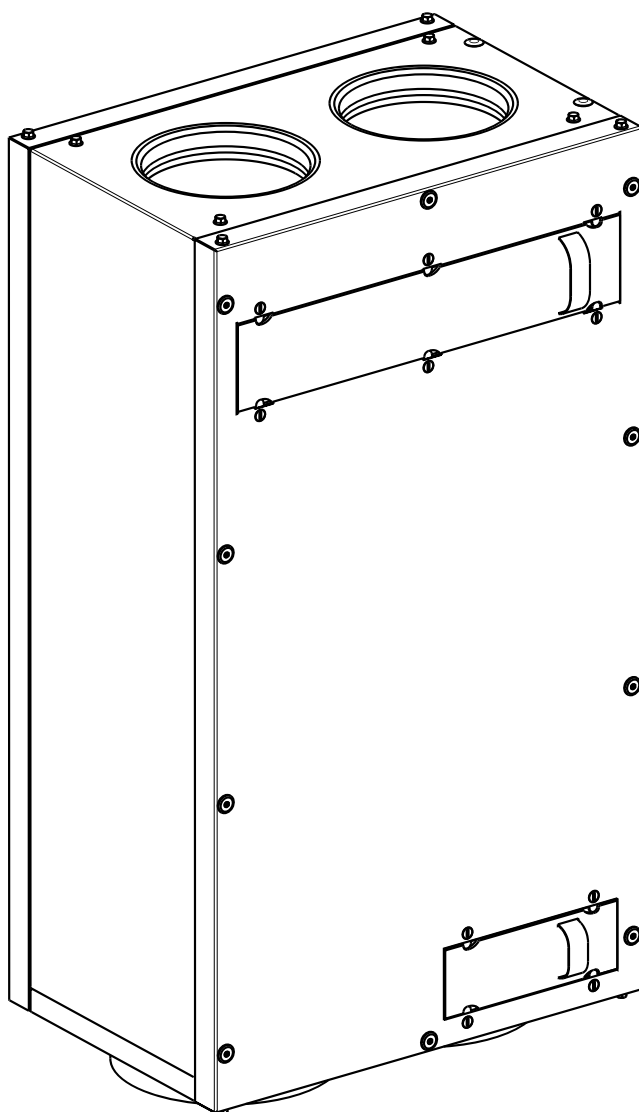


## HomeVent® ER (200,300,400)

Comfort ventilation unit



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**Dear Customer,**

With the purchase of this system you have opted for a modern and economical comfort ventilation system. Continuous quality control and enhancements, as well as function tests in the factory, guarantee a technically flawless device.

Please read these documents carefully. They contain important information for the safe and thrifty operation of your system.

**1. Important notices**

- The HomeVent® comfort ventilation unit is only allowed to be operated within the defined application limits.
- The HomeVent® comfort ventilation unit is only allowed to be used for supply and extract air handling of heated rooms.
- The pertinent laws, regulations and guidelines must be complied with during installation and operation, when performing maintenance and service work and when disposing of the unit.
- The HomeVent® comfort ventilation unit is only allowed to be operated in rooms and on premises with fireplaces in compliance with the pertinent country-specific laws, regulations and guidelines. Flue gas from fireplaces must be routed off separately.
- Do not drill into the housing of the HomeVent® comfort ventilation unit.

The comfort ventilation unit is only allowed to be used for the purpose for which it was designed and which has been approved by Hoval. Any other use is impermissible.

**Application in the following areas is prohibited:**

- Operation during the construction phase, due to the high dust exposure.
- Use of the unit to dry out building shells and new buildings.
- Ventilation of several residential units.
- Ventilation of rooms with extremely high air humidity, e.g. sauna, indoor swimming pool.
- Ventilation of rooms with extremely high temperatures.
- The ventilation of rooms with highly contaminated extract air (flue gas, chlorine, air containing high amounts of grease, explosive extract air), e.g. swimming baths, rooms in which chemicals are stored.
- The conveyance of air contaminated with aggressive vapours and abrasive substances.
- Integration of extractor hoods in the comfort ventilation system, due to the irregular operation and high contamination with grease.
- The extraction of flue gas from fireplaces.

