

HOME VENTILATION WITH HEAT RECOVERY

Ventilation units **M-WRG-S...** **M-WRG-K...**

Maintenance by the user



MAINTENANCE INSTRUCTIONS

Part no. 5303-00-01 Week 07/2024 EN



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1 Introduction

1.1 Notes on these maintenance instructions



These maintenance instructions contain important information that should be followed when maintaining ventilation units from the M-WRG series.

- ▶ Read all the instructions carefully before maintaining the ventilation unit to avoid possible risks and mistakes.
- ▶ When assembly is complete, give these instructions to the home owner, caretaker or property manager.
- ▶ These instructions are part of the product. Keep the instructions in a safe place for future reference.

WARNING

- ▶ Follow ALL danger and warning instructions and notes on precautionary measures.
- ▶ Read chapter “2 Safety instructions” from page 6 carefully.

1.2 Description

These instructions describe the maintenance of ventilation units from the M-WRG series and refer to the DIN 1946-6 standard.

Maintenance and cleaning significantly affect how the ventilation units work and their effectiveness. Correct maintenance prevents hygiene problems, preserves the building structure and has a positive effect on the ventilation unit's power consumption.

1.3 Target group

These maintenance instructions are intended for users of the ventilation unit. No special prior knowledge is needed.

1.4 Nameplate with device number




Meltem Wärmerückgewinnung GmbH & Co. KG Am Hartholz 4 82239 Alling www.meltem.com Tel.: 08141-40 41 79-0		
Device no.:	Type: M-WRG-S	
	Part no.: 5010	
	max. 37 W	
	230 V	50 Hz IPX1
		Iso-Kl. B

Fig. 1: Nameplate

You will find the nameplate with the device number on the intermediate plate inside the housing (see item 1 in Fig. 2).



Fig. 2: Position of the nameplate

1.5 Environmentally-friendly disposal

Avoiding waste from electrical and electronic devices makes a significant contribution to environmental protection and the better use of resources. Recycling and other ways of reusing such waste also reduce the amount of waste that needs to be taken away.

- ▶ You should dispose of the product in accordance with your applicable national regulations.



1.6 Revision index

Edition	Manual	Date
2 nd edition	Maintenance instructions for M-WRG-S... / M-WRG-K... ventilation units	Week 07/2024 EN

1.7 Explanation of the symbols used

- ▶ This symbol indicates an action to be taken.
- This symbol indicates a list.

2 Safety instructions

These instructions contain notes that you must follow for your own personal safety and to avoid injury and damage to property. They are highlighted by warning triangles and are shown as follows according to the level of danger.

2.1 Hazard classification

DANGER

The signal word designates a hazard with a **high** degree of risk which, if it is not avoided, will result in death or severe injury.

WARNING

The signal word designates a hazard with a **medium** degree of risk which, if it is not avoided, will result in death or severe injury.

CAUTION

The signal word designates a hazard with a **low** degree of risk which, if it is not avoided, could result in minor or moderate injury.

NOTICE

A note as used in this manual contains important information about the product or about a part of the manual to which particular attention should be paid.

2.2 Starting and using the ventilation unit

- Do not start up the ventilation unit until it is fully installed.
- Always operate the ventilation unit with the air filters fitted.
- Always make sure that the cover is closed and locked in place before using the ventilation unit.

2.3 Intended use

- The intended use also includes compliance with all the notes in the maintenance instructions.
- The ventilation unit must not be operated without air filters or outer wall terminal.
- For any use contrary to the intended use, Meltem Wärmerückgewinnung GmbH & Co. KG shall accept no liability for any damage that may occur and offers no warranty that the ventilation unit will work perfectly and correctly.

3 Warranty and liability

The warranty and liability shall be void if the ventilation unit is not maintained as described in these maintenance instructions.

4 General notes on maintenance

4.1 Air filters

4.1.1 Filter maintenance

Filter change indicator on ventilation units constructed before 05/2017

The ventilation unit has a filter change indicator. The level of soiling of the round filter cartridges is automatically monitored by the ventilation unit. A pending air filter change is signalled both visually (type M-WRG-K only) and audibly.

For the type M-WRG ventilation units, the visual indication takes the form of an exclamation mark “!” in the top right corner of the LCD display in all program and status displays:

```
VLE:03 VLI:03 !
P0 SELECT I, II, III
```

Filter change indicator on ventilation units constructed from 06/2017

The ventilation unit has a runtime-controlled filter monitoring function with audible indicator. It monitors the time since the last air filter change. If the last air filter change was more than one year ago, the filter change indicator is activated and a pending air filter change is signalled.

