



Nordic L6

ITEM NO. 800150

EN

USER MANUAL

Air handling unit

Innhold

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Symbols used

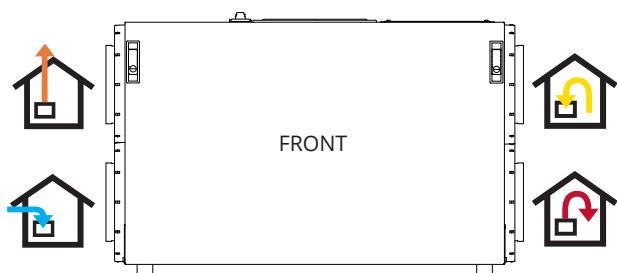
These products feature a range of symbols used for marking the product as well as in the installation and user documentation.



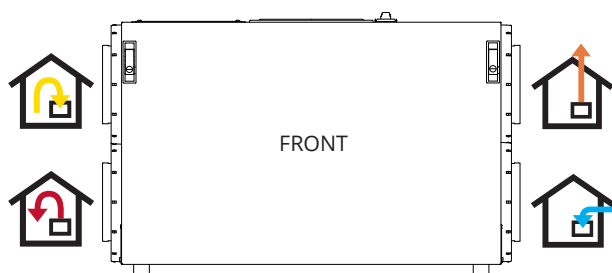
DANGER:
ELECTRICITY



DANGER!
DO NOT TOUCH



EXAMPLE OF NIPPLE LOCATIONS
(Placed with cold ducts to the left)



EXAMPLE OF NIPPLE LOCATIONS
(Placed with cold ducts to the right)



DANGER! When a panel is highlighted in this colour, it means that life-threatening or serious injury could result if the instructions are not followed.



CAUTION! When a panel is highlighted in this colour, it means that not following the instructions could lead to reduced efficiency or operational issues with the product.



CAUTION! When a panel is highlighted in this colour, it means that material damage may result if the instructions are not followed.



INFO! When a panel is highlighted in this colour, it means that it contains important information.



SAFETY INSTRUCTIONS



- To avoid the risk of fire, electric shock or injury, read all the safety instructions and warning texts before using the unit.
- There is a risk of fire if the equipment is not cleaned in accordance with the instructions.
- All electrical connections must be carried out by qualified personnel.
If the power lead is damaged, it must be replaced by the manufacturer, the manufacturer's service agent or a similarly qualified person.
- The unit must not be used to extract combustible or flammable gases.
- The installer is responsible for carrying out a full safety and function assessment of the appliance.
- Before opening the door: The product must be put into service mode and disconnected from the power supply because the unit contains elements that must not be touched when hot. See Flexit GO user manual.
- This appliance may be used by children of eight years or above or by persons with reduced sensory capacity or reduced physical or mental capacity, or by persons with a lack of experience or knowledge, provided they have received instructions in the safe use of the appliance or are supervised to ensure safe use and providing they are aware of the risks.



- The product is not suitable for use by children. Children must not play with the unit. Children must not carry out cleaning or maintenance without supervision.
- Precautions must be taken to prevent gases from flowing back into the room from open vents of gas appliances or other fuel-powered devices (for duct and wall fans).



- This unit is only designed for ventilation air in homes and commercial buildings.
- To maintain a good indoor climate, comply with regulations and avoid condensation damage, the unit must never be stopped except during servicing/maintenance or in the event of an accident.
- The unit must not be operated without the filters being in place.
- All pipework installation must be executed by authorised HVAC specialists.
- The location of the water reservoir must be approved by an HVAC specialist owing to the risk of water leaks.



- Tumble dryers must not be connected to the unit.
- There must be a sufficient supply of air to the room when products such as gas cooking ranges, gas fires, open fireplaces, wood-burning stoves and oil-fired heaters are used.

1. Automatic control

This manual only describes how to use the ventilation unit and does not go into the details of installing/using automatic control.

The product also features automatic functions that can override the selected operating mode if necessary.

For more information on the automatic control system, see www.flexit.no.



*Flexit GO
user manual*

- **Flexit GO app**
To control the ventilation unit via a smartphone/tablet, download the app from Google Play or the App Store. See Startup guide for installers (116628) and Startup guide for end users (116908).

Flexit GO app



Google Play



App Store



For installers, see startup guide (116628).
For end users, see startup guide (116908).

- **NordicPanel control panel (accessory)**
See manual (120018).

NordicPanel control panel (accessories)



*NordicPanel
installation manual*



2. Functional description of balanced ventilation

2.1. FANS (M1, M2)

The fans ensure that air enters and leaves the building. The unit can be set to three different speeds via the operating panel: Home, Away and High.

2.2. FILTERS (FI1, FI2)

Filters with a high filter grade are used as standard for both supply air and extract air so that the air which enters the building is clean. The filters also ensure that the unit stays clean and can maintain thermal efficiency and air flow.

2.3. ROTATING HEAT EXCHANGER (HR-R)

The air passes through the rotary wheel-type heat exchanger (recovery system). The rotating heat exchanger functions as a heat reservoir. The heat from the extract air heats up one part of the rotating heat exchanger. When the heated part comes over to the supply air side, the heat is transferred to the supply air.

2.4. HEATING ELEMENT (EB1)

If the energy recovered from the extract air is insufficient to maintain the set supply air temperature, an electric heating element will work to ensure the supply air reaches the desired temperature. The heating element is protected against overheating by the thermostat (F20), which cuts out at high temperatures. For extra safety, the thermostat (F10) cuts out at critical temperatures. Thermostat F10 needs to be reset manually by pressing the reset button. See Reset button on page 18.

2.5. TEMPERATURE/HUMIDITY SENSORS (B1, B3/H1, B4, B6)

As standard, the unit has four temperature sensors.

The supply air sensor (B1) registers the temperature of air after it has passed the heating battery. The extract air sensor (B3/H1) registers the temperature and relative humidity of the exhaust air. The outdoor air sensor (B4) registers the temperature of the outdoor air. The exhaust air sensor (B6) registers the temperature of the exhaust air.

