get Air®

The future of home ventilation

SmartFan

Installation and operating instructions

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EN

getAir GmbH & Co. KG

Krefelder Straße 670 | D-41066 Mönchengladbach
T +49 2161 990 950 | F +49 2161 990 959 9
info@getair.eu | www.getair.eu

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1 General remarks

Though its contents have been checked for consistency with the described hard- and software, deviations cannot be ruled out, meaning that no guarantee of complete consistency can be given.

This documentation is updated on a regular basis. Necessary corrections and useful addenda will always be included in subsequent versions.

They are also available at **www.getair.eu**.

1.1 Usage

The SmartFan is intended for use in the controlled ventilation of rooms in houses, apartments, hotels, office and public buildings. It can be installed either in new buildings or in existing buildings undergoing refurbishment and/or modernisation. SmartFan usage is authorised solely in accordance with the described use cases and only in association with components recommended by getAir GmbH & Co. KG and listed in this document. Other SmartFan usages are not permitted. The system is unsuitable for extracting smoke or drying buildings, for rooms containing aggressive and/or caustic gases or extreme levels of dust.

To guarantee the fault-free and safe use of the system, it is vital to ensure appropriate transport and storage, professional planning and installation, as well as proper operation and maintenance. Modifications and reconfigurations of the unit / system are not permitted.

Before starting installation, the project needs to have been planned properly, detailing the number and positioning of the ventilation units and their associated controls, and the ventilation principle applied (cross-ventilation, single room ventilation, air extraction).

During planning, installation and operation, all relevant requirements, building and fire protection regulations and accident prevention regulations are to be complied with. In the planning phase, details need to be checked with the respective chimney sweep or ventilation expert.

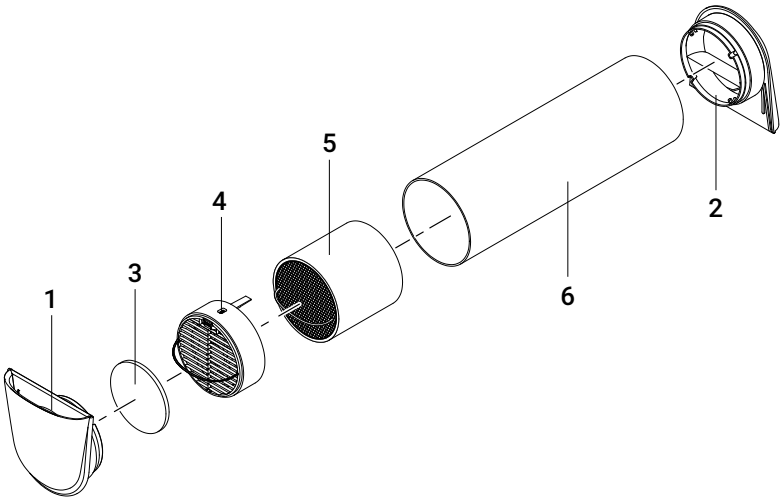
1.2 Safety information

Attention is to be paid to the safety information contained in these instructions for installing and operating the control unit. Before any work is carried out on the unit / system, the instructions and safety information are to be read carefully in full. Non-compliance with the safety information can lead to harm/damage to persons and/or equipment.
Assembly, electrical installation and system start-up should only be performed by skilled persons. These are people with relevant safety training and qualified to install, commission and label equipment, systems and cabling in accordance with current safety standards.

The following list contains descriptions of the symbols and terms used in these instructions:

Hazard symbol		Caution	This hazard symbol warns about the danger of injury.
		Electricity	This hazard symbol warns about the danger of electrocution.
Warning symbol		Please note	This warning symbol indicates important information.

2 System overview

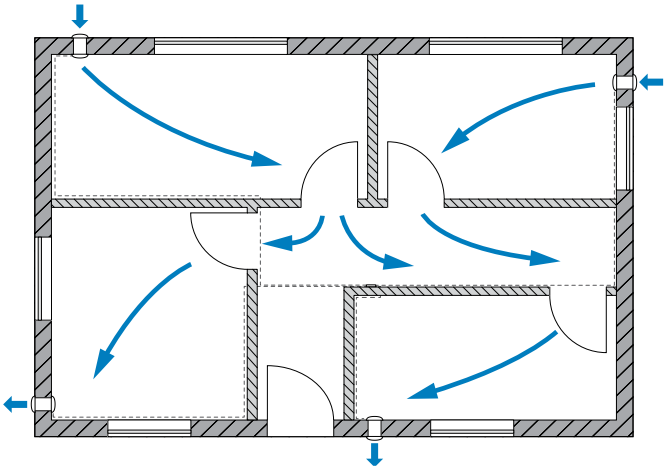


The SmartFan consists of acoustically optimised designer covers for inside (1) and outside (2) allowing an optimal airflow, a filter unit (3), a fan unit (4), a heat exchanger unit (5) and an mounting tube (6). The SmartFan is always installed in an outside wall. The mounting tube into which the fan and heat exchanger units are inserted is sealed inside the wall. The inside and outside covers can be fitted without tools. They constitute the finishing elements of the system and ensure optimal airflow, thereby guaranteeing more efficient ventilation.

2.1 Functioning

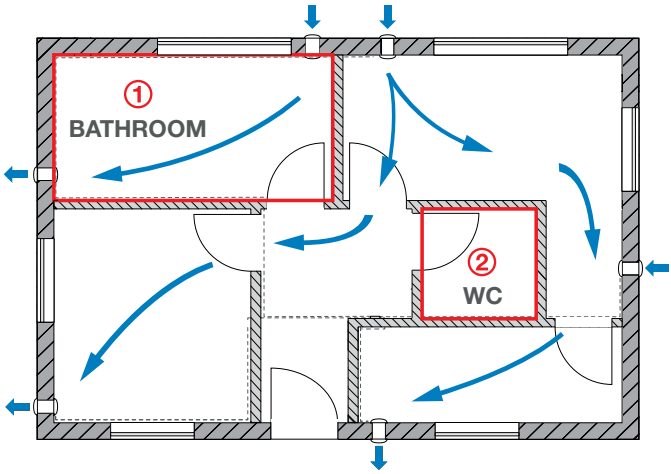
Wherever possible, SmartFans should be operated in pairs, i.e. with one unit blowing in fresh air and the other expelling spent air. The units change direction concurrently after 50 - 70 seconds (depending on the selected fan speed). This allows a room to be properly aired, balancing air inflow and outflow in accordance with DIN 1946-6. The integrated heat exchanger extracts and stores heat from the outflowing air. When the direction changes and fresh air is sucked in, it is warmed by flowing over the heat exchanger. In doing so, the SmartFan achieves a heat recovery rate of 91%.

Example of optimal ventilation



TO ENSURE PROPER VENTILATION THROUGHOUT A BUILDING (I.E. NOT JUST IN ONE ROOM) IT IS IMPORTANT TO FORESEE FURTHER SUITABLE VENTILATION OPENINGS, FOR INSTANCE SPACE UNDER DOORS (CA. 15 - 20 MM) OR THE USE OF VENTILATION GRILLES.

Example for wet rooms

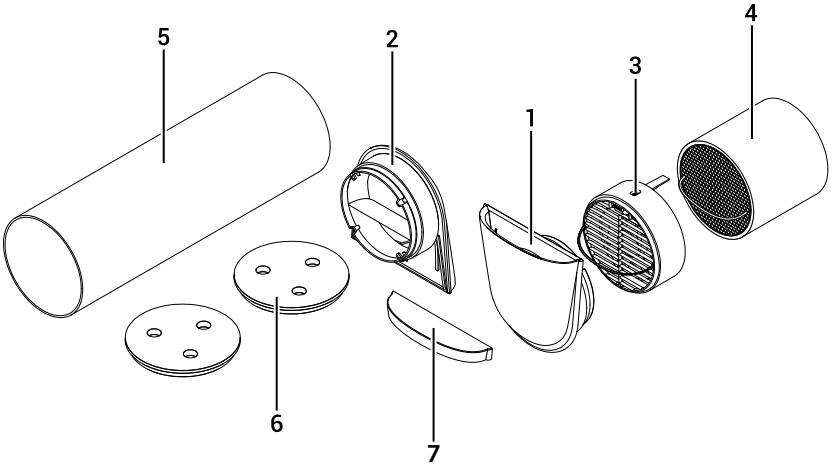


GENERALLY SPEAKING, WET ROOMS REQUIRE (1) TWO UNITS TO BE INSTALLED, AND (2) PRECAUTIONS TO BE TAKEN THAT WET ROOM AIR DOES NOT MIX WITH THE AIR OF OTHER ROOMS. THIS SYSTEM IS NOT SUITABLE FOR WET ROOMS WITH NO OUTSIDE WALL.

3 Installation preparations

Before starting installation, please check that all components are present, as otherwise it will not be possible to complete the installation.

