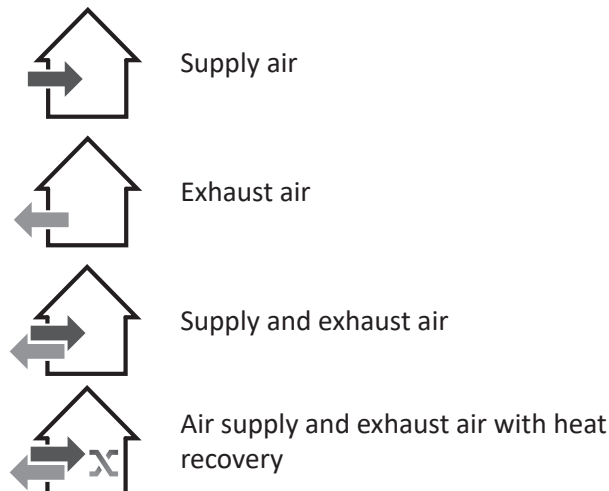
10.2.1 Blower performance

The blower performance can be set manually.

- On application of the automatic mode silent mode or timer, the manually adjusted blower performance is overridden.

10.2.2 Mode of operation

The "mode of operation" function enables different ventilation scenarios.



10.2.3 Automatic mode

For information on the automatic mode, see page „6.1.2 Ventilation in automatic mode“ auf Seite 7.

10.2.4 Silent mode

The silent mode restricts the blower performance, thus overriding all blower levels that are programmed in other functions (e. g. timer). The silent mode can therefore guarantee silent ventilation.

10.2.5 Timer

The timer function enables the adjustment of up to 5 different time programs. The starting and running time as well as weekdays, mode of operation and blower performance can be freely defined according to the programmed timer.

10.2.6 Warning (replace filter)

As soon as a filter replacement is required, this will be indicated as a warning.

10.2.7 Room temperature and air humidity

- The room temperature is indicated in degrees Celsius (°C).
- The air humidity is indicated in percent (%).
- The air quality is indicated in the form of a traffic light:
 - red = bad air quality
 - yellow = mediocre air quality
 - green = good air quality

11 Maintenance

⚠ DANGER

Electrically operated unit

Risk of fatal injury from electric shock or fire

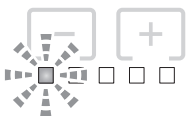
- Switch off the unit and pull the mains plug out of the socket prior to every cleaning process or maintenance work. Never pull at the cable to disconnect the device from the electricity grid.
- for all devices with a fixed connection to the 230 V AC mains power supply, switch off all poles of the feeder. The safety devices must be removed if necessary.

11.1 Cleaning

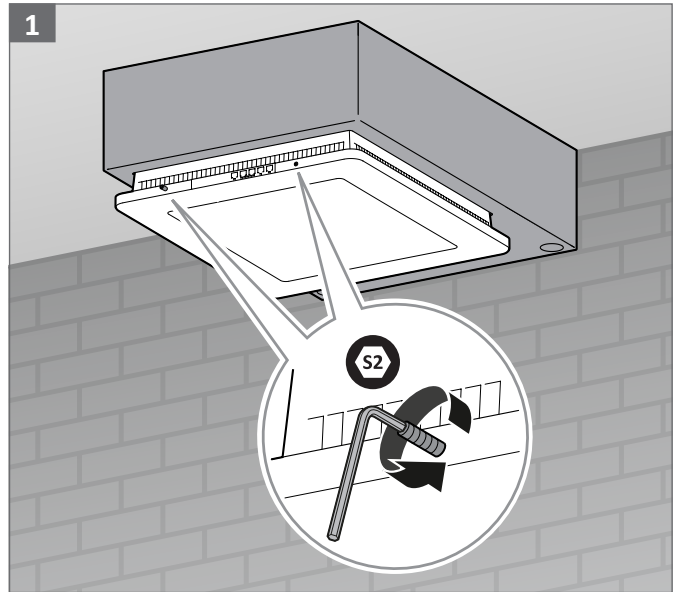
- Important: when cleaning the AEROVITAL ambience smart DM, do not allow liquids to get inside the unit.
- Never use cleaning agents that are aggressive or contain solvents, or sharp-edged objects, as these may damage the surfaces of the casing.
- Never clean the unit with a high-pressure cleaner or steam-jet cleaner.
- Clean the AEROVITAL ambience smart DM with a cloth moistened with a mild soap solution or cleaning agent.

11.2 Replacing the filter

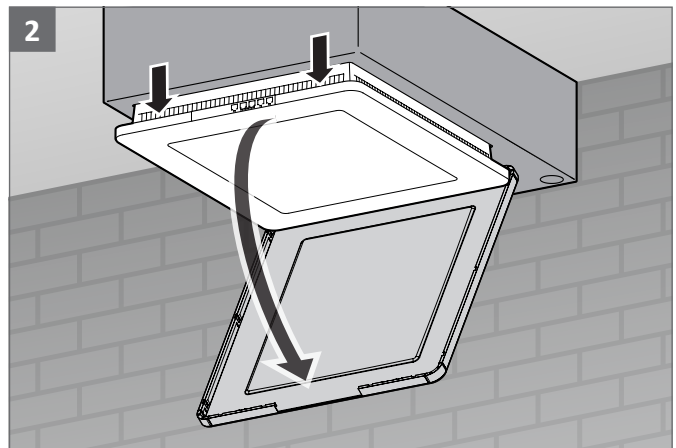
- Replace both exhaust air filters and the supply air filter as soon as the filter change LED flashes.