2.6. FOR USE WITH DAMPERS

2.6.1. Damper (DA1)

There is a closing air damper in the exhaust air duct to prevent cold draughts.

2.6.2. Damper (DA2)

There is a closing air damper in the outdoor air duct to prevent cold draughts.



The unit must always be calibrated by qualified personnel before it is used for the first time.

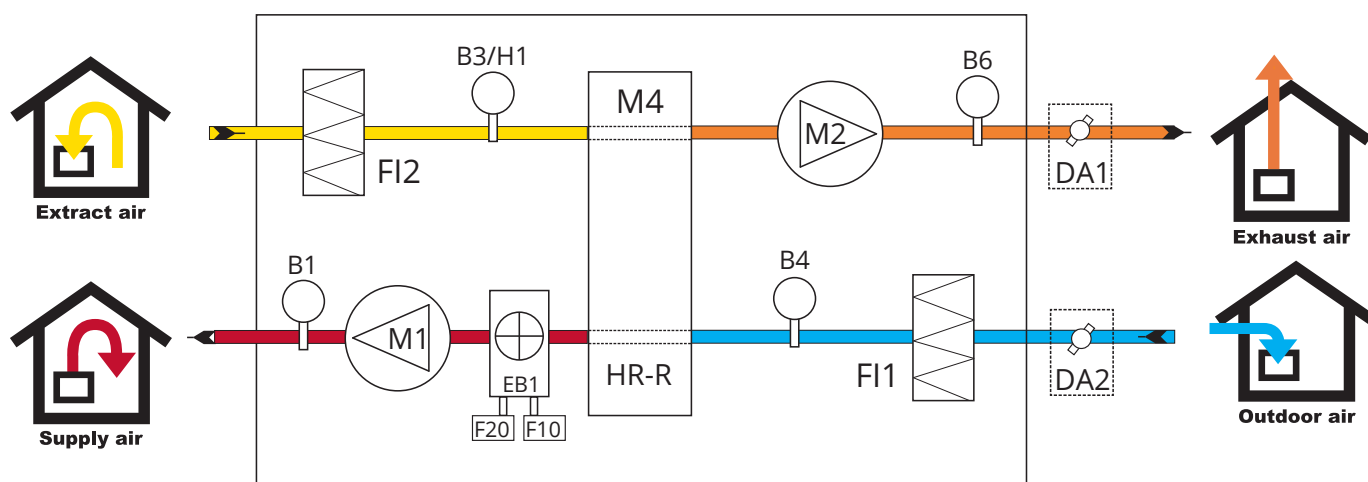
2.7. ADJUSTING AIR VOLUMES

Operating modes should be adjusted to ensure that the unit functions correctly. Air volumes must be adjusted by qualified personnel in accordance with applicable national requirements.



Defective/incorrect settings may cause damage to the product and the home.

Damage resulting from an incorrectly adjusted ventilation system may lead to the rejection of a potential warranty claim. For setting ventilation modes, see the automatic control manual.

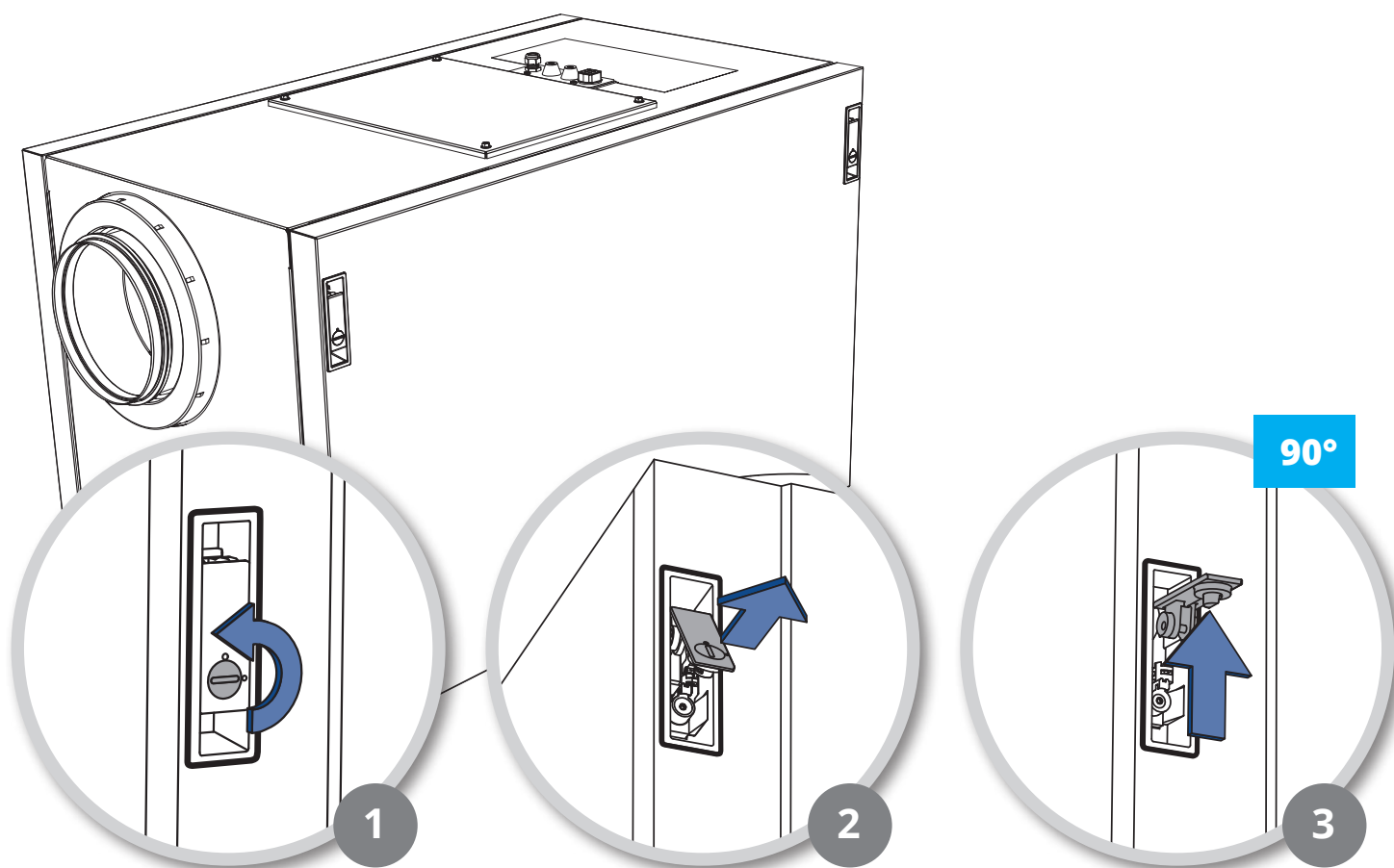


(Placed with cold ducts to the right)

