

HOME VENTILATION WITH HEAT RECOVERY

USER GUIDE

Wireless remote control M-WRG-FBH



Part no. 5302-25-01 Week 04/2017 EN



Contents

1	Introduction	5
1.1	Notes on the user guide	5
1.2	Description	5
1.3	Target group	6
1.4	EC Declaration of Conformity	6
1.5	Nameplate	6
1.6	Technical data	6
1.6.1	Electrical data	6
1.6.2	Dimensions and weight	6
1.6.3	Ambient conditions	6
1.7	Storage	6
1.8	Environmentally-friendly disposal	7
1.9	Revision index	7
1.10	Explanation of the symbols used	7
2	Safety instructions	8
2.1	Hazard classification	8
2.2	Notes on using the ventilation units safely	8
2.3	Notes on the batteries	8
2.4	Notes on using ventilation units with the wireless remote control	8
2.5	Intended use	9
3	Warranty and liability	9
3.1	Warranty	9
3.2	Liability	9
4	Items supplied	9
5	Controls and displays	10
5.1	Buttons and LCD display	10
5.2	Symbols on the LCD display	11
6	Starting up	13
6.1	Insert batteries in wireless remote control	13
6.2	Establish connection between wireless remote control and ventilation unit	14
6.3	Disconnect connection between wireless remote control and ventilation unit	16
7	Display modes	18
7.1	Idle mode	18
7.2	Default view	18
7.3	Configure active ventilation program	18
7.4	Ventilation programs	18
7.5	Device settings	19
7.6	Manual mode	19
7.7	Connection mode	19
8	Overview of the ventilation programs	20
8.1	“Supply air operation (Summer mode)” program	20
8.2	“Extract air operation” program	20
8.3	“Humidity control” program	21

8.4	“Mixed gas/CO ₂ control” program	21
8.5	“Automatic mode” program	22
8.6	“Continuous operation” program	22
8.7	“Intensive ventilation (15 min)” program	22
8.8	Device settings	22
9	Operating the ventilation unit with the wireless remote control M-WRG-FBH	23
9.1	Select ventilation program	23
9.1.1	Graphical illustration of the steps to select a ventilation program	23
9.2	Temporarily set ventilation levels in manual mode	24
9.2.1	Activate manual mode	24
9.2.2	Deactivate manual mode	25
9.3	Configure active ventilation program and permanently save settings	26
9.3.1	Configure and save parameters for active ventilation program	26
9.3.2	Graphical illustration of the steps to configure the active ventilation program	26
9.3.3	Overview of the variable parameters in the active ventilation program	27
9.4	Configure device settings	28
9.4.1	Configure and save parameters in Device settings menu	28
9.4.2	Graphical illustration of the steps in the Device settings menu	29
9.4.3	Overview of the variable parameters in the Device settings menu	30
10	Special functions	32
10.1	Standby mode	32
10.1.1	Set ventilation unit to Standby mode	32
10.1.2	Exit standby mode	32
10.2	Activate or deactivate intensive ventilation	32
10.3	Reset filter change indicator	32
11	Operation with multiple ventilation units	33
12	Troubleshooting	34



1 Introduction

1.1 Notes on the user guide



This user guide contains important information that should be followed when using the M-WRG-FBH wireless remote control.

- ▶ Read all the instructions carefully to avoid possible risks and mistakes.
- ▶ These instructions are part of the product. Keep the instructions in a safe place for future reference.

NOTE

- ▶ When operating the ventilation unit, also follow the operating instructions that were supplied with your unit.

1.2 Description

This user guide describes how to set up and operate the M-WRG-S/Z-T(-F,-FC) decentralised ventilation units (see Fig. 1) with the M-WRG-FBH wireless remote control (see Fig. 2).



Fig. 1: M-WRG-S/Z-T(-F,-FC) ventilation unit



Fig. 2: M-WRG-FBH wireless remote control

The M-WRG-FBH wireless remote control has four buttons and an LCD display that provides information on the ventilation unit's current operating status. Up to six ventilation units of the same type can be controlled with one wireless remote control. The wireless remote control can be used to carry out the following actions:

- Establish and disconnect the connection between wireless remote control and ventilation unit
- Activate the ventilation unit or set it to Standby mode
- Select ventilation program
- Configure the ventilation program
- Set device-specific parameters

1.3 Target group

This user guide is intended for users of the M-WRG-FBH wireless remote control. No special prior knowledge is needed.

1.4 EC Declaration of Conformity

The wireless remote control described below

Type:	Part number
M-WRG-FBH	5478-10

manufactured by

Meltem Wärmerückgewinnung GmbH & Co. KG
Am Hartholz 4
82239 Alling

conforms to the regulations and standards listed in the EC Declaration of Conformity provided.

1.5 Nameplate

You will find the nameplate on the inside of the battery compartment cover (see item 1 in Fig. 5 on page 13).

1.6 Technical data

1.6.1 Electrical data

Power supply	Two 1.5 V alkaline batteries, size AA
Communication frequency	868.3 MHz
Transmitter output power	Min. 0 dBm
IP rating to IEC 60529	IP20

1.6.2 Dimensions and weight

Unit dimensions	62.2 mm x 112.2 mm x 30 mm (W x H x D)
Weight without batteries	Approx. 77 g
Weight with two 1.5 V alkaline batteries	Approx. 123 g

1.6.3 Ambient conditions

Ambient temperature during operation	0 °C to +40 °C
Ambient temperature for shipping and storage	-20 °C to +50 °C
Relative humidity (non-condensing)	5 % to 90 %

1.7 Storage

- Store the wireless remote control in its original packaging in a dry place where the temperature ranges between -20 °C and +50 °C.

1.8 Environmentally-friendly disposal

The components of the wireless remote control must not be disposed of in the residual waste bin.



- ▶ In Germany, metal and plastic components should be disposed of at the local recycling centre. The national regulations in other EU states should also be followed.
- ▶ In Germany, electrical components should be disposed of in accordance with the Electrical and Electronic Equipment Act (ElektroG). In other EU states, the national implementation of the Waste Electrical and Electronic Equipment Directive 2012/19/EC (WEEE) should be followed.
- ▶ In Germany, rechargeable batteries and accumulators should be disposed of in accordance with the Batteries Act (BattG). The national implementation of the Battery Directive 2006/66/EC should be followed in other EU states.
- ▶ The regulations and statutory requirements in your own country concerning disposal should also be followed.

1.9 Revision index

Edition	Manual	Date
1 st edition	User guide for wireless remote control M-WRG-FBH	Week 04/2017 EN

1.10 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.

NOTE

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 Notes on using the ventilation units safely

CAUTION

Starting and using the ventilation unit

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

2.3 Notes on the batteries

CAUTION

Risk of explosion if batteries are exposed to high temperatures

- ▶ Protect the batteries against high temperatures due to direct sunlight, for example.
- ▶ Never throw batteries into fire.

2.4 Notes on using ventilation units with the wireless remote control

- This wireless remote control may be used by children from 8 years old and by persons of restricted physical, sensory or mental abilities or persons lacking experience and knowledge if they are supervised or have been instructed in how to use the unit safely and understand the associated hazards. Do not allow children to play with the unit. Cleaning and

user maintenance must not be carried out by children unless they are supervised.

