

USER MANUAL

Decentralized heat recovery units HRU-WALL & HRU-WALL-RC



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HRU-WALL

1. General information

1.1 Description of the unit

HRU-WALL and HRU-WALL-RC is a single alternate flow decentralized (single point) residential heat recovery unit, also called «push&pull» unit, designed to ensure adequate ventilation in enclosed environments without energy losses. It is recommended that two units are installed in pair: when one unit is pulling, the other is pushing. Pair of units can be installed in the same room or in different rooms (i.e. livingroom and bedroom). The unit is suitable for installation on an outside wall.



The unit should operate continuously, and only stopped for maintenance or service. When heat exchange is not useful (for example in mid-seasons when indoor and outdoor temperatures are similar), or when heat exchange is not recommended (for example with the option “summer free cooling”), it is recommended to set the unit in “extract-only” or “intake-only” mode and NOT to switch it off.

1.2 How to use this manual

Read this manual carefully before using the product and keep it in a safe place for reference.

1.3 Admonitions



WARNING identifies a hazard that could lead to personal injury, including death



NOTE is used to highlight additional information.

2. Safety

2.1 General safety instructions

This product was constructed up to standard and in compliance with regulations relating to electrical equipment and must be installed by technically qualified personnel. The manufacturer assumes no responsibility for damage to persons or property resulting from failure to observe the regulations contained in this manual.

2.2 Precautions for installation, use and maintenance

- The device should not be used for applications other than those specified in this manual.
- After removing the product from its packaging, verify its condition. In case of doubt, contact a qualified technician. Do not leave packaging within the reach of small children or people with disabilities.
- Do not touch the appliance with wet or damp hands/feet.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- Do not use the product in the presence of inflammable vapours, such as alcohol, insecticides, gasoline, etc.

HRU-WALL

- If any abnormalities in operation are detected, disconnect the device from the mains supply and contact a qualified technician immediately. Use original spare parts only for repairs.
- The electrical system to which the device is connected must comply with regulations.
- Before connecting the product to the power supply or the power outlet, ensure that: the data plate (voltage and frequency) correspond to those of the electrical mains and the electrical power supply/socket is adequate for maximum device power. If not, contact a qualified technician.
- The device should not be used as an activator for water heaters, stoves, etc., nor should it discharge into hot air/fume vent ducts deriving from any type of combustion unit. It must expel air outside via its own special duct.
- Operating temperature: -20°C up to +50°C.
- The device is designed to extract clean air only, i.e. without grease, soot, chemical or corrosive agents, or flammable or explosive mixtures.
- Do not leave the device exposed to atmospheric agents (rain, sun, snow, etc.).
- Do not immerse the device or its parts in water or other liquids.
- Turn off the main switch whenever a malfunction is detected or when cleaning.
- For installation an omnipolar switch should be incorporated in the fixed wiring, in accordance with the wiring regulations, to provide a full disconnection under overvoltage category III conditions (contact opening distance equal to or greater than 3mm).
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Do not obstruct the fan or exhaust grille to ensure optimum air passage.
- Ensure adequate air return/discharge into/from the room in compliance with existing regulations in order to ensure proper device operation.
- If the environment in which the product is installed also houses a fuel-operating device (water heater, methane stove etc., that is not a “sealed chamber” type), it is essential to ensure adequate air intake, to ensure good combustion and proper equipment operation.

2.3 Directives / Norms

- 2014/35/EU Low Voltage Directive (LVD) and 2014/30/EU Electromagnetic Compatibility (EMC), in conformity with the following standards:
- Electrical Safety: EN60335-1(2012)+A11+A13; EN 60335-2-80(2003) +A1+A2.
- Electromagnetic Compatibility: EN 55014-1(2017); EN 55014-2 (2015); EN 61000-3-2(2014); EN 61000-3-3(2013).

HRU-WALL

3. Technical data

3.1 Features

	HRU-WALL	HRU-WALL-RC
<i>Heat exchanger</i>	The ceramic, regenerative heat exchanger is a central and most important part of the unit. It has a honeycomb structure for high thermal efficiency and double-sided air filters.	
<i>Telescopic inner pipe</i>	Tube material: high quality, impact and UV-resistant, made from 100% recycled ABS, black colour	
<i>Front cover</i>	Design front cover removable for cleaning without the use of tools.	
<i>Installation plate</i>	Easy maintenance installation plate, for easy access to the heat exchanger from inside the room.	
<i>Anti-dust filter</i>	at the front panel, easily removable for washing by the user without tools.	next to the ceramic exchanger (2 pcs), easy to remove by the user without the use of tools
<i>Outer grille</i>	External steel cover painted white RAL 9010, with acoustic lining and insect screen.	
<i>Energy efficient EC fan</i>	Single phase EC reversible brushless motor with integral thermal protection. Motor mounted on high quality ball bearings. High efficiency aerodynamic fan with "winglet" blades to optimise quietness and efficiency.	
<i>One-way mode</i>	yes, when set appropriately jumpers in the device	yes, supply / extract
<i>Remote control</i>	no	yes, infra-red remote controller, LCD display and wall base supplied as standard. Made from ABS, RAL 9010.
<i>Speed</i>	I, II and III speed	I, II, III, IV and V speed
<i>Controller</i>	3 two-position switches (option)	remote controller, LCD (standard)
<i>Frost protection</i>	-	yes
<i>Comfort mode</i>	-	yes
<i>Boost mode</i>	-	yes
<i>Humidity control</i>	-	Smart humidity control
<i>Temperature sensor</i>	-	Integral temperature sensor for the automatic management of the inversion time (comfort mode)
<i>LED</i>	one-way mode signaling	Integrated multi-colour led to inform about the unit status
<i>Protection class</i>	IPX4	
<i>Power</i>	220-240V ~ 50Hz	
<i>Electrical grounding</i>	The unit is double insulated: no earth connection is required.	

HRU-WALL

3.2 Technical specification

- for HRU-WALL

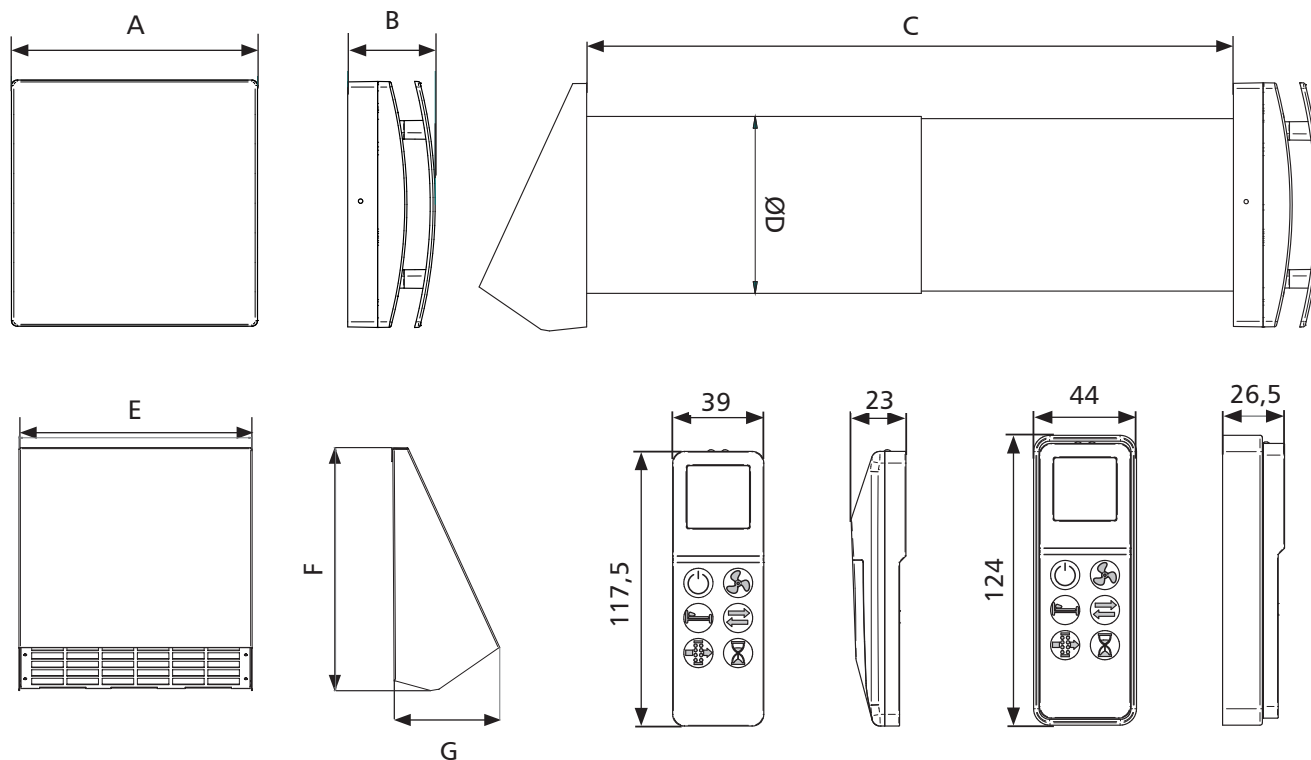
	HRU-WALL-100-25	HRU-WALL-150-60
<i>Air flow rate [m³/h]</i>	10 / 18 / 25	20 / 40 / 60
<i>Power [W]</i>	1.2 / 1.7 / 2.6	1.4 / 2.3 / 3.8
<i>Sound pressure [dB(A)] 3m</i>	10 / 15 / 29	10 / 18 / 26
<i>Ambient temp. [°C]</i>	-20°C +50°C	-20°C +50°C
<i>Protection class</i>	IPX4	IPX4
<i>Frequency [Hz]</i>	50	50
<i>Voltage [V]</i>	220-240	220-240
<i>Weight [kg]</i>	2.40	4.00

- for HRU-WALL-RC

	HRU-WALL-RC-100-25	HRU-WALL-RC-150-60
<i>Air flow rate [m³/h]</i>	10 / 14 / 17 / 21 / 25	20 / 30 / 40 / 50 / 60
<i>Power [W]</i>	2 / 2 / 2.5 / 3 / 3.5	2 / 2.5 / 3.5 / 4.5 / 6
<i>Sound pressure [dB(A)] 3m</i>	9 / 14 / 18 / 23 / 27	10 / 14 / 20 / 24 / 26
<i>Ambient temp. [°C]</i>	20°C +50°C	20°C +50°C
<i>Protection class</i>	IPX4	IPX4
<i>Frequency [Hz]</i>	50	50
<i>Voltage [V]</i>	220-240	220-240
<i>Weight [kg]</i>	2.50	4.40

HRU-WALL

3.3 Dimensions



	A [mm]	B [mm]	C [mm]	ØD [mm]	E [mm]	F [mm]	G [mm]
HRU-WALL-100-25	164	46	300-570	110	205	205	100
HRU-WALL-150-60	218	51	300-570	159	255	255	130
HRU-WALL-RC-100-25	218	78	300-570	110	205	205	100
HRU-WALL-RC-150-60	218	78	300-570	159	255	255	130

HRU-WALL

4. Construction

Front cover

Made of high quality, impact and UV-resistant ABS.



Energy efficient EC fan

Due to its advance design and technology it consumes only 2.6W of power at its peak (for HRU-WALL-100-25) or only 3.5W (for HRU-WALL-RC-100-25). Unique design winglet type impeller, providing enhanced aerodynamic properties, low noise and increased efficiency. High efficient reversible EC motor with integral thermal protection, mounted on sealed for life high quality ball bearings. Designed for continuous reversible running.



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HRU-WALL-RC

Telescopic inner pipe

Regulation: 300-570 mm. High quality material, impact and UV-resistant, made from 100% recycled ABS, black colour.

A cerami exchanger is placed in the pipe.

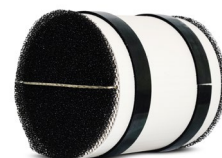


Heat exchanger

The ceramic, regenerative heat exchanger is a central and most important part of the unit. It has a honeycomb structure for high thermal efficiency and double-sided air filters (HRU-WALL-RC).



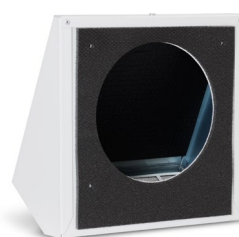
HRU-WALL



HRU-WALL-RC

Outer grille

External steel cover painted RAL, with acoustic lining and insect screen.



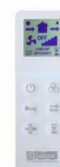
Remote controller / controller

The unit is supplied with an infrared remote controller as standard (HRU-WALL-RC), as well as its support base which can be wall mounted. A magnet keeps the controller attached to the base. The controller is equipped with an LCD display to visualise the setting to be transferred to the unit.

Controller with 3 two-position switches, surface / flush mounted for HRU-WALL (option).



HRU-WALL
(option)



HRU-WALL-RC
(standard)

HRU-WALL

5. Operation

5.1 Description of the unit operation

The unit pulls air out for 70 seconds, then it pushes air in for the same time.