**Service and maintenance**

Regularly scheduled maintenance and the examination and care of all important system parts ensure safe and economical operation in the long run. We therefore recommend concluding a maintenance contract with Hoval Customer Service for this purpose.

**1.1 Liability**

- The application limits are stated below. Any other use is deemed to be improper use and can lead to injury to persons or damage to the comfort ventilation unit.
- The manufacturer cannot be held liable for any such damage.
  - The manufacturer accepts no liability for damage resulting from:
    - Failure to observe the safety, operating and maintenance instructions contained in these operating instructions.
    - Performance of work on the unit not described in these operating instructions and not expressly approved by the manufacturer.
    - Installation of spare parts (including filters) not supplied by the manufacturer.
    - Normal wear and tear.
- The general business terms and conditions of Hoval apply. See: [www.hoval.com](http://www.hoval.com)
- For details concerning service agreements, please contact Hoval Customer Service. You will find the addresses on the back page of this manual.

### 1.2 Important addresses and telephone numbers

Ventilation specialist:

.....  
.....

Heating specialist:

.....  
.....

Plumber:

.....  
.....

Electrician:

.....  
.....

### 1.3 System data

Have this filled in by the ventilation specialist!

Order No. / serial number: .....

Room control module present:       Yes       No

#### Calculation basis

Max. air flow rate in m<sup>3</sup>/h: .....

## 2. Explanation of the symbols

### 2.1 Warnings



#### **DANGER**

... indicates a situation of immediate danger which will lead to serious or fatal injuries if not avoided.



#### **CAUTION**

... indicates a situation of possible danger which can lead to minor or slight injuries if not avoided.



#### **WARNING**

... indicates a situation of possible danger which can lead to serious or fatal injuries if not avoided.



#### **NOTICE**

... indicates a situation of possible danger which can lead to damage to property if not avoided.



Description of an activity instruction.



Information:  
Provides important information.

#### 2.1.1 Warning symbols

The following warning symbols are combined with signal words CAUTION, WARNING and DANGER for the warning notes.



“Warning: dangerous electrical voltage” as a warning for accident prevention.

Ensures that people do not come into contact with electrical voltage. The danger sign with the black lightning symbol warns against the danger of electrical voltage.



Warning symbol “Warning of flammable substances”

Incorrect handling of inflammable substances can lead to serious damage, potentially fatal injuries and incalculable costs.

## 3. Safety instructions

Persons performing work on the HomeVent® comfort ventilation unit must have read and understood the operating instructions before commencing work. The unit must not be taken into operation until the ventilation ducts have been connected. Initial commissioning of a newly installed system may only be carried out by a qualified installer. The full installation inspection must be carried out by a qualified technician trained by Hoval.



#### **DANGER**

Switch the unit off and cut off the power supply.



#### **DANGER**

If the fresh air is contaminated with hazardous substances: Switch the unit off for as long as the danger persists, disconnect the power supply and perform cleaning if necessary.



#### **DANGER**

In the event of a fire:  
Switch the unit off and cut off the power supply.



Information:

Do not carry out any modifications to the unit! Otherwise, all legal claims will be invalidated.