- ▶ Follow the regulations applicable in your country concerning the age from which people may be permitted to operate the wireless remote control.

2.5 Intended use

- The wireless remote control must only be used to control and set the device-specific functions of the M-WRG-S/Z-T(-F, -FC) ventilation units. Any different or more extensive usage will be regarded as contrary to the intended use.
- The intended use also includes compliance with all the notes in the user guide.
- The ventilation unit must not be operated without air filters.
- 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 components will work perfectly and correctly.

3 Warranty and liability

3.1 Warranty

The warranty will be invalidated if:

- The inner cover (see item 2 in Fig. 6 on page 13) with the battery compartment was removed.
- Repairs were not carried out by Meltem or by an authorised specialist company.
- The warranty does not cover wearing parts such as batteries.

3.2 Liability

The manufacturer's liability shall not apply in the following cases:

- The inner cover (see item 2 in Fig. 6 on page 13) with the battery compartment was removed.
- Repairs were not carried out by Meltem or by an authorised specialist company.

4 Items supplied

The M-WRG-FBH wireless remote control is supplied with the following items:

Item	Designation	Quantity
1	M-WRG-FBH wireless remote control	1x
2	1.5 V alkaline battery, size AA	2x
3	User guide for wireless remote control M-WRG-FBH	1x

Table 1: Items supplied with the M-WRG-FBH wireless remote control

5 Controls and displays

5.1 Buttons and LCD display

The M-WRG-FBH wireless remote control has four buttons and an LCD display that provides information on the operating status. The buttons perform multiple functions.

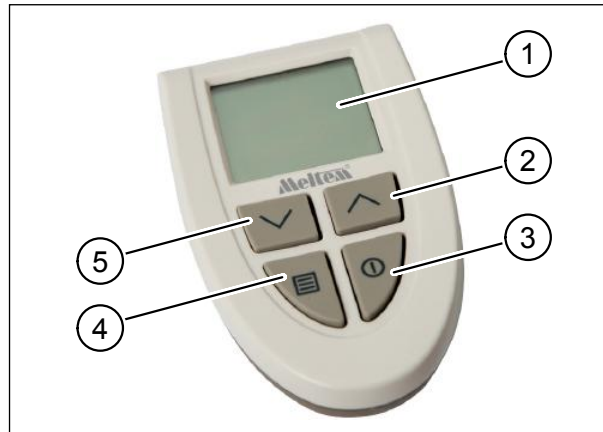


Fig. 3: Controls and displays





Item	Element	Symbol	Function
1	LCD display	-	Displays the current menu
2	“Up” button		<ul style="list-style-type: none"> — Increase value — Select next menu option — Activate LCD display — Leave manual mode — Activate / deactivate intensive ventilation
3	“On” button		<ul style="list-style-type: none"> — Call up menu with ventilation programs — Activate LCD display — Activate / deactivate Standby mode — Return to previous menu
4	“Menu” button		<ul style="list-style-type: none"> — Call up Configuration menu for active ventilation program — Call up next item from the Configuration menu — Activate LCD display — Connect or disconnect remote control from ventilation unit — Reset filter change indicator
5	“Down” button		<ul style="list-style-type: none"> — Reduce value — Select previous menu item — Activate LCD display — Leave manual mode

Table 2: Buttons and LCD display

5.2 Symbols on the LCD display

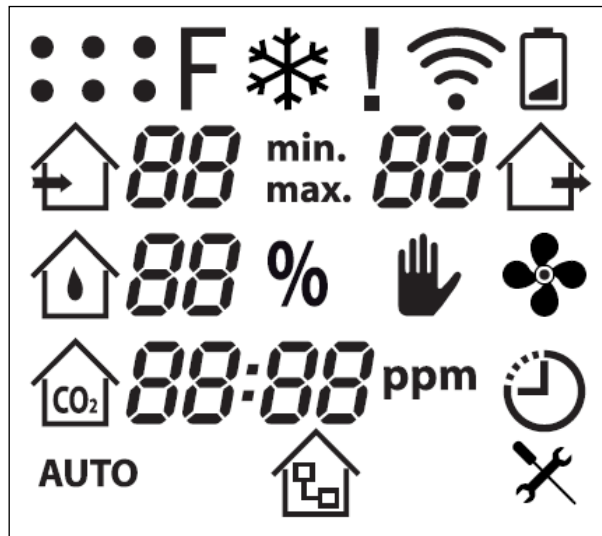


Fig. 4: Symbols on the LCD display

Symbol	Name	Description
	Ventilation units	One dot is displayed for every ventilation unit that is connected (up to 6). The flashing dot corresponds to the ventilation unit with which communication is currently active.
F	Error	<ul style="list-style-type: none"> — The symbol is displayed continuously if the air filter is dirty (see section 12 on page 34). — The symbol flashes if the one-year filter change interval is exceeded (see section 12 on page 34).
	Frost protection	The symbol appears when the frost protection function is active.
!	Exclamation mark	The symbol appears when the ventilation unit signals an error (see section 12 on page 34).
	RF communication	The symbol appears when the remote control is connected to a ventilation unit and when communication is in progress with that ventilation unit.
	Battery	The symbol appears when the batteries in the wireless remote control are almost flat and need to be changed (see section 6.1 on page 13).
	Supply air	Symbol for the “Supply air operation (Summer mode)” ventilation program. Flashes when activated.
min. max.	Min/Max	The symbol indicates whether a value is a minimum or maximum.
	Extract air	Symbol for the “Extract air operation” ventilation program. Flashes when activated.








Symbol	Name	Description
	Relative humidity (RH)	<ul style="list-style-type: none"> — Symbol for the “Humidity control” ventilation program. Flashes when activated. — The symbol and value for the relative humidity appear continuously in every ventilation program if the ventilation unit is equipped with a humidity sensor.
%	Percent	The symbol and two-digit value for the relative humidity appear continuously in every ventilation program if the ventilation unit is equipped with a humidity sensor.
	Manual mode	The symbol appears when the user manually changes the value calculated or set for the ventilation level. The changes are not stored permanently.
	Continuous operation	Symbol for the “Continuous operation” ventilation program. Flashes when activated.
	Mixed gas/CO ₂	<ul style="list-style-type: none"> — Symbol for the “Mixed gas/CO₂ control” ventilation program. Flashes when activated. — The symbol and value for the mixed gas/CO₂ concentration appear continuously in every ventilation program if the ventilation unit is equipped with a mixed gas/CO₂ sensor.
ppm	ppm	The symbol and four-digit value for the mixed gas/CO ₂ concentration appear continuously in every ventilation program if the ventilation unit is equipped with a mixed gas/CO ₂ sensor.
	Intensive ventilation	Symbol for the “Intensive ventilation” program. Flashes when activated.
AUTO	Automatic mode	Symbol for the “Automatic mode” ventilation program. Flashes when activated.
	Gateway	The symbol appears when the ventilation unit is controlled via a gateway or there is an active ventilation program that is not supported by the wireless remote control.
	Device settings	Symbol for the Device settings menu. This is used to read, configure and permanently store device-specific settings.