3. Operating the door

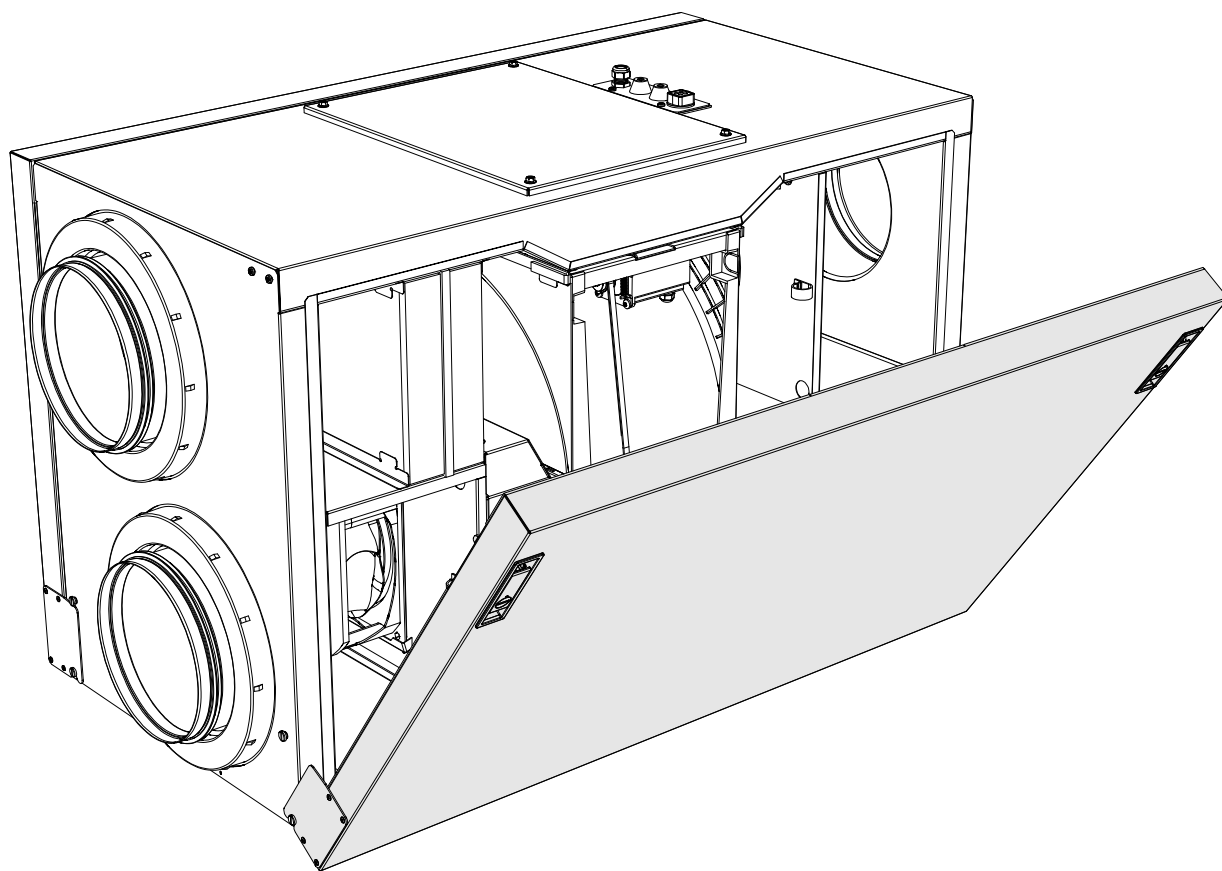
3.1. LOCK

1. Turn the screw in the lock 90°
2. Flip up the lock handle
3. The lock handle needs to be lifted right up to release. Therefore, lift the lock handle right up while opening the door.



3.2. REMOVING THE DOOR

The door can be lifted off at an opening angle of 10° or more.



4. Cleaning and maintenance



DANGER!

The product must be placed in service mode and the power disconnected before servicing is carried out.
See Flexit GO user manual.

4.1. FILTERS – IMPORTANT INFORMATION FOR BUYERS AND USERS



To ensure an optimal indoor climate, you must choose high-quality filters.

4.1.1. Selecting filters for ventilation units for residential buildings

Flexit residential ventilation units provide homes with fresh, filtered air. Filters play a crucial role in preserving air quality and protecting us from dust, pollution and pollen. Between 1.5 and 2 million cubic metres of air pass through the filter each year, which directly affects the health of those living in the home.

4.1.2. The importance of filters in ventilation systems

Filters play a crucial role in ventilation systems.

Here are some important considerations:

1. **Air quality:** Filters affect the air we breathe. They remove particles and provide better indoor climate.
2. **Energy consumption:** Using the right filters contributes to lower energy consumption and optimal operation.
3. **Energy labelling:** The product must meet energy efficiency standards to be legal. Using the wrong filters may violate labelling requirements according to ecodesign requirements, Eurovent and the Energy Labelling Regulation.
4. **Service life:** Using the right filters helps the system last as long as possible, making it both sustainable and environmentally friendly, preserving the value of the home.
5. **Warranty claims:** Using incorrect filters can affect warranty claims and lead to problems.

4.1.3. Responsibility for choosing the right filter



As the homeowner and system owner, you are responsible for choosing the right filter.

Flexit warns against blindly trusting standard recommendations from filter manufacturers. Our experience shows that this does not always ensure the desired performance.