As the time for the air filter change approaches, the intervals between the audible warnings shorten over a period of two to three weeks. The air filters must be changed when the warning signal occurs every hour and lasts for one second. This long warning period allows the user to order replacement filters in good time.

No tools are needed to change the air filters.

4.1.2 Choice of filter

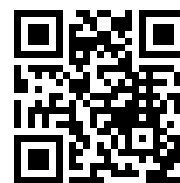
The following air filters may be used or are available for selection for the M-WRG ventilation units:

Part no.	Designation	Filter type	Filter class	Application
5571	M-WRG-FS	Standard filter (for outdoor air and extract air)	ISO ePM10 65% (G4)	Effectively retains coarse dust particles from dust class PM10 such as dust, pollen and fungal spores.
5572	M-WRG-FA	Allergy filter (for outdoor air only)	ISO ePM1 60% (F7)	Effectively filters out respirable particulates such as pollen, soot and bacteria from dust class PM1
5573	M-WRG-FK	Activated charcoal filter (for outdoor air only)	ISO ePM10 60% (M6)	Effectively retains coarse dust particles from dust class PM10 such as pollen and fungal spores, and the activated charcoal layer absorbs odours and harmful gases such as propellants, nitrogen oxides and ozone.

Table 1: Choice of filter

4.2 Ordering filters

Please contact your local or regional dealer for information on ordering filters. You will find the contact details on our website at www.meltem.com (or using the QR code on this page).



Go to
www.meltem.com

4.2.1 Important notes on the filter change

- Never run the ventilation unit without air filters.
- Always use genuine Meltem filters. These are precisely matched to your M-WRG ventilation units, ensure minimal pressure losses and will ensure a long service life from your ventilation units.
- DIN 1946-6 “Ventilation for residential buildings” recommends changing air filters every six months. The air filters for outdoor air and extract air should be replaced at least once a year on hygiene grounds, ideally before the cold weather starts.
- In high levels of air pollution (e.g. from road traffic or industry, rooms with high dust levels) change the air filters **every six months**.
- Always replace air filters in pairs. The permeability of both air filters affects the efficiency and power consumption of the ventilation unit.
- Observe the filter change indicator (see section 4.1.1 on page 7) and replace the air filters as necessary.
- Always switch the ventilation unit off at the mains switch for the filter change. Otherwise the open air flaps will make it impossible to remove and insert the filter cartridges.

NOTICE

An outdoor air filter from filter class ISO ePM1 ≥50% (F7) is needed to fulfil the hygiene requirements defined in VDI 6022 and DIN 1946-6 (category H). This is available as an option.

4.3 Cleaning the ventilation unit

⚠ WARNING

- ▶ Switch off the power to the ventilation unit before cleaning.
- ▶ When cleaning, make sure that no moisture penetrates into the inside of the housing.
- ▶ Never use a high pressure cleaner, steam cleaner or steam jet.

The ventilation unit is made of high quality plastic and requires little care.

- ▶ Wipe the outer surfaces from time to time with a soft, damp cloth. Use mild soapy water. A commercially available plastic cleaner can be used for particularly stubborn dirt.

NOTICE

- ▶ Never use acidic, corrosive or abrasive cleaning agents.

5 Maintenance schedules

5.1 Device number

- ▶ Enter your device number on the line below. You will find the device number on the nameplate (see Fig. 2 on page 5).

Device number: _____

5.2 Maintenance schedule A – annual maintenance

Component	Activity	Date									
Unit cover	Clean										
Filter cover											
Filter ring											
Outdoor air pipe											
Filter base											
Air flap frame											
Air flaps											
Intermediate plate											
Heat exchanger	Visual inspection										
Outdoor air filter	Replace (see 4.2.1)										
Extract air filter											
Flap mechanism	Function test										
Supply air and exhaust air fan											
Display (M-WRG-K... only)											

Table 2: Maintenance schedule A – annual maintenance

5.3 Maintenance schedule B – maintenance every 5 years

Component	Activity	Date											
Ventilation unit	Disinfect												
Flat ducts / flexible pipes (if present)	Clean												
Supply air and exhaust air fan	Function test												

Table 3: Maintenance schedule B – maintenance every 5 years

6 Spare parts and equipment required

6.1 Maintenance schedule A – annual maintenance

- 2 x replacement filters, see section 4.1.2 page 7
- Lint-free cloth for cleaning the surfaces of the ventilation unit
- Lint-free cloth for covering the heat exchanger
- Mild soapy water
- Vacuum cleaner with attachment for scratch-prone surfaces, e.g. brush attachment with natural hair bristles
- Duster made from special fibres with handle, e.g. Swiffer