3.1 SmartFan components

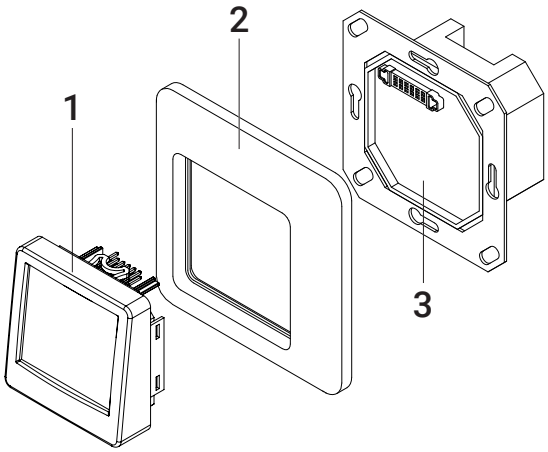


Article name	Item	Content	Numbers
Full SmartFan set	1	SmartFan inside cover + dust filter	1
	2	SmartFan outside cover	1
	3	SmartFan fan unit	1
	4	SmartFan heat exchanger unit	1
	5	Mounting tube 500 mm	1
	6	Plastering covers	2
	7	SmartFan cap for the inside cover	1

Article name	Item	Content	Numbers
SmartFan building shell set	2	SmartFan outside cover	1
	5	Mounting tube 500 mm	1
	6	Plastering covers	2

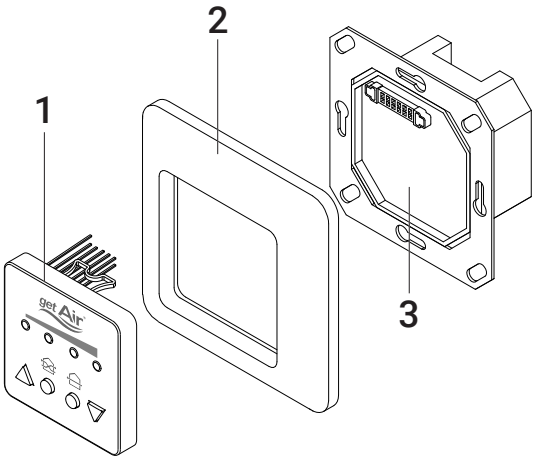
Article name	Item	Content	Numbers
SmartFan finishing set	1	SmartFan inside cover + dust filter	1
	3	SmartFan fan unit	1
	4	SmartFan heat exchanger unit	1
	7	SmartFan cap for the inside cover	1

3.2 TOUCH control unit components



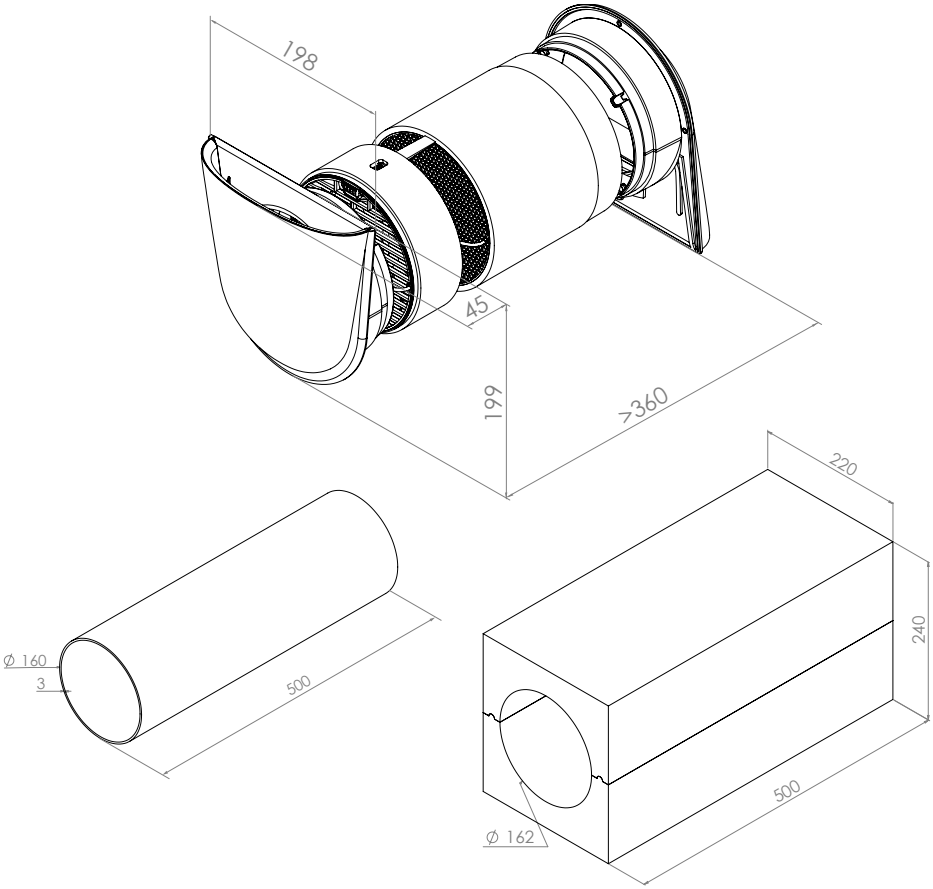
Article name	Item	Content	Numbers
TOUCH control unit	1	TOUCH control screen	1
	2	Frame	1
	3	Control base	1

3.3 LED control unit components



Article name	Item	Content	Numbers
LED control unit	1	LED control panel	1
	2	Frame	1
	3	Control base	1

3.4 Dimensions



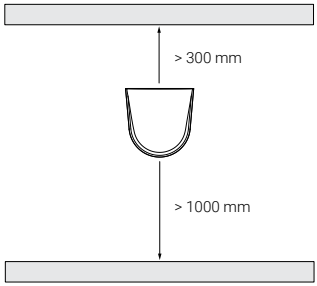
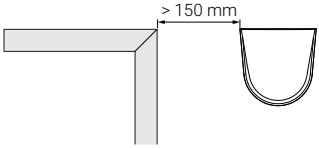
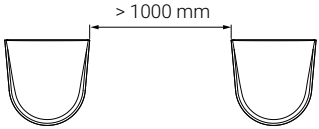
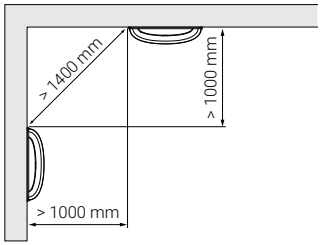
3.5 Required tools

The following equipment is needed to install the SmartFan:

- Core drill with a Ø 162 mm bit
- Sabre saw for sawing plastic
- Mounting adhesive / sealant to fix the mounting tube in place
- 2.5 mm slot screwdriver
- Hammer and chisel for cable ducts / slits
- Deep pattress box for flush mounting
  (single or double, dependent on the choice of installation)

3.6 Positioning

The best position for the SmartFan is determined in the project planning phase. Please pay attention to the minimum distances, as otherwise no guarantee can be given that the units will function properly.

Minimum distance to the ceiling and floor	 The minimum distance to the ceiling must not be less than 300 mm, and to the floor not less than 1000 mm.
Minimum distance to other objects (e.g. windows or doors) or walls	 The distance to other building elements such as windows, doors or other walls should be at least 150 mm, both inside and outside.
Minimum distance between two SmartFan units on the same wall	 The distance between two units, whether horizontally or vertically, should not be less than 1000 mm.
Minimum distance between two SmartFan units installed on two neighbouring walls	 When installing units on neighbouringwalls, make sure that each unit is at least 1000 mm away from the other wall. In addition, the diagonal distance between the two units must not be less than 1400 mm.

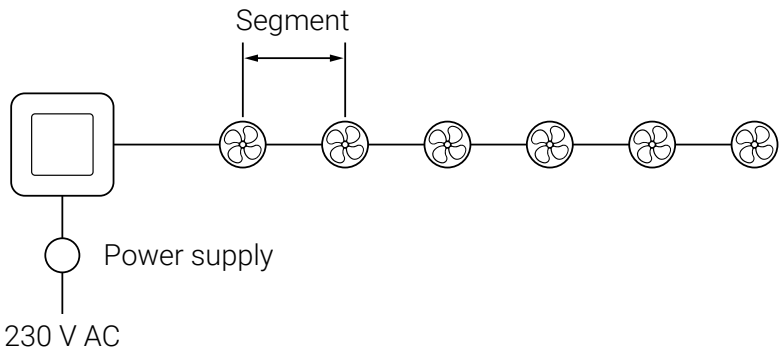
4 Electrical installation

The SmartFan home ventilation system can only be used in conjunction with a TOUCH or LED control unit.

The SmartFan is controlled via a BUS system, meaning that all units can be connected to the control unit individually or serially. The control unit can be installed anywhere within a home's electrical system. BUS signals can travel a maximum distance of 1000 m. 4-pole cables must be used, whereby LiYY cables are recommended.

The control unit's socket is equipped with two rows of ports. Each can be used to connect one series of SmartFan units. Should several series need to be connected, the bottom (larger) row of ports or screw terminals can be used.

Example of the wiring of six SmartFans



The following table serves as a guide, showing the maximum length per segment (cable length between two units) to ensure adequate supply voltage.

Cable diameter	Segment length
0,25 mm²	40 m
0,5 mm²	70 m
0,75 mm²	100 m

One power supply can serve up to six units. Once you exceed six SmartFan units, you will need to install a further power supply unit. Further power supply units may also be connected directly to the control unit. However, when distances are long, these should be installed as far away as possible from the first power supply. Care should be taking when doing the wiring, as a false connection of the +42 V and earth cables can damage the power supply units.

PLEASE NOTE: THE SMARTFAN FAN UNITS HAVE AN INTERNAL VOLTAGE CONVERTER WHICH CONVERTS THE 42V INPUT VOLTAGE TO 12V.

4.1 Installation recommendations for the control unit

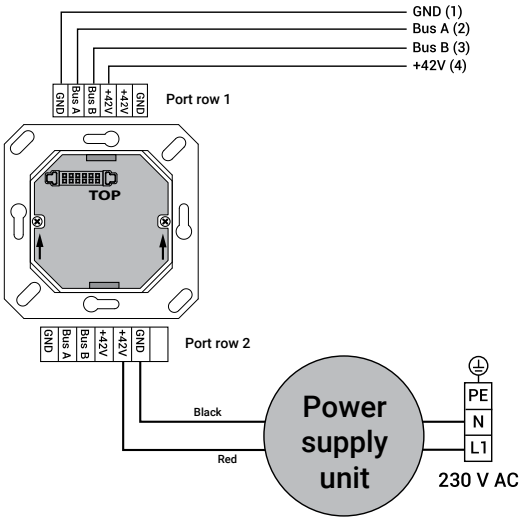
Install the control units at standard wall height. Both the TOUCH and LED control units can be installed using a pattress box. The power supply can also be installed in the box.

THE INSTALLATION IS TO BE DONE IN SUCH A WAY THAT THE 42V OUTPUT CABLE AND THE 230V INPUT CABLE ARE NOT ON THE SAME SIDE OF THE POWER SUPPLY UNIT.