4.1.4. Requirements for filters used in Flexit ventilation units

1. **Filter class:** The filter must meet the ePM1 50–85% standard for both supply and extract air. The supplier must document this through accredited laboratory tests.
2. **Service life:** The filter must maintain this class throughout its service life, typically 6 months but in some cases 12 months. The performance of a new filter alone is not sufficient documentation.
3. **Quality assurance:** The manufacturer must regularly test production to ensure consistent quality. The filter must be tested in Flexit units. Annual documentation of testing procedures and outcomes is also a requirement.
4. **Pressure drop:** To ensure proper functioning, the filter's pressure drop must be tested and documented in approved laboratories.
5. **Fit and sealing:** The filter's fit and sealing around the filter must be tested and documented. There should be no air leakage past the filter.
6. **Eurovent certification:** Note that general Eurovent certification is not sufficient documentation, as results may vary in residential ventilation units.

4.1.5. Known issues with incorrect filter use and warranty claims



Using filters that do not meet the requirements may result in warranty claims being rejected.

Many problems can be traced back to such filters. Users are responsible for the consequences of using the wrong quality of filter.

Typical problems with poor filters:

1. **Air quality and health:** The air quality you breathe in the home is crucial. In urban areas, traffic pollution is a problem. The pollen season can also affect the indoor climate. That is why it is important to choose a filter that meets health requirements.

2. **Filter quality over time:** Some filters lose quality quickly, especially if they are made of cheap or poor-quality materials. This can lead to increased energy consumption and damage to the ventilation unit.
3. **Pressure drop and fans:** Poor filters clog quickly and result in a higher pressure drop. This can increase energy consumption and damage fans and heat exchangers. Poor filters can cause imbalance in the system, leading to moisture problems with condensation and moisture damage in the home.

Remember that Flexit requires documentation of filter performance for warranty claims.

To ensure a healthier indoor climate, you must choose high-quality filters.

4.2. CHANGING THE FILTERS

See important information about using the right filter on the previous page.

How often the filters need to be changed depends on the degree of contamination of the air where they are installed. In general, the filters need to be changed at least once a year, preferably in the autumn (after the pollen season). In areas with a lot of dust and contamination, the filters should be changed in the spring and autumn.

Change both filters (supply air and extract air) at the same time.

Ensure that the filter is not damaged during installation. A damaged filter reduces the unit's power and air purity.

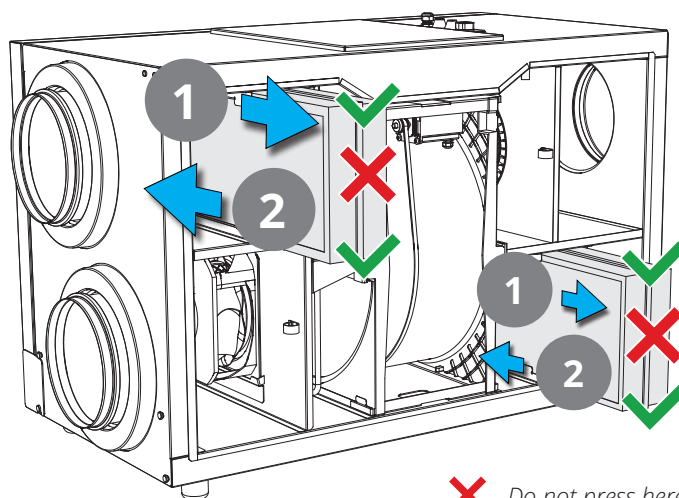
Check that the filter's seal is intact before inserting the filter. Then push the filter properly into place to prevent air leakage.

CAUTION! The unit must not be used without a filter.

Clogged filters can reduce thermal efficiency in the ventilation unit and cause moisture damage.

Be aware that warranty claims may be rejected if a high-quality filter is not used. For the right filter, see "Accessories" under your unit on the Flexit website.

How to change the filters:



Changing the filters

X Do not press here.
✓ Press here.

1. Remove the old filters.
2. Insert the new filters by sliding them into place.

4.3. CLEANING THE FANS

The fans are cleaned at the time intervals stated in 5. Maintenance schedule on page 17. The fan blades should be cleaned using a degreasing agent (e.g. rubbing alcohol) on a cloth and, if possible, compressed air.

NB: Make sure that the motor is not exposed to water.

Tip: Use an 8 mm spanner.