Table 3: Symbols on the LCD display

6 Starting up

6.1 Insert batteries in wireless remote control

- ▶ Remove the cover (item 1 in Fig. 5) from the battery compartment on the back of the wireless remote control. To do this, pull the cover down as far as it will go, then lift off.
- ▶ Insert the batteries supplied in the battery compartment.

NOTE

Make sure that the polarity symbols on the batteries match the polarity symbols in the battery compartment. The wireless remote control may be damaged if the batteries are wrongly inserted.

The wireless remote control initialises when the batteries are inserted. The following information appears on the LCD display:

- First all available symbols are displayed (see Fig. 4 on page 11).
 - Then the wireless remote control's software version is displayed, e.g. "r001".
 - This is followed by the default view (see section 7.2 on page 18).
- ▶ Attach the cover to close the battery compartment.

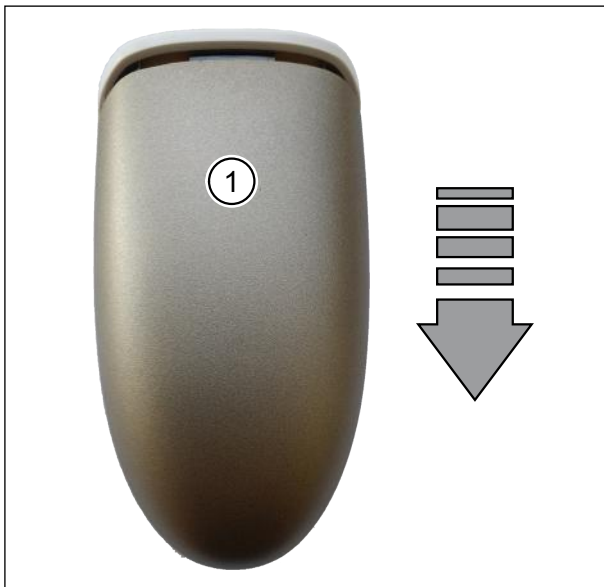


Fig. 5: Remove battery compartment cover



Fig. 6: Insert batteries in battery compartment

6.2 Establish connection between wireless remote control and ventilation unit

- ▶ Switch the ventilation unit on.



NOTE

When the ventilation unit is switched on, it remains in connection mode for 5 minutes. The connection between wireless remote control and ventilation unit can only be established during this period.

- ▶ Press any button on the wireless remote control to activate the LCD display on the wireless remote control and switch to the default view (see section 7.2 on page 18). If there is no ventilation unit yet connected, the LCD display contains the following information:



Fig. 7: Default view (no ventilation unit connected)

- ▶ Hold down button  and  at the same time for more than 3 seconds to call up the menu for connecting/disconnecting a ventilation unit.

- If there is no ventilation unit yet connected, the LCD display contains the following information:



Fig. 8: Connection menu (no ventilation unit connected)

- If there are already ventilation units connected, the LCD display shows the number of connected ventilation units both as a number and in the form of dots (4 in this example):



Fig. 9: Connection menu (4 ventilation units already connected)



- ▶ Hold down the  button for more than 3 seconds to connect a new ventilation unit. The LCD display shows the following information:



Fig. 10: Connect new ventilation unit

The dot in the top left corner flashes to indicate that ventilation unit 1 can be connected.

- ▶ Press the  button to establish the connection between wireless remote control and ventilation unit.

While the connection to the ventilation unit is initialising, the ventilation unit beeps and the LCD display on the wireless remote control shows the following information:



Fig. 11: Initialise connection set-up

The dot representing the ventilation unit and the  symbol flash.

- Once the connection has been established successfully, the LCD display shows the following information:

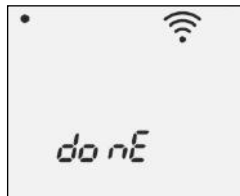



Fig. 12: Connection successfully established

The dot representing the ventilation unit and the  symbol flash.

- If no connection could be established, the LCD display shows the following information:

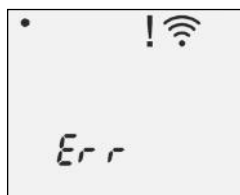





Fig. 13: Connection not successfully established

The dot representing the ventilation unit flashes. The **!** and  symbols are displayed.

When the  or  button is pressed or after 3 seconds, the Connection menu appears (see Fig. 8 on page 14).



6.3 Disconnect connection between wireless remote control and ventilation unit

- ▶ Switch the ventilation unit on.

NOTE

When the ventilation unit is switched on, it remains in connection mode for 5 minutes. The connection between wireless remote control and ventilation unit can only be disconnected during this period.


- ▶ Press any button on the wireless remote control to activate the LCD display on the wireless remote control and switch to the default view (see section 7.2 on page 18).

- ▶ Hold down button  and  at the same time for more than 3 seconds to call up the menu for connecting/disconnecting a ventilation unit.

The LCD display shows the number of connected ventilation units both as a number and in the form of dots (2 in this example):



Fig. 14: Connection menu (2 ventilation units already connected)



- ▶ Hold down the  button for more than 3 seconds to disconnect a connection between wireless remote control and ventilation unit.

The LCD display shows the following information:





Fig. 15: Disconnect connection to ventilation unit

The number of the currently selected ventilation unit is displayed and the corresponding dot flashes.

- ▶ Use the  or  button to select the ventilation unit for which you want to disconnect the connection.

NOTE

Hold down the  button for more than 3 seconds to activate the buzzer on the currently selected ventilation unit. This will allow you to check that you have selected the right ventilation unit and that it is within range.

- ▶ Press the  button to disconnect the connection between wireless remote control and ventilation unit.

While the connection to the ventilation unit is initialising, the ventilation unit beeps and the LCD display on the wireless remote control shows the following information:



Fig. 16: Initialise connection set-up

The dot representing the ventilation unit and the  symbol flash.

- Once the connection has been successfully disconnected, the LCD display shows the following information:

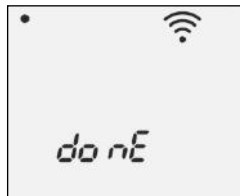



Fig. 17: Connection successfully disconnected

The dot representing the ventilation unit and the  symbol flash.

- If no connection could be established, the LCD display shows the following information:

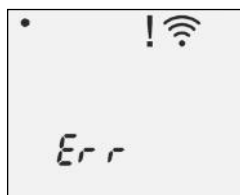





Fig. 18: Connection not successfully disconnected

The dot representing the ventilation unit flashes. The **!** and  symbols are displayed.

When the  or  button is pressed or after 3 seconds, the Connection menu appears (see Fig. 14 on page 16).

7 Display modes

7.1 Idle mode

The LCD display switches off after 20 seconds inactivity. Press any button to switch the wireless remote control from idle mode to the default view.