#### **CAUTION**

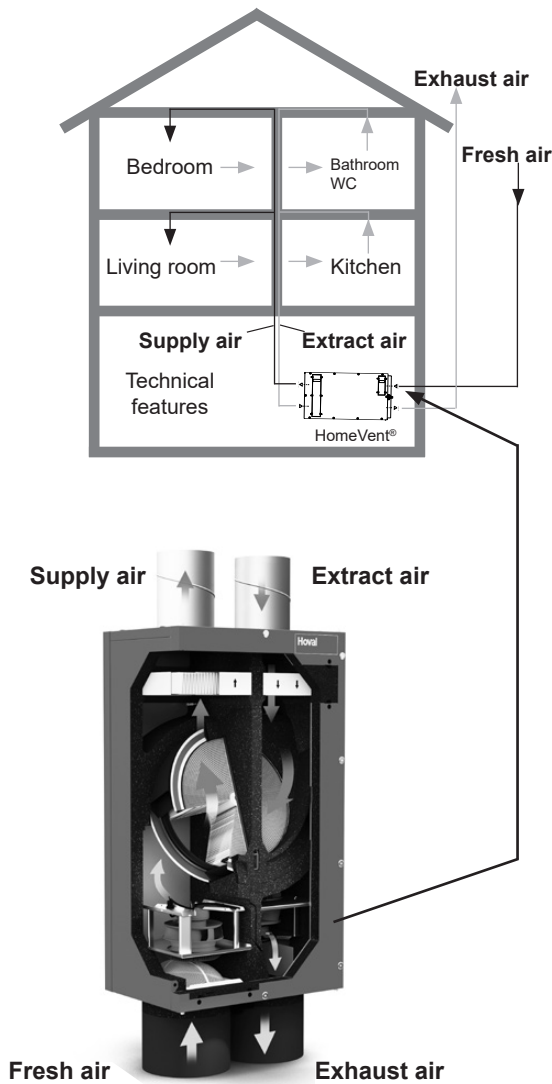
Opening the filter cover/prefilter cover:  
First switch the unit off and cut off the power supply.



#### **WARNING**

Opening the unit cover:  
The unit is only allowed to be opened by a qualified technician trained by Hoval.

**4. Technical information**  
**4.1 Description**



**Energy recovery**

The built-in enthalpy recovery unit withdraws energy from the extract air and transfers it to the supply air. This enables the intelligent (temperature) and the latent (humidity) energy to be transferred. The transmission performance is regulated between 0 and 100 % depending on the outdoor temperature.

The advantages of the enthalpy recovery unit are:

- Temperature efficiency up to 90 %
- Degree of humidity recovery up to 95 %
- Transmission performance can be adjusted continuously
- No need for preheating (down to -20 °C)
- No condensation
- No bypass is necessary

**Air filtration**

The fresh air goes through two cleaning stages, ensuring the highest standard. A fine-meshed prefilter (washable) at the entry of the unit prevents insects, leaves, etc. from reaching the unit. Before the fresh air leaves the unit, it flows through a high-capacity fine pollen filter (ePM1.0 55 %). Optionally, an activated carbon filter can be inserted in place of the standard supply air filter. This is a high-capacity filter (ePM10 50 %) with high efficiency against particles (pollen, fine dust, etc.) and against gaseous pollutants and odours (agriculture, traffic, etc.).

**Air delivery**

Two backward-curved centrifugal fans with EC direct current motors deliver the air. The rotating wheel with optimised fluid mechanics ensures quiet operation of the unit. The electronics built into the engine enable the air volumes to be finely regulated between 15 and 100 %. The fans are arranged in such a way that no extract air can find its way to the supply air.

**Suitability for winter**

Due to the built-in enthalpy recovery unit, no condensate is formed in the unit. Freezing is not possible. No preheating (electric air heater) is necessary for outdoor temperatures down to -20 °C. The air volume ratio between the supply air and extract air remains constant at all temperatures.

**Summer operation**

The energy recovery is reduced to a minimum according to the outdoor temperature. This enables night cooling (free cooling) in the summer as well as when the seasons change. It is not necessary to arrange for a bypass using dampers and a drive.

**Cooling**

The warm fresh air can be cooled using the CoolVent® option. However, this requires an air-conditioning system to be present in order to provide the necessary cooling in the room. The enthalpy recovery system extracts heat from the warm fresh air and feeds it to the colder extract air. The necessary output of the air-conditioning system is thereby reduced. The efficiency for this process is 85 %. The CoolVent® function is an option which must be activated during commissioning.