The thumbscrews have slots for use with a flathead screwdriver

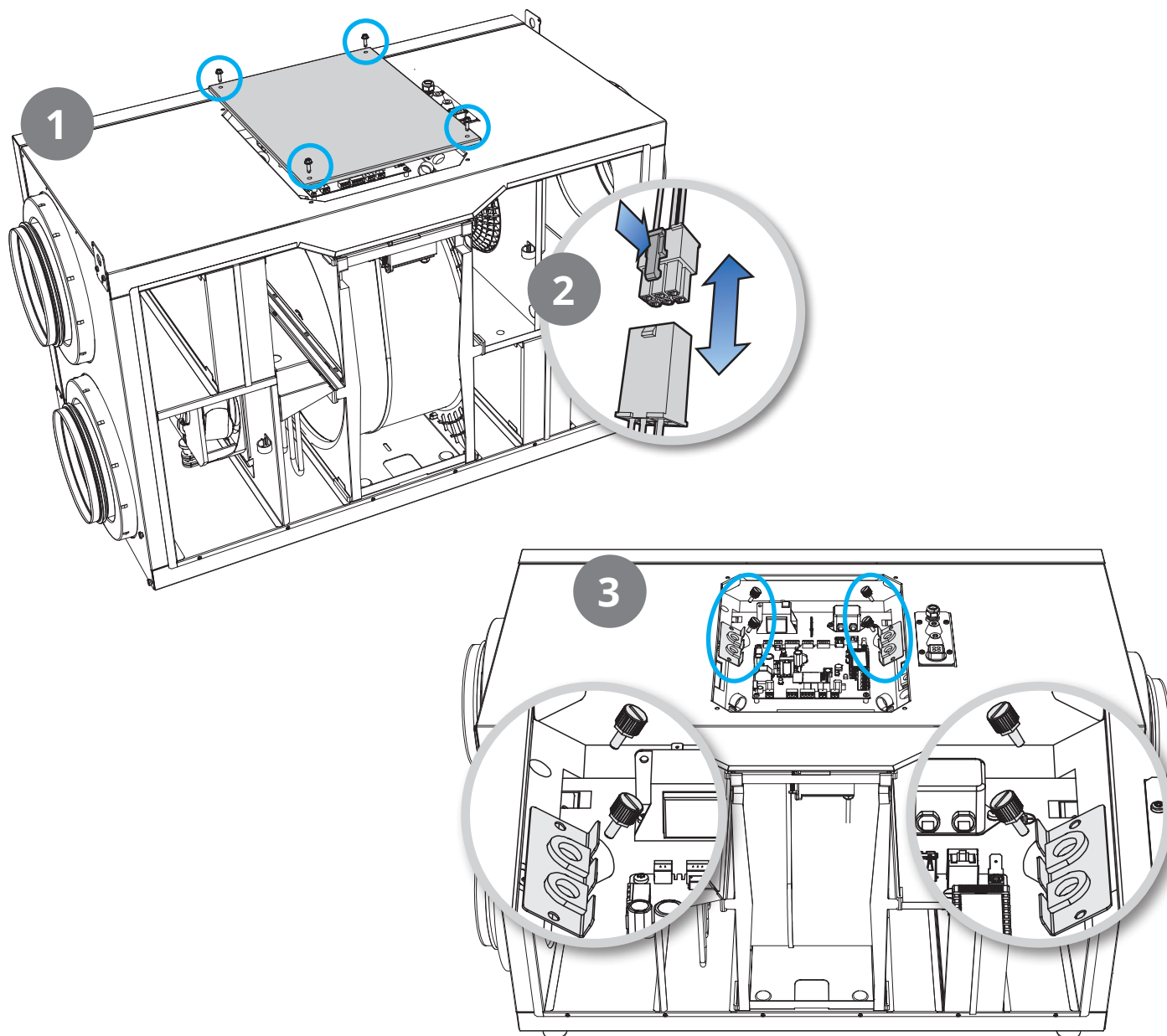


How to remove the fan:

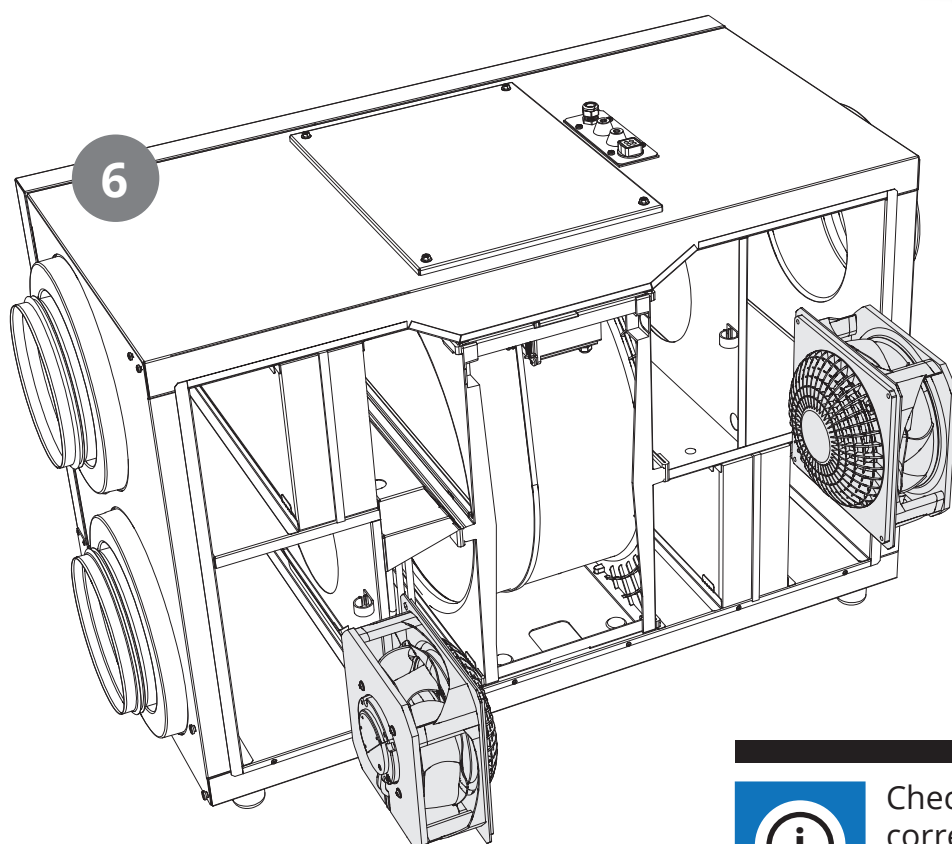
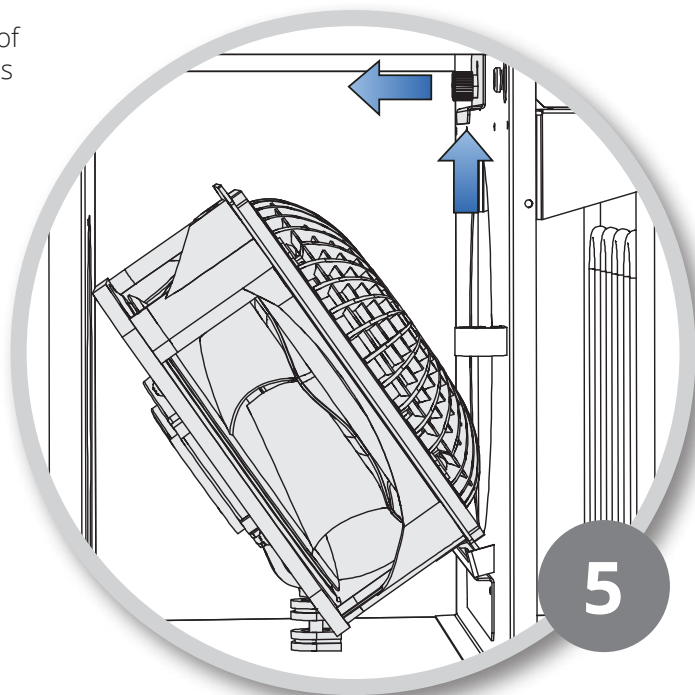
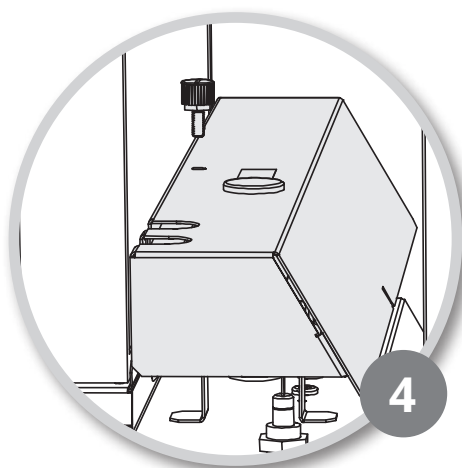
1. Undo the screws in the electrical cover and take the cover off.
2. Disconnect the electric quick-release contacts in the electrical compartment by pressing in at the same time as pulling the contacts apart.
3. Loosen the four thumb screws. Pull the cable bushings out of the grooves so that the cables with quick-release contacts come free too.