6.2 Maintenance schedule B – maintenance every 5 years

- Disinfectant spray, e.g. Sagrotan Hygiene spray

7 Maintenance schedule A – carry out annual maintenance

7.1 Switch ventilation unit off at mains switch

NOTICE

- ▶ Always switch the ventilation unit off at the mains switch (item 1 in Fig. 3) for the filter change. On ventilation units with the M-WRG-O/NOF option, power to the unit must be switched off using the building's miniature circuit breaker. Otherwise the open air flaps (see item 2 in Fig. 8 on page 13) will make it impossible to remove and insert the filter cartridges.

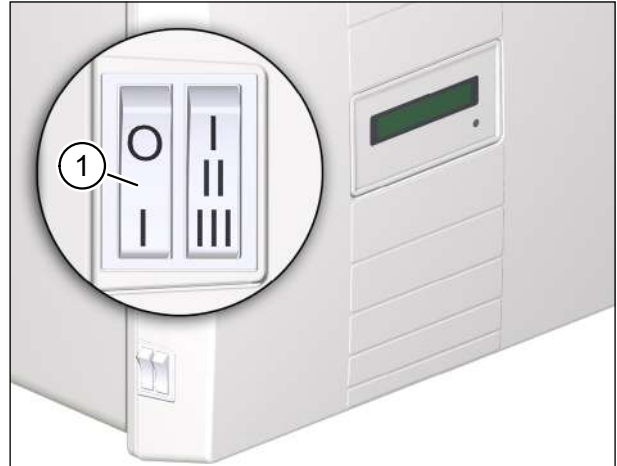


Fig. 3: Switch ventilation unit off at mains switch

7.2 Remove unit cover from the ventilation unit and clean

- ▶ Using both thumbs, press the two latches (item 1 in Fig. 4) on the bottom of the ventilation unit. The unit cover (item 2 in Fig. 4) will come away.
- ▶ At the same time, push your index fingers into the gap between the unit cover and housing (item 3 in Fig. 4), and lift the unit cover up and away from the housing.
- ▶ Clean the unit cover on all sides with a damp cloth and mild soapy water.

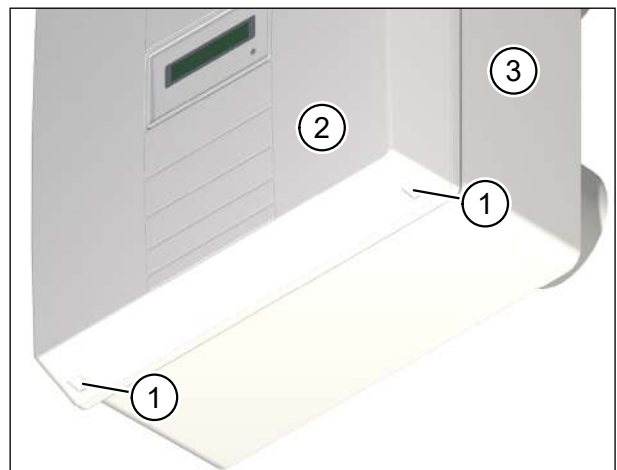


Fig. 4: Remove unit cover from the ventilation unit and clean

7.3 Remove used air filters, clean filter cover and filter ring

- ▶ Turn the filter ring (item 1 in Fig. 5) using the hand grip (item 2 in Fig. 5) anti-clockwise until the arrow on the filter ring (item 3 in Fig. 5) lines up with the arrow at the removal position (item 4 in Fig. 5).
- ▶ Pull the filter ring together with the extract air filter out of the ventilation unit.
- ▶ Turn the filter cover (item 6 in Fig. 5) using the hand grip (item 7 in Fig. 5) anti-clockwise until the arrow on the filter cover (item 8 in Fig. 5) lines up with the arrow at the removal position (item 9 in Fig. 5).