### Installation

The HomeVent® comfort ventilation unit is characterised by a compact design. It is possible to access the unit from both sides for servicing. No condensate forms in the unit, meaning that it can be installed in any position imaginable. We recommend the corresponding mounting kits with solid-borne noise decoupling for the different installation positions.

### Operator terminal BG02E

The operator terminal is suitable for on-wall mounting. The target air volume and the maximum air humidity can be set with two rotary knobs. With the party button, the air volume can be increased for a limited period of time. The connection to the HomeVent® comfort ventilation unit is made via RJ45 plug connection. The unit can be installed in any room.

### TopTronic® E room control module comfort plus

The TopTronic® E room control module comfort plus is available either in black or white. Operation is via a colour touchscreen (4.3-inch). The connection (e.g. heating) to the HomeVent® comfort ventilation unit is made via an RJ45 plug connection or plug terminals (max. 0.75 mm<sup>2</sup>). The unit can be installed on the wall with an on-wall mounted frame or with a wall-mounting plate and flush-mounted boxes. The TopTronic® E room control module carries out the following functions:

- Operation of all Hoval units connected to the bus (e.g. heating).
- Authorisation management for operation.
- Efficient control of the ventilation system by working with day programmes
- Selection between different start screens possible during commissioning.
- Customer-specific configurable screen for displaying the following elements: date, time, target air volume in %, maximum target humidity in %, active day or week programme, display of the current air quality inside and outside the building based on a colour marking (only in combination with VOC air quality sensors), display of the current weather or weather forecast (only possible in combination with TopTronic® online), phases of the moon.

### Air-Quality

Optionally, one or two VOC air quality sensors can be installed in the unit during commissioning. The air quality sensor(s) continuously monitor(s) the air for volatile organic components and regulate the air volume that is supplied or extracted via the speed of the fans. This results in optimal air quality in the building with minimal energy input.

VOC air quality sensor on extract air side: The extract air is continuously monitored for odours, tobacco smoke, cleansing agents, etc. If the concentration exceeds an adjustable value, the air volume is increased correspondingly.

VOC air quality sensor on fresh and extract air side: The extract and fresh air is continuously monitored for odours, tobacco smoke, cleansing agents, etc. If the concentration of VOCs in the extract air exceeds an adjustable value, the air volume is increased correspondingly. If the concentration of VOCs in the fresh air exceeds an adjustable value, the air volume is reduced correspondingly. The sensor registering the higher value takes priority. The sensitivity can be defined on a project-specific basis by the service technician during commissioning. On the TopTronic® E room control module comfort plus, the air quality is displayed by a bar for the extract air and a bar for the fresh air, which will either be green (good air), orange (slightly contaminated air) or red (bad air).

## 4.2 Use

### Settings on the operator terminal

The operator terminal allows you to adjust your HomeVent® comfort ventilation system to suit your needs. Using the operator terminal or module, it is possible to set the basic flow rate at which the ventilation unit should always be operated as a minimum. Furthermore, the target humidity value can be selected. If this is exceeded in the room, the flow rate of the ventilation unit is increased. Please bear in mind that, especially during the change of seasons, setting a low target humidity value can result in a high flow rate and thus noise. Detailed operating instructions were enclosed with your operator terminal and can be downloaded from [www.hoval.com](http://www.hoval.com).

### Functional check

Reliable and safe functioning of the HomeVent® comfort ventilation unit and optimum efficiency can only be guaranteed if the unit is serviced regularly.

Please also regularly check the other components of your comfort ventilation system, such as the fresh air intake, supply and extract air openings and exhaust air grille. These must be free of contamination so that the air can flow through.

### Opening the windows

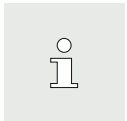
As a rule, you will not require heating in summer and thus no heat recovery via your HomeVent® comfort ventilation unit. Windows and doors can be opened as you wish. However, bear in mind that pollen, insects and dust can enter the house through open doors and windows.

If you open the windows in winter or during the heating season, you lose the benefits of your HomeVent® comfort ventilation system.