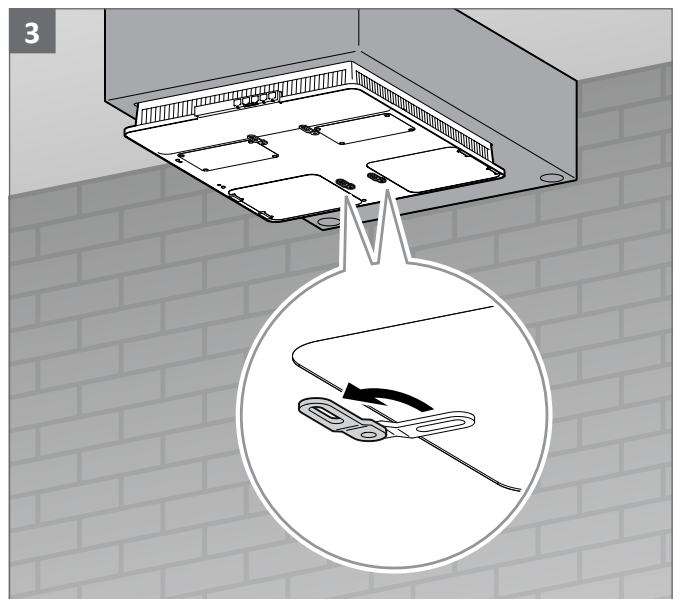
- The filters should be replaced every 12 months, at the latest.
- Only use the original filters from SIEGENIA. You can purchase replacement filters from SIEGENIA or from specialist retailers (see accessories page 15).



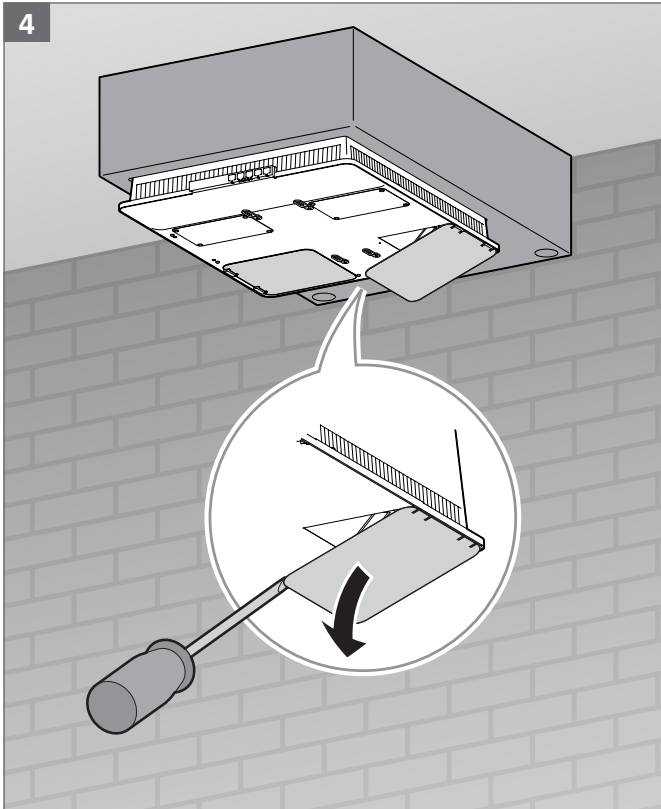
Turn the grub screws approx. 1 cm out of the casing cover



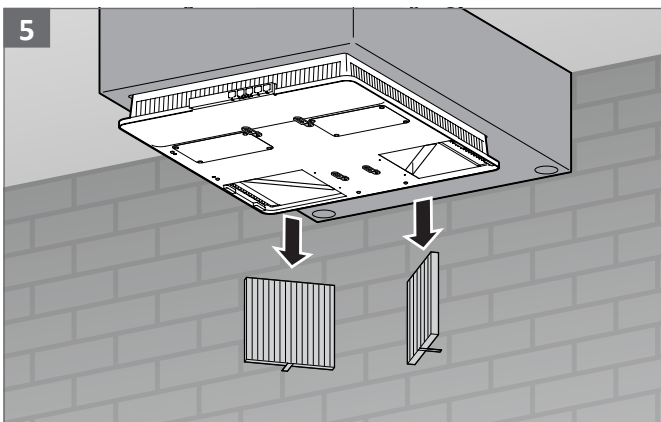
Remove the casing cover



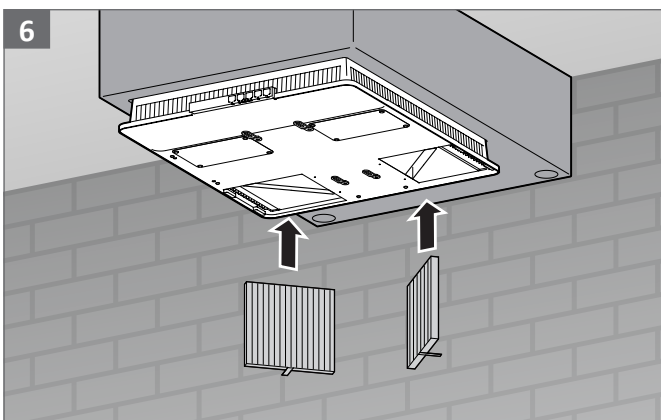
Release the fixing brackets of the bottom cover plate