To avoid mixing the fans up, it is advisable to disconnect one fan at a time.



4. NB: The wiring harness for the supply air fan passes through the electric battery cover. Remove the thumbscrew, lift the cover up and pull the cable bushing out of the slot.
5. Loosen the thumb screw above the fan. Push the locking plate up and lift out the fan.
6. Pull the wiring harness through the holes and out of the cable clamps so that the fan and wiring harness can be lifted out.



Check that the motors are correctly positioned in the lower motor mount and that the screws holding them in place are properly tightened before starting the product.

4.4. CHANGING THE BRUSH STRIPS

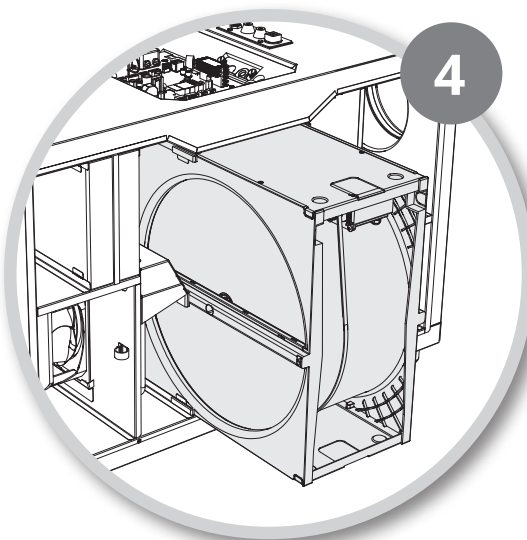
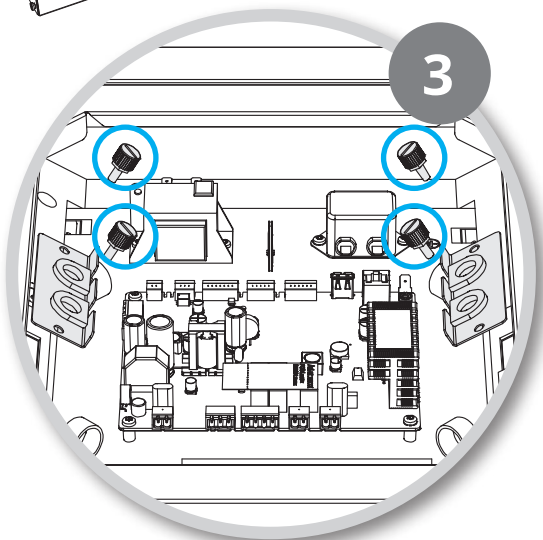
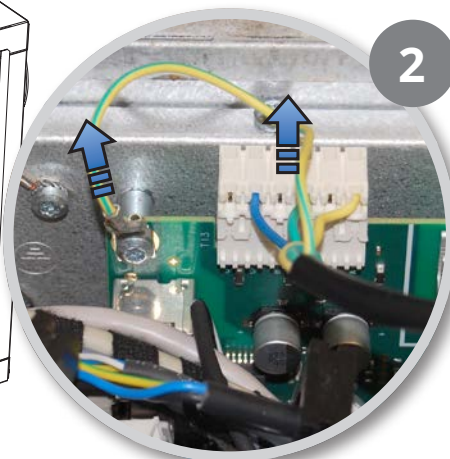
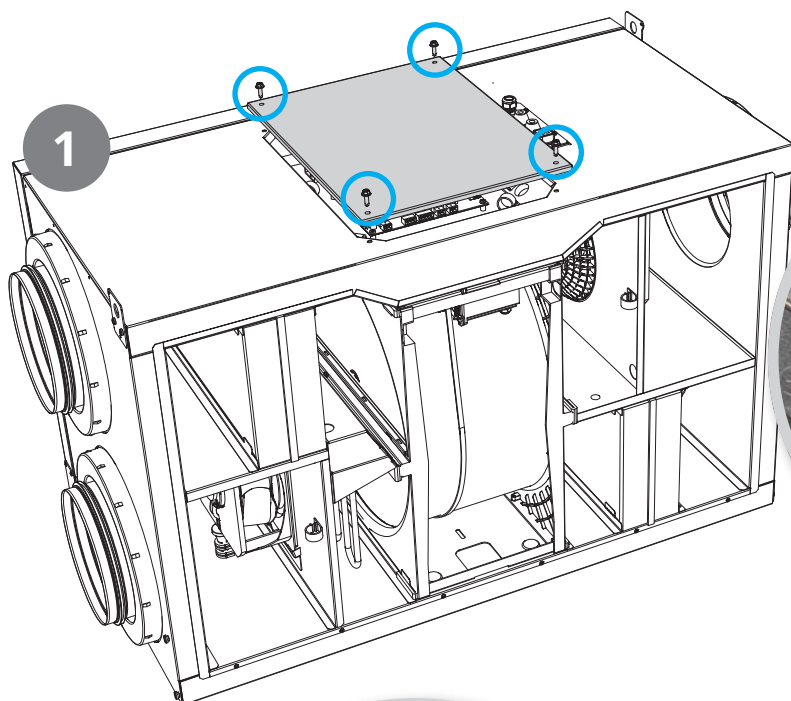
The brush strips become worn over time. If they do not lie tightly against the rotary exchanger, it may be necessary to change them.