When heated air is pulled (extracted) from inside the room, it warms up the heat exchanger; when the cold air is pushed (supplied) in the room, it gets preheated, recovering most of thermal energy which would be otherwise lost in the ventilation process.

5.2 Control

HRU-WALL version:

The unit runs at the speed selected by activating the two-position switches "S1", "S2" and "S3" of the HRU-WALL-CONTR-I. The same functionality can be achieved with HRU-WALL-CONTR or with 3 two-position switches.

S3 switch activates the "Free cooling" (Bypass) mode, which stops alternate flow and keeps the fan in "extract-only" or "intake-only" mode, to avoid the heat exchange when necessary. To set the extract-only" mode or "intake-only", place the integral jumpers as per Fig.20A or Fig.20B. The front cover LED indicates when the Free cooling mode is on.

An automatic "Boost" mode can be achieved through a dedicated switch or room sensors like SEN-HY, SEN-PIR or SEN-CO2, connecting such switch in parallel to the S2 switch.

Wiring diagram of one unit: Fig. 18A.

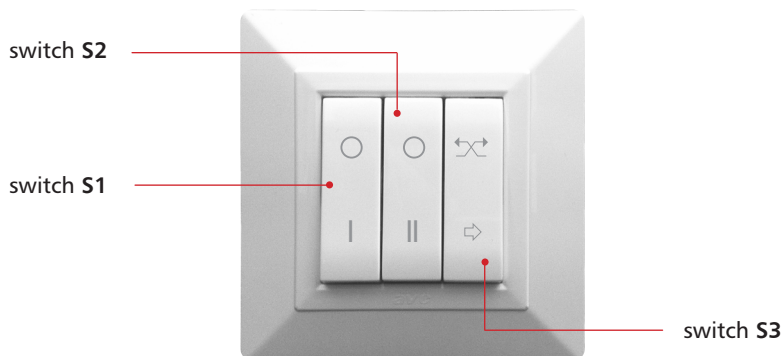
Wiring diagram with ambient sensors: Fig.18B and Fig.18C.

Wiring diagram of two or more units: Fig.18D.



WARNING!

Ensure that the electric wiring to L and N is done correctly; an incorrect connection will lead to malfunction or permanent damage of the fan.



S1	S2	Mode
O	O	OFF
I	O	Speed 1
O	II	Speed 2
I	II	Speed 3

S3	Mode
	Heat recovery (Alternate flow)
	Free cooling

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Optional accessories (sold separately)



HRU-WALL-CONTR
Surface-mounted controller



HRU-WALL-CONTR-I
Flush-mounted controller

HRU-WALL-RC version:

The unit is supplied with an infrared remote controller (L) as standard, as well as its support base (M) which can be wall mounted. A magnet keeps the controller attached to the base.

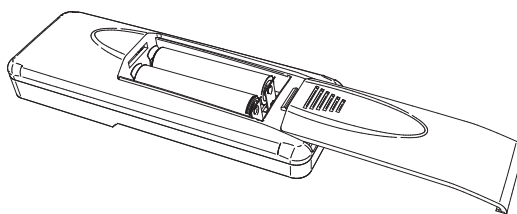
The controller is equipped with an LCD display to visualise the setting to be transferred to the unit. Everytime the button is pressed, the remote controller sends data to the unit. The acoustic signal confirms that the data was recieved. The transmission is unidirectional, which means that the remote controller can not read data from the unit. The IR receiver (K image pag.15) is placed on the left side of the ventilation unit: it is recommended to point the controller towards the receiver when any setting needs to be transferred.

One remote controller can control more units.



NOTE!

To activate the remote controller it is necessary to insert two AAA type batteries (not supplied).



HRU-WALL



Remote controller


























Support base


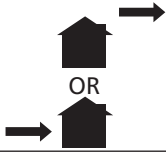




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When switched on the unit emits a long acoustic signal.

Through the IR controller the following functionalities can be activated/deactivated. When one setting is transferred to the unit, a short acoustic signal is emitted and a green led flashes.

Functionality	Description	Controller button	Icon	LED	Acoustic Signal
Airflow direction					
Alternate	The unit runs in extract/intake at the selected speed: the inversion time is automatically defined thanks to the integral temperature sensor.			green	short
Extract	The unit runs in extract only at the selected speed.			green	short
Intake	The unit runs in intake only at the selected speed.			green	short
Mode (active only if the airflow direction is set on alternate)					
Comfort	Optimisation of the acoustic and thermal comfort. The inversion time varies automatically from 40÷120 seconds, thanks to the integral temperature sensor. The first time cycle is of 120 seconds, then it varies automatically according to the detected temperature conditions.			green	short
Efficiency	Optimisation of the thermal efficiency. The inversion time is fixed at about 70 seconds.			green	short
Continuous running speed					
	Speed 1: 20m ³ /h			green	short
	Speed 2: 30m ³ /h			green	short
	Speed 3: 40m ³ /h			green	short
	Speed 4: 50m ³ /h			green	short
	Speed 5: 60m ³ /h			green	short
ON/Off position					
	ON / OFF button		ON	green	short
			OFF	red	long
BOOST speed					
	The unit runs at speed 5 (maximum) for 15 minutes, in extract only; then it returns to the previously selected mode/speed. The BOOST speed cannot be activated if the controller is OFF.			fixed blue	short

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<i>Free cooling</i>					
	The unit runs in "extract only" or "intake only" to avoid heat recovery when not needed.			green	short
<i>Filter reset</i>					
	Every 3 months a yellow warning led switches on (fixed light) to indicate that the filters have to be maintained. Press the dedicated button for 5 seconds to reset the timing.		FILTER RESET	green	short
<i>Smart humidity control</i>					
	When the humidity sensor detects a quick variation of the Relative Humidity level, the running speed automatically increases to the next higher speed. After 10 minutes from the last quick RH variation, the unit returns running at the selected speed. The smart humidity control is active if the airflow direction is set on alternate or extract only: if speed 5 has been selected, no speed increase happens. To disable this functionality, press the  button for 5 seconds: on the top side of the LCD display the symbol ● is shown.			flashing blue	
<i>Antifrost</i>					
	This functionality prevents frost building up on the heat exchanger due to extremely cold air. When it is activated, the unit runs in extract only at speed 1, for 30 minutes.			fixed red	
<i>Acoustic signal</i>					
	Any time a setting is transferred from the controller to the unit, a short acoustic signal is emitted. This can be deactivated by pressing the  button for 7 seconds, after when a green led flashes to indicate that the acoustic signal is off. To reactivate the acoustic signal repeat the same operation for 7 seconds until the led becomes green and an acoustic signal is emitted.			green	short

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5.3 BACK UP button (only HRU-WALL-RC)

In case the remote controller gets lost or the batteries are dead, the device can be controlled, to a limited extent, using the BACK UP button. You can on and turn off the heat recovery unit. (K image pag.15).

The airflow direction is always alternate and the operation mode (either comfort or efficiency) is the last selected from the remote controller.

Speed	LED colour	Acoustic signal
ON	green led	short
OFF	red led	long

6. Synchronisation

HRU-WALL version:

When the units are installed in pair, they must be synchronised so that when one unit is extracting, the other is supplying, and viceversa.

This is achieved by setting the dedicated jumper (Fig. 20A-20B). One unit is set in A position, other in B position. Units which are supposed to work in synchronisation mode can be connected to a single HRU-WALL-CONTR / HRU-WALL-CONTR-I controller. One can connect up to 10 units to a single controller.

6.1 Reset of the synchronisation

OPTION 1: If two or more units are connected under the same main switch, to reset the synchronisation, the main switch must be switched first OFF and then ON to reactivate (Fig. 34).

OPTION 2: If two or more units are not connected under the same main switch, to reset the synchronisation, press at the same time the black pin of each unit (Fig. 36) for at least 3 seconds.

6.2 Jumper positioning

Integral jumper set in position A (Fig. 20A) means "extract-only" mode.


Integral jumper set in position B (Fig. 20B) means "supply-only" mode.

The jumper position defines both the air-flow direction when the unit is activated for the first time (for the synchronisation) and the air-flow direction of the free-cooling mode.

HRU-WALL-RC version:

It is possible to synchronize up to 10 units contemporaneously, through wire (2 pole twisted pair type, max 30 m length) so to have mode and inversion time synchronized. When the unit is switched on for the first time, the rotation direction of each unit (clockwise or anti-clockwise) is automatically established. Other functionalities like speed, smart humidity control and boost, continue to be controlled independently on each single unit.

Conditions and scenarios during synchronization process:

1. Each device must have been turned on independently. Turning on one device will NOT turn on the other synchronized units.
2. The fan speed is set on each unit independently.
3. The change between Alternate / Extract / Intake modes  is independent for each unit. If, for example, only in one unit the intake mode is turned on, the other units will continue to operate in alternate mode.
4. The change of the COMFORT / EFFICIENCY modes is synchronized, i.e. a change of mode in one unit results in a change to all units.

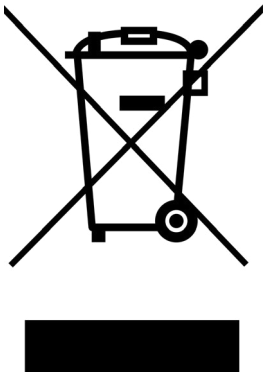
Wiring diagram as per Fig. 16B

7. Maintenance

Maintenance can be carried out by the user as indicated in the chapter:

- HRU-WALL - chapter 10
- HRU-WALL-RC - chapter 11.

8. Disposal and recycling








Information on disposal of units at the end of life.

This product complies with EU Directive 2002/96/EC.

The symbol of the crossed-out dustbin indicates that this product must be collected separately from other waste at the end of its life. The user must, therefore, dispose of the product in question at suitable electronic and electro-technical waste disposal collection centres, or else send the product back to the retailer when purchasing a new, equivalent type device. Separate collection of decommissioned equipment for recycling, treatment and environmentally compatible disposal helps to prevent negative effects on the environment and on health and promotes the recycling of the materials that make up the equipment. Improper disposal of the product by the user may result in administrative sanctions as provided by law.