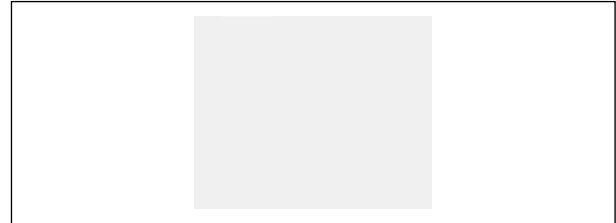


Fig. 19: Display mode – Idle mode

7.2 Default view

The default view displays the currently selected ventilation program. The wireless remote control also checks the operating parameters (e.g. ventilation level for supply air and extract air, relative humidity, etc.) and shows them on the LCD display (see Table 3 on page 12 for an explanation of the symbols). Which operating parameters are displayed depends on the currently selected ventilation program and the ventilation unit features (humidity sensor, mixed gas/CO₂ sensor). The dot representing the selected ventilation unit and the symbol for the active ventilation program flash.

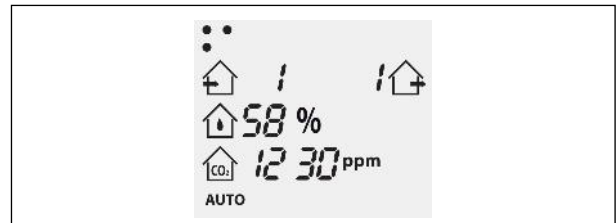



Fig. 20: Display mode – Default view

7.3 Configure active ventilation program

Press the  button in the default view to open the menu for configuring the active ventilation program. Here you can read, configure and permanently store the most important parameters (ventilation levels, thresholds) for the active ventilation program (see section 9.3 on page 26).

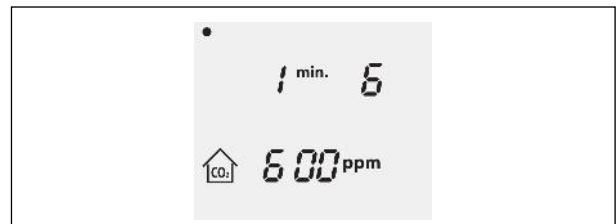



Fig. 21: Display mode – Configure active ventilation program

7.4 Ventilation programs

Press the  button in the default view to open the menu for selecting the ventilation programs. Which ventilation programs are displayed depends on the ventilation unit features (humidity sensor, mixed gas/CO₂ sensor, there is an explanation of the symbols used in Table 3 from page 11). The symbol for the active ventilation program flashes.

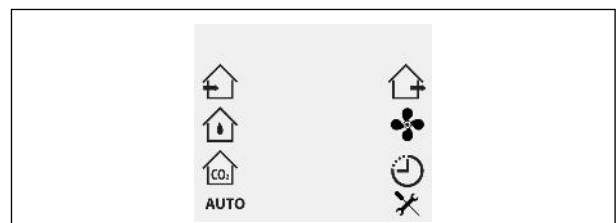



Fig. 22: Display mode – Ventilation programs

7.5 Device settings

Select the  symbol in the ventilation programs display mode to open the Device settings menu. Here you can read, configure and permanently store the ventilation program parameters and device-specific settings (see section 9.4 on page 28).

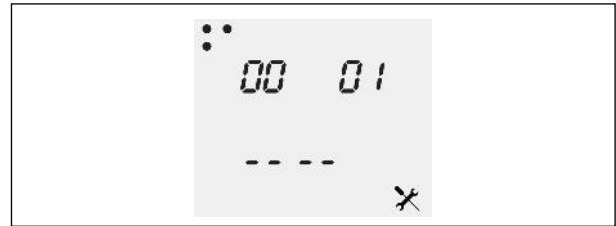





Fig. 23: Display mode – Device settings

7.6 Manual mode

Press the  or  button in the default view to temporarily increase or reduce the ventilation level. The ventilation level of the extract air, supply air or both is changed according to the active ventilation program.

The  symbol signals that manual mode is active (see section 9.2 on page 24).

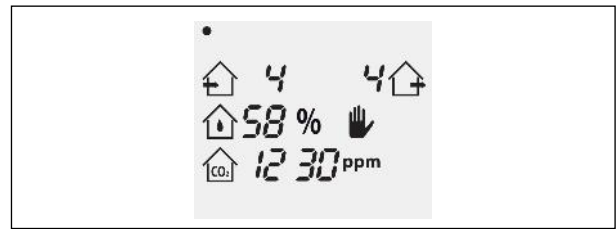


Fig. 24: Display mode – Manual mode

7.7 Connection mode



Hold down the  and  buttons at the same time in the default view and for longer than 3 seconds to open the Connection mode display (see also section 6.2 on page 14).





Fig. 25: Display mode – Connection mode



8 Overview of the ventilation programs

There are different ventilation programs available for selection, depending on the type of ventilation unit. The ventilation unit informs the wireless remote control which ventilation programs it supports. The individual ventilation programs are identified by symbols (see section 7.4 on page 18) on the LCD display. The symbol for the active ventilation program and the dot representing the selected ventilation unit flash. The description of the individual ventilation programs relates to the factory default settings.


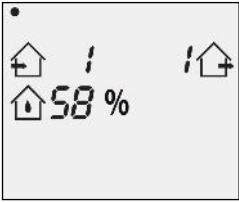
8.1 “Supply air operation (Summer mode)” program

Symbol	Default view	Description
		<p>The ventilation unit runs in supply air operation with limited heat recovery. This operating mode allows the cooler outdoor air to be routed into the building on summer nights, for example.</p> <p>NOTE</p> <p>This ventilation program must not be used in sub-zero temperatures otherwise the ventilation unit will constantly activate the frost protection function or switch off altogether.</p>


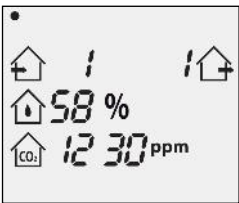
8.2 “Extract air operation” program

Symbol	Default view	Description
		<p>The ventilation unit runs in extract air operation with limited heat recovery. This operating mode can be selected to route used air to the outside. If there are two ventilation units present, cross-ventilation can be achieved in the building by setting one ventilation unit to supply air operation and the other to extract air operation.</p> <p>NOTE</p> <p>Cross-ventilation must not be used in sub-zero temperatures otherwise the ventilation unit that is set to supply air operation will constantly activate the frost protection or switch off altogether.</p>

8.3 “Humidity control” program


Symbol	Default view	Description
		<p>The ventilation unit runs constantly at the lowest ventilation level (15 m³/h). If the relative room air humidity exceeds 60 % RH, the ventilation level is increased continuously up to max. 60 m³/h until the room air humidity drops back below 60 % RH.</p> <p>NOTE</p> <ul style="list-style-type: none"> — To ensure dehumidification, the ventilation unit compares the humidity of the supply air and extract air. The ventilation unit ventilates at the lowest level when the humidity of the supply air is greater than that of the extract air, which means that dehumidification is not possible. — If the value 0 was selected for the minimum ventilation level, the ventilation unit switches to sniffing mode⁽¹⁾.