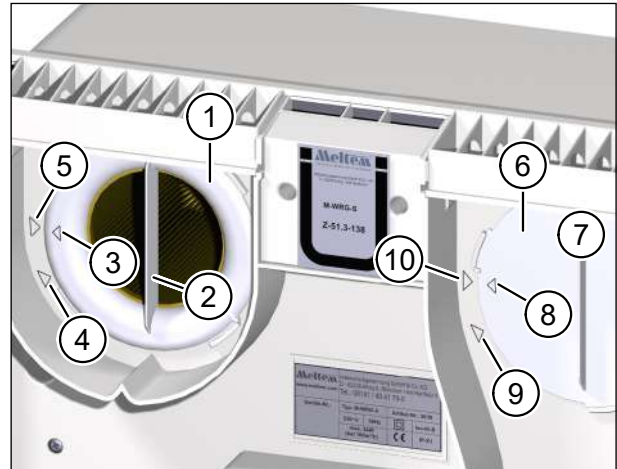


Fig. 5: Remove used air filters

- ▶ Pull the filter cover together with the outdoor air filter out of the ventilation unit.
- ▶ Detach the extract air filter from the filter ring.
- ▶ Detach the outdoor air filter from the filter cover.
- ▶ Clean the filter ring and filter cover with a damp cloth and mild soapy water.
- ▶ Dispose of the used air filters in the non-recyclable waste or as required by your country's disposal regulations.

7.4 Check outdoor air pipe for soiling and clean if necessary

- ▶ Check the outdoor air pipe (item 1 in Fig. 6) for soiling.
- ▶ Clean the outdoor air pipe if necessary:
 - ▶ Cover the heat exchanger (item 2 in Fig. 6) with a lint-free cloth. This will prevent dirt getting inside the heat exchanger.
 - ▶ Clean the outdoor air pipe with a vacuum cleaner or duster (see section 6.1 on page 10).

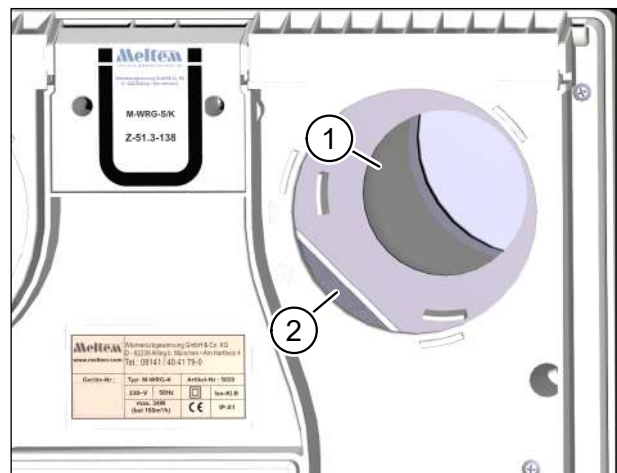


Fig. 6: Check outdoor air pipe for soiling and clean if necessary

NOTICE

Do not use the vacuum cleaner on the heat exchanger as this could potentially damage the heat exchanger fins.

7.5 Clean filter base on extract air side if necessary

- ▶ Check the filter base on the extract air side (item 1 in Fig. 7) for soiling.
- ▶ Clean the filter base if necessary:
 - ▶ Cover the heat exchanger (item 2 in Fig. 7) with a lint-free cloth. This will prevent dirt getting inside the heat exchanger.
 - ▶ Clean the filter base with a vacuum cleaner or duster (see section 6.1 on page 10).

NOTICE

Do not use the vacuum cleaner on the heat exchanger as this could potentially damage the heat exchanger fins.



Fig. 7: Clean filter base on extract air side if necessary

7.6 Remove and clean both air flap frames

- ▶ Carefully pull the two air flap frames (item 1 in Fig. 8) up and out of the ventilation unit.
- ▶ Clean the air flap frames with a damp cloth and mild soapy water.

NOTICE

Do not remove the air flaps (item 2 in Fig. 8) from the ventilation unit.

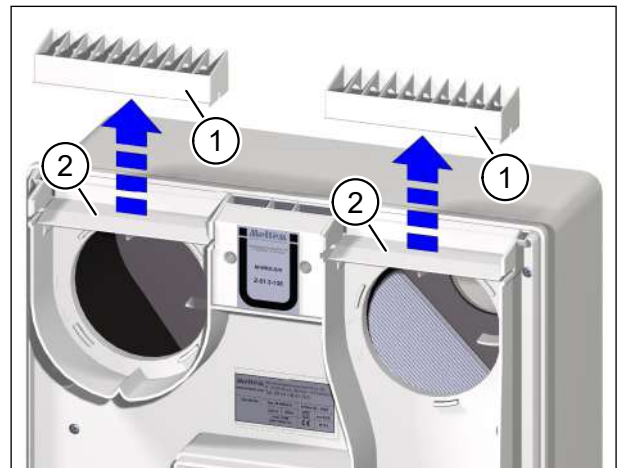


Fig. 8: Remove and clean both air flap frames

7.7 Clean air flaps

- ▶ Clean the two air flaps (item 2 in Fig. 8) with a damp cloth and mild soapy water.