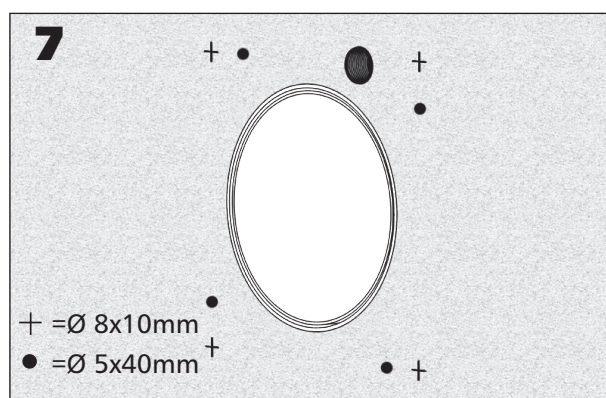
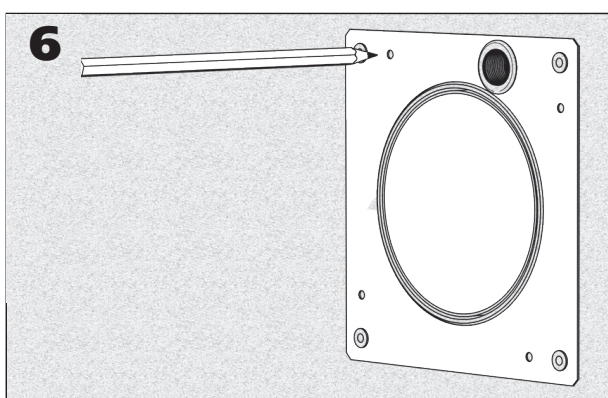
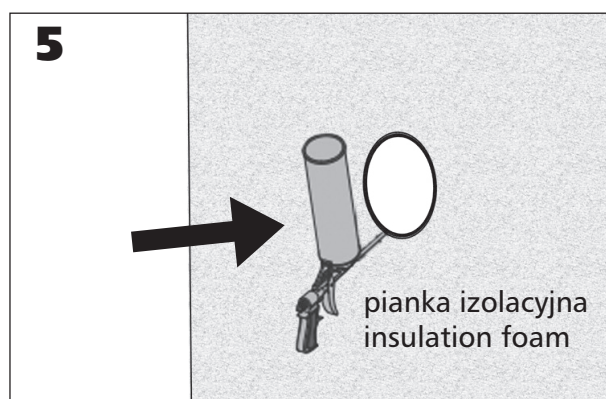
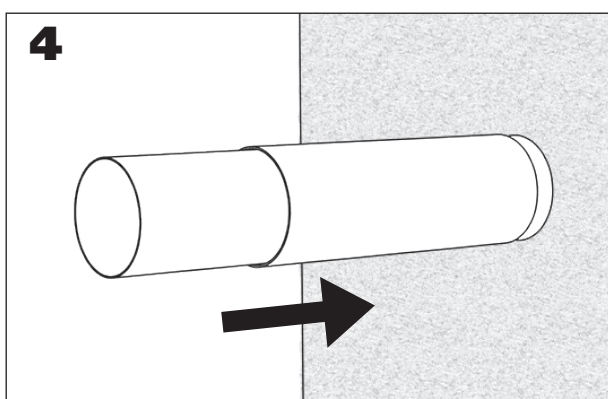
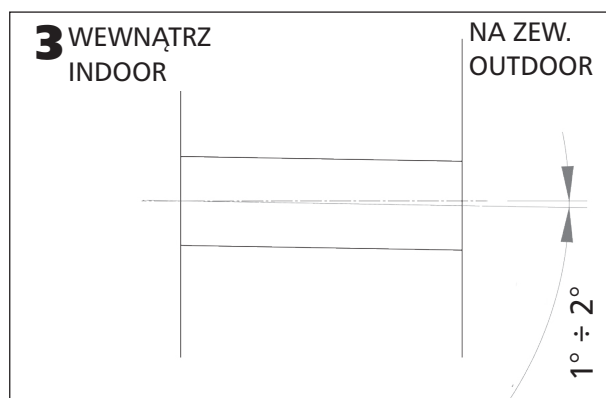
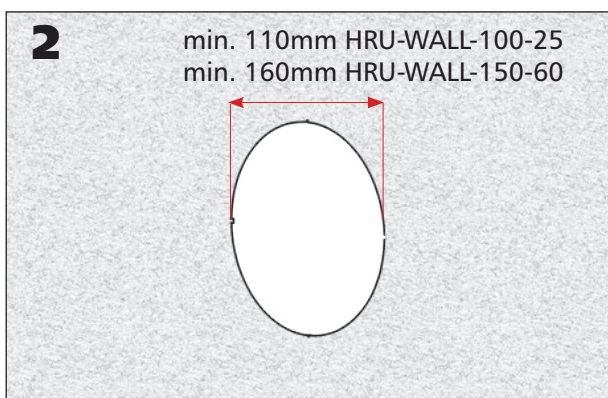
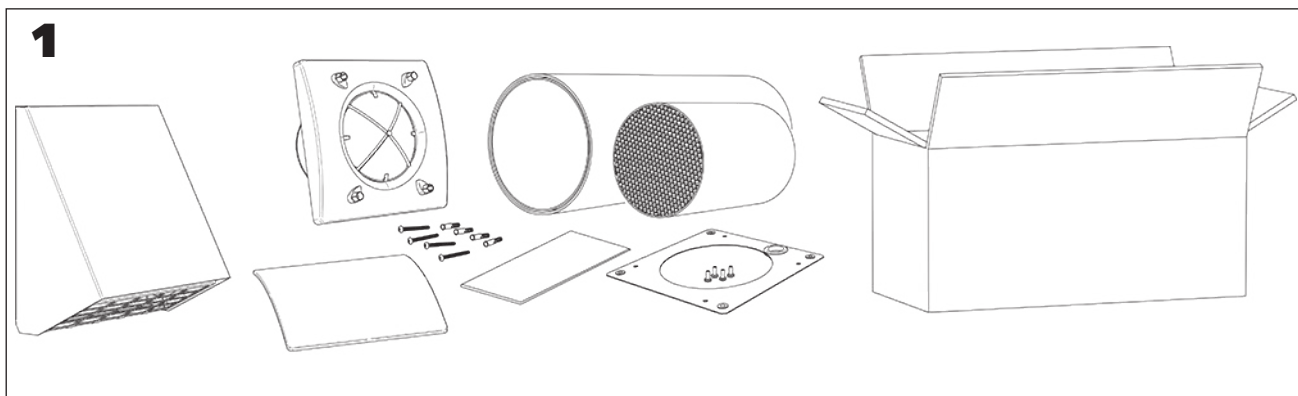
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9. Troubleshooting

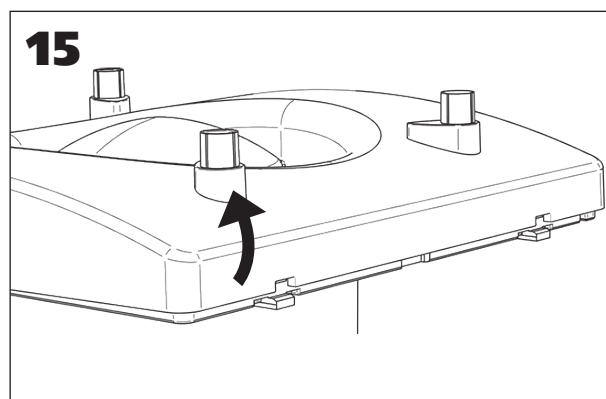
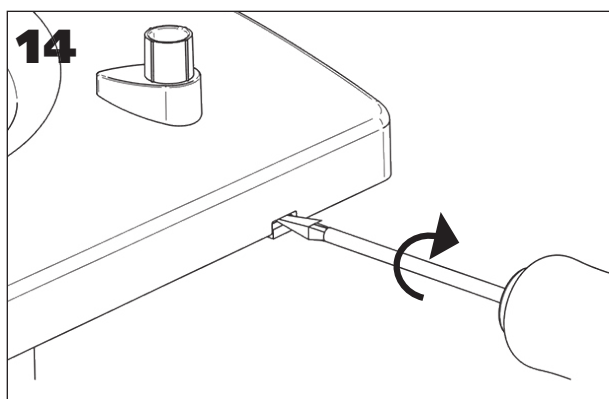
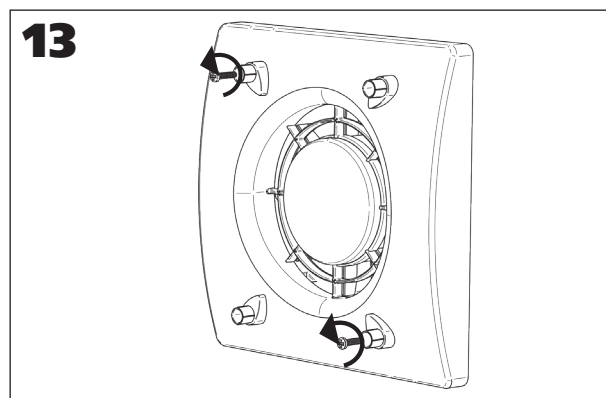
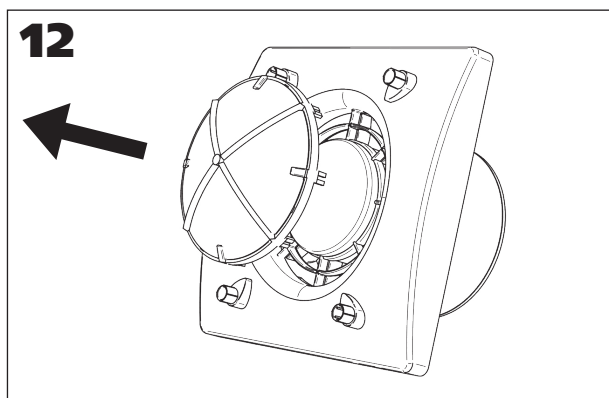
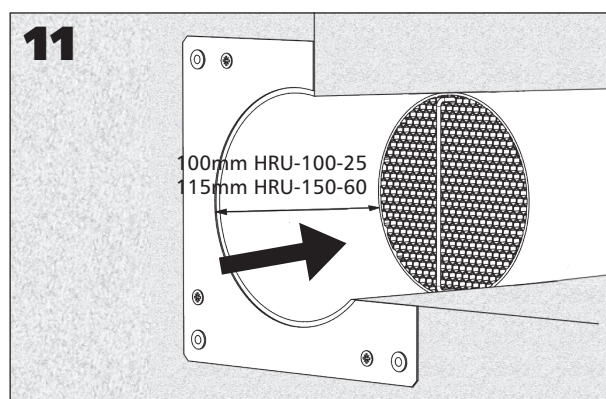
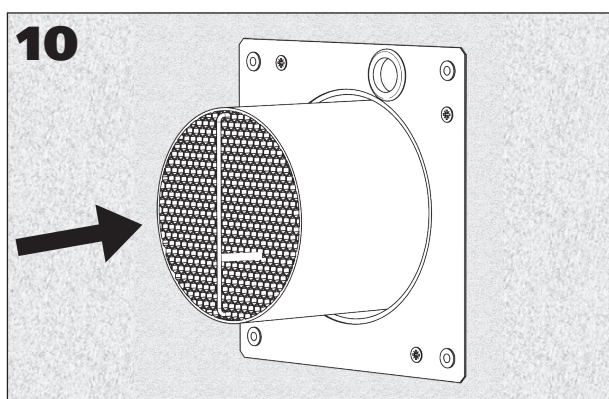
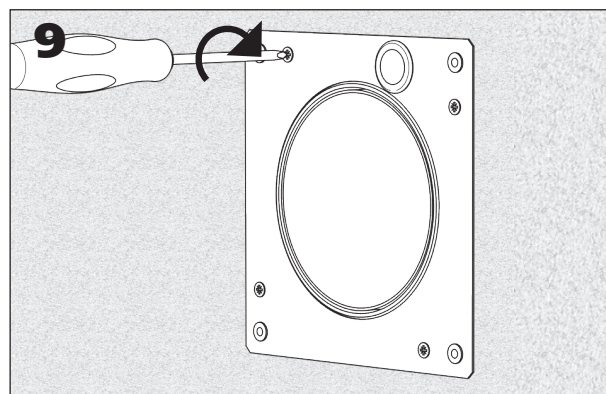
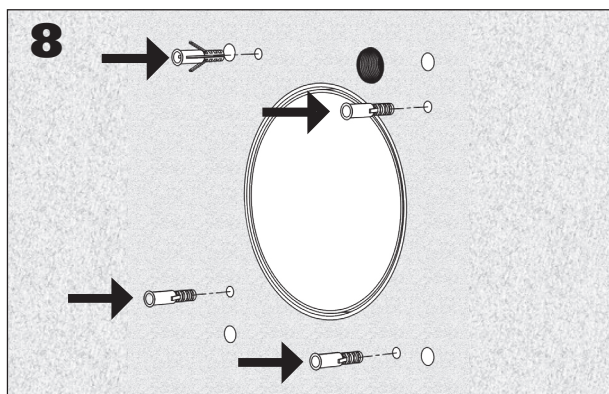
<i>Anomaly</i>	<i>Possible cause</i>	<i>Solution</i>
No icon shown on the controller LCD display	Batteries are dead	Change the batteries
	Batteries are not present	Check that batteries are in there
	Batteries are wrongly positioned	Position the batteries correctly
The unit does not execute the command sent from the remote control	Lack of communication between the unit and the remote controller	Go closer to the unit, pointing the controller to the receiver on the left side of the unit
The unit does not operate	There is no voltage	Check that the unit is correctly wired to the main supply
	Ventilation unit does not couple correctly with the support base	Check that the coupling is properly done
The unit operates at the maximum speed	The Boost functionality is activated, on the display the icon  is shown	Wait until the boost timing ends (15 minutes) or deactivate the boost function pressing the  button.
Unit speed suddenly increases	The smart humidity control is activated	Wait until the smart humidity control phase ends (10 minutes) or deactivate the humidity control function pressing the  button for 5 seconds.
Fixed yellow led	Dirty filters	Filters maintenance/replacement is needed: reset filter operation has to be done (see page 18)
Fixed red led	Antifrost protection is activated	Wait until the antifrost phase ends (30 minutes)
Fixed blue led	Boost is activated	Wait until the boost timing ends (15 minutes) or deactivate the boost function pressing the  button.
Flashing blue led	Smart humidity control is activated	Wait until the humidity control phase ends (10 minutes)
Fixed purple led	Ventilation unit does not couple correctly with the support base	Check that the coupling is properly done
Acoustic signal to disable		Press the  button for 7 seconds: a green led flashes.