8.4 “Mixed gas/CO₂ control” program


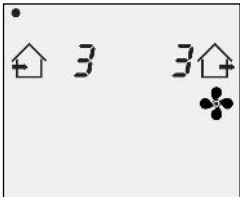
Symbol	Default view	Description
		<p>The ventilation unit runs constantly at the lowest ventilation level (15 m³/h). A sensor monitors the air quality in the room (CO₂ and various pollutants in gaseous form). If the limit of 600 ppm is exceeded, the ventilation unit calculates the optimum air renewal and sets the required ventilation level in the range from 15 - 60 m³/h fully automatically.</p> <p>NOTE</p> <ul style="list-style-type: none"> — When it is started up for the first time, the ventilation unit must remain switched on for at least 4 hours without interruption so that the mixed gas/CO₂ sensor can be calibrated. <ul style="list-style-type: none"> ▶ Make sure that the air is not severely contaminated during the calibration phase by solvents, for example. — When you switch on again, it will take roughly 15 minutes for the sensor to recalibrate. <ul style="list-style-type: none"> ▶ Make sure that the ventilation unit is not switched off and on too frequently in this ventilation program as the mixed gas/CO₂ sensor is recalibrated every time the unit is switched on. In contrast, switching to Standby mode (see section 10.1 on page 32) does not result in recalibration. — If the value 0 was selected for the minimum ventilation level, the ventilation unit switches to sniffing mode⁽¹⁾.

(1) The ventilation unit interrupts its operation for the set pause time (set to 60 minutes at the factory). The relative humidity or mixed gas/CO₂ concentration is then checked for a 5-minute period. If the corresponding limit is exceeded, the ventilation unit switches back to ventilation mode.






8.5 “Automatic mode” program

Symbol	Default view	Description
AUTO		<p>This ventilation program combines the “Humidity control” (see section 8.3, page 21) and “Mixed gas/CO₂ control” (see section 8.4, page 21) ventilation programs. In automatic mode, the relative room air humidity is monitored in addition to the mixed gas/CO₂ concentration. The mixed gas/CO₂ sensor and the humidity sensor each send feedback to the ventilation unit, indicating the ventilation level at which it should work. The ventilation unit automatically assumes the higher of the two suggested ventilation levels.</p> <p>NOTE</p> <ul style="list-style-type: none"> ► Note the information on calibrating the mixed gas/CO₂ sensor in section 8.4.


8.6 “Continuous operation” program

Symbol	Default view	Description
		The ventilation unit runs in continuous operation. By default, ventilation level 3 is set for supply air and extract air.

8.7 “Intensive ventilation (15 min)” program




Symbol	Default view	Description
		<p>The ventilation unit runs at maximum ventilation level (100 m³/h). After 15 minutes (factory default setting), the previously set ventilation level is resumed.</p> <p>Hold down the  button for more than 3 seconds to activate or deactivate intensive ventilation.</p> <p>Press the  or  button to adjust the ventilation level temporarily while intensive ventilation is running. The default setting will be resumed when intensive ventilation is used again.</p>

8.8 Device settings

Symbol	Default view	Description
	–	This menu is used to read, configure and permanently store the ventilation program parameters and device-specific settings.

9 Operating the ventilation unit with the wireless remote control M-WRG-FBH

9.1 Select ventilation program

- ▶ Press any button on the wireless remote control to switch from idle mode (see section 7.1 on page 18) to the default view (see section 7.2 on page 18).
- ▶ Press the  button to switch from the default view to the menu for selecting the ventilation programs.
- ▶ Use the  or  button to select the desired ventilation program. The symbol for the currently selected ventilation program flashes.

The order of the ventilation programs is as follows:

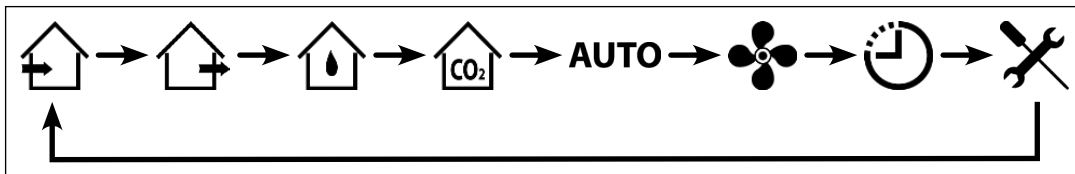



Fig. 26: Order of the ventilation programs

- ▶ Press the  button to confirm your selected ventilation program or wait 5 seconds until the ventilation program is activated automatically.

9.1.1 Graphical illustration of the steps to select a ventilation program

Fig. 27 summarises the steps to select a ventilation program.

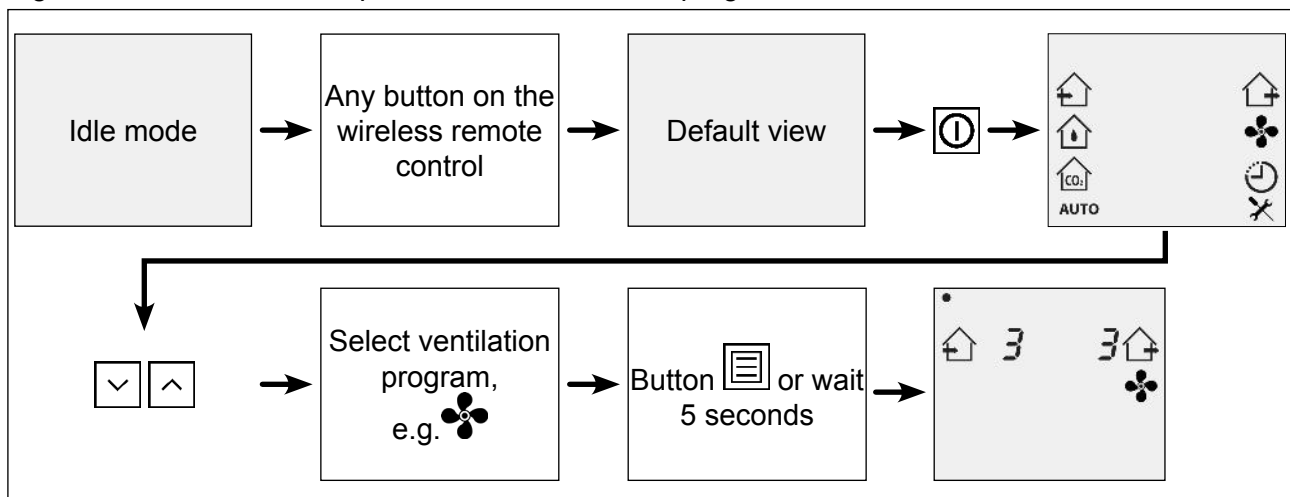





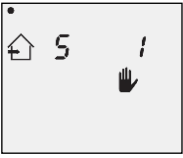
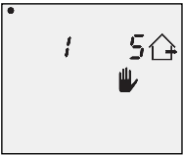
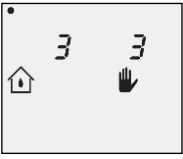
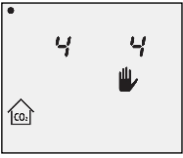
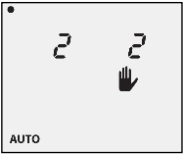
Fig. 27: Select ventilation program with wireless remote control (e.g. continuous operation)

9.2 Temporarily set ventilation levels in manual mode

If necessary, you can temporarily change the ventilation levels of the active ventilation program. These manually set values for the ventilation levels are not stored permanently, however, and will be lost when you change the ventilation program.