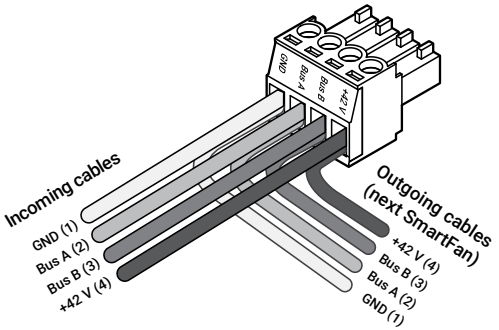
To avoid the use of a pattress box, you may also use a DIN Rail terminal box. However, such a power supply requires a further cable duct for the cable to the fuse box.

4.2 Connection and wiring

All electrical work must be performed by a qualified electrician. Make sure that all wiring is done correctly.

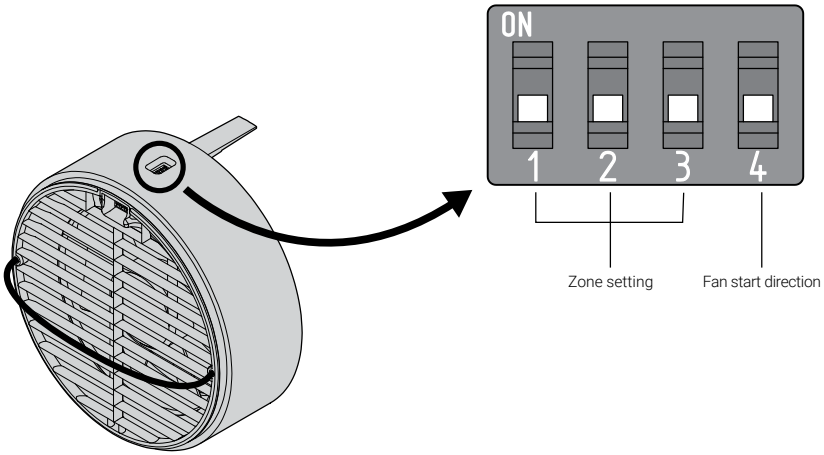


When connecting the control unit to the SmartFan unit, a 4-pin 3.50 mm connector plug must be mounted on the cable. The connector must be wired as shown below. When connecting the plug to the fan unit holder, the screws should point downwards. When continuing the cable to a further SmartFan unit, the colours of the input and output wires in the selected plug openings must match each other.



INCORRECT WIRING CAN CAUSE DAMAGE TO THE FAN UNIT.

4.3 Setting the DIP switch



SmartFan fan units are equipped with a DIP switch on the top. During installation, the required zone and initial direction need to be set. Switches 1 - 3 are used to assign a unit to one of the three zones available.

Using this mechanism, individual SmartFan units can be assigned to specific rooms and separately controlled via the TOUCH controls. Each SmartFan unit can only belong to one zone. The fourth DIP switch sets the SmartFan's initial direction, determining whether the unit inputs air into a room at the beginning of a heat recovery interval (Switch 4 pointing down) or expels air (Switch 4 up) When installing SmartFan units in pairs, the SmartFan units must be assigned properly to achieve constant ventilation. Configure the units in such a way that the same number of SmartFan units are assigned to each direction.

THOUGH THE LED CONTROL UNIT DOES NOT SUPPORT ZONE CONTROLS. THE INITIAL DIRECTION OF THE FAN (SWITCH 4) MUST STILL BE SET.

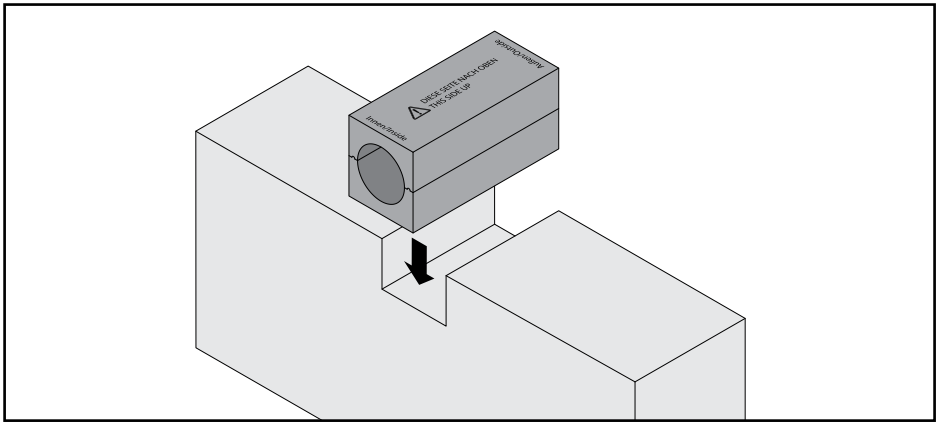
5 Installation

PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION.

5.1 Making the hole in the wall

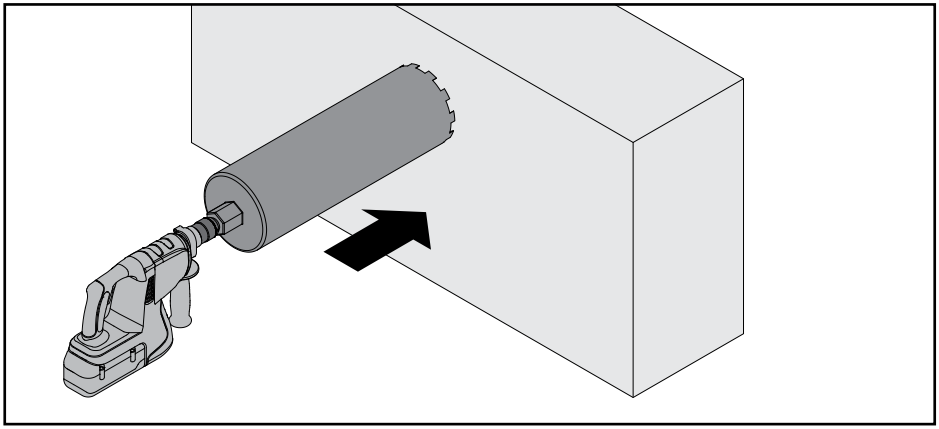
DEPENDING ON HOW THE UNIT IS TO BE INSTALLED PLEASE FOLLOW EITHER THE INSTRUCTIONS FOR THE USE OF AN PREFABRICATED INSTALLATION BLOCK OR FOR CORE-DRILLING A HOLE THROUGH THE WALL.

5.1.1 Use of a prefabricated installation block

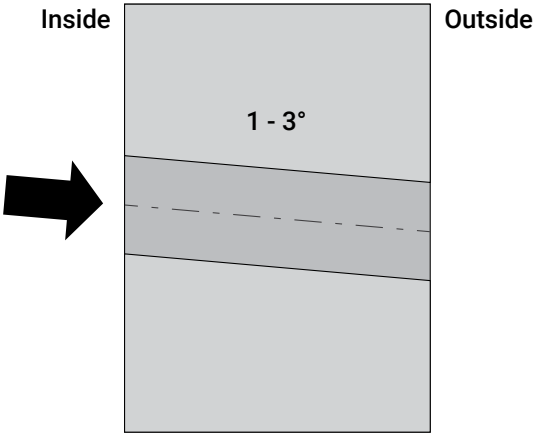


Insert the pre-fabricated Neopor® installation block into the wall, following the instructions for its installation. The hole must point downwards to the outside. Cut of any protruding material so that the block is flush with the wall.

5.1.2 Core-drilling a hole through the wall



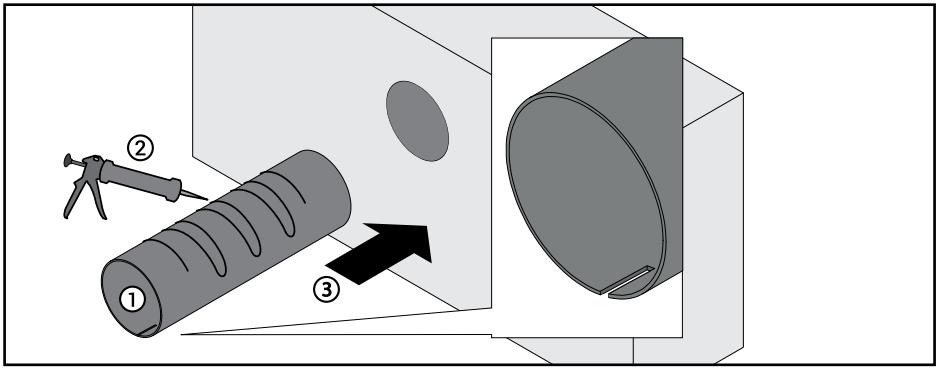
Core-drill a hole in the outside wall using a 162 mm bit. The hole must have a gradient of 1 – 3°, allowing any condensate to flow outwards. It is best to drill the hole from inside to outside.



WHEN CORE DRILLING, PLEASE MAKE SURE THAT THERE IS ADEQUATE PROTECTION FROM FALLING MASONRY ON THE OUTSIDE OF THE BUILDING, ENSURING THAT NO PERSON OR MATERIAL WILL BE HARMED/DAMAGED.

5.2 Inserting the mounting tube

WHEN USING A NON-REGULAR SMARTFAN VERSION, PLEASE REFER TO ITS SPECIFIC INSTRUCTIONS.



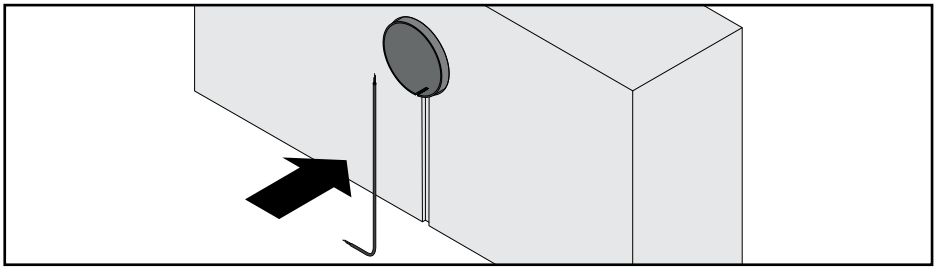
Measure the thickness of the wall. Should any plastering still need to be done, allow for plaster thickness when shortening the mounting tube. Shorten the mounting tube using a sabre saw in such a way that the mounting tube ends are flush with both inside and outside walls. Cut one or two slits (each ca. 10mm wide and 30mm long) into the mounting tube on the indoor side (1). These are required for the incoming data cable (and possibly for a cable to the next fan when serially installed). When using cables with a larger diameter or when linking several SmartFan units together, the slit will need to be wider.
Coat the outside of the mounting tube with the sealant (2) and insert it into the core-drilled hole (3). Pay attention to how long the sealant needs to dry. Proceed to the next step.