HRU-WALL

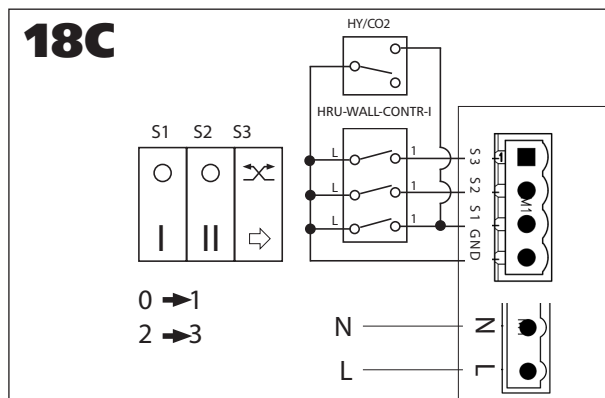
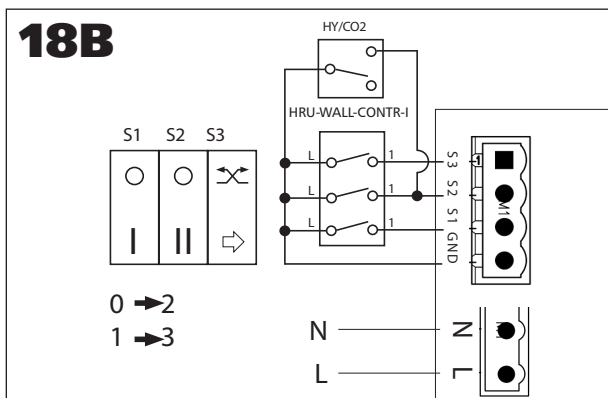
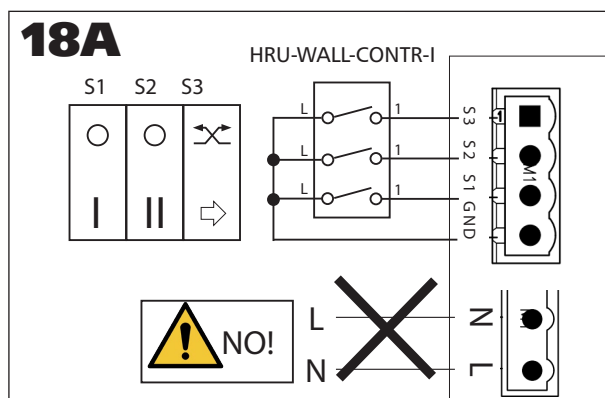
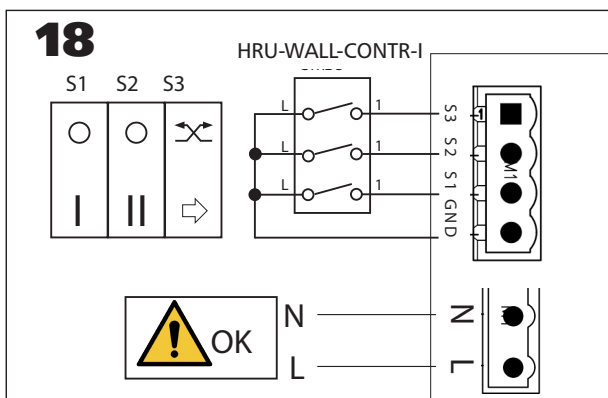
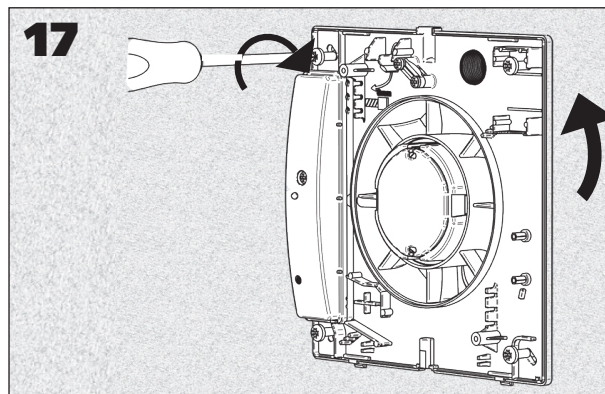
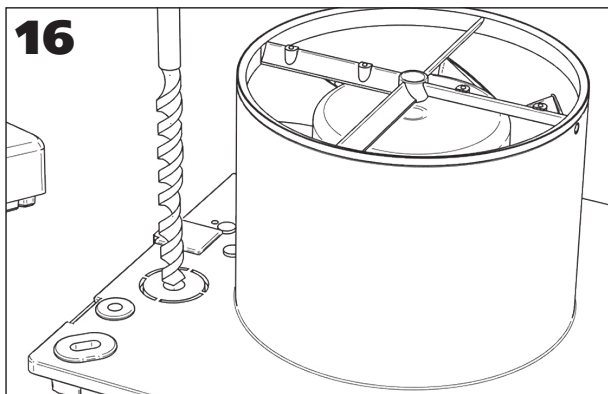
10. Montaż HRU-WALL / Zawartość opakowania Installation HRU-WALL / Package contents



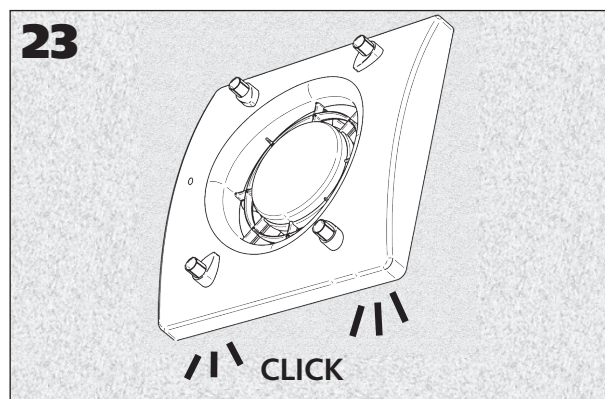
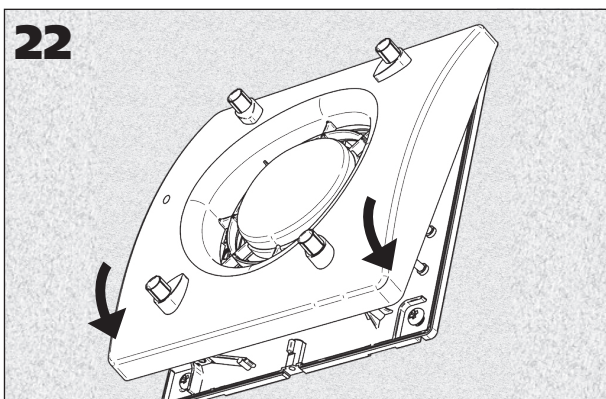
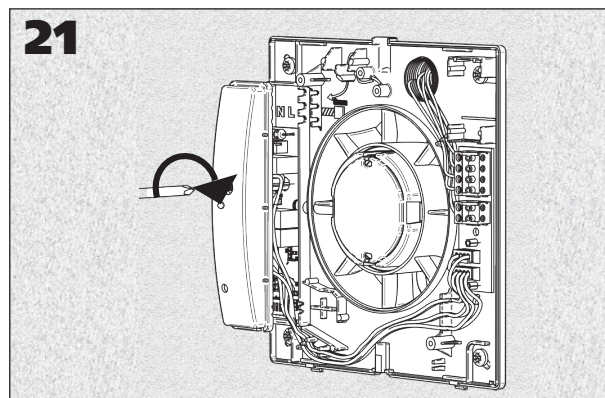
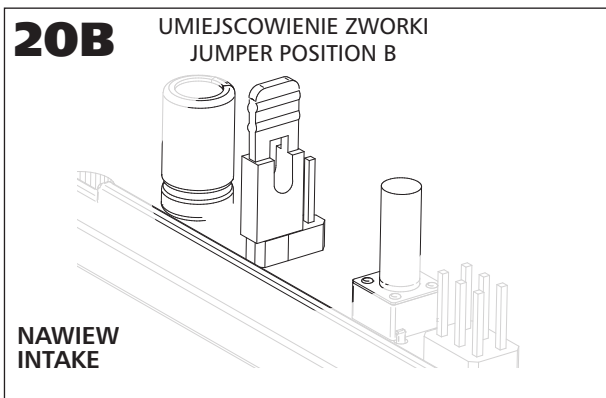
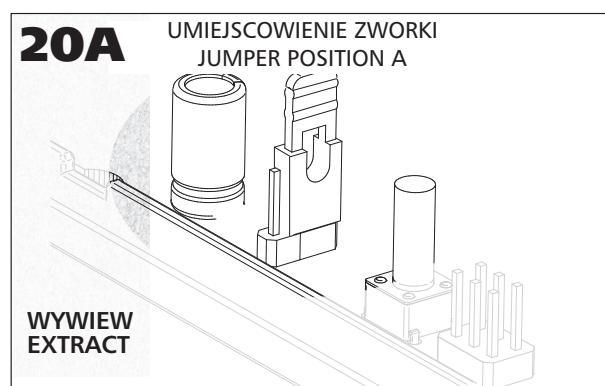
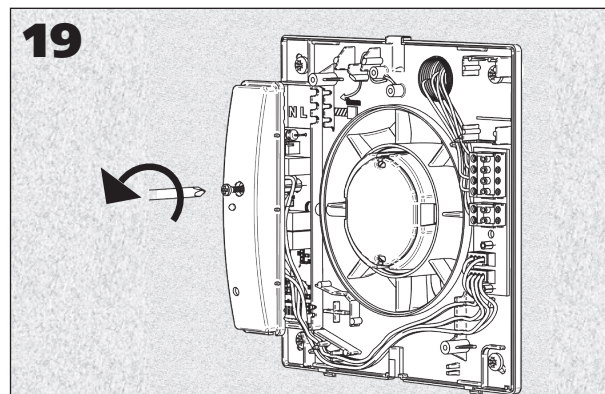
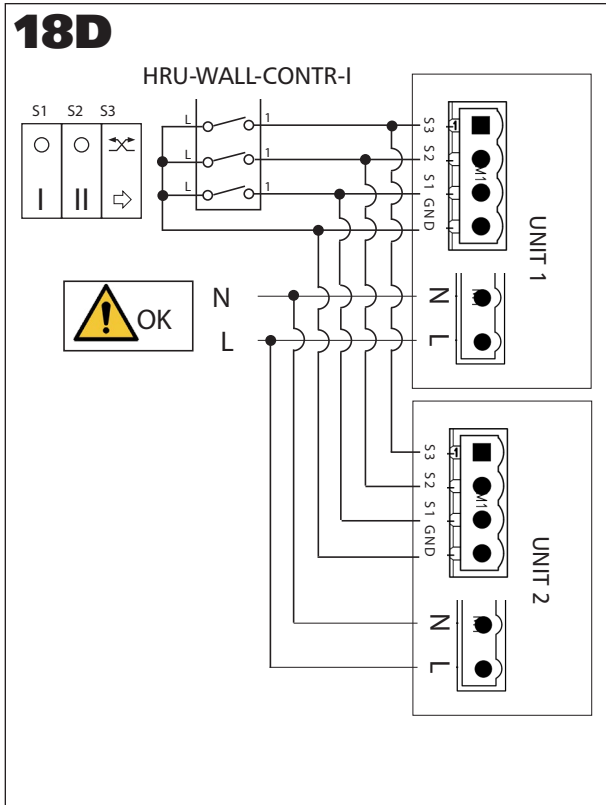
HRU-WALL