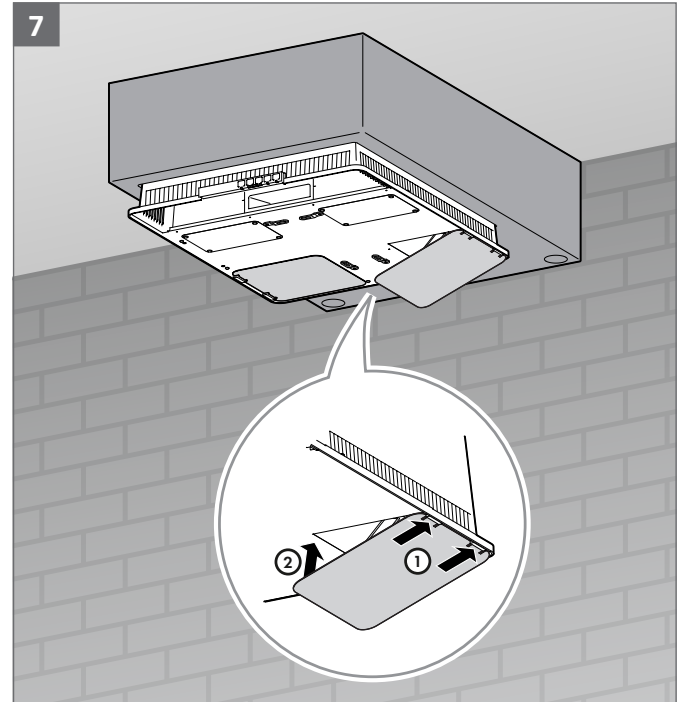
Release and remove the bottom cover plate



Remove the contaminated exhaust air filter (LH and RH)



Insert the clean exhaust air filter (LH and RH)



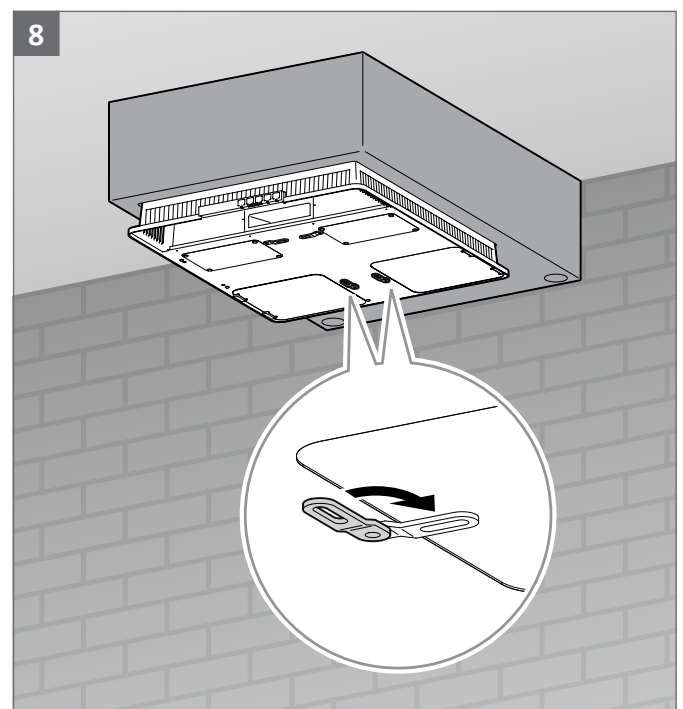
Position the bottom cover plate and press into place

⚠ WARNING

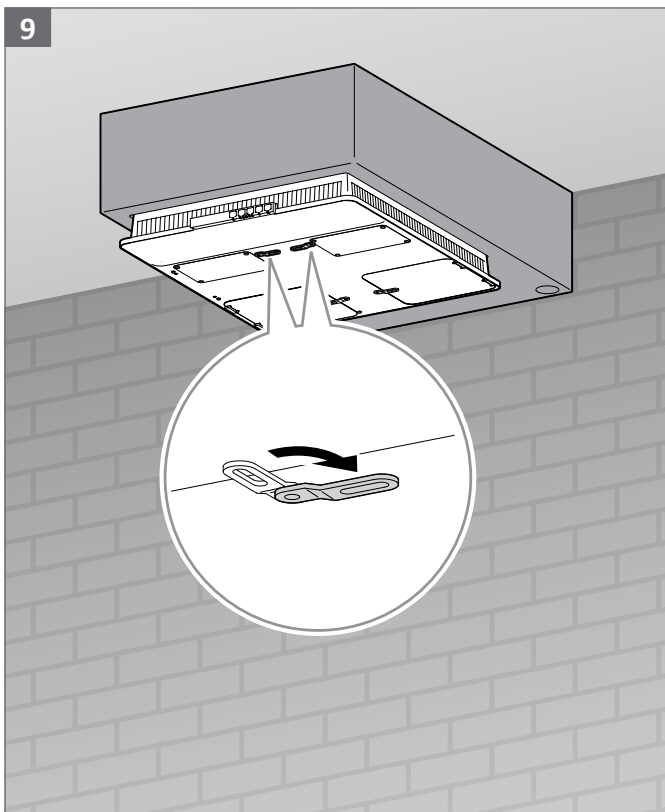
Strong gravitational pull of the magnets

If you are not careful, your fingers or hand could be caught between two plates. This could lead to crushing and bruises.