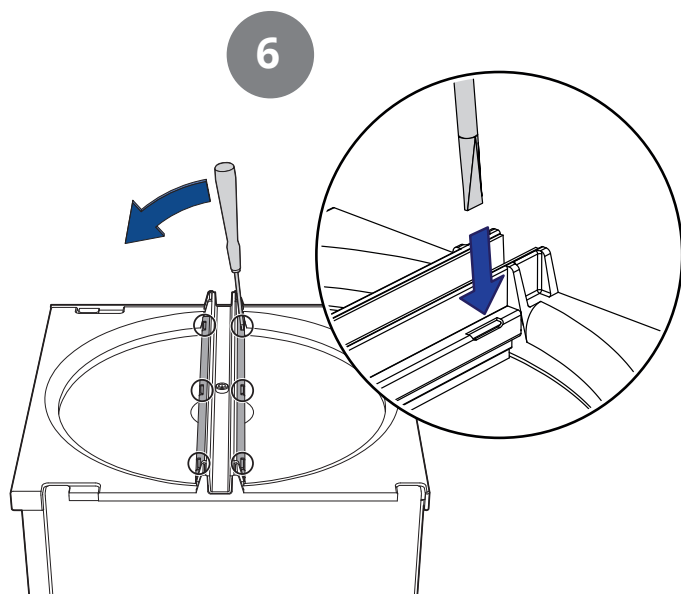
Alternatively, they may be moved closer to the rotating heat exchanger, as the profile they are mounted in has two grooves.

The rotating heat exchanger is heavy, so it is advisable to have several people available to remove it from the unit and put it back again.

Tip: Use a T20  Proceed as follows:

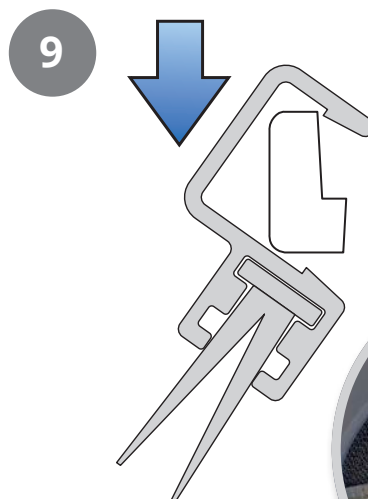
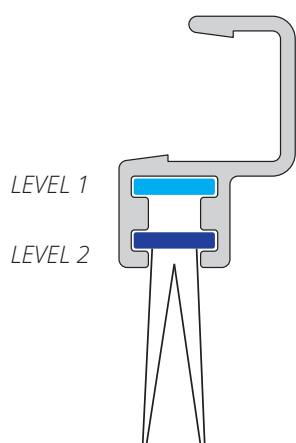
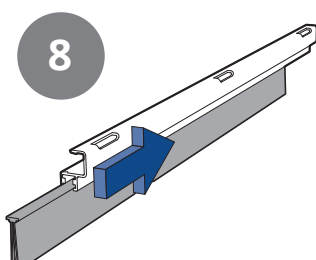
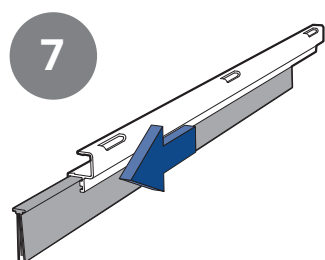
1. Undo the screws in the electrical cover and take it off.
2. Disconnect the rotating heat exchanger's quick-release contact from the circuit board. Also pull the cable lug out to disconnect the earth on the circuit board.
3. Loosen the two thumb screws. Pull the cable bushings out of the grooves so that the cables with quick-release contacts come free too.
4. Pull the wiring harness through the hole and out of the cable clamps. Then pull out the rotating heat exchanger module. **NB:** Take note of the rotating heat exchanger cable's position; it should face the same direction when reassembling the rotating heat exchanger module.





5. Lay the rotating heat exchanger module on its side with the brush strip facing up.
6. Flip off the brush strip profiles with a screwdriver or similar. There are total of four brush strips on the rotating heat exchanger, two on each side. Use a wide flat-head screwdriver so you can get good purchase without bending the profile. Start at one end and continue to the other. Lift it carefully, bit by bit.
7. Pull the brush strips out of the groove. Move the brush strips down to level 2, or replace them with new ones if they are completely worn out.
8. Press the brush strip profile back into place.
9. Then screw the steel profile back on. **Tip:** Use a folded piece of paper to push the brush strips in the correct direction of rotation.

Push the rotating heat exchanger back into the unit by following steps 1–4 in reverse order. **ATTENTION!** Remember to insert the rotating heat exchanger in the same direction. To avoid air leaks in the unit, it is important that the cable bushing is correctly mounted back into the gland plate.



4.5. CLEANING THE ROTATING HEAT EXCHANGER

A high-impermeability filter is installed in the unit. It is therefore not usually necessary to clean the rotating heat exchanger .

If, for any reason, cleaning is still required, dust can be removed with a soft brush.

For a deeper clean, remove the rotating heat exchanger , spray it with a degreasing agent, and blow it clean from the other side. Distance approximately 60 mm and max. pressure 8 bar.

Ensure that the motor is not exposed to water during cleaning. Ensure that all seals around the rotating heat exchanger are intact and tight. Ensure that there is no damage to the rotating heat exchanger belt, and that the rotating heat exchanger rotates freely.

4.6. EXTERNAL CLEANING

Many kitchen surface cleaners contain chemicals that may damage the product's plastic components. Therefore, use a soft cloth moistened with warm water and a neutral detergent to clean the outside of the product.



Do not use sharp objects, powerful cleaners or scouring powder, as such products can damage the surfaces.