MAKE SURE THAT THE MOUNTING TUBE IS PROPERLY SEALED INTO THE WALL BEFORE BEGINNING WITH THE NEXT STEP.

WHEN USING A METAL HOOD ON THE OUTSIDE WALL, THE MOUNTING TUBE MUST NOT BE FLUSH WITH THE OUTSIDE WALL, BUT MUST PROTRUDE CA. 5 MM TO ALLOW ANY CONDENSATE TO DRAIN OFF.

INSERT THE PLASTERING COVERS INTO THE MOUNTING TUBE. ONLY CONTINUE INSTALLATION WORK ONCE ALL BUILDING WORK HAS BEEN COMPLETED.

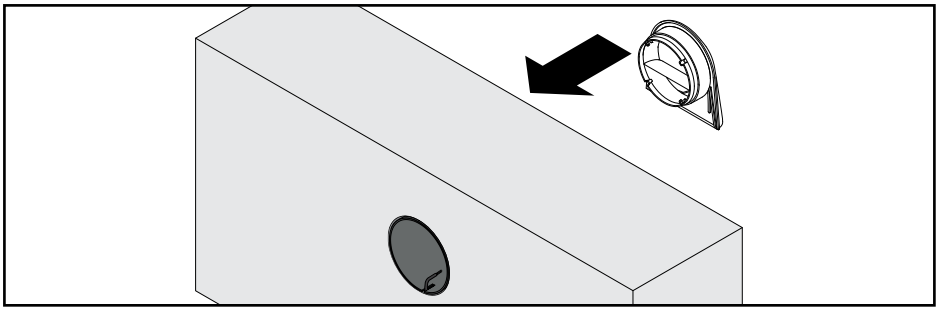
5.3 Cabling



THE LENGTH OF THE CABLE IN THE MOUNTING TUBE IS DEPENDENT ON STRUCTURAL CONDITIONS. MAKE SURE THAT THE FAN UNIT CAN BE EASILY CONNECTED UP AND THAT THE CABLE DOES NOT UNNECESSARILY BLOCK THE AIRFLOW.

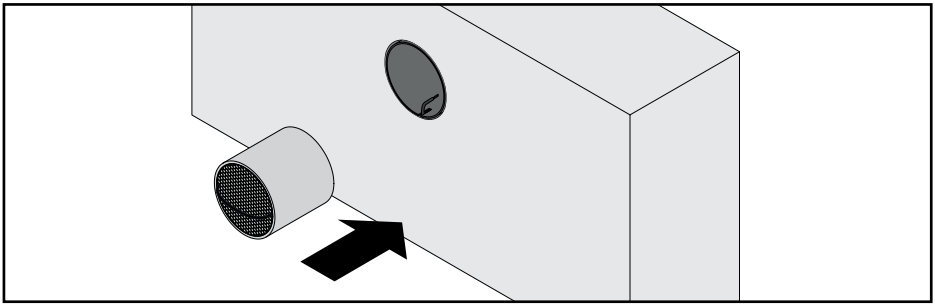
Use slits in the wall or cable ducts to lead the cables to the hole in the wall. Make sure that the length of the cable in the mounting tube corresponds to the thickness of the wall minus 150 mm. Wire the plug for connecting up the fan unit (see Electrical installation). Should cables with a diameter > 6.1 mm be used, the top layer of insulation will need to be removed to prevent problems with the further installation.

5.4 Installing the outside cover



Once all work on the building's facade has been finished, the outside cover can be installed. Remove the plastering cover and insert the outside cover into the mounting tube. Make sure that the outside cover is straight and points downwards (the air vent at the bottom). Due to the special mounting slats, the outside cover can be installed without any tools and sits tight in the mounting tube.

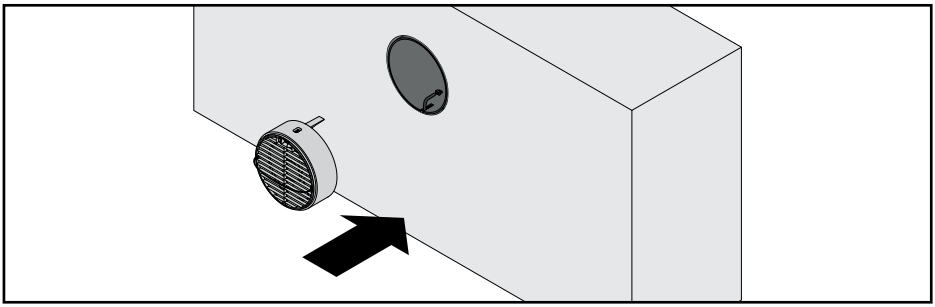
5.5 Installing the heat exchanger unit



Once all work on the inside wall has been completed and the outside cover installed, the heat exchanger unit can be installed. The exchanger is inserted with the insect filter facing the outside. Push the unit carefully into the mounting tube until it touches the rim of the outside cover.

THE STRAP MUST POINT INWARDS (TOWARDS THE ROOM), ALLOWING THE HEAT EXCHANGER TO BE REMOVED FOR MAINTENANCE.

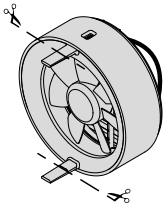
5.6 Installing the fan unit



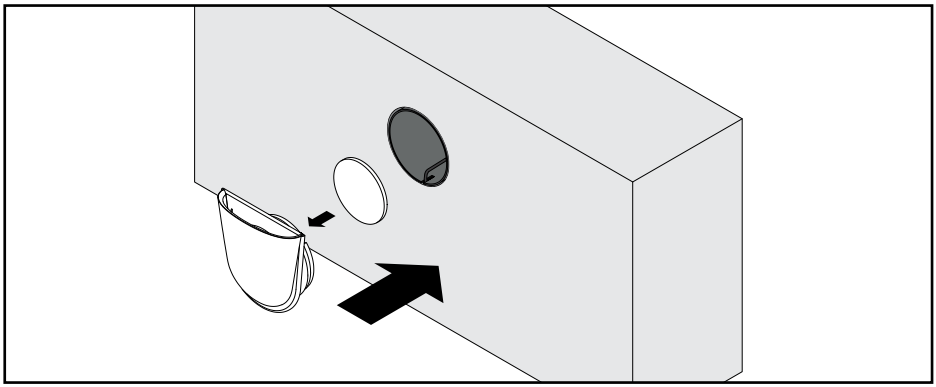
Once the heat exchanger has been installed, the fan unit is then inserted. Set the DIP switches on the fan unit for the desired zone and initial fan direction (see Electrical installation). Mark the settings of the switch on the corresponding sticker.

Make sure that the fan unit sits properly in the mounting tube and that the electrical control baseis on top. Connect the power cable to the fan unit and insert the unit carefully into the mounting tube until the spacers touch the heat exchanger.

WHEN THE WALL IS THINNER THAN RECOMMENDED, THE SPACERS ON THE FAN UNIT CAN BE SHORTED BY UP TO 25 MM AT THE CORRESPONDING MARKINGS. IF THIS IS NOT POSSIBLE, THEN AN OUTSIDE METAL HOOD WILL BE NEEDED.



5.7 Inserting the inside cover



Once all work inside the building has been completed, the inside cover can be installed. Place the filter unit in the slots for the filter inside the cover. Insert the cover into the mounting tube, making sure that the air vent points upwards and that the cover sits tightly.

THE UNITS MUST HAVE A FILTER INSERTED BEFORE BEING TURNED ON FOR THE FIRST TIME.

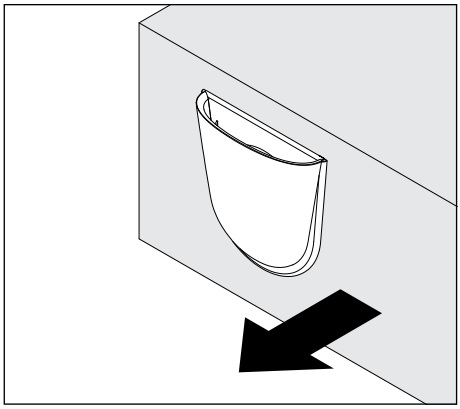
6 Operating the system

6.1 SmartFan

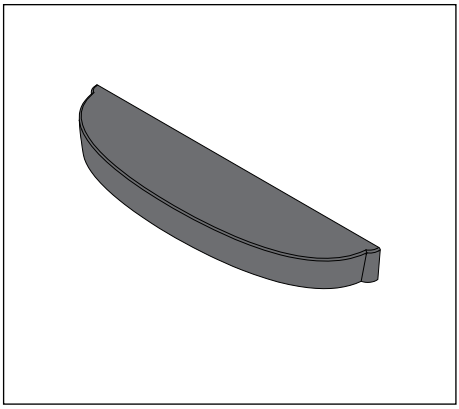
The inside cover can be shut, should you not use the system over a longer period or should you want to prevent smoke for instance entering the room.

WHEN IN USE, THE INSIDE COVER MUST BE OPEN!