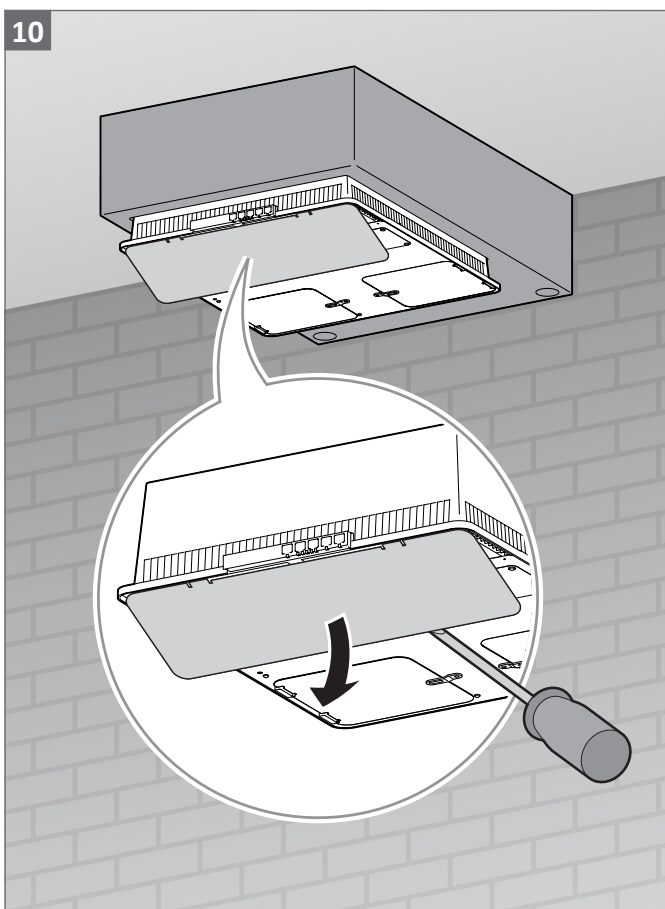
- Proceed with caution.



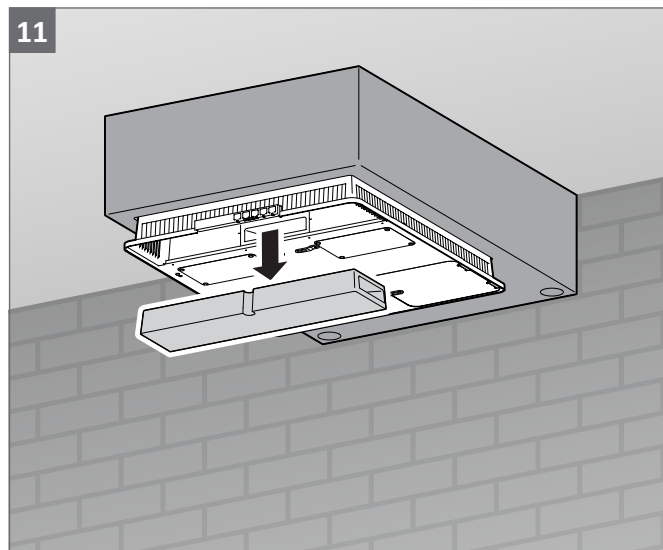
Fix the bottom cover plate with fixing brackets



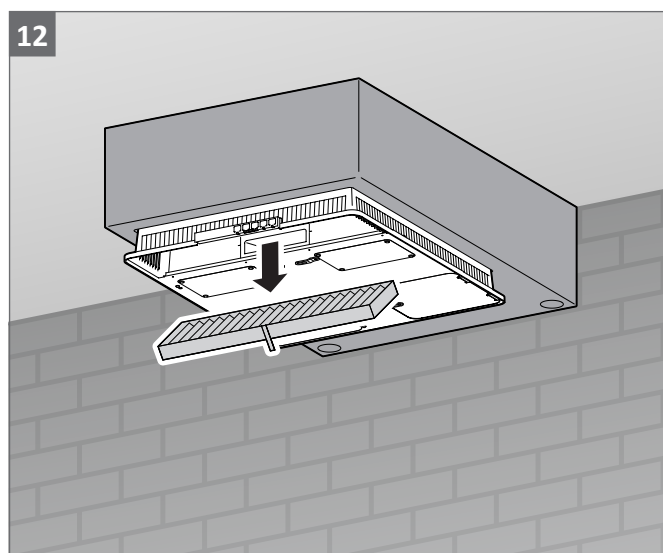
Release the fixing brackets of the top cover plate