Valuable energy escapes through the windows. The humidity contained in the outgoing air cannot be recovered, meaning that the room air becomes drier. Your comfort ventilation system provides a constant supply of fresh air for your living area. Your comfort ventilation unit recovers both the heat and the moisture contained in the air. An optimum room air humidity of 40 % - 60 % has a considerable influence on your well-being and health.

### Absence

If you are away for a prolonged period, set your comfort ventilation to an output of 15 % and keep outside doors and windows closed - in particular in winter so that no heat is lost. Never switch your comfort ventilation system off completely in winter.



Information:  
[www.hoval.com](http://www.hoval.com)

## 4.3 Application limits

### Application limits for device setup, weather-protected (EN 60721-3-3) 3K5 acc. to EN 50090-2-2

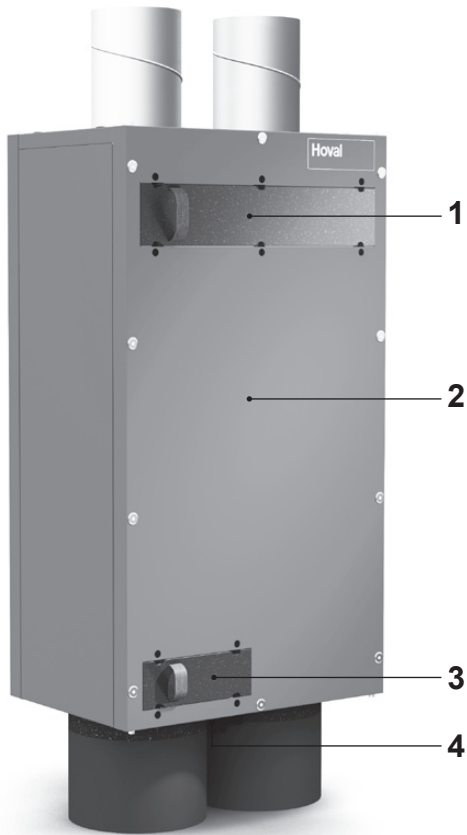
- Ambient temperature -20...45 °C
- Ambient humidity max. 15 g/kg
- Dew point temp. in installation room < 15 °C  
 Air conditions (moderate outdoor climate EN 60721-2-1)
- Fresh air intake temperature -20...40 °C
- Fresh air intake humidity 5...95 % r.h.
- Extract air temperature 5...35 °C
- Extract air humidity 15...80 % r.h.
- Extract air humidity max. 12 g/kg



## 5. Components

### 5.1 Ventilation unit

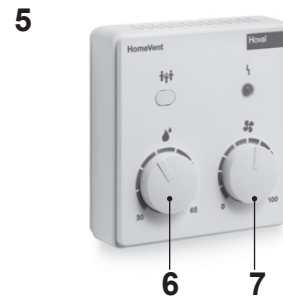
Comfort ventilation unit:



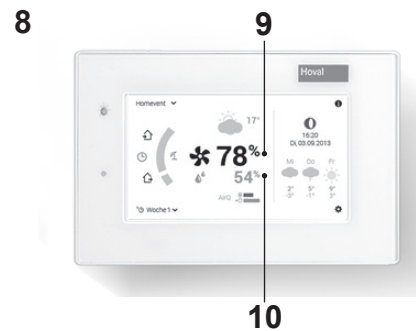
1	Filter cover supply air and extract air filter
2	Access panel
3	Prefilter cover
4	Connection cable

### 5.2 Operator terminal

The HomeVent® comfort ventilation unit is operated via an operator terminal. You can choose between two operator terminals. Detailed operating instructions are enclosed with your operator terminal and can be downloaded from [www.hoval.com](http://www.hoval.com).



or



5	Operator terminal BG02E
6	Rotary knob for setting the max. relative room humidity
7	Rotary knob for air quantity setting
8	TopTronic® E room control module comfort plus
9	Air quantity in %
10	Target value max. air humidity

## 6. Initial commissioning



### WARNING

Please note the installation instructions in this regard

### 6.1 Installation inspection

Please check the following points:

- The HomeVent® comfort ventilation unit must be mounted securely and vibration-free on the wall, ceiling or floor.