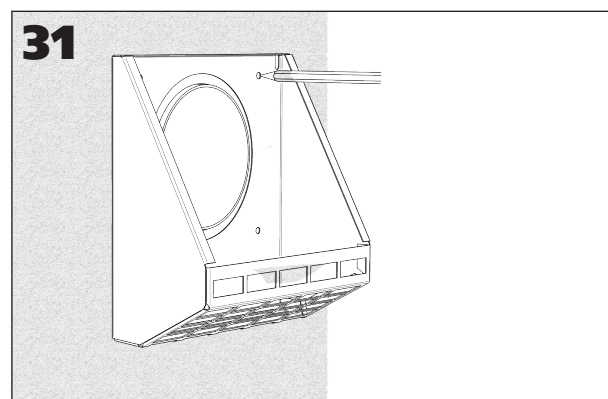
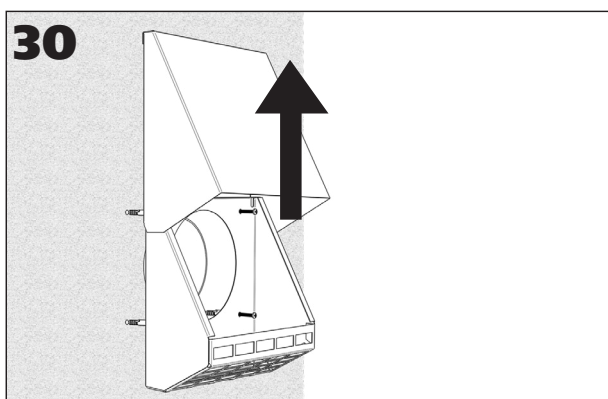
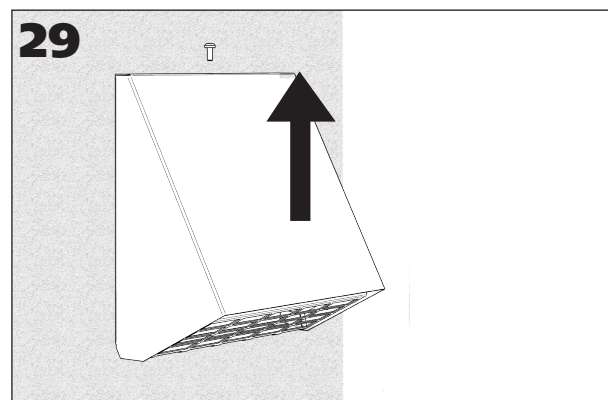
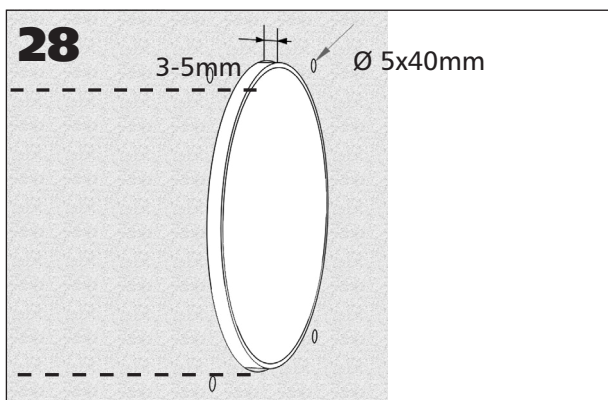
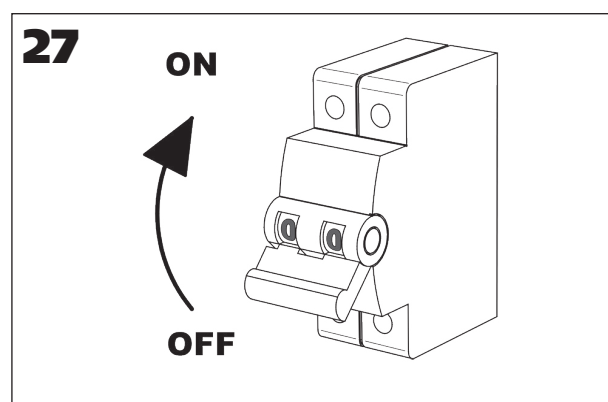
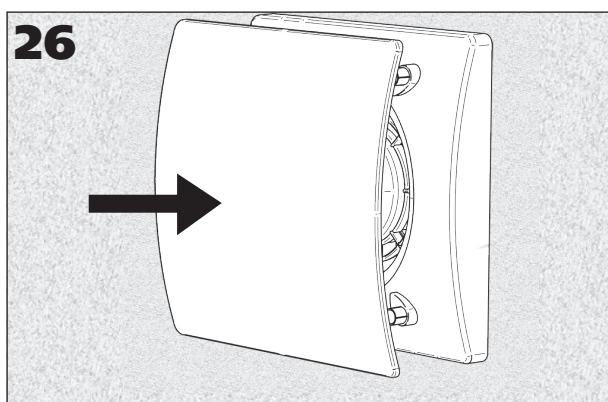
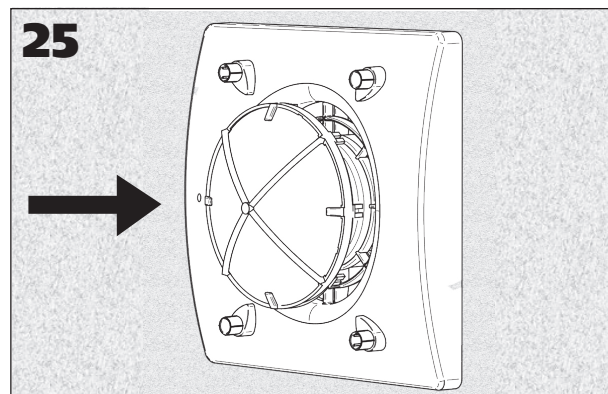
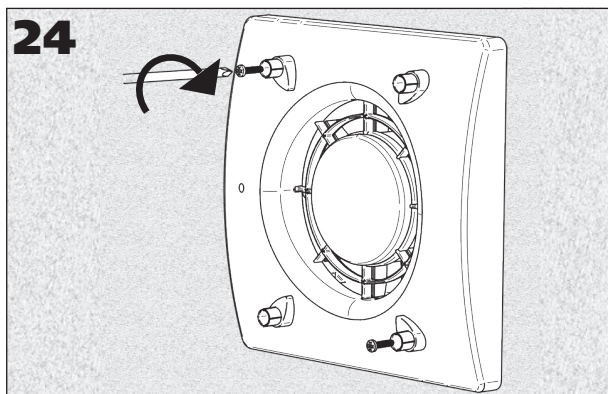
HRU-WALL



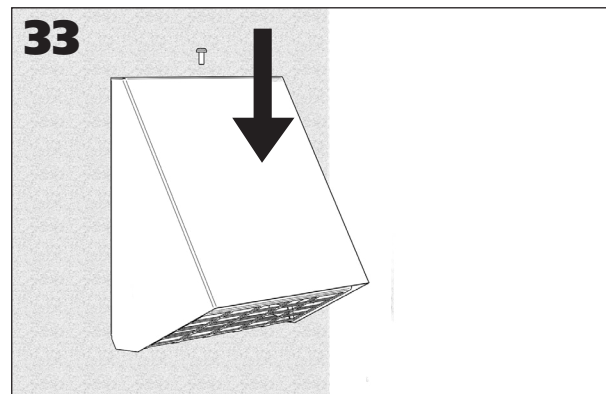
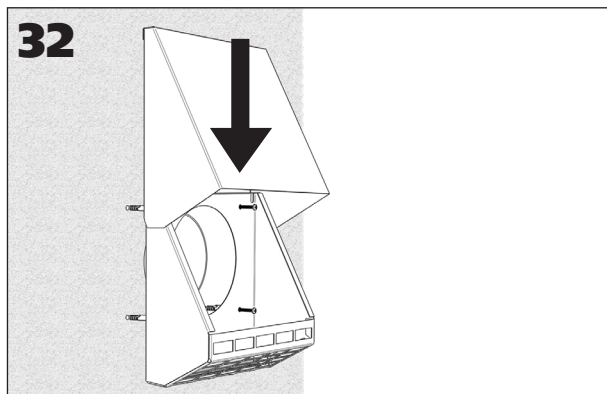
HRU-WALL



HRU-WALL

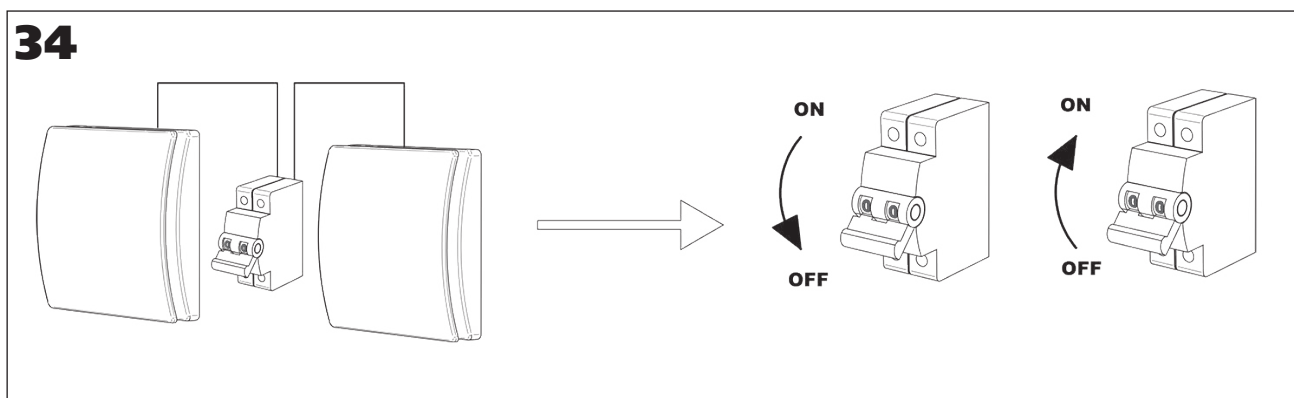


HRU-WALL

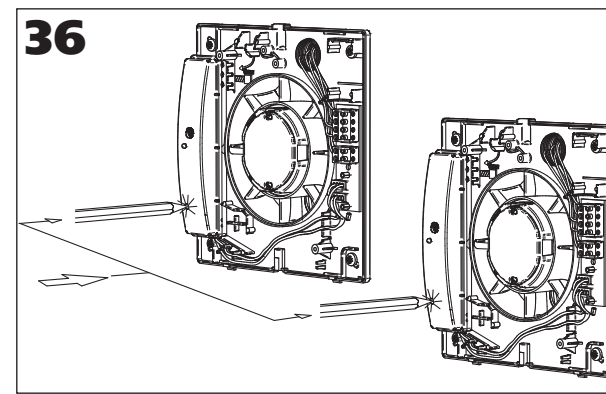
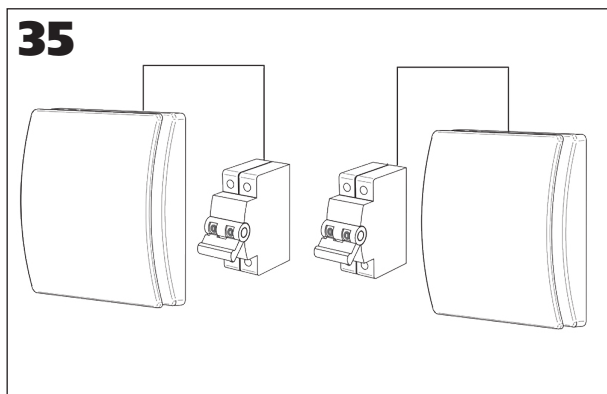


10.1 Ponowne ustawienie synchronizacji / Reset of the synchronization

OPCJA 1/ OPTION 1



OPCJA 2/ OPTION 2

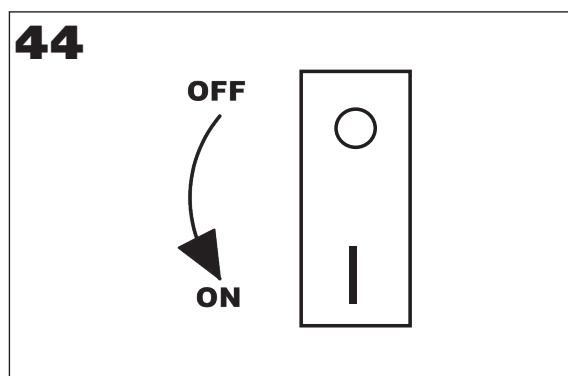
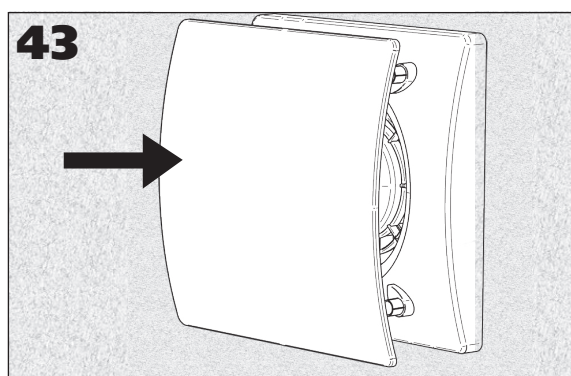
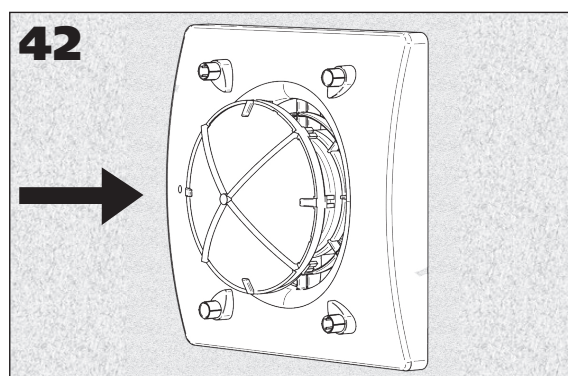
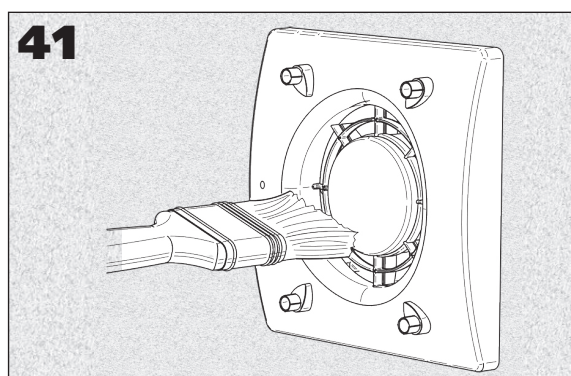
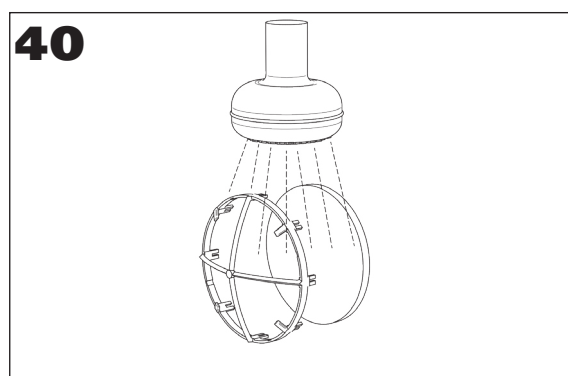
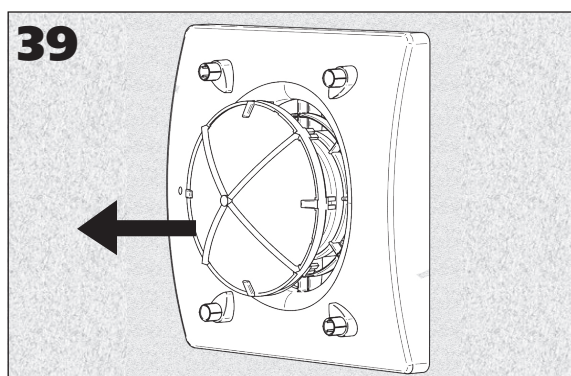
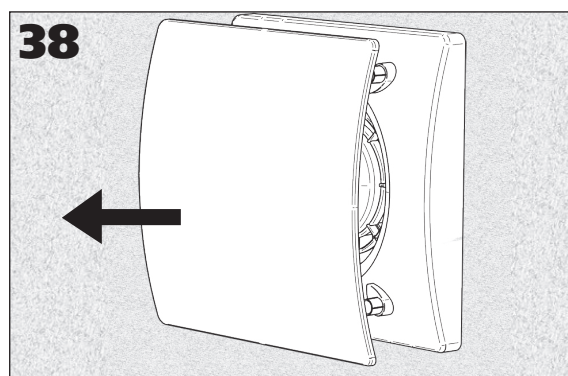
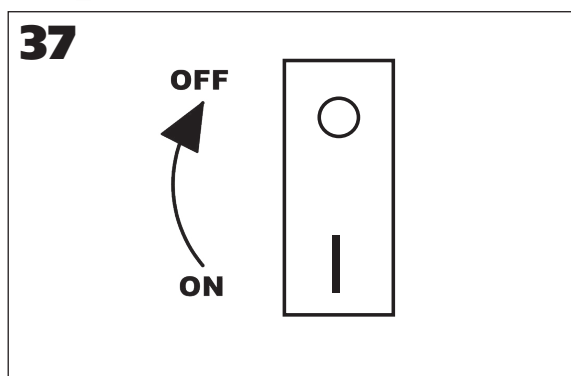


10.2. Czyszczenie filtra (konserwacja) / Filter cleaning (maintenance)



UWAGA! NOTE!