NOTICE

Do not remove the air flaps (item 2 in Fig. 8) from the ventilation unit.

7.8 Clean intermediate plate

- ▶ Clean the intermediate plate (item 1 in Fig. 9) with a damp cloth and mild soapy water.



Fig. 9: Clean intermediate plate

7.9 Check heat exchanger for soiling

- ▶ Visually inspect the heat exchanger (item 1 in Fig. 10) for soiling.

NOTICE

If significant soiling of the heat exchanger is identified during the annual visual inspection, the ventilation unit must be opened and cleaned by a specialist. Contact Meltem or an authorised specialist company if this is the case.

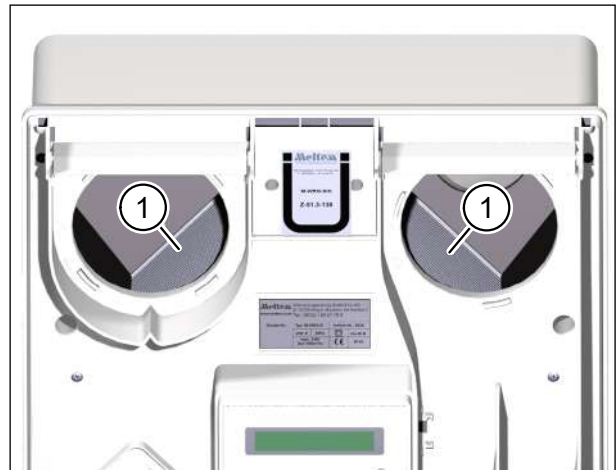


Fig. 10: Check heat exchanger for soiling

⚠ DANGER

Potentially fatal voltages

- ▶ Do NOT remove the supply air hood (item 1 in Fig. 11) or the intermediate plate from the ventilation unit (item 2 in Fig. 11).



Fig. 11: Supply air hood and intermediate plate on ventilation unit

7.10 Insert both air flap frames

- ▶ Attach the cleaned air flap frames (item 1 in Fig. 12) to the ventilation unit.
- ▶ Check that the air flap frames are seated correctly on the ventilation unit.

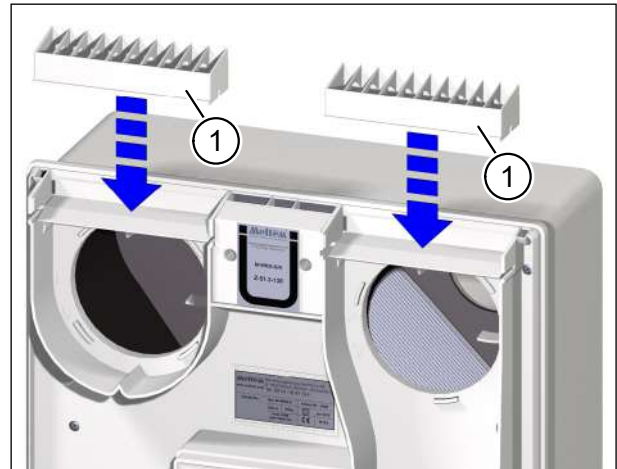


Fig. 12: Insert both air flap frames

7.11 Insert new air filters

- ▶ Carefully guide the new extract air filter (item 1 in Fig. 13) into the ventilation unit.
- ▶ Make sure that the air filter slides into the four retaining tabs (item 2 in Fig. 13) on the back wall of the ventilation unit.
- ▶ Place the filter ring (item 1 in Fig. 14) on the extract air filter. Make sure that the filter ring lies flat on the intermediate plate.
- ▶ Make sure that the filter ring is oriented so that the arrow on the filter ring (item 3 in Fig. 14) lines up with the arrow for the removal position (item 4 in Fig. 14).
- ▶ Turn the filter ring clockwise until the arrow on the filter ring (item 3 in Fig. 14) lines up with the arrow for the locking position (item 5 in Fig. 14).
- ▶ Carefully guide the new outdoor air filter (item 3 in Fig. 13) into the ventilation unit.
- ▶ Make sure that the air filter slides into the four retaining tabs (item 4 in Fig. 13) on the back wall of the ventilation unit.
- ▶ Place the filter cover (item 6 in Fig. 14) on the outdoor air filter. Make sure that the filter cover lies flush on the intermediate plate.
- ▶ Make sure that the filter cover is oriented so that the arrow on the filter cover (item 8 in Fig. 14) lines up with the arrow for the removal position (item 9 in Fig. 14).