9.2.1 Activate manual mode

- ▶ Press any button on the wireless remote control to switch from idle mode (see section 7.1 on page 18) to the default view (see section 7.2 on page 18).
 - ▶ In the default view, press the  or  button to reduce or increase the ventilation level(s) of the active ventilation program. The ventilation level of the extract air, supply air or both is changed according to the active ventilation program (see Table 4).
- The  symbol appears on the LCD display. This signals that Manual mode is active.
- ▶ Wait for more than 3 seconds to accept the new values for the ventilation levels and return to the default view.

Manual mode	Ventilation program	Variable parameters	Description
	Supply air operation	— Ventilation level for supply air	Ventilation level for supply air flashes.
	Extract air operation	— Ventilation level for extract air	Ventilation level for extract air flashes.
	Humidity control	— Ventilation level for supply air — Ventilation level for extract air	The two ventilation levels flash at the same time and are set at the same time.
	Mixed gas/CO ₂ control	— Ventilation level for supply air — Ventilation level for extract air	The two ventilation levels flash at the same time and are set at the same time.
	Automatic mode	— Ventilation level for supply air — Ventilation level for extract air	The two ventilation levels flash at the same time and are set at the same time.

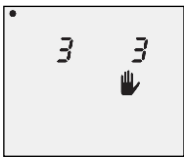
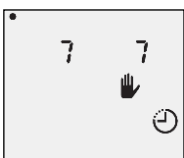



Manual mode	Ventilation program	Variable parameters	Description
	Continuous operation	<ul style="list-style-type: none"> — Ventilation level for supply air — Ventilation level for extract air 	The two ventilation levels flash at the same time and are set at the same time.
	Intensive ventilation	<ul style="list-style-type: none"> — Ventilation level for supply air — Ventilation level for extract air 	The two ventilation levels flash at the same time and are set at the same time.

Table 4: Temporarily set ventilation levels in manual mode

9.2.2 Deactivate manual mode

- ▶ In the default view, press the  or  button to deactivate manual mode.






The  symbol disappears and the ventilation unit resumes ventilation with the ventilation levels that were preset or specified by the sensors.

9.3 Configure active ventilation program and permanently save settings

In the default view you can configure and permanently store the most important parameters (ventilation levels, thresholds) for the active ventilation program (see Table 5 on page 27).

More extensive settings and other device-specific functions can be read, configured and stored in the Device settings menu (see section 9.4).

9.3.1 Configure and save parameters for active ventilation program

- ▶ Press any button on the wireless remote control to switch from idle mode (see section 7.1 on page 18) to the default view (see section 7.2 on page 18).
- ▶ In the default view, press the  button to open the configuration menu for the active ventilation program.
The first parameter to be set flashes.
- ▶ Press the  or  button to reduce or increase the value of the current parameter.
- ▶ Press the  button to move to the next parameter.
- ▶ Set the configurable parameters to suit your needs (see Table 5 on page 27).
- ▶ Press the  button to permanently save the parameters and return to the default view.

9.3.2 Graphical illustration of the steps to configure the active ventilation program

Fig. 28 summarises the steps to configure the active ventilation program (e.g. mixed gas/CO₂ program).

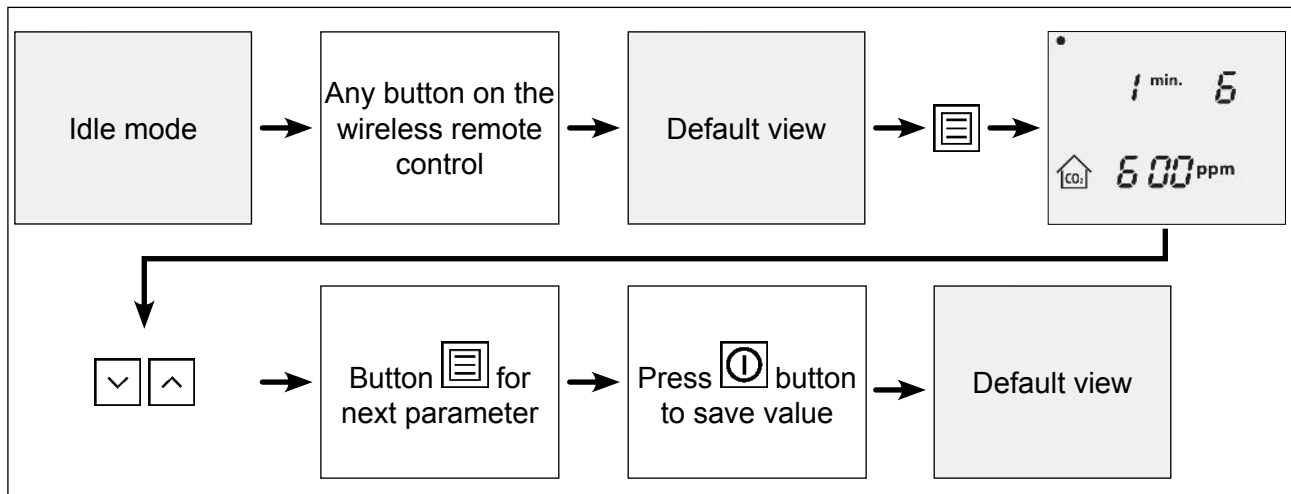


Fig. 28: Configure and permanently save active ventilation program (e.g. mixed gas/CO₂ program)

9.3.3 Overview of the variable parameters in the active ventilation program

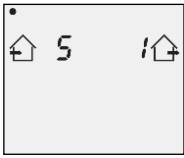
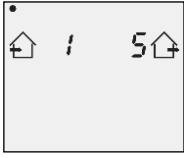
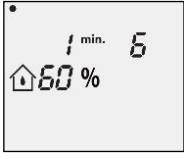


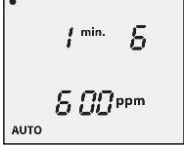

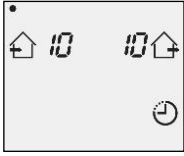
Configuration menu	Ventilation program	Variable parameters	Description
	Supply air operation	<ul style="list-style-type: none"> — Ventilation level for supply air — Ventilation level for extract air 	The first parameter flashes. The two parameters can be set individually.
	Extract air operation	<ul style="list-style-type: none"> — Ventilation level for supply air — Ventilation level for extract air 	The first parameter flashes. The two parameters can be set individually.
	Humidity control	<ul style="list-style-type: none"> — Min. ventilation level — Max. ventilation level — Threshold for humidity 	The first parameter flashes. All the parameters can be set individually.
	Mixed gas/CO ₂ control	<ul style="list-style-type: none"> — Min. ventilation level — Max. ventilation level — Threshold for mixed gas/CO₂ 	The first parameter flashes. All the parameters can be set individually.
 	Automatic mode	<ul style="list-style-type: none"> — Min. ventilation level for humidity control — Max. ventilation level for humidity control — Threshold for humidity — Min. ventilation level for mixed gas/CO₂ — Max. ventilation level for mixed gas/CO₂ — Threshold for mixed gas/CO₂ 	The first parameter flashes. All the parameters can be set individually.
	Continuous operation	<ul style="list-style-type: none"> — Ventilation level for supply air — Ventilation level for extract air 	The parameters flash at the same time and are set at the same time.
	Intensive ventilation	<ul style="list-style-type: none"> — Ventilation level for supply air — Ventilation level for extract air 	The parameters flash at the same time and are set at the same time.