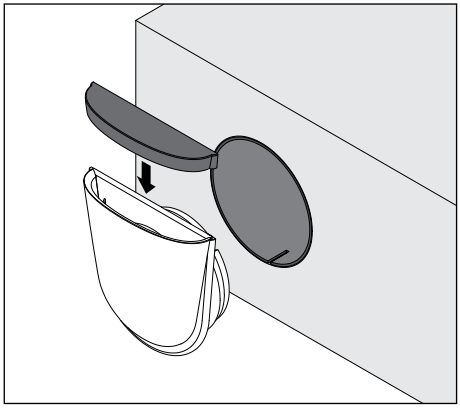
6.1.1 Shutting the inside cover



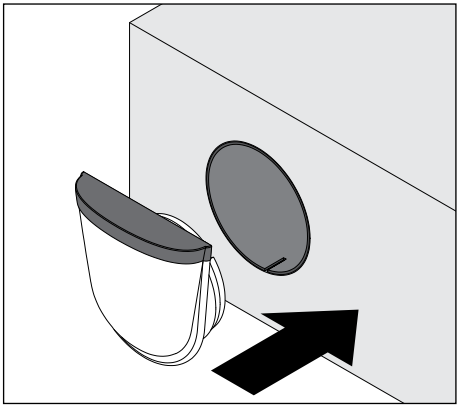
Step 1: Pull the inside cover out of the mounting tube.



Step 2: Use the cap supplied with each SmartFan.

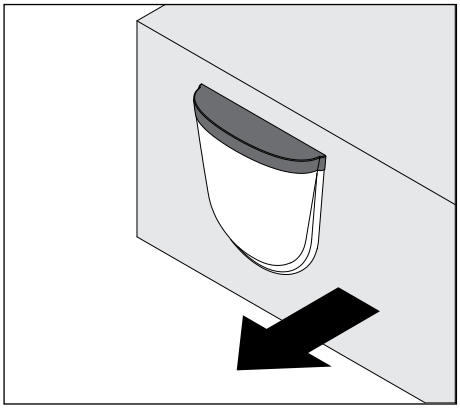


Step 3: Place the cap over the air intake. Make sure that the cap fits tightly and completely closes the air intake.

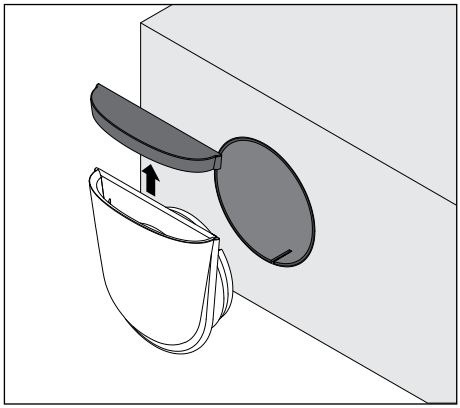


Step 4: Re-insert the inside cover into the mounting tube.

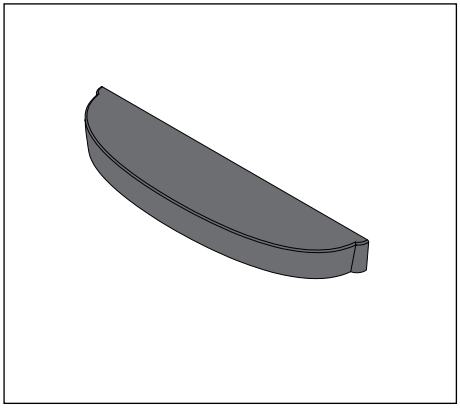
6.1.2 Opening the inside cover



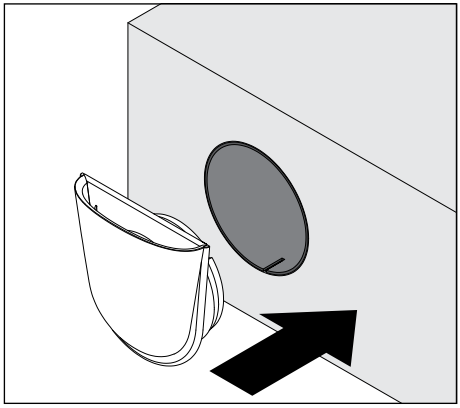
Step 1: Pull the inside cover out of the mounting tube.



Step 2: Remove the cap from the air intake.



Step 3: Store the cap in a safe and easily accessible place.

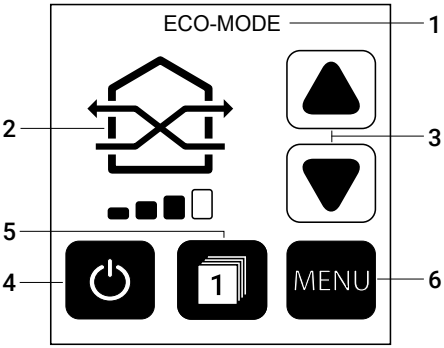


Step 4: Carefully reinsert the inside cover into the mounting tube.

6.2 TOUCH control unit

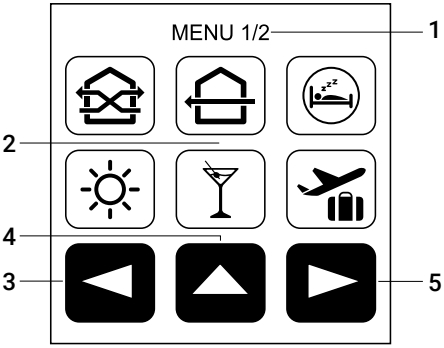
6.2.1 Control screens

Start screen



1	Information line	Shows the current menu item or the active mode.
2	Active mode	The icon shows the active mode and the selected fan speed.
3	Fan speed	Increases/decreases the fan speed.
4	On / off	Starts/stops the system.
5	Zone selection	Shows the currently selected zone.
6	Menu	Opens the menu.

Menu screen

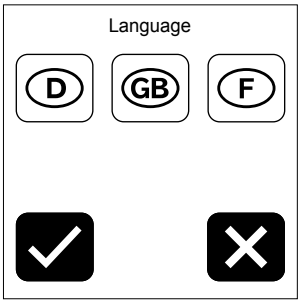


1	Information line	Shows the current menu item.
2	Selection area	Activates different operating modes or further menu items.
3	Last menu page	Takes you back to the previous menu page.
4	Home	Takes you to the start screen.
5	Next menu page	Takes you to the next menu page.

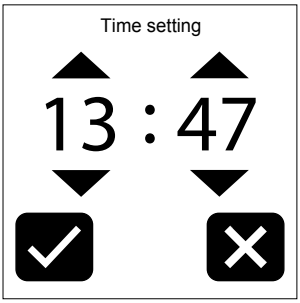
6.2.2 System set-up

On starting the SmartFan system for the first time, a number of settings need to be made to ensure that the TOUCH control unit works properly.

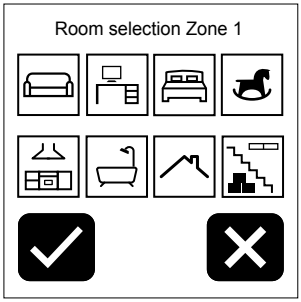
Step 1: Press START to begin the set-up procedure.



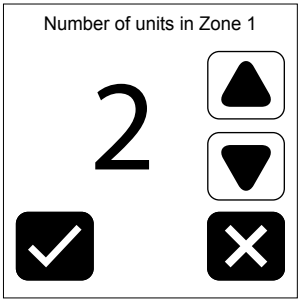
Step 2: Select the language.



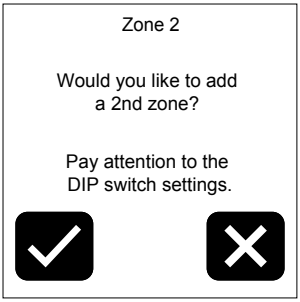
Step 3: Set the time.



Step 4: Assign a room to Zone 1. Multiple assignments are possible.



Step 5: Select the number of units in Zone 1.



Step 6: Repeat for Zones 2 & 3 (where applicable).

THE TOUCH CONTROL UNIT HAS A RESISTIVE TOUCHSCREEN, MEANING THAT YOU WILL HAVE TO PRESS SOMEWHAT HARDER TO SELECT ITEMS.

6.2.3 Operating modes and functions

Eco-Mode
The system changes the airflow direction once every 50 - 70 seconds, dependent on the selected fan speed, thereby ensuring optimal heat recovery.

Full-blast mode
The system runs in just one direction, allowing a room to be thoroughly ventilated. Heat recovery is not available in this mode. To change airflow direction, press the arrow of the large „full-blast mode“ icon on the main menu.

Sleep mode
The system stops working for 1-9 hours, giving a room's occupants sufficient time to (get to) sleep.Sleep mode duration can be changed via the large „Sleep mode“ icon on the main menu. Once the sleep period is over, the system will continue in the previously activated mode. Should the system have been previously running in Party or Full-blast mode, it will automatically revert to Eco-Mode with fan speed set to 2.

Summer mode
When operating in summer mode, the eco-mode is active from 7:00 to 21:00, keeping the cooler air inside the room. From 21:00 to 7:00 the system automatically switches to full blast mode in order to pump cooler air from outside into the room. By touching the summer mode icon in the main menu, you can vary the start and end time for the eco mode by up to 3 hours.

Party mode
In this mode, the room is ventilated at top fan speed, ensuring a maximum of fresh air when the room is full of people.

Power mode
In power mode, the system runs for at least 15 minutes and up to 5 hours at top fan speed in heat recovery mode. To adjust the duration, press the „Power mode“ icon on the main menu.

Automatic mode
Automatic mode is available when a fan unit is equipped with a sensor. Using this mode, the system automatically adjusts to a room's temperature and humidity levels.

Timer mode
Using the timer mode, three time periods (22:00 – 08:00, 08:00 – 16:00 and 16:00 – 22:00) can be individually programmed for each day of the week, allowing the system to operate to your needs.

Holiday mode
The system automatically selects fan speed 1 (humidity control), allowing your home to be optimally ventilated without using much energy. This ensures sufficient ventilation at times when the rooms are unoccupied.

Filter status
Displays the current filter status. There are four levels: clean, somewhat dirty, very dirty and clogged up.

Zone information
Shows which rooms are assigned to which zone.

Time set
The system's internal clock can be set.

System information
Show's the control unit's software version, as well as the system's ventilation behaviour in all zones.

Initial settings
Resets the control unit to its initial settings.

Language selection
Changes the system's language.