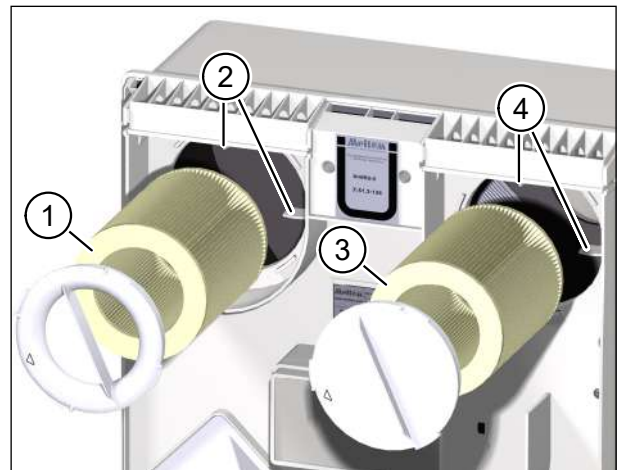


Fig. 13: Insert new air filters

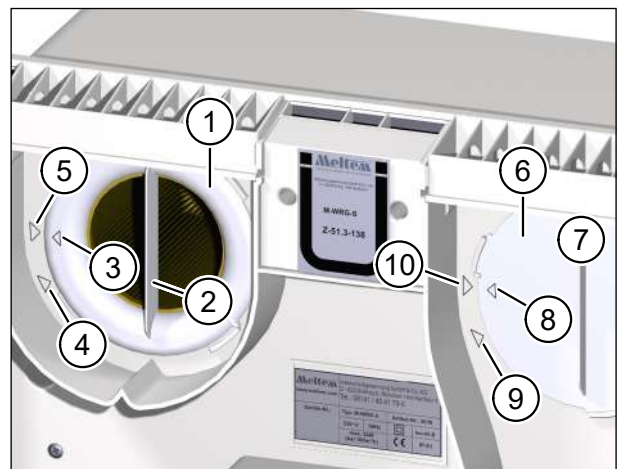


Fig. 14: Insert filter ring and filter cover

- ▶ Turn the filter cover clockwise until the arrow on the filter cover (item 8 in Fig. 14) lines up with the arrow for the locking position (item 10 in Fig. 14).
- ▶ Check the position of the filter ring (item 1 in Fig. 14) and filter cover (item 6 in Fig. 14). The hand grips (item 2 and 7 in Fig. 14) must be vertical and the arrows on the filter ring and filter cover must line up with the arrows for the locking position.

NOTICE

- The ventilation unit will not work as well if the filter ring or filter cover is not inserted correctly.
- Allergy filters and activated charcoal filters may only be used as outdoor air filters.

7.12 Attach unit cover to ventilation unit

- ▶ Hold the unit cover (item 1 in Fig. 15) of the ventilation unit with both hands and tilt the top edge of the cover towards the ventilation unit.
- ▶ Insert the tabs (item 2 in Fig. 15) of the unit cover into the openings (item 3 in Fig. 15) on the top of the ventilation unit.
- ▶ Lightly press the bottom edge of the cover against the ventilation unit until you hear the cover snap in place.

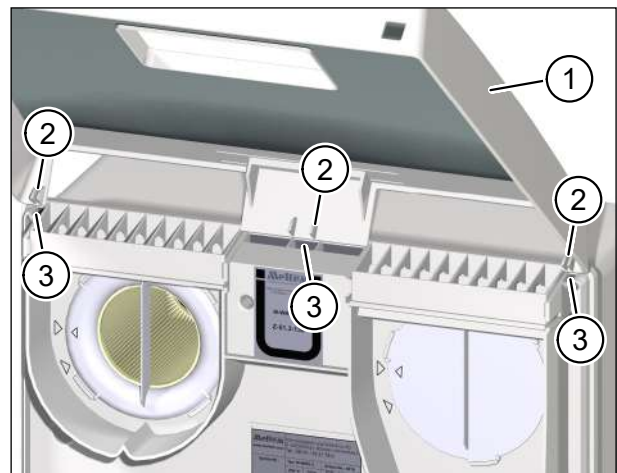


Fig. 15: Attach unit cover to ventilation unit

7.13 Switch on the ventilation unit and check functions

- ▶ Switch the ventilation unit on at the mains switch (item 1 in Fig. 3 on page 11).
- ▶ Test the air flap mechanism (item 1 in Fig. 16):
 - Both air flaps should open when the ventilation unit is switched on.
 - Both air flaps should close when the ventilation unit is switched off.
- ▶ Check the functions of the extract air and supply air fans. There must be a perceptible air flow at the extract air opening (item 2 in Fig. 16) and supply air opening (item 3 in Fig. 16).
- ▶ Check that the display responds to input from the remote control (type M-WRG-K only).