### WARNING

With ceiling installation:  
Beware of falling parts.

- One silencer each must be fitted for supply and extract air. A silencer may also be necessary in the fresh and exhaust air, depending on the positioning of the outlets.
- The comfort ventilation unit must be connected in accordance with the rules of ventilation engineering.
- Fresh and extract air lines must be thermally insulated to prevent vapour diffusion.
- If the comfort ventilation unit is located in an unheated room, the supply and extract air lines must be thermally insulated.
- The ducts must be leak-tight.
- Check the supply air outlets for dirt build-up and clean them if necessary.
- Extract air points must be free and clean.
- The fresh air intake must be clean and unobstructed.
- The filters must be clean.
- The HomeVent® comfort ventilation unit must be connected to the mains.
- Electrical connecting lines must be intact.
- The fuses for the electrical installation in the building must be switched on.
- The HomeVent® operator terminal must be connected to the comfort ventilation unit.

### 6.2 Switching on

- Connect the mains plug of the HomeVent® comfort ventilation unit to the device and in the socket.
- Set the operator terminal to the desired operating mode.

### 6.3 Operating the unit

If you have installed a BG02E, please refer to the corresponding operating instructions.

If you use a TopTronic® E room control module comfort plus to operate the unit, please read the corresponding operating instructions.

## 7. Maintenance

The comfort ventilation unit must be inspected and serviced regularly. The cleaning and maintenance intervals depend to a great extent on the running time and the degree of contamination in the ambient air (e.g. dust, traffic etc.).



### NOTICE

Have your HomeVent® ventilation unit cleaned by Hoval Customer Service or an installer trained by Hoval.



### Information:

Conclude a service agreement with Hoval, and your HomeVent® comfort ventilation unit will be serviced regularly by Hoval Customer Service.

## 7.1 Supply air and extract air filter



### CAUTION

Do not operate the comfort ventilation unit unless the filters are fitted!



### NOTICE

If you are allergic to pollen, the filter should be changed after the season.

### 7.1.1 Filter soiling

The supply air and extract air filters are time-monitored. The end of the set operating time is displayed on the operator terminal. The filter replacement interval can be adapted to local conditions.

Operator terminal BG02E:

Operating mode display LED lights up orange.

TopTronic® E room control module comfort plus:

Operating display LED lights up orange and is supplemented by a warning triangle on the display.



### Information:

Download operating instructions from [www.hoval.com](http://www.hoval.com)

## 7.1.2 “Filter change” procedure



### NOTICE

- The filters are not reusable (washable).
- The filters are 100 % incinerable (residual waste).



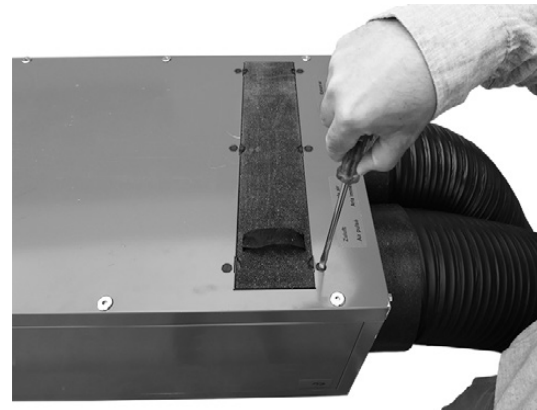
- Make a note of the date when you replaced the filters on the log sheet. The log sheet is at the end of the instructions and can be downloaded from [www.hoval.com](http://www.hoval.com)
- Order new filters when you have replaced the old ones to ensure that you can change the filters without delay the next time this becomes necessary.

Please follow the steps below when changing the filter.