Locking the control unit
The Lock icon is used to lock the TOUCH control unit. Through typing in a PIN, the system goes into management mode, preventing deactivation of the system and thereby protecting rooms against increased humidity.

6.2.4 Further functions

Filter change

An integrated meter is used to determine when a filter change is needed. This is calculated on the basis of the airflow volumes. When a filter is totally clogged up, the filter status icon on the main screen will start blinking, indicating the need to change the filter. Once the filter has been changed, the filter status menu is used to reset the meter.

THE OPTIMAL TIME FOR CHANGING A FILTER IS DEPENDENT ON LOCAL CONDITIONS AND CAN THUS VARY.

Filter status

The filter status menu can be used to display the current filter status (dirt level).

Filter not dirty
No action needed.

Filter quite dirty
Order a replacement filter.

Filter very dirty
Change the filter in the near future.

Filter totally clogged up
Change the filter immediately.

Ventilation behaviour

The system information area also shows details of the ventilation level. A thumb icon is used to show the level.

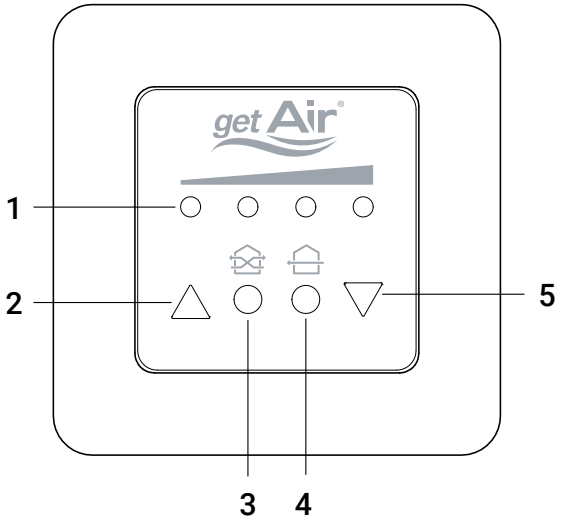
Optimal ventilation
Rooms are being properly ventilated. No action needed.

Sufficient ventilation
Rooms are being adequately ventilated. Monitor ventilation behaviour.

Insufficient ventilation
Rooms are not being properly ventilated. Increase the fan speed immediately.

6.3 LED control unit

6.3.1 Controls



1	LEDs	The LEDs show the selected fan speed.
2	Arrow pointing upwards	Increases the fan speed and/or turns the system on.
3	Eco-Mode	Puts the system into heat recovery mode. The LEDs become green.
4	Full-blast mode	Puts the system into full blast mode. The LEDs become blue.
5	Arrow pointing downwards	Decreases the fan speed and/or turns the system off.

6.3.2 Operating modes

Eco-Mode
Every 50-70 seconds, the fan changes the airflow direction, ensuring maximum heat recovery. When in this mode, the LEDs will be green.

Full-blast mode
The system runs in just one direction, allowing a room to be thoroughly ventilated. Heat recovery is not available in this mode. When in this mode, the LEDs will be blue.

6.3.3 Further functions

Full blast mode: changing airflow direction

When in full-blast mode, press the „Up arrow“ and „Eco-Mode“ concurrently to reverse the initial airflow direction. The LEDs blink as confirmation. To change the initial airflow direction, press the „Down arrow“ and „Full-blast mode“ concurrently. Here again, the LEDs blink as confirmation.

Filter change display

When a filter change is required, the middle two LEDs start blinking. Once the filter has been changed, this is confirmed by pressing the two round buttons in the middle concurrently. In doing so, the internal meter is also reset.

THE OPTIMAL TIME FOR CHANGING A FILTER IS DEPENDENT ON LOCAL CONDITIONS AND CAN THUS VARY.

7 Cleaning and maintenance

To ensure the efficient functioning of your SmartFan, all components must be regularly checked and maintained.

7.1 Maintenance interval

Component	Interval	What is to be done
Inside cover/ grille	Once every three months	• Wipe the surface with a damp cloth.
Dust filter	Once every three months	• Use a vacuum cleaner to free the filter of dust. • Then wash it warm water. • Replace any clogged up/defective filter.
Pollen filter	Once a month	• Use a vacuum cleaner to free the filter of any pollen. • Replace any clogged up/defective pollen filter.
Fan unit	Once a year	• Clean the fan unit using a brush first, then a vacuum cleaner.
Heat exchanger unit	Once a year	• Use a vacuum cleaner to clean the heat exchanger. • Hold it under the tap and wash it with warm water.
TOUCH/LED control unit	Once a month	• Wipe the surface with a microfibre cloth.

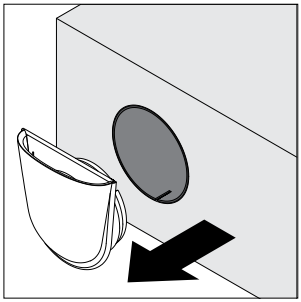
7.2 Maintenance instructions

WHEN CARRYING OUT MAINTENANCE WORK, THE SYSTEM MUST BE SWITCHED OFF.

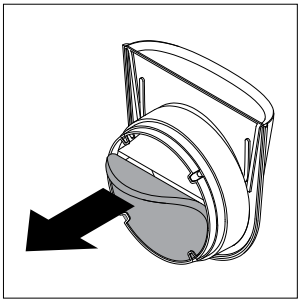
WHEN CARRYING OUT MAINTENANCE WORK ON THE FAN UNIT, THE SYSTEM MUST BE DISCONNECTED FROM THE MAINS.

NEVER PULL THE PLUG OUT OF THE FAN UNIT BY THE CABLE. USE A PAIR OF PLIERS AND PULL ON THE PLUG.

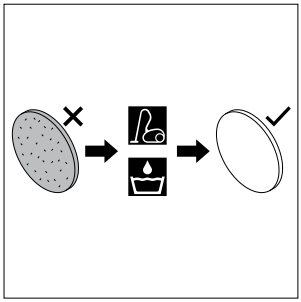
7.2.1 Filter maintenance



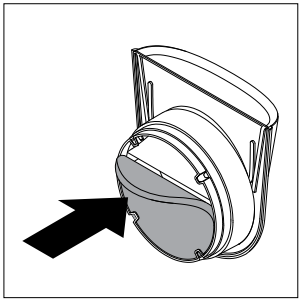
Step 1: Pull the inside cover out of the mounting tube.



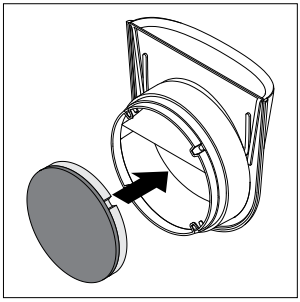
Step 2: Remove the filter from its holder.



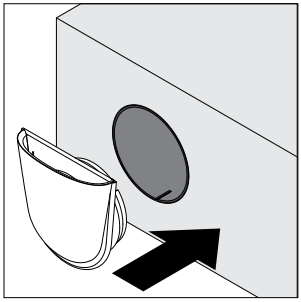
Step 3: Check the filter. When necessary, clean or replace it.



Step 4a - Dust filter: Replace the filter in its holder.

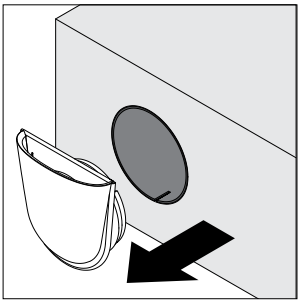


Step 4b - Pollen filter: Insert the filter unit into the holder with the lighter side.

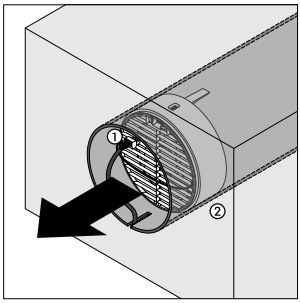


Step 5: Reinsert the inside cover (with the air intake pointing upwards) into the mounting tube.

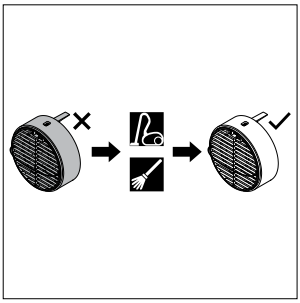
7.2.2 Fan unit maintenance



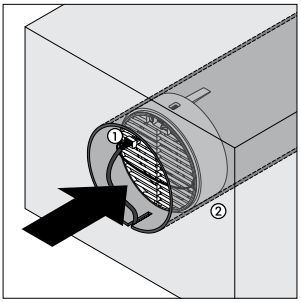
Step 1: Pull the inside cover out of the mounting tube.



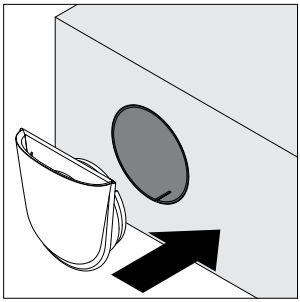
Step 2: Unplug the fan (1) Pull the fan unit out of the mounting tube using the strap (2), taking care that the power / control cable is not damaged.



Step 3: Using a brush and a vacuum cleaner, clean the fan grille and the rotor blades.

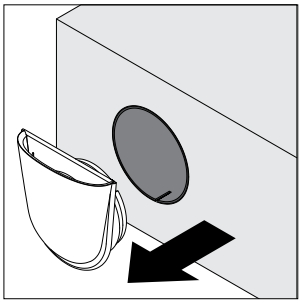


Step 4 : Reinsert the cleaned fan unit into the mounting tube. Pay attention to the power cable. Plug in the fan (1). Push the fan unit down into the mounting tube until the spacers touch the heat exchanger (2).

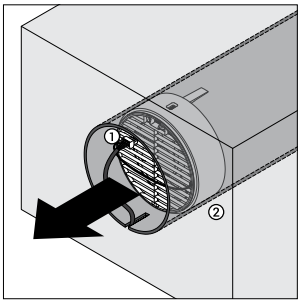


Step 5: Reinsert the inside cover (with the air intake pointing upwards) into the mounting tube.