Czyszczenie filtra może być wykonane przez użytkownika.
Filter cleaning can be carried out by the user.



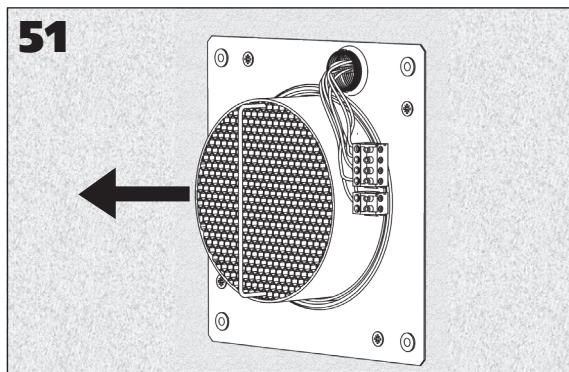
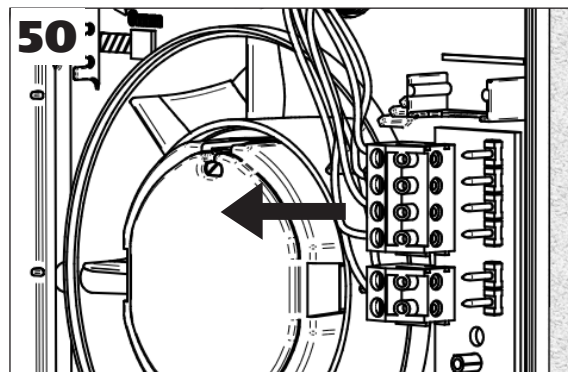
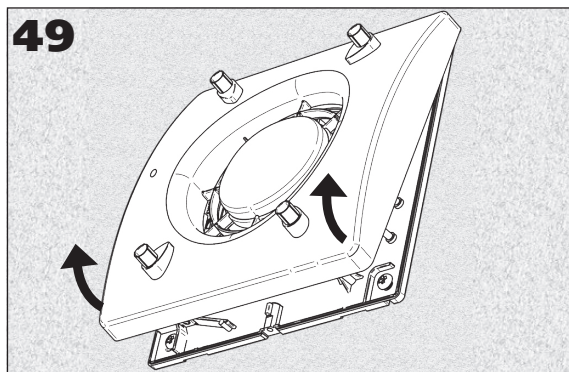
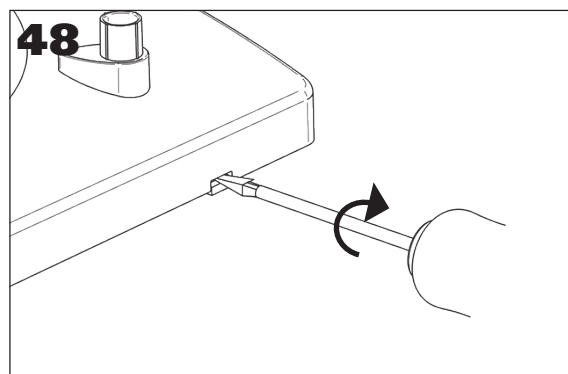
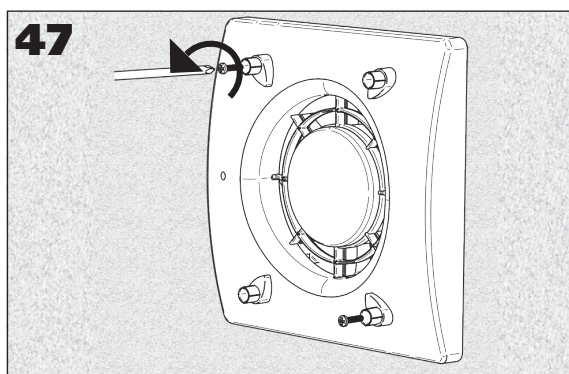
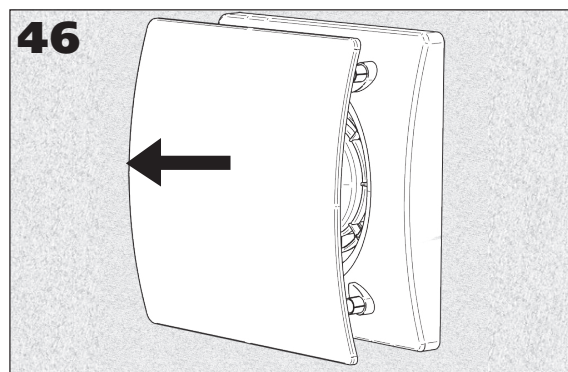
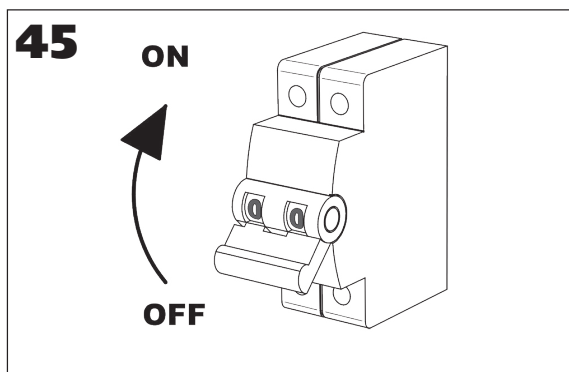
HRU-WALL

10.3. Czyszczenie wymiennika (serwis)/ Heat exchanger cleaning (service)

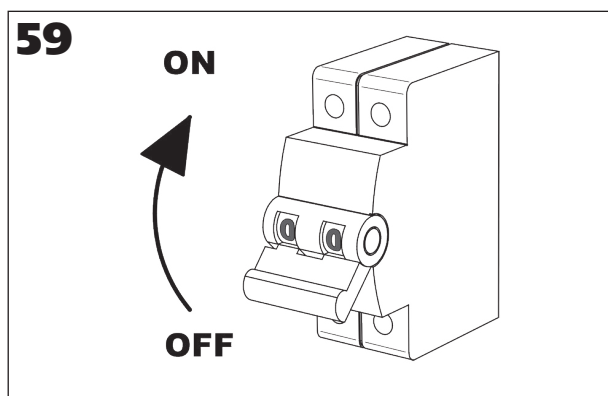
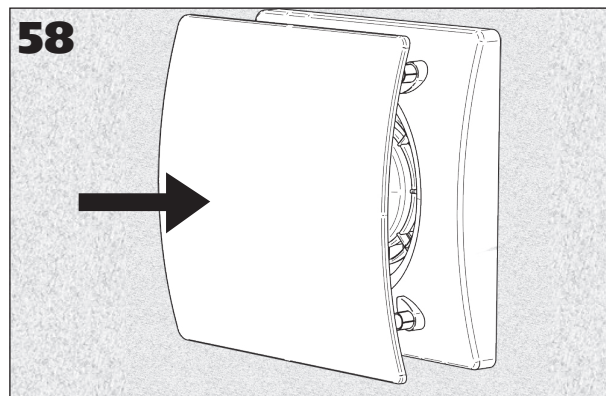
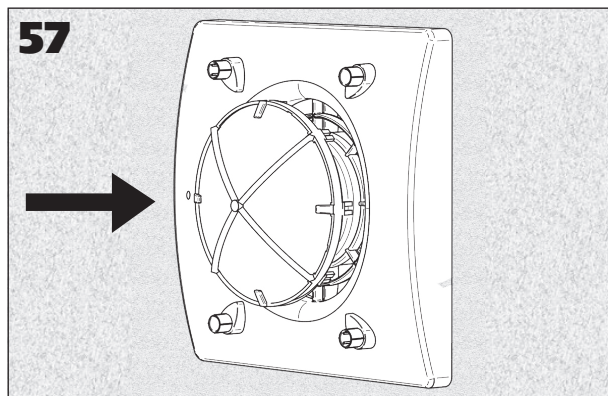
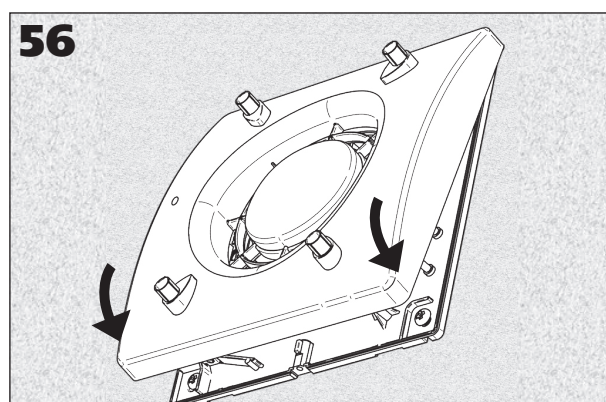
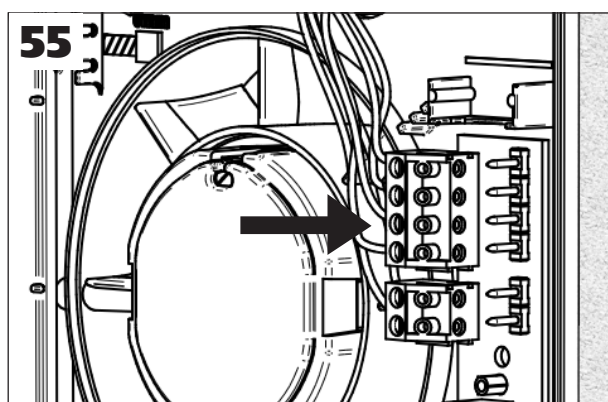
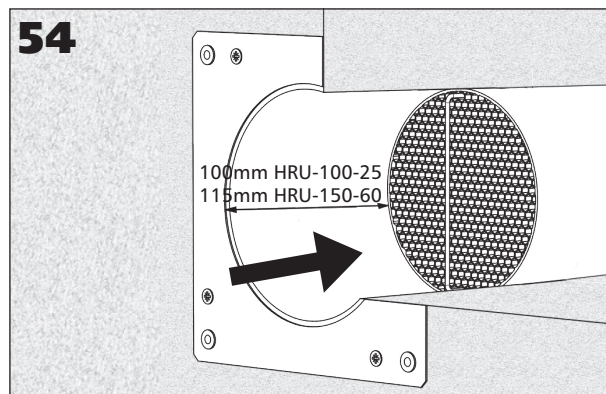
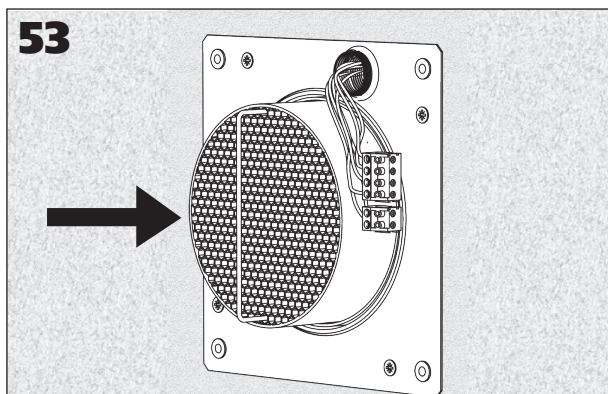


UWAGA! NOTE!

Czyszczenie wymiennika musi zostać wykonane przez uprawnionego instalatora.
Heat exchanger cleaning must be carried out only by technically qualified personnel.