1. Disconnect the power plug



2. Turn the six filter cover latches



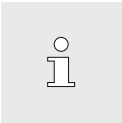
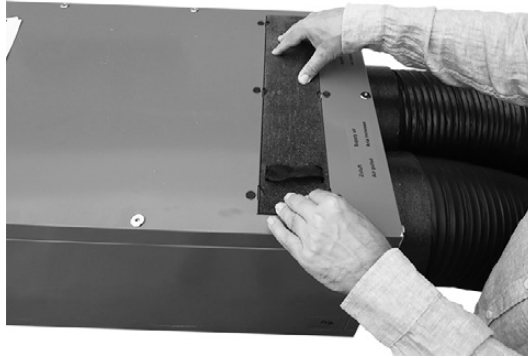
3. Pull out filter cover



4. Pull out soiled filters. These can be disposed of as conventional household waste.

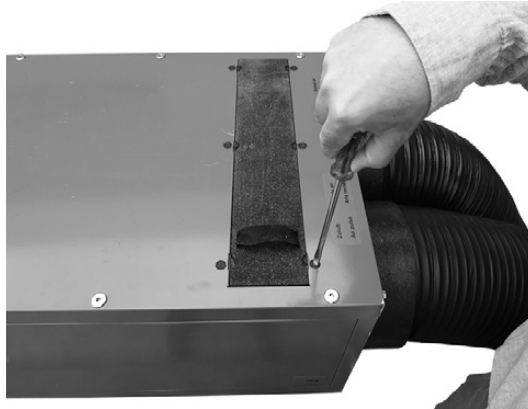


7. Insert filter cover

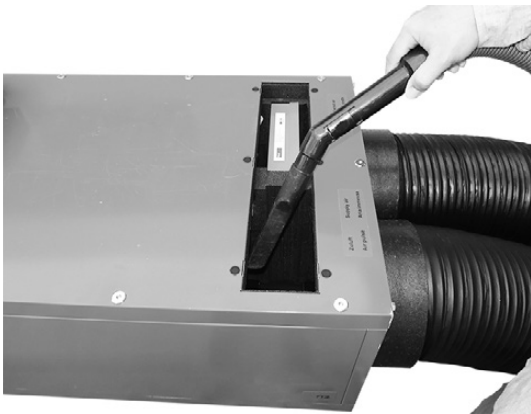


**Information:**  
Dispose of the soiled filters immediately after inserting the new ones.

8. Lock the filter cover with the six latches



5. Clean the filter chamber by hand or with the vacuum cleaner



9. Re-insert plug



6. Insert new filters. Please observe the air direction and the labelling of the filter, as well as the information on the inside of the unit.



**!** **NOTICE**  
Observe the correct air flow direction when inserting the filters (arrows on the filter)!

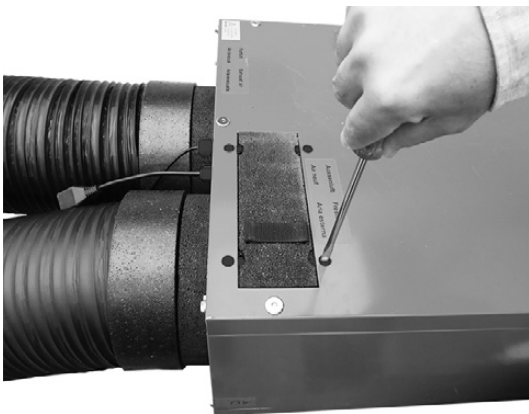
### 7.1.3 Prefilter cleaning

To clean the prefilter, please follow the steps below.