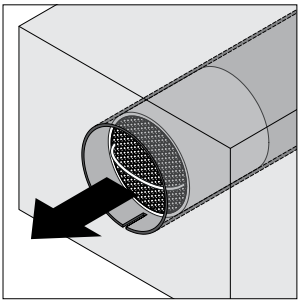
7.2.3 Heat exchanger maintenance



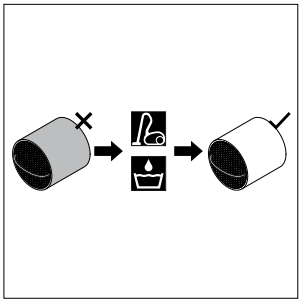
Step 1: Pull the inside cover out of the mounting tube.



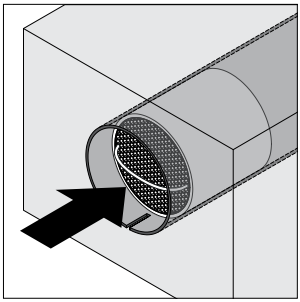
Step 2: Unplug the fan (1) Pull the fan unit out of the mounting tube using the strap (2), taking care that the power / control cable is not damaged.



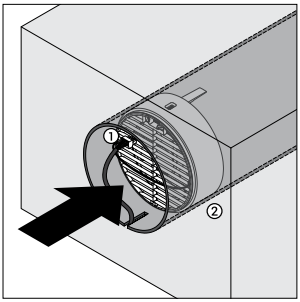
Step 3: Pull the heat exchanger unit out of the mounting tube using the strap (2), taking care that the power / control cable is not damaged.



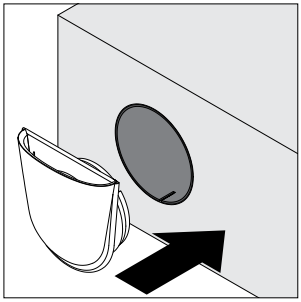
Step 4: Clean the heat exchanger unit using a vacuum cleaner or wash with warm water. Only clean the ceramic parts with water! Let the heat exchanger dry.



Step 5: Reinsert the heat exchanger into the mounting tube, taking care not to damage the cables in the mounting tube.



Step 6: Reinsert the cleaned fan unit into the mounting tube. Plug in the fan (1). Push the fan unit down into the mounting tube until the spacers touch the heat exchanger (2).



Step 7: Reinsert the inner cover into the mounting tube (with the air vent pointing upwards).

8 Troubleshooting

What's wrong?	Cause	Remedy
Fan unit does not change direction.	Control unit is operating in "full-blast" mode.	• Set the controls to eco-mode (heat recovery).
	Fan unit not working properly.	• Replace the fan unit.
	Control unit / power supply not working properly.	• Replace the control unit / power supply.
Fan unit not functioning.	No power supply.	• Restore power supply.
	Installation error.	• Check the cabling and wiring. • Check whether all plugs have been properly connected. • Check the DIP switch settings on the fan unit.
	Fan unit not working properly.	• Replace the fan unit.
	Control unit / power supply not working properly.	• Replace the control unit / power supply.
Control unit not functioning.	Installation error.	• Check the cabling and wiring. • Check that the control unit is installed correctly.
	Power supply not working properly.	• Replace the power supply.
	Control unit not working properly.	• Replace the control unit.
Noise level higher than normal when operating in normal mode.	Rotor blades dirty.	• Clean the rotor blades. • Clean the ventilation unit.
	Dirt or other elements in the fan unit.	• Remove dirt or other elements. • Clean the ventilation unit.
	Distance between the heat exchanger unit and fan unit too small.	• check the spacers on the fan unit. • Increase the distance.
	Fan speed too high.	• Switch to a lower speed.

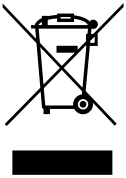
What's wrong?	Cause	Remedy
Airflow too low.	Inside cover is shut.	• Open the inside cover.
	Filter full of dirt.	• Clean the filter or replace it.
	Heat exchanger dirty.	• Clean the heat exchanger unit. • Clean the ventilation unit.
	Fan speed too low.	• Switch to a higher speed.
	Units not working in conjunction with each other (in pairs).	• Check that the units are correctly connected to the control unit. • Check the DIP switch settings on the fan unit.
Incoming air is cold.	Control unit is operating in "full-blast" mode to thoroughly ventilate the room.	• Set the controls to Eco-mode (heat recovery).
	Heat exchanger missing.	• Insert the heat exchanger.

9 Disposal

Due to little or no harmful materials being used in their production, the majority of components described in these operating instructions can be recycled. Should you want to dispose of your ventilation unit, please do so in accordance with current national regulations. Contact the appropriate authority. Packaging material should be sorted before disposal.

Disposal recommendations for all components:

Component	Material	Disposal
Inside cover	ASA	Collection of recyclable materials
Outside cover	ASA	Collection of recyclable materials
Fan unit	ABS / Electrical components	Electronics recycling
Heat exchanger unit	Ceramics / PUR	Collection of recyclable materials
Dust filter	PE	Household refuse
Pollen filter	PP	Household refuse
Mounting tube	PPs	Collection of recyclable materials
TOUCH/LED control units	ABS / Electrical components	Electronics recycling



Please note: Do not dispose of batteries along with household waste. Take them to a battery recycling point.

10 Technical data

10.1 SmartFan

Heat recovery rate	Up to 91%			
	Level 1	**Level 2**	**Level 3**	**Level 4**
Airflow in eco-mode/ventilation[1] [m³/h]	18	28	38	46
Sound pressure level [dB(A)]	11	19	28	33
Power consumption[2] [W]	0,8	1,4	2,6	4,0
Power [V]	230 AC / 50-60 Hz			
Input voltage [V]	12 DC SELV RS 485 AB			
Type of protection	IP 42			
Software class	A			
Specific power input[2] [W/m³/h]	min. 0,14			
Standardised sound level difference $D_{n,w}$ [dB]	44/49 (with optional sound insulating)			
Air intake	free of aggressive gases, dust and oil			
Permissible operating temperatures [°C]	-20 ... 60			
Diameter of the core hole [mm]	162			
Minimum wall thickness[3] [mm]	280			
Optimal wall thickness [mm]	360 +			
Size of the inside / outside cover [mm]	198 x 199 x 45 (WxHxD)			
Weight [kg]	3,9			
Energy efficiency class VO 1254/2014	A			
Conformity	CE			

[1] when operated in pairs

[2] without power supply

[3] with a shortened fan unit and a metal outside hood

10.2 TOUCH control unit

Power [V]	230 AC / 50-60 Hz
Operating voltage [V]	12 DC SELV
Power consumption[1)] [W]	2
Connection	RS 485 AB
Type of protection	IP 30
Software class	A
Permissible operating temperatures [°C]	0 ... 40
Contamination level	2
Battery	CR 2032
Dimensions [mm]	80 x 80 x 25 (WxHxD)
Colour	White
Conformity	CE

[1)] without power supply

10.3 LED control unit

Power [V]	230 AC / 50-60 Hz
Operating voltage [V]	12 DC SELV
Power consumption[1)] [W]	2
Connection	RS 485 AB
Type of protection	IP 40
Software class	A
Permissible operating temperatures [°C]	0 ... 40
Contamination level	2
Dimensions [mm]	80 x 80 x 15 (WxHxD)
Colour	White
Conformity	CE

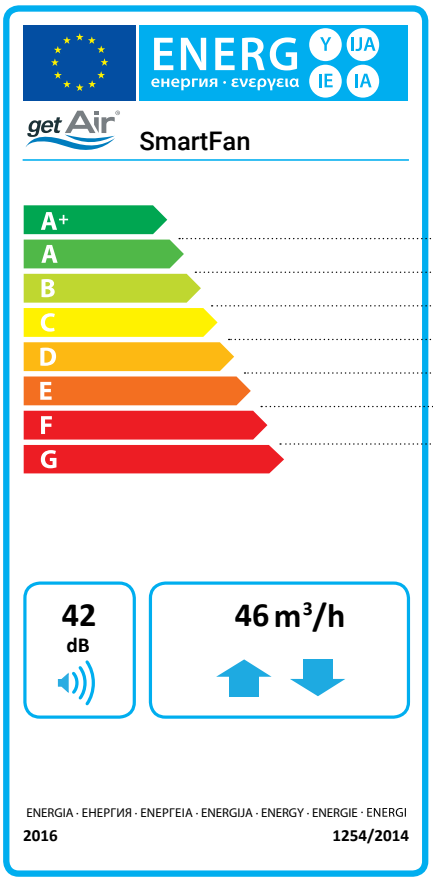
[1)] without power supply

11 Energy efficiency label and product information sheet

11.1 SmartFan energy efficiency label

The product label lists the following details contained in the product information sheet:

- Energy efficiency class
- Sound power level Lwa in a room at a reference airflow volume
- Highest airflow volume