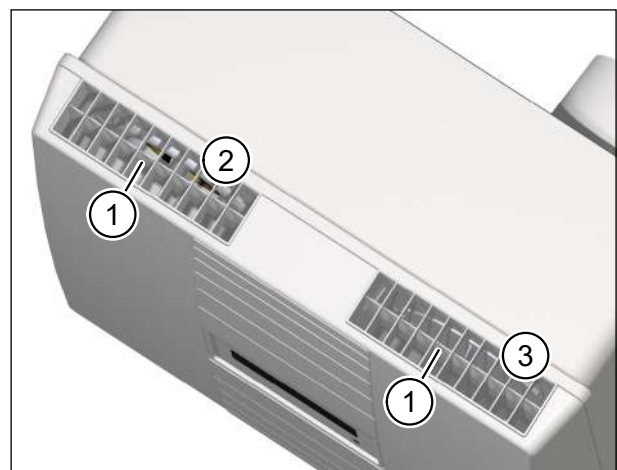


Fig. 16: Function check

7.14 Reset filter change indicator

NOTICE

- The filter change indicator must be reset on ventilation units constructed from 06/2017.
- On ventilation units constructed before 05/2017, the filter change indicator is reset by switching the ventilation unit off and on, as required when carrying out the air filter change.

On ventilation units constructed from 06/2017, the filter change indicator must be reset after every air filter change in order to restart monitoring of the period since the last air filter change. The procedure is as follows:

- ▶ Within three seconds, select the ventilation levels **I-II-III-II-I** one after the other on the step switch (item 1 in Fig. 17).
The ventilation unit will beep as confirmation.
- ▶ Within three seconds, while the ventilation unit is beeping, again select the ventilation levels **I-II-III-II-I** one after the other on the step switch (item 1 in Fig. 17).
The ventilation unit will beep three times as confirmation. Monitoring of the period since the last air filter change is now restarted.

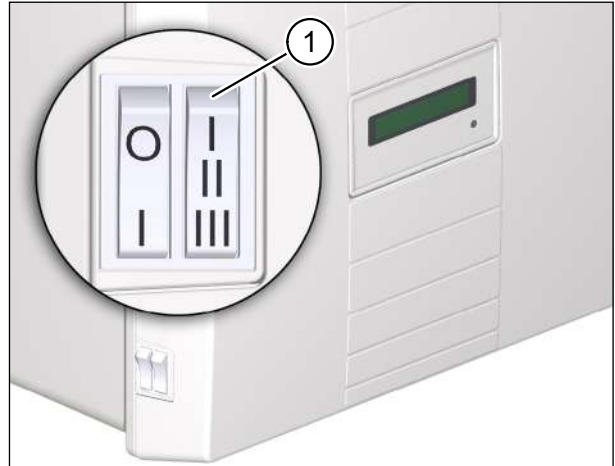


Fig. 17: Reset filter change indicator

7.15 Enter completed maintenance in maintenance schedule

- ▶ Enter the date on which you carried out the maintenance in maintenance schedule A and tick the activities you carried out (see section 5.2 on page 9).

8 Maintenance schedule B – carry out every 5 years

8.1 Preparation

- ▶ Carry out the following steps:
 - “7.1 Switch ventilation unit off at mains switch” on page 11
 - “7.2 Remove unit cover from the ventilation unit and clean” on page 11

8.2 Remove outdoor air filter

- ▶ Remove the outdoor air filter (item 1 in Fig. 18), see section 7.3 on page 12.

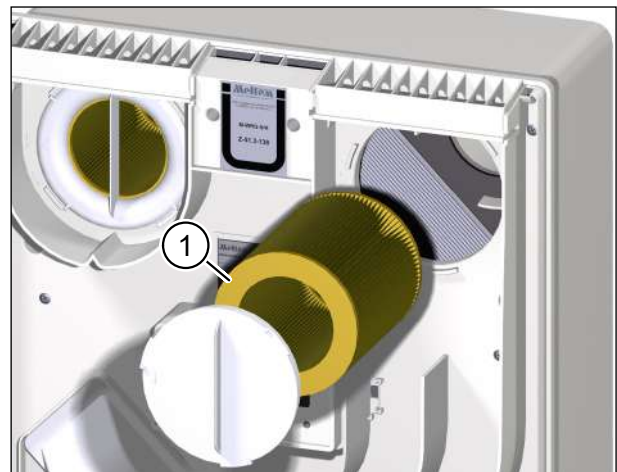


Fig. 18: Remove outdoor air filter

8.3 Disinfect ventilation unit

⚠ WARNING

Risk of burns

- ▶ Never use the disinfectant spray in the vicinity of a naked flame or fire.
- ▶ Please follow the manufacturer's safety instructions.