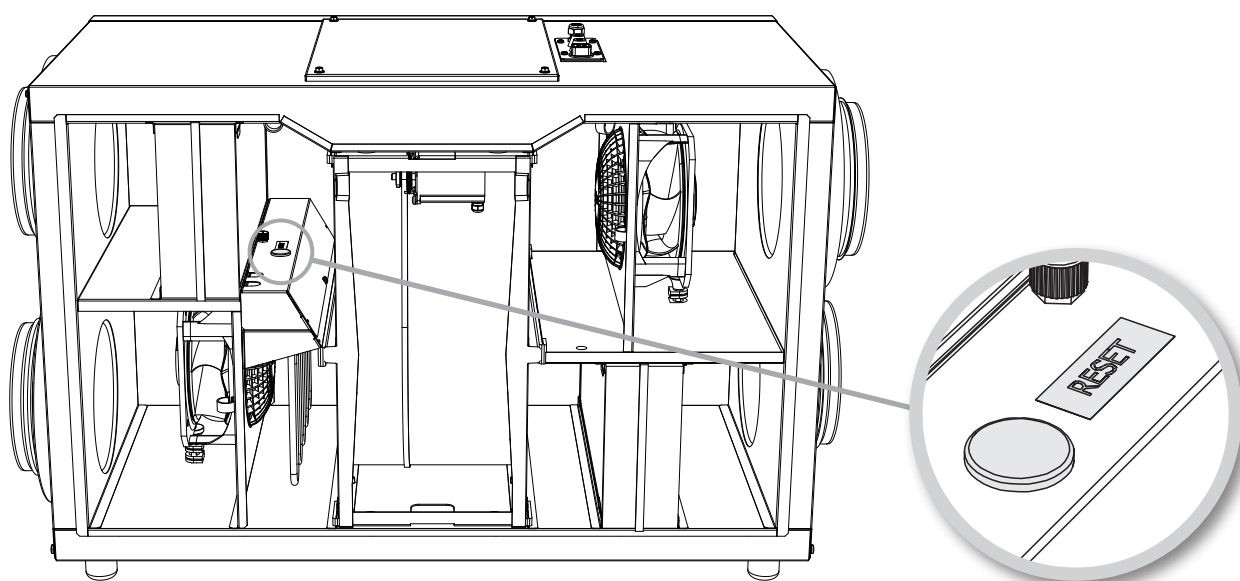
Cleaners containing ammonia or citrus must not be used. Products that give stainless steel an anti-fingerprint coating must not be used either.

5. Maintenance schedule

Component	Action	Interval
Filters	Filters must be changed at least once a year. It is best to do this twice a year, before and after the pollen season. Check that the filter seal is completely tight. By default, a maintenance alarm for filter replacement is triggered every 6 months.	6–12 months
Fans	It is recommended to inspect fans at least every 3 years. The fans should be cleaned as needed.	3 years
Rotary wheel-type heat exchanger (recovery system)	Check that the surfaces are clean. Check that the sealing strips face in towards the rotary wheel-type heat exchanger. Check that the rotating heat exchanger belt is intact and not too slack.	12 months
Seals	Check that the seals on the door, under the filters, on the fan modules and on the rotating heat exchanger module are intact.	12 months
Vents	The supply air and extract air vents (for the bathroom, bedroom, laundry room etc.) must be cleaned at least once a year.	12 months
Air intake	Check that no leaves or other objects have caught in the grille. The air intake can freeze up in winter and should be checked regularly (daily if necessary). If necessary, it must be scraped clean so that the air can pass through.	12 months
Roof cowl	If the system has a roof cowl, it must be checked for leaves and the like. Also check that the drain slots are clear.	12 months
Ducts	Check that the ducts are clean. To be cleaned as required.	6 years
Brush strips	Check that the brush strips are intact and sit tightly against the rotating heat exchanger. If they are worn, they can be moved to the next groove in the profile so that they are closer to the rotating heat exchanger.	3 years
Inside unit	The combination of very low outdoor temperatures and moist extract air can result in the formation of ice. This will not normally be a problem, as the ice crystals will be converted to vapour and removed from the unit via the exhaust air when operating conditions return to normal. In the case of extreme cold over extended periods the unit should be checked for ice.	

6. Troubleshooting

Type of fault	Action
Cold draughts	Ensure that the unit is in HOME operating mode.
	Check what supply air temperature has been selected. See operating panel.
	Check that the rotating heat exchanger rotates freely.
	Check that the heating comes on.
	New extract filter needed.
Fans not working	Ensure that the unit is in HOME operating mode.
	Check that power is connected to the unit.
	Check that the overheating thermostat has not cut out.
	The overheating thermostat is reset by pressing the reset button.* It also has to be reset in the app or on the control panel.
Low air flow rate	Check what speed the unit is set to.
	Check whether the filters are clogged.
	Check the intake grille and exhaust grille for any blockages.



(Placed with cold ducts to the right)

* Reset button

The thermostat (F10) has to be reset manually by pressing the reset button.

7. Warranty claims



Warranty claims will only be valid if the instructions in the manuals have been followed.

This product is covered by warranty in accordance with the applicable terms of sale, **provided that the product is used correctly and is properly maintained.**

The warranty may be rendered invalid if the system is used incorrectly or maintenance is grossly neglected.

Warranty claims resulting from incorrect or defective installation must be submitted to the installation company responsible.

Filters are consumables.

Our products are subject to continuous development and we reserve the right to make changes.

We also disclaim liability for any printing errors that may occur.

8. Disposal



This symbol on the product shows that this product must not be treated as household waste.

It must be taken to a collection point for recycling electrical and electronic equipment.

Proper disposal of the appliance helps prevent potential environmental and health risks associated with improper handling.

For further information on recycling this product, please contact your local authority, your refuse collection company or the company from which you purchased it.



The product is listed in the
database for building products
that can be used in Nordic
Swan Ecolabelled buildings.

Flexit participates in the ECP programme for RAHU.
Check the current validity of the certificate:
www.eurovent-certification.com



Flexit AS, Moseveien 8, 1870 Ørje, Norway
www.flexit.no