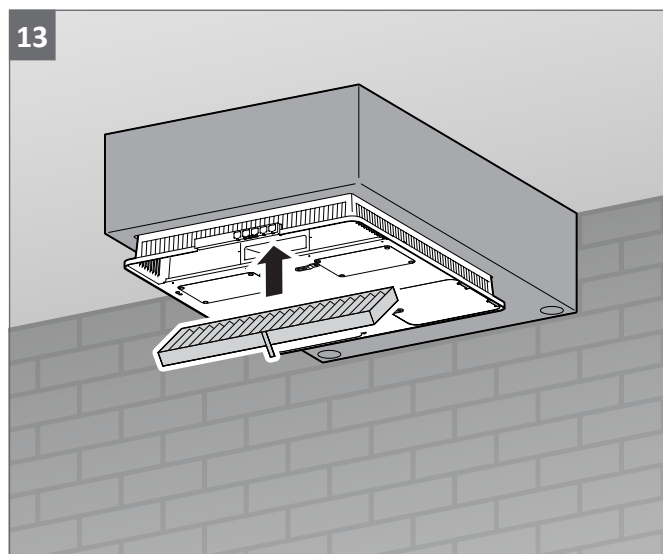
Release and remove the top cover plate



Remove the muffler

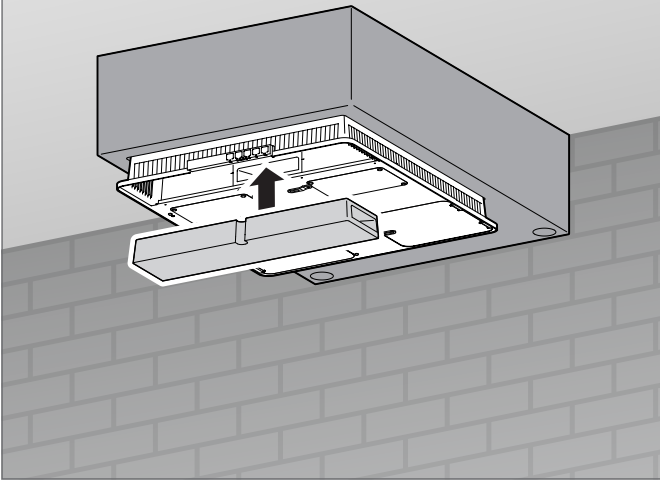


Remove the contaminated supply air filter



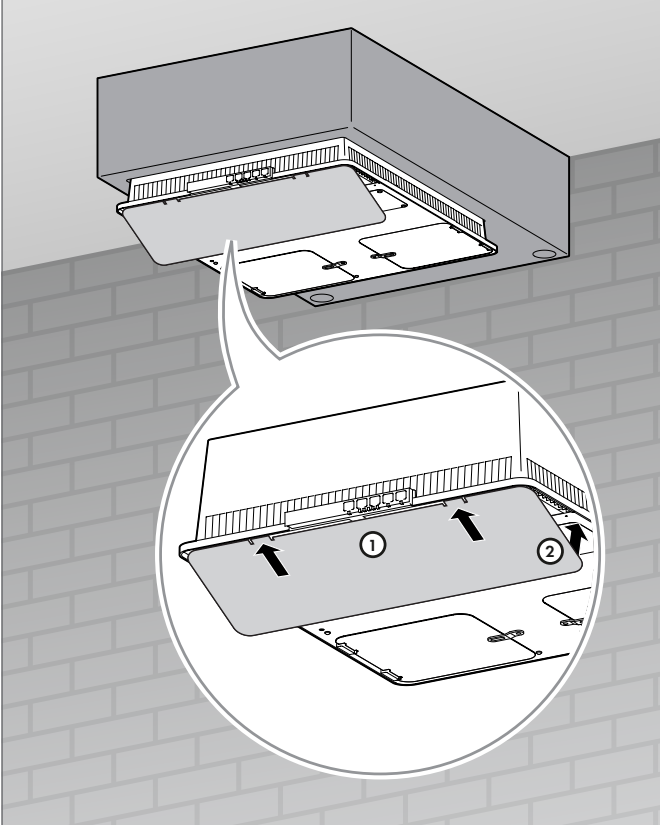
Insert the clean air supply filter

14



Position the muffler in the centre

15



Position the top cover plate and press into place

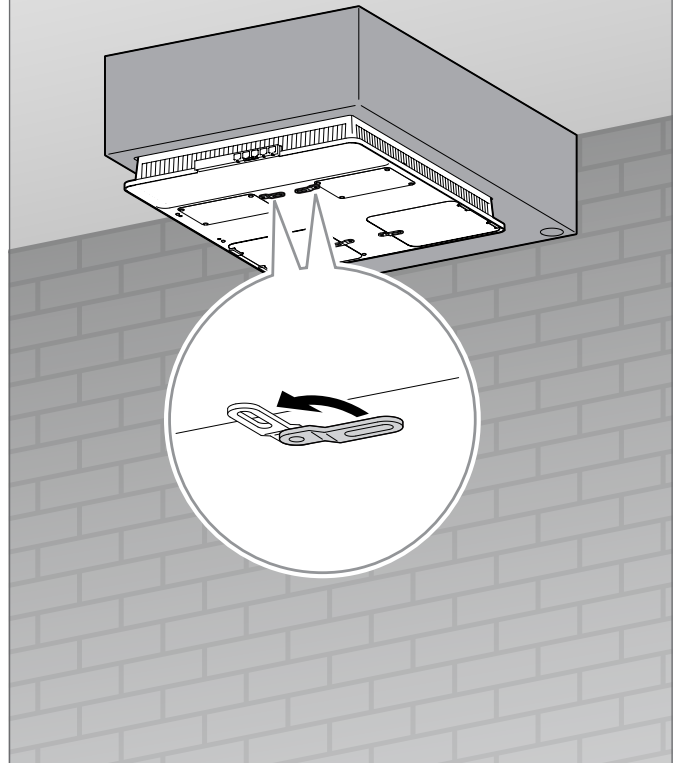
⚠ WARNING

Strong gravitational pull of the magnets

If you are not careful, your fingers or hand could be caught between two plates. This could lead to crushing and bruises.