Table 5: Overview of the variable parameters in the active ventilation program

9.4 Configure device settings

The Device settings menu is used to read, configure and permanently store the ventilation program parameters and device-specific settings.

This menu provides the most extensive set of settings for adapting the ventilation programs and device-specific parameters to your own needs. A unique code is assigned to each parameter (see Table 6 in section 9.4.3 on page 30).

9.4.1 Configure and save parameters in Device settings menu

- ▶ Press any button on the wireless remote control to switch from idle mode (see section 7.1 on page 18) to the default view (see section 7.2 on page 18).
- ▶ Press the  button to switch from the default view to the menu for selecting the ventilation programs.
- ▶ Press the  or  button until the  symbol for the device settings flashes.
- ▶ Press the  button to confirm your selection or wait 5 seconds until the Device settings menu opens.
- ▶ Use the  or  button to select the parameter that you want to configure (see Table 6 from page 30).
- ▶ Press the  button to confirm your selection.
- ▶ Use the  or  button to select the value that you want for the parameter.
- ▶ Press the  button to confirm the value.
- ▶ Use the  or  button to select the next parameter that you want to configure.
- ▶ Press the  button to exit the configuration and return to the default view. After 1 minute of inactivity, the default view is displayed automatically.

9.4.2 Graphical illustration of the steps in the Device settings menu

Fig. 29 summarises the steps to adapt the parameters in the Device settings menu.

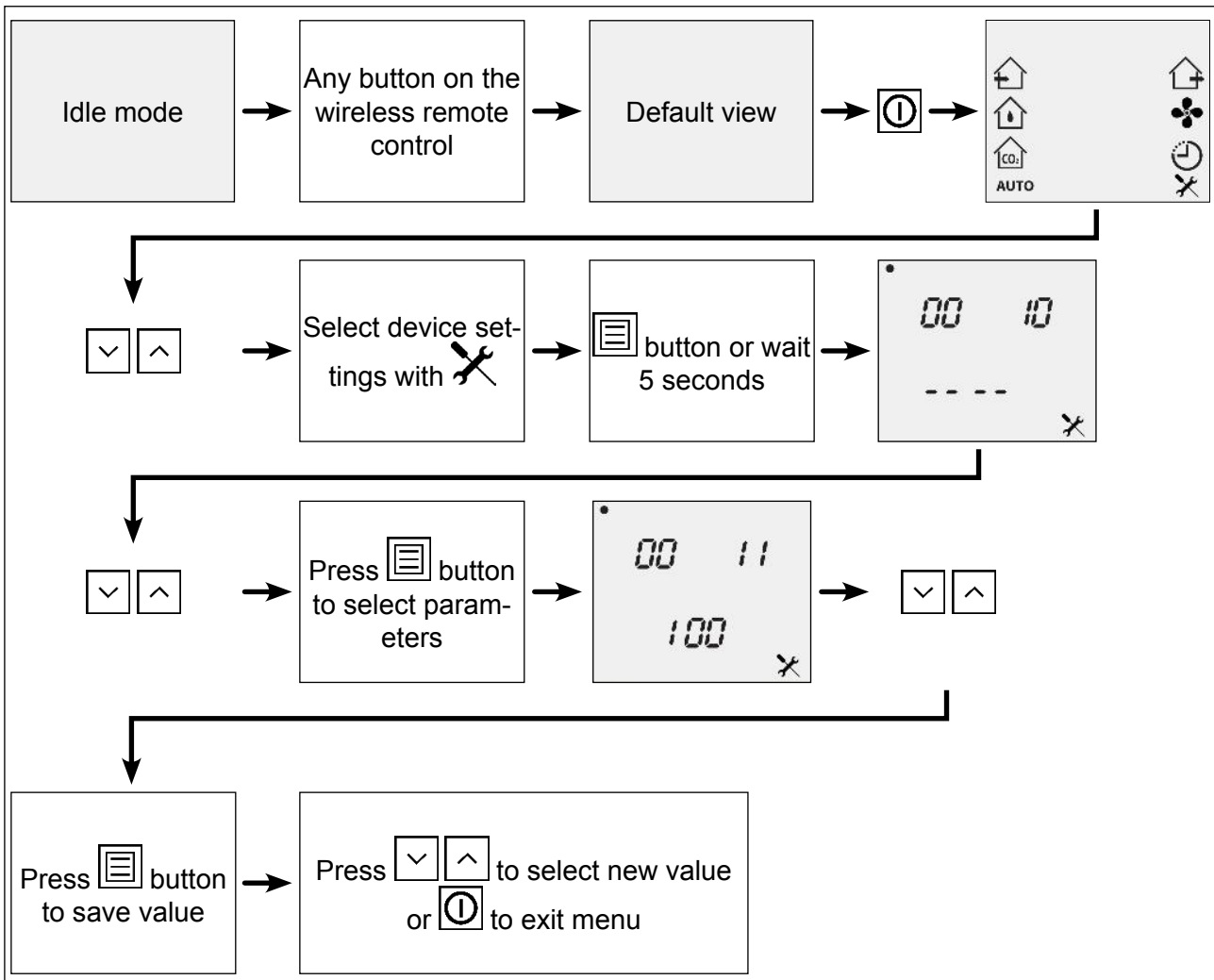


Fig. 29: Changing parameters in the Device settings menu

9.4.3 Overview of the variable parameters in the Device settings menu



Code	Parameter	Min.	Max.	Increment	Default	Unit	Comment
83	Fan motors operating hours						
84	Ventilation unit operating hours						
13	3-way stepping switch on ventilation unit in position I	0	100	10	10	VL ⁽¹⁾	Ventilation level with 3-way stepping switch in position I ⁽²⁾
14	3-way stepping switch on ventilation unit in position II	0	100	10	30	VL ⁽¹⁾	Ventilation level with 3-way stepping switch in position II ⁽²⁾
15	3-way stepping switch on ventilation unit in position III	0	100	10	60	VL ⁽¹⁾	Ventilation level with 3-way stepping switch in position III ⁽²⁾
11	Intensive ventilation level	0	100	10	100	VL ⁽¹⁾	Ventilation level with intensive ventilation activated
12	Intensive ventilation duration	0	240	1	15	min	Intensive ventilation duration in minutes
55	Switch-on delay for external control input	0	240	1	1	min	
56	Follow-up time for external control input	0	240	1	15	min	
54	Ventilation level for extract air/supply air with external control input	0	100	10	70	VL ⁽¹⁾	
36	Humidity control threshold	40	80	1	60	%	Threshold for the relative atmospheric humidity above which the ventilation unit increases the ventilation level
37	Min. ventilation level for humidity control	0	100	10	10	VL ⁽¹⁾	0: Control for Standby mode active
38	Max. ventilation level for humidity control	0	100	10	60	VL ⁽¹⁾	
39	Threshold for mixed gas/CO ₂ control	400	1400	1 ⁽³⁾	600	ppm	Threshold for mixed gas/CO ₂ control above which the ventilation unit increases the ventilation level
40	Min. ventilation level for mixed gas/CO ₂ control	0	100	10	10	VL ⁽¹⁾	0: Control for Standby mode active