1. Disconnect the power plug



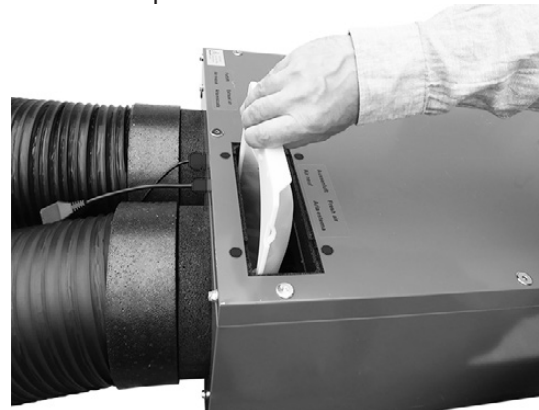
2. Turn the four prefilter cover latches



3. Pull out prefilter cover



4. Pull out prefilter



5. Wash prefilter and allow it to dry



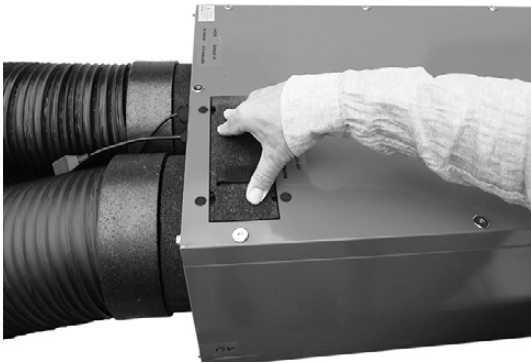
⇒ Make a note of the date when you cleaned the filter on the log sheet.



6. Re-insert prefilter




7. Insert prefilter cover and lock it with the latches



8. Re-insert power plug



7.2 Fuse change

 **DANGER**  
Caution high voltage!

1. Disconnect the power plug



2. Place screwdriver and pull out insert



3. Change fuse. A replacement fuse (E) is available in the insert. The defective fuse can be disposed of in household waste.



4. Push in insert as far as the stop



5. Re-insert plug



### 7.3 Spare parts



#### NOTICE

Use only genuine Hoval accessories. You will find the ordering addresses on the back page of this manual, and at [www.hoval.com](http://www.hoval.com)

Designation	Filter class	Part No.
<b>Supply air filter</b> Pollen fine cassette filter	ePM <sub>1,0</sub> 50 %	5038 283
<b>Supply air activated carbon filter AKF</b> High-capacity Z-filter Alternative to supply air filter ZF-200	ePM <sub>10</sub> 52 %	5039 587
<b>Extract air filter AF</b> Coarse particulate cassette filter	ePM <sub>10</sub> 50 %	5038 284

For filter orders, visit [www.hoval.com/homevent-filter](http://www.hoval.com/homevent-filter)



8. Logs  
8.1 System log

Installer

.....  
.....  
.....  
.....  
.....

Electrician

.....  
.....  
.....  
.....  
.....

Hoval customer service  
(see back page of the instructions)

.....



## 8.2 Filter maintenance log

Please make a note of the actions you have carried out in the log below! E.g.: When you have inspected the supply air filter, circle the "I" in the supply air filter column and enter the date on which the inspection was carried out. If servicing tasks are performed by several persons, the person who carried out the task should enter their name in the last column in case any questions arise later.

I = Inspection

R = Renewal

C = Cleaning

No.	Supply air filter	Extract air filter	Insect filter	Remark	Date	carried out by
1	I / R	I / R	I / C			
2	I / R	I / R	I / C			
3	I / R	I / R	I / C			
4	I / R	I / R	I / C			
5	I / R	I / R	I / C			
6	I / R	I / R	I / C			
7	I / R	I / R	I / C			
8	I / R	I / R	I / C			
9	I / R	I / R	I / C			
10	I / R	I / R	I / C			
11	I / R	I / R	I / C			
12	I / R	I / R	I / C			
13	I / R	I / R	I / C			
14	I / R	I / R	I / C			
15	I / R	I / R	I / C			
16	I / R	I / R	I / C			
17	I / R	I / R	I / C			
18	I / R	I / R	I / C			
19	I / R	I / R	I / C			
20	I / R	I / R	I / C			
21	I / R	I / R	I / C			
22	I / R	I / R	I / C			
23	I / R	I / R	I / C			
24	I / R	I / R	I / C			
25	I / R	I / R	I / C			



**Information:**

The filter maintenance log is available for download at [www.hoval.com](http://www.hoval.com).

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