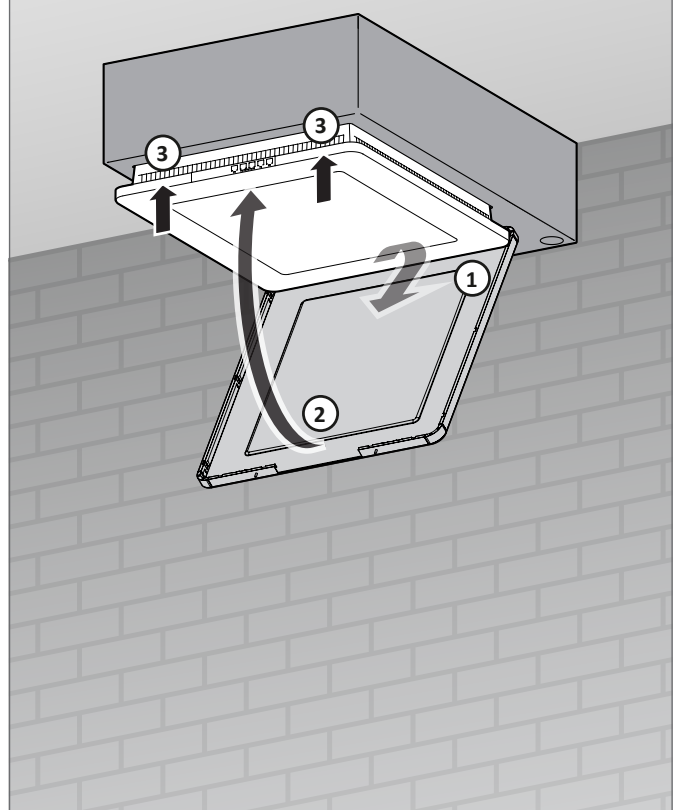
- Proceed with caution.

16

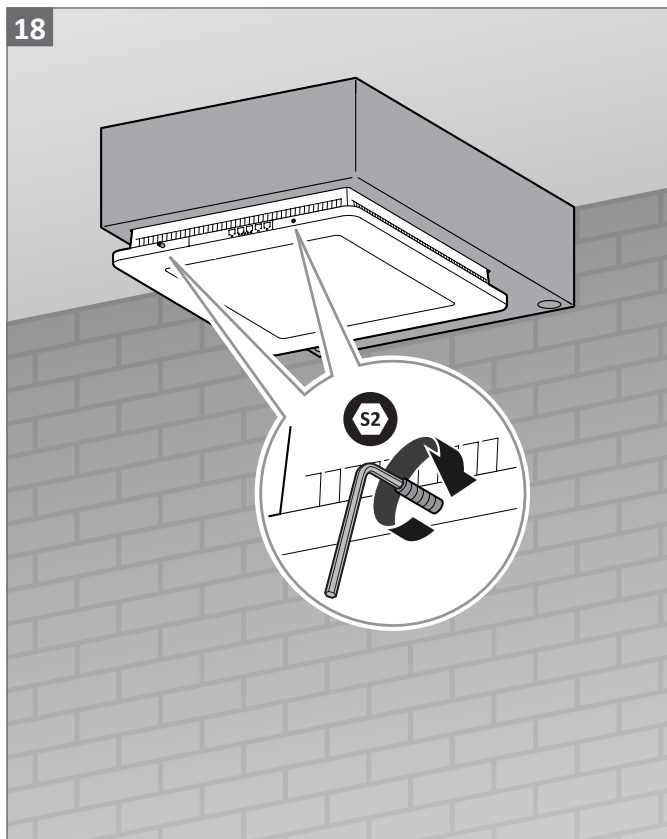


Fix the top cover plate

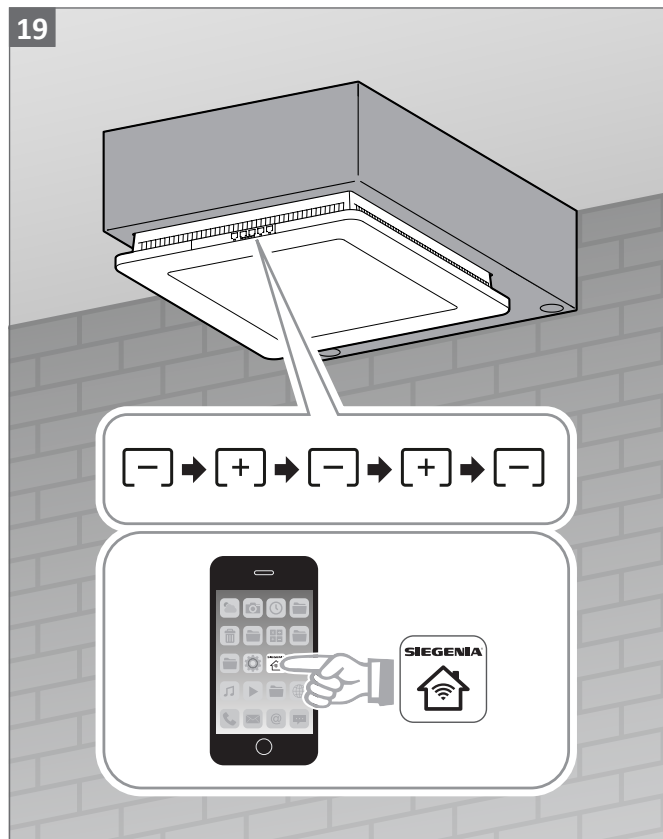
17



Close the casing cover



Tighten the grub screw



The filter change display must be reset after changing the filter.