Code	Parameter	Min.	Max.	Increment	Default	Unit	Comment
41	Max. ventilation level for mixed gas/CO ₂ control	1	100	10	60	VL ⁽¹⁾	
7	Pause time	1	255	1	60	min	Time interval for which the ventilation unit pauses in sniffing mode.
8	Sniffing time	5	255	1	5	min	Time interval for which recording of the relative atmospheric humidity and the mixed gas/CO ₂ concentration takes place
9	Ventilation level in sniffing mode	10	100	10	20	VL ⁽¹⁾	Ventilation level during the recording of the relative atmospheric humidity and the mixed gas/CO ₂ concentration
10	Position of air flaps in Standby mode	0	1	1	1	-	0: Air flaps open in Standby mode 1: Air flaps closed in Standby mode
42	Ventilation level for extract air in supply air operation ventilation program	0	100	10	10	VL ⁽¹⁾	
43	Ventilation level for supply air in supply air operation ventilation program	0	100	10	50	VL ⁽¹⁾	
46	Ventilation level for extract air in extract air operation ventilation program	0	100	10	50	VL ⁽¹⁾	
47	Ventilation level for supply air in extract air operation ventilation program	0	100	10	10	VL ⁽¹⁾	
57	Ventilation level for continuous operation	0	100	10	30	VL ⁽¹⁾	Ventilation levels for supply air and extract air are set at the same time

Table 6: Variable parameters in the Device settings menu

(1) Value 10 corresponds to ventilation level 1, value 20 to ventilation level 2, etc.


(2) The setting also applies to the InControl pushbutton sensor (“Reduced ventilation”, “Normal ventilation” and “Increased ventilation” programs) and to the external 3-way stepping switch

(3) Hold down the  or  button to scroll through the values faster

10 Special functions

10.1 Standby mode

10.1.1 Set ventilation unit to Standby mode

- ▶ Hold down the  button on the wireless remote control for more than 3 seconds to switch from Ventilation mode to Standby mode.

This triggers the following actions:

- The current ventilation mode is ended. The ventilation levels for supply air and extract air are set to 0 (see Fig. 30).
- The ventilation unit continues to be supplied with power.
- The air flaps close (default setting).

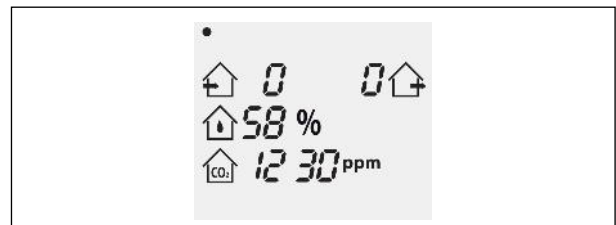



Fig. 30: Ventilation unit in Standby mode


NOTE

It is not a good idea to leave the ventilation unit in Standby mode for long periods (see also “Rules for correct usage” in the operating instructions supplied with your ventilation unit).


10.1.2 Exit standby mode

- ▶ Press the  button to switch to the menu for selecting the ventilation programs (see section 9.1 on page 23).
- ▶ Select the desired ventilation program or wait until the ventilation unit starts in the default “Continuous operation” ventilation program.

10.2 Activate or deactivate intensive ventilation

- ▶ Hold down the  button for more than 3 seconds to activate or deactivate the intensive ventilation (see section 8.7 on page 22).

10.3 Reset filter change indicator

- ▶ Hold down the  button for more than 3 seconds to reset the filter change indicator. You will find more details on filter maintenance in the operating instructions for your ventilation unit.

11 Operation with multiple ventilation units

Up to six ventilation units can be controlled with one M-WRG-FBH wireless remote control.

- The ventilation units must all be of the same type.
- The number of connected ventilation units corresponds to the number of dots that appear in the top left corner of the LCD display.
- The wireless remote control automatically communicates with the ventilation unit with which it has the best wireless connection. This is not necessarily the ventilation unit that is closest to the wireless remote control.
- The dot corresponding to the ventilation unit with which communication is currently active flashes on the LCD display. This unit also supplies values for relative humidity and mixed gas/CO₂ concentration.
- If there are multiple ventilation units of the same type connected to one M-WRG-FBH wireless remote control, the same ventilation program is activated for all the ventilation units.
- If multiple ventilation units of the same type with humidity and/or mixed gas/CO₂ control are controlled by one M-WRG-FBH wireless remote control, each ventilation unit regulates the air exchange on the basis of its own measured values.

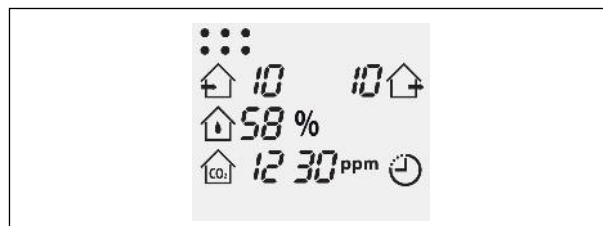





Fig. 31: Six ventilation units connected

12 Troubleshooting

Error	Cause	Remedy
The ! symbol is displayed on the wireless remote control.	Fault in the ventilation unit (e.g. faulty sensor or motor)	Have the ventilation unit repaired by Meltem or by an authorised specialist company
The ! and  symbols are displayed on the wireless remote control.	No wireless connection to the ventilation unit	<ul style="list-style-type: none"> — Reduce the distance between the wireless remote control and ventilation unit — Switch on the ventilation unit
The  symbol is displayed on the wireless remote control.	Low battery charge	Replace the batteries in the wireless remote control (see section 6.1 on page 13)
The F symbol flashes at 2-second intervals on the wireless remote control.	One-year filter change interval exceeded	Change air filter (see ventilation unit operating instructions)
The F symbol is displayed continuously on the wireless remote control.	Air filter is dirty	Change air filter (see ventilation unit operating instructions)
The  symbol is displayed on the wireless remote control.	Frost protection active	-
Connection between wireless remote control and ventilation unit cannot be established or disconnected.	When the ventilation unit is switched on, it remains in connection mode for 5 minutes. This time interval was exceeded.	Switch the ventilation unit off and on again



We have checked the content of this publication for conformity with the unit 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 the subsequent editions.

Copyright © Meltem Wärmerückgewinnung GmbH & Co. KG

We reserve the right to make changes.

Meltem Wärmerückgewinnung GmbH & Co. KG

Am Hartholz 4
D-82239 Alling
Germany

Tel. +49 (0)8141 404179-0
Fax +49 (0)8141 404179-9
Internet: www.meltem.com
Email: info@meltem.com



Go to
Meltem download area