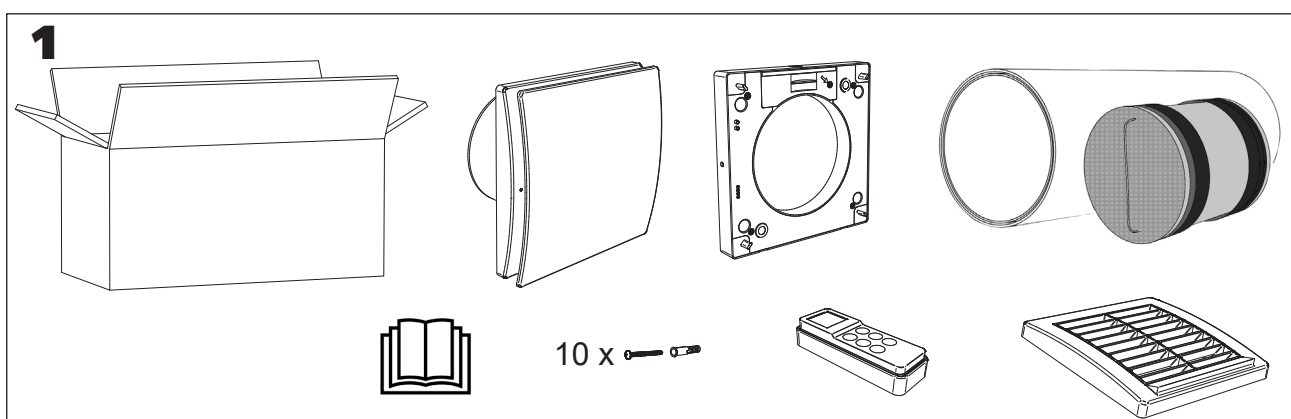
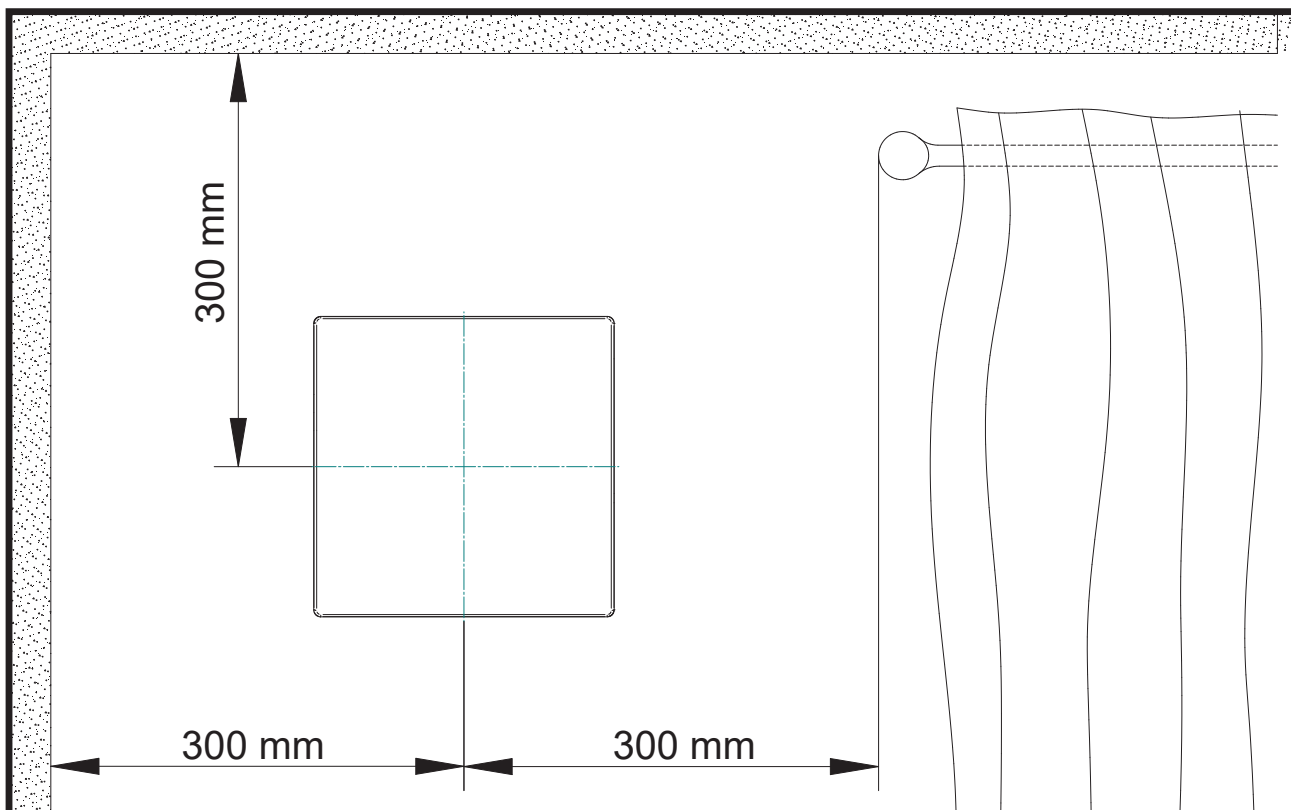


HRU-WALL

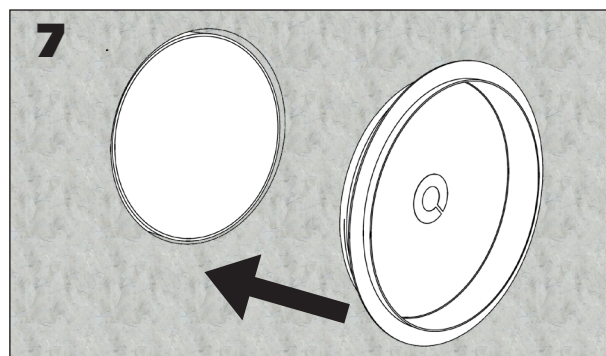
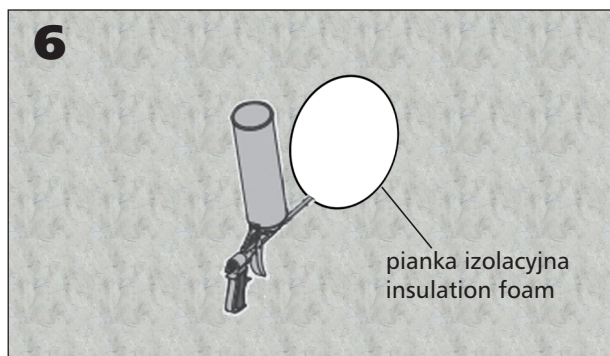
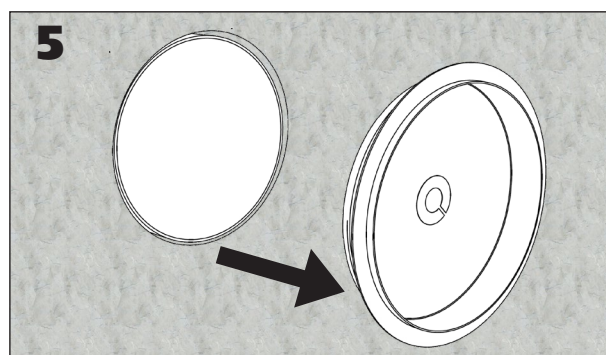
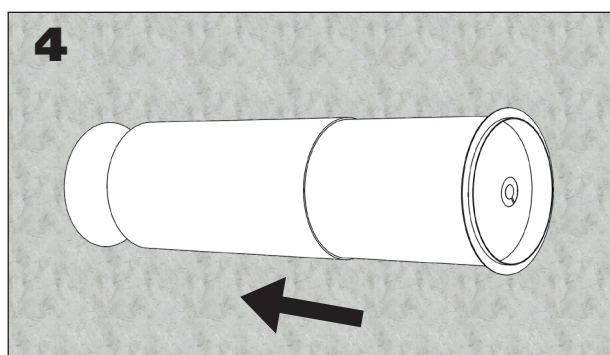
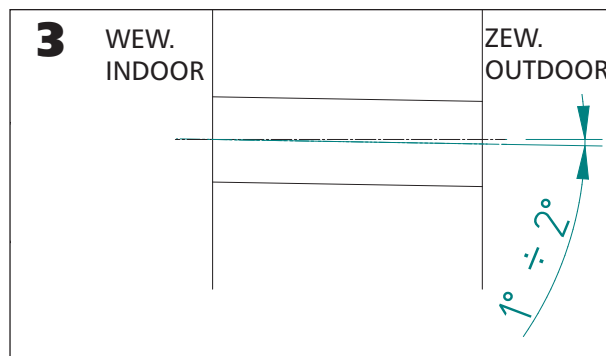
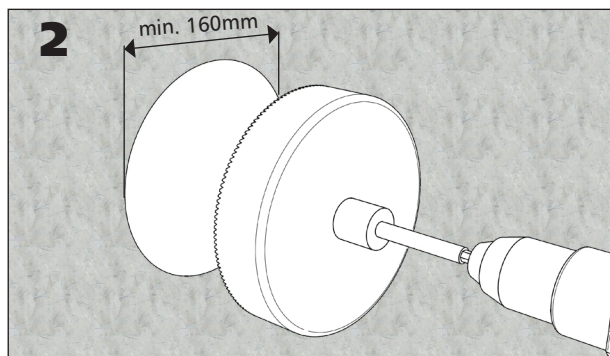


HRU-WALL

11. Montaż HRU-WALL-RC / Installation HRU-WALL-RC



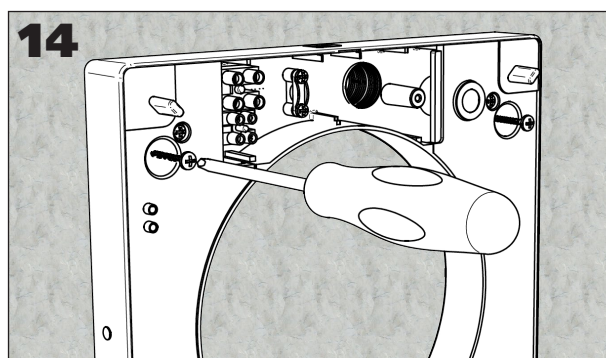
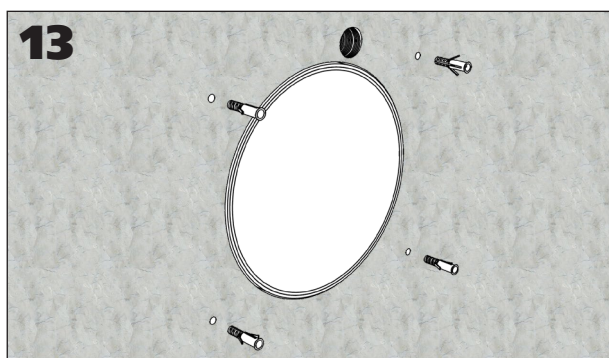
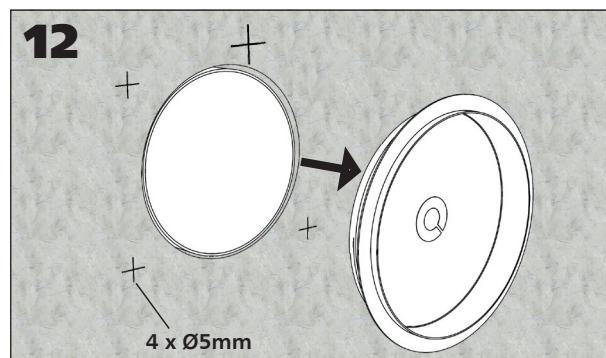
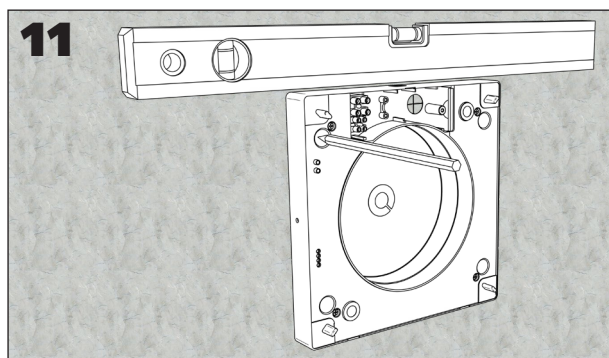
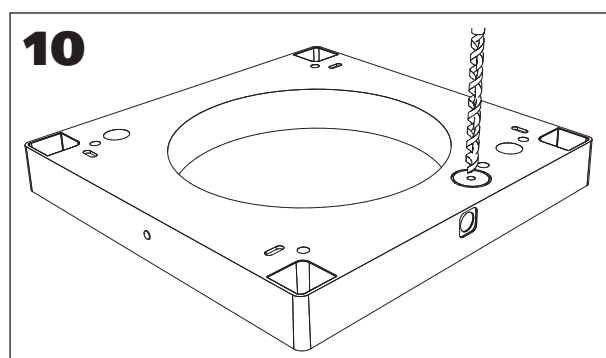
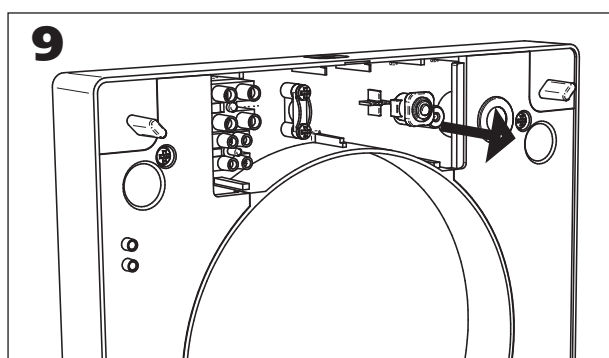
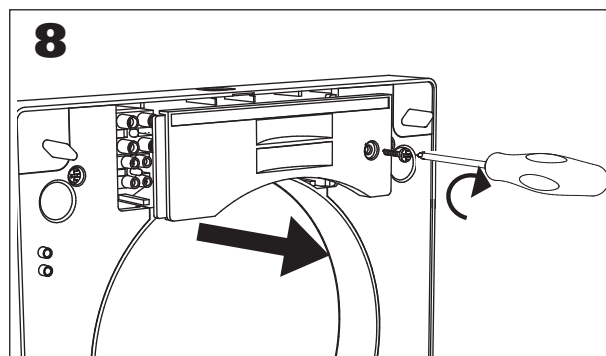
HRU-WALL