This is done either using the SIEGENIA Comfort app or by pressing the Minus and Plus buttons alternately

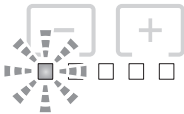
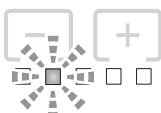
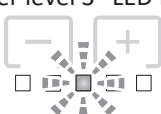
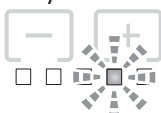
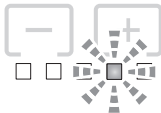
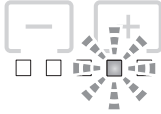
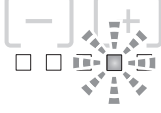
12 Accessories

Material description	material number	Contents
Filter set AEROVITAL ambience	L3130160-093010	1x supply air filter ePM10 50% 2x exhaust air filter ePM10 50%
Filter set NOx ePM10 (for pollen / fine dust / nitrogen dioxide)	L3130150-093010	1x supply air filter NOx ePM10 2x exhaust air filter ePM10 50%

13 Rectification of malfunctions

In case of a malfunction, do not open the unit or try to repair it under any circumstances. If the problem is not listed in the table below, please contact your installation firm or SIEGENIA directly: tel. +49 271 3931-0

Problem	Possible cause	Solution
AEROVITAL ambience smart DM shows no reaction when the button is pressed	Keyboard lock active	Deactivate keyboard lock (see page 9)
	No power supply	Check power supply
	Wiring wrong/defective or cable defective	Have the wiring checked by a qualified electrician
	Power supply defective	Have the supply voltage checked by a qualified electrician
AEROVITAL ambience smart DM does not react to smartphones/ tablets	no WIFI connection to the router of the home network	restart WIFI router of the home network
	no WIFI connection to the smartphone/tablet	restart smartphone/tablet
	No WIFI connection to the AEROVITAL ambience smart DM smart	Reset AEROVITAL ambience smart DM smart: <ol style="list-style-type: none"> 1. Press the On-Off button and Minus button alternately  2. All LEDs light up briefly 3. The AEROVITAL ambience smart DM smart switches to blower level 1 and has been reset to the factory settings.
The outside temperature displayed on the SIEGENIA Comfort App deviates from the actual outside temperature	The temperature sensor is located in the unit interior. Depending on the exterior influences, the displayed temperature can deviate from the actual temperature (e.g. direct sunlight on the facade)	Not necessary

Problem	Possible cause	Solution
“Blower level 1” LED flashes 	Filter soiled	Replace filter (see filter replacement, page 11)
“Blower level 2” LED flashes 	Frost protection control active (Outside temperature below $-15\text{ }^{\circ}\text{C}$)	Once the outside temperature increases above $-13\text{ }^{\circ}\text{C}$ again, the unit switches to the last blower level used.
“Blower level 3” LED flashes 	Condensate protection control active	When the environmental conditions improve, the unit switches to the last blower level used.
“Blower level 4” LED flashes periodically 4 times 	Fault with supply air fan: <ul style="list-style-type: none"> • The ventilation unit switches off 	<ul style="list-style-type: none"> • Disconnect device from power supply • Switch the power supply back on • Contact the Service department if this fault persists
	Fault with exhaust air fan: <ul style="list-style-type: none"> • Blower function limited 	
“Blower level 4” LED flashes periodically 3 times 	Fault with heat recovery system: <ul style="list-style-type: none"> • Heat recovery is deactivated 	
“Blower level 4” LED flashes periodically 2 times 	Fault with the sensors in the supply air stream: <ul style="list-style-type: none"> • Automatic mode limited • Condensate and frost protection control limited 	
“Blower level 4” LED flashes periodically 1 time 	Fault with the sensors in the exhaust air stream: <ul style="list-style-type: none"> • Automatic mode limited • Condensate and frost protection control limited 	