TOUCH sensor	TOUCH	LED
A+		
	A	A

11.2 Product information sheet for a SmartFan with TOUCH sensor controls

Produktdatenblatt (gem. VO 1254/2014 EU vom 11. Juli 2014) / Product datasheet (acc. REG 1254/2014 EU of 11 July 2014)				
Pkt.	**Beschreibung / Description**		**Werte / Data**	
a	Lieferant / Supplier's name		getAir	
b	Modellkennung / Supplier's model identifier		SmartFan	
c	SEV-Klasse /Spezifischer Energieverbrauch SEC class / Specific energy consumption [kWh/m²a]	kalt/cold	A+	-85,71
		durchschnittlich/ average	A+	-42,55
		warm/warm	E	-17,83
d	Lüftungstyp / Typology		ZLG / BVU	
e	Art des Antriebes / Type of drive installed		1,5	
f	Art Wärmerückgewinnung / Type of heat recovery system		Regenerativ / regenerative	
g	Temperaturänderungsgrad η_t / Thermal efficiency of heat recovery [%]		0,83	
h	Höchster Luftvolumenstrom / Maximum flow rate [m³/h]		46	
i	Elektrische Eingangsleistung[1)] (inkl. Regelung) / Electric power input [W]		8,3	
j	Schallleistungspegel L_{wa} / Sound power level [dB(A)]		42	
k	Bezugsluftvolumenstrom / Reference flow rate [m³/h]		32,2	
l	Bezugsdruckdifferenz / Reference pressure difference [Pa]		0	
m	SEL / SPI [W/m³/h]		0,143	
n	Steuerungsfaktor / Control factor		0,65	
o	Innere und äußere Übertragung / Internal and external leakage rate [%]		0	
p	Mischquote / Mixing rate [%]		0	
q	Lage und Beschreibung der Filterwechselanzeige / Position of visual filter warning		Steuerung (optische Anzeige) / Control (visual display)	
r	Anweisungen zu regelbaren Zu- und Abluftgittern an der Fassade (nur Ein-Richtungs-LG) / Regulatetd supply and exhaust grills in the facade		-	
s	Internetadresse / Internet address		www.getair.eu	
t	Druckschwankungsempfindlichkeit / Airflow sensitivity [%]		45	
u	Luftdichtheit zw. innen und außen / indoor and outdoor air tightness [m³/h]		1,0	
v	Jährlicher Stromverbrauch / Annual electricity consumption [kWh/(m²a)]		1,03	
w	Jährliche Einsparung Heizenergie / Annual heating saved kWh/(m²a)]	kalt/cold	88,29	
		durchschnittlich/ average	45,13	
		warm/warm	20,41	

[1)] without power supply

11.3 Product information sheet for a SmartFan with a TOUCH control unit

Produktdatenblatt (gem. VO 1254/2014 EU vom 11. Juli 2014) / Product datasheet (acc. REG 1254/2014 EU of 11 July 2014)				
Pkt.	**Beschreibung / Description**		**Werte / Data**	
a	Lieferant / Supplier's name		getAir	
b	Modellkennung / Supplier's model identifier		SmartFan	
c	SEV-Klasse /Spezifischer Energieverbrauch SEC class / Specific energy consumption [kWh/m²a]	kalt/cold	A+	-80,23
		durchschnittlich/ average	A	-38,78
		warm/warm	E	-15,04
d	Lüftungstyp / Typology		ZLG / BVU	
e	Art des Antriebes / Type of drive installed		1,5	
f	Art Wärmerückgewinnung / Type of heat recovery system		Regenerativ / regenerative	
g	Temperaturänderungsgrad η_t / Thermal efficiency of heat recovery [%]		0,83	
h	Höchster Luftvolumenstrom / Maximum flow rate [m³/h]		46	
i	Elektrische Eingangsleistung[1)] (inkl. Regelung) / Electric power input [W]		8,3	
j	Schallleistungspegel L_{wa} / Sound power level [dB(A)]		42	
k	Bezugsluftvolumenstrom / Reference flow rate [m³/h]		32,2	
l	Bezugsdruckdifferenz / Reference pressure difference [Pa]		0	
m	SEL / SPI [W/m³/h]		0,143	
n	Steuerungsfaktor / Control factor		0,95	
o	Innere und äußere Übertragung / Internal and external leakage rate [%]		0	
p	Mischquote / Mixing rate [%]		0	
q	Lage und Beschreibung der Filterwechselanzeige / Position of visual filter warning		Steuerung (optische Anzeige) / Control (visual display)	
r	Anweisungen zu regelbaren Zu- und Abluftgittern an der Fassade (nur Ein-Richtungs-LG) / Regulatetd supply and exhaust grills in the facade		-	
s	Internetadresse / Internet address		www.getair.eu	
t	Druckschwankungsempfindlichkeit / Airflow sensitivity [%]		45	
u	Luftdichtheit zw. innen und außen / indoor and outdoor air tightness [m³/h]		1,0	
v	Jährlicher Stromverbrauch / Annual electricity consumption [kWh/(m²a)]		1,82	
w	Jährliche Einsparung Heizenergie / Annual heating saved kWh/(m²a)]	kalt/cold	84,80	
		durchschnittlich/ average	43,35	
		warm/warm	19,60	

[1)] without power supply

11.4 Product information sheet for a SmartFan with a LED control unit

Produktdatenblatt (gem. VO 1254/2014 EU vom 11. Juli 2014) / Product datasheet (acc. REG 1254/2014 EU of 11 July 2014)				
Pkt.	**Beschreibung / Description**		**Werte / Data**	
a	Lieferant / Supplier's name		getAir	
b	Modellkennung / Supplier's model identifier		SmartFan	
c	SEV-Klasse /Spezifischer Energieverbrauch SEC class / Specific energy consumption [kWh/m²a]	kalt/cold	A+	-79,60
		durchschnittlich/ average	A	-38,43
		warm/warm	E	-14,85
d	Lüftungstyp / Typology		ZLG / BVU	
e	Art des Antriebes / Type of drive installed		1,5	
f	Art Wärmerückgewinnung / Type of heat recovery system		Regenerativ / regenerative	
g	Temperaturänderungsgrad η_t / Thermal efficiency of heat recovery [%]		0,83	
h	Höchster Luftvolumenstrom / Maximum flow rate [m³/h]		46	
i	Elektrische Eingangsleistung[1)] (inkl. Regelung) / Electric power input [W]		8,0	
j	Schallleistungspegel L_{wa} / Sound power level [dB(A)]		42	
k	Bezugsluftvolumenstrom / Reference flow rate [m³/h]		32,2	
l	Bezugsdruckdifferenz / Reference pressure difference [Pa]		0	
m	SEL / SPI [W/m³/h]		0,134	
n	Steuerungsfaktor / Control factor		1	
o	Innere und äußere Übertragung / Internal and external leakage rate [%]		0	
p	Mischquote / Mixing rate [%]		0	
q	Lage und Beschreibung der Filterwechselanzeige / Position of visual filter warning		Steuerung (optische Anzeige) / Control (visual display)	
r	Anweisungen zu regelbaren Zu- und Abluftgittern an der Fassade (nur Ein-Richtungs-LG) / Regulatetd supply and exhaust grills in the facade		-	
s	Internetadresse / Internet address		www.getair.eu	
t	Druckschwankungsempfindlichkeit / Airflow sensitivity [%]		45	
u	Luftdichtheit zw. innen und außen / indoor and outdoor air tightness [m³/h]		1,0	
v	Jährlicher Stromverbrauch / Annual electricity consumption [kWh/(m²a)]		1,85	
w	Jährliche Einsparung Heizenergie / Annual heating saved kWh/(m²a)]	kalt/cold	84,21	
		durchschnittlich/ average	43,05	
		warm/warm	19,47	

[1)] without power supply

12 Warranty

12.1 Warranty conditions

getAir GmbH & Co. KG provides a 24-month warranty on its SmartFan ventilation system (or 30 months from the SmartFan's date of manufacture). Warranty claims apply solely to material and/or construction faults which occur during the warranty period. Under the warranty conditions, repairs may only be carried out with getAir's prior written consent. A warranty on components exists solely when these have been supplied by the manufacturer and have been installed by a technician recognised by the manufacturer.

The warranty expires in the following cases:

- when the warranty period has come to an end;
- when a filter is used that has not been approved by the fan unit manufacturer;
- when non-original replacement parts are installed;
- when the unit is used incorrectly/improperly;
- when the faults/defects are the result of faulty installation, improper/incorrect use or dirt;
- when unapproved changes or modifications have been made to the system.

OUTSIDE GERMANY, THE WARRANTY IS COVERED BY THE WARRANTY REGULATIONS OF THE COUNTRY IN WHICH THE SYSTEM WAS SOLD. IN SUCH A CASE, PLEASE CONTACT THE DEALER IN YOUR HOME COUNTRY.

12.2 Liability

The system has been developed and manufactured for the decentralised ventilation of homes and functional premises.

Any other usage is considered to be improper and can cause damage to the SmartFan or to persons. In such a case, the manufacturer cannot be held liable. The manufacturer cannot be held liable for any damage resulting from one of the following causes:

- when the safety, operating and maintenance instructions contained in this docu ment have not been followed;
- when the installation was not performed correctly;
- when non-original replacement parts (not approved by the manufacturer) are installed;
- when the faults/defects are the result of faulty installation, improper/incorrect use or dirt;
- Normal wear and tear.

12.3 Complaints

Please check the contents of the delivered material in accordance with the delivery note. Also check for any transport damage. Report any missing items to your supplier within four weeks of delivery.

12.4 Documentation

The above documentation describes the functionality of the standard configuration. To maintain clarity, we are unable to take account of every possible installation, operating or maintenance configuration. The diagrams in this documentation may deviate slightly from the design of the product you have purchased. Even when this is the case, the functions basically remain the same.

12.5 Service

For technical advice, please contact your supplier, dealer or our service staff.

13 Attachment

13.1 Accessories and spares

Article	Article no.
General	
Replacement dust filters (4 filters)	100430
Replacement pollen filters (4 filters)	100431
Sound insulation set	100221
Metal outside hood - Stainless steel	100450-01
Metal outside hood - white RAL 9016	100450-02
Metal outside hood - anthracite RAL 7016	100450-03
Control units	
TOUCH control unit	100102
LED control unit	100122
Power supply for control units	100150
Top hat rail power supply for control units	100151
Electronics box	100160
SmartFan humidity sensor	100180
Installation	
Pre-fabricated installation block	100220
Mounting tube 500 mm	100440
Mounting tube 700 mm	100441
Mounting adhesive / sealant	100222
Special versions:	
Special reveal version - Shell installation set 90	100240
Special reveal version - Shell installation set 60	100241
Special roof version - Shell installation set DA	100251
Roof version	100255
Special cellar version - Shell installation set KA	100260
Replacement parts	
SmartFan inside cover	100400
SmartFan outside cover	100401
SmartFan fan unit	100411
SmartFan heat exchanger unit	100420

A complete list of accessories and replacement parts is available on our website:

www.getair.eu

13.2 Wiring protocol

Ventilation unit	Floor	Name of the room and ventilation unit position	Zone	Initial direction	
				Air intake	Exhaust
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

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