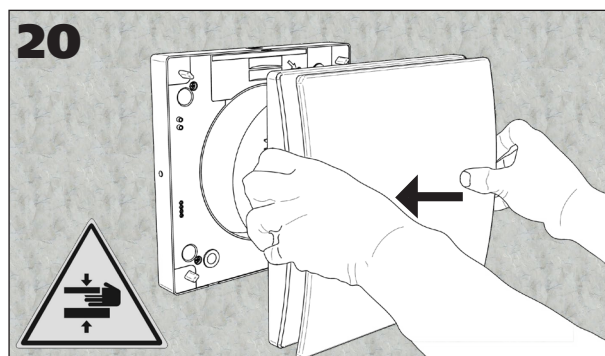
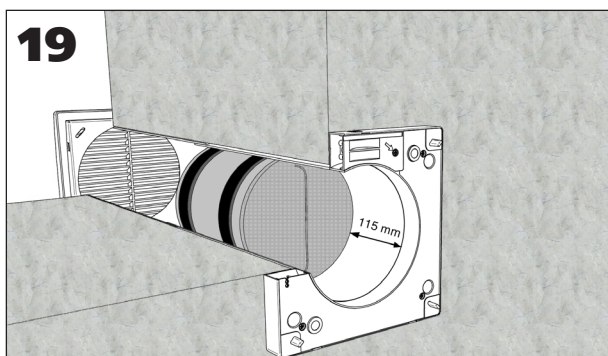
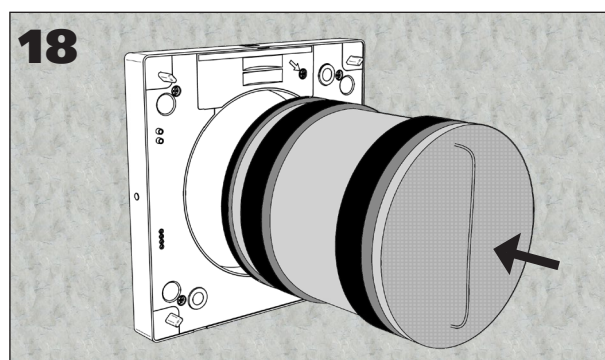
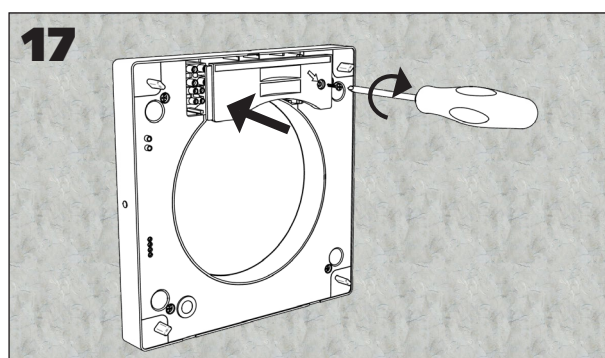
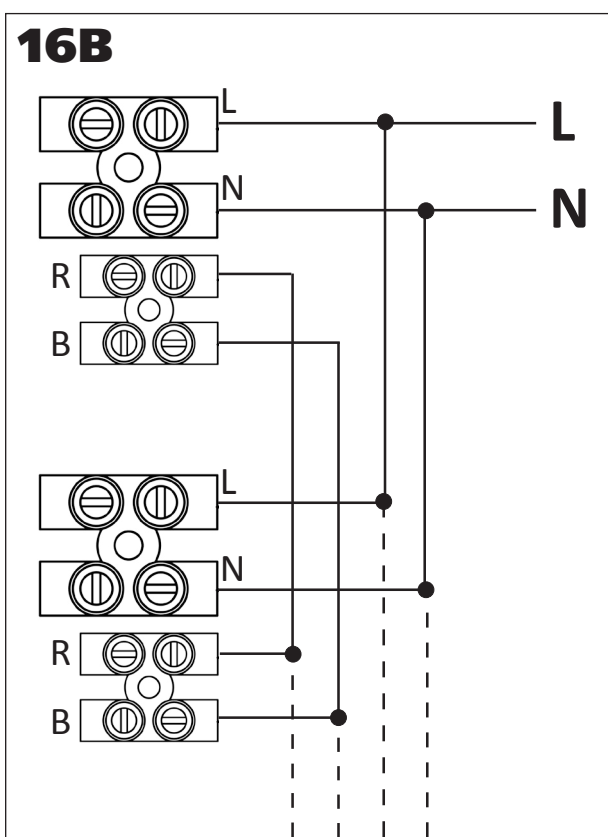
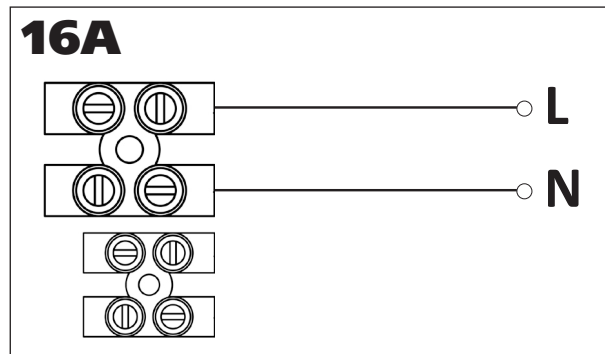
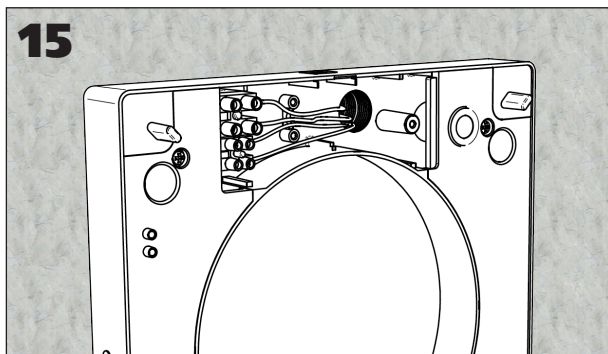
HRU-WALL



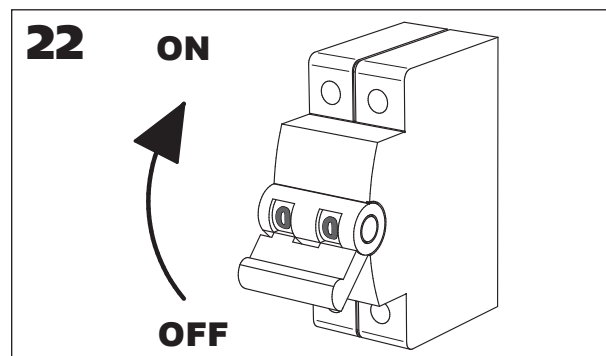
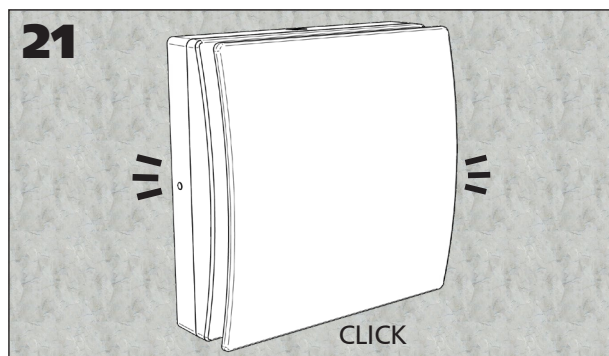
UWAGA! Włot wpuszczanego kabla:
NOTE! Recessed Cable entry:
H03VV-F; H05VV-F 2 X 0,5 ÷ 1,5 mm²



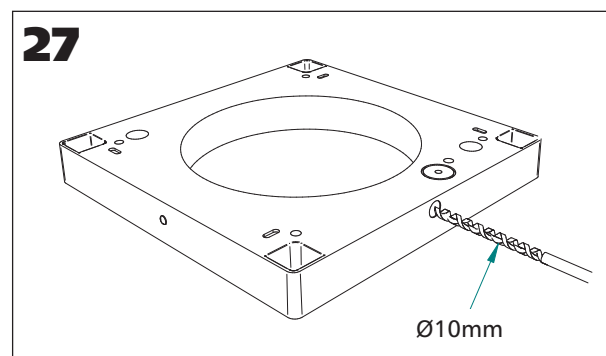
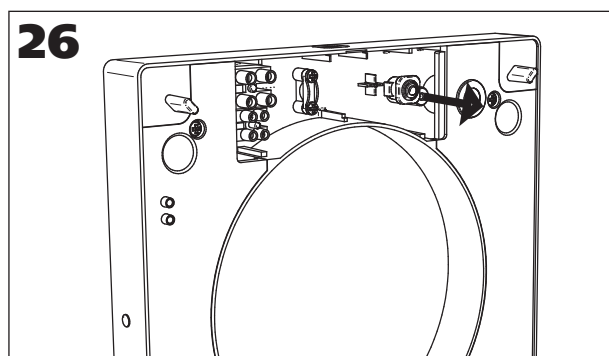
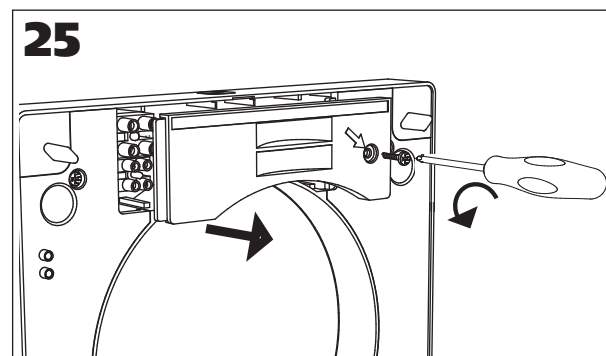
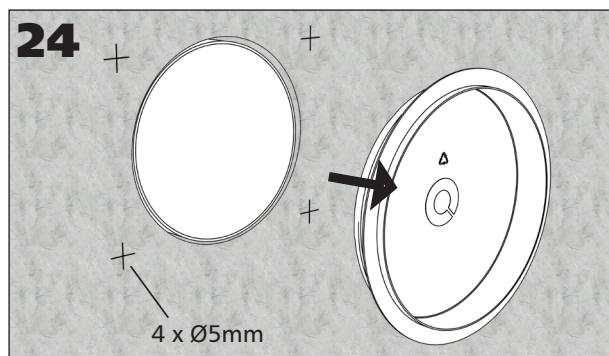
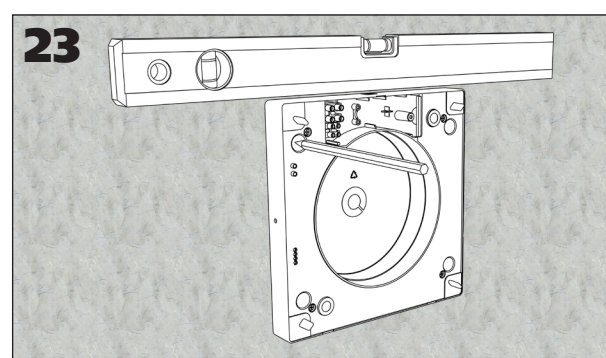
HRU-WALL



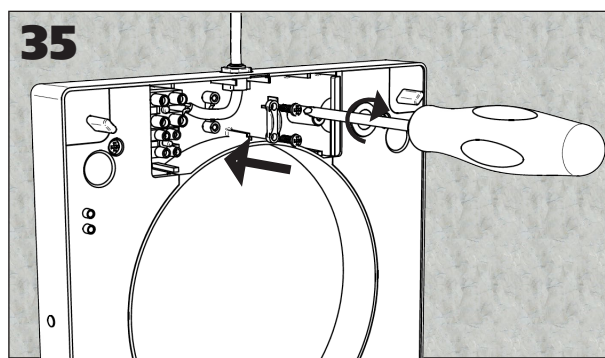