13.1 SIEGENIA Comfort app

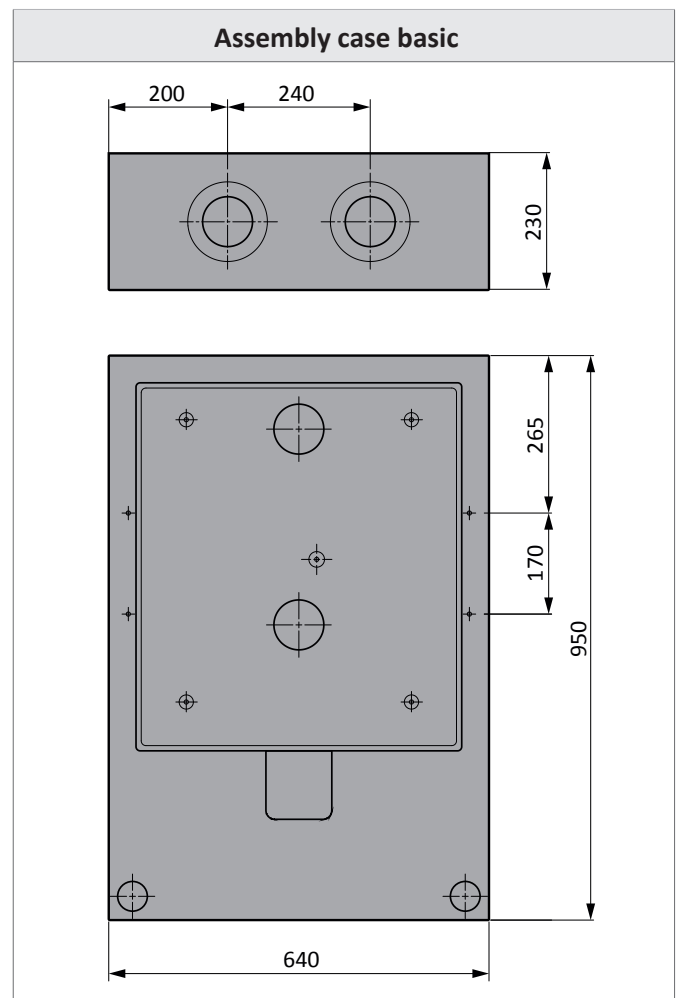
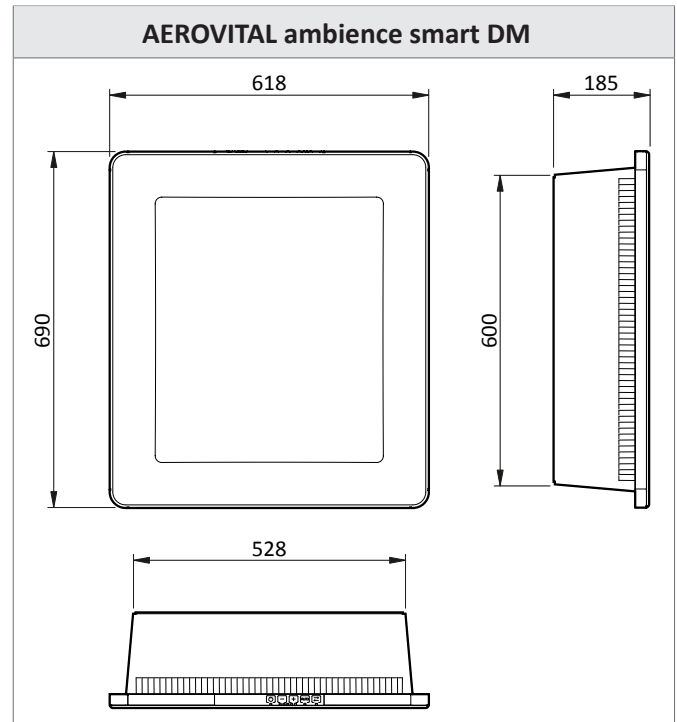
You will find detailed information on operation and on how to rectify malfunctions using the SIEGENIA Comfort app on the SIEGENIA Smarthome Internet page.

<https://smarthome.siegenia.com>



14 Technical specifications

AEROVITAL ambience smart DM	
Inherent noise (measured according to DIN EN ISO 3741 with room insulation of 8 dB)	Level 1 $L_{PA} = 20$ dB (A) Level 2 $L_{PA} = 22$ dB (A) Level 3 $L_{PA} = 25$ dB (A) Level 4 $L_{PA} = 30$ dB (A) Level 5 $L_{PA} = 31$ dB (A)
Air throughput	Level 1 24 m ³ /h Level 2 28 m ³ /h Level 3 41 m ³ /h Level 4 51 m ³ /h Level 5 56 m ³ /h
Power consumption (normal operating mode)	Level 1 6 W Level 2 6 W Level 3 8 W Level 4 11 W Level 5 12 W
Heat recovery efficiency (in accordance with DiBT)	up to 85 %
Sound absorption (in accordance with DIN EN 10140-2)	$D_{n,e,w} = 54$ dB
Sound absorption thanks to sound absorption pipe (measured in accordance with DIN EN 10140-2)	$D_{n,e,w} = 58$ dB
Electrical connection	230 V AC / 0.06 A
Protection class	II
Weight	24 kg
Fresh air filters (supply air and exhaust air filters)	Filter grade ePM10 50%
Admissible utilisation temperature	-15 °C to +40 °C



15 EU Declaration of Conformity with regard to CE marking

For our product **AEROVITAL ambience smart DM**, we confirm that the general safety of the defined product, in accordance with Directive **2001/95/EC**, is compliant with the relevant protection requirements which are laid down in the Council Directives about electrical and electronic products.

The following listed test standards, which are harmonised in the relevant directives, have been employed for the evaluation:

- a) **2014/30/EC EMC Directive**
 - EN 55014-1:2006+A1:2009+A2:2011
 - EN 55014-2:1997+A1:2001+A2:2008
 - EN 61000-3-2:2014
 - EN 61000-3-3:2013

- b) **2014/35/EC Low voltage directive**
 - EN 60335-1:2012+A11:2014
 - EN 62233:2008


- c) **2014/53/EC RED Directive**
 - c1) Electromagnetic compatibility:
 - EN 301489-1, V.1.9.2
 - EN 301 489-17, V.2.2.1
 - EN 61000-3-2:2014
 - EN 61000-3-3:2013
 - c2) Electrical safety - Establishment of information technology
 - EN 60950-1:2006+A11:2009+A12:2011+A1:2010+A2:2013
 - c3) Safety of persons in electromagnetic fields (10 MHz to 300 GHz)
 - EN 62479:2010
 - c4) Radio spectrum matters - data transmission devices in the 2.4 GHz ISM band
 - EN 300 328 V1.9.1

- d) **2006/42/EC Machinery Directive**
 - EN 12100:2010 Risk assessment

- e) **2011/65/EU RoHs**
 - EN 50581:2012 Technical documentation on the evaluation of electrical and electronic devices with reference to the restriction of hazardous substances

This declaration is responsible for the producers / importers based in the European Union submitted by:

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