⚠ WARNING

Sensory disturbance

- ▶ Only use the disinfectant spray in a well-ventilated area.
- ▶ Please follow the manufacturer's safety instructions.
- ▶ Spray the disinfectant into the supply air opening, ideally onto the heat exchanger (item 1 in Fig. 19).
- ▶ Leave the disinfectant spray to work in accordance with the manufacturer's instructions.
- ▶ Close the supply air opening with the filter cover (item 2 in Fig. 19).

NOTICE

- ▶ On this occasion, as an exception, do not insert an outdoor air filter.

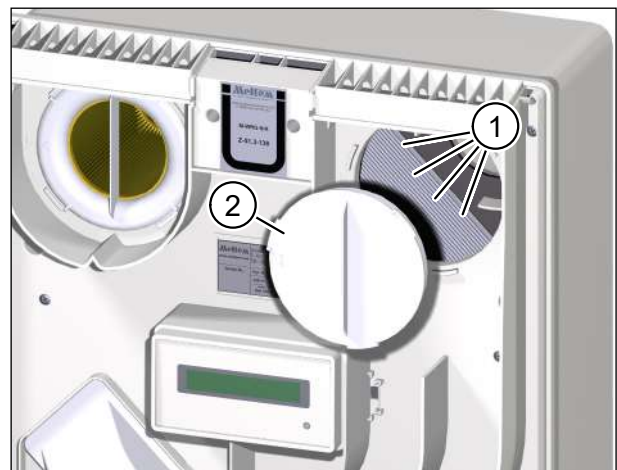


Fig. 19: Disinfect ventilation unit

- ▶ Switch the ventilation unit on for around 5 minutes. The disinfectant will be distributed around the ventilation unit, making it clean and hygienic.

8.4 Clean flat ducts / flexible pipes

NOTICE

The maintenance described in this section is only necessary if your ventilation unit is connected to a flat ductwork/flexible pipe system.

- ▶ You will need to arrange for a specialist company to clean the flat ducts / flexible pipes. Contact Meltem or an authorised specialist company if this is the case.

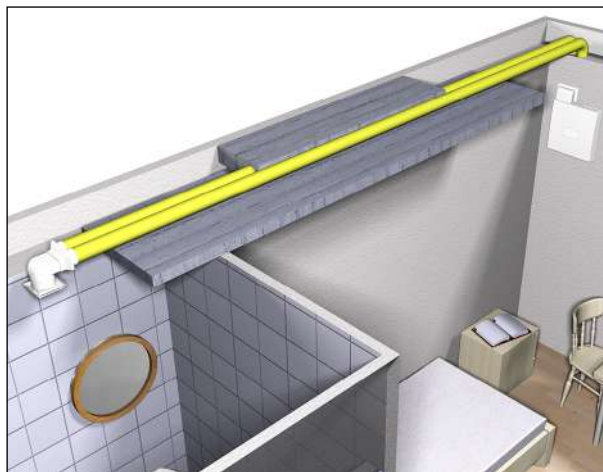


Fig. 20: Flexible pipe system

You will find further information on this topic on our website at <https://www.meltem.com/service/wartung-reinigung/> (or using the QR code on this page).



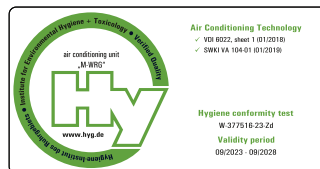
Maintenance /
cleaning at
www.meltem.com

8.5 Insert outdoor air filters, carry out function test and attach unit cover

- ▶ Insert the outdoor air filter (see section 7.11 on page 15).
- ▶ Attach the unit cover to the ventilation unit (see section 7.12 on page 16).
- ▶ Carry out a function test (see section 7.13 on page 16).

8.6 Enter completed maintenance in maintenance schedule

- ▶ Enter the date on which you carried out the maintenance in maintenance schedule B and tick the activities you carried out (see section 5.3 page 10).



We have checked the content of this publication for conformity with the product described in it. There may nevertheless still be differences, so we cannot guarantee complete accuracy.

The information in this publication is regularly checked and any necessary corrections are made in subsequent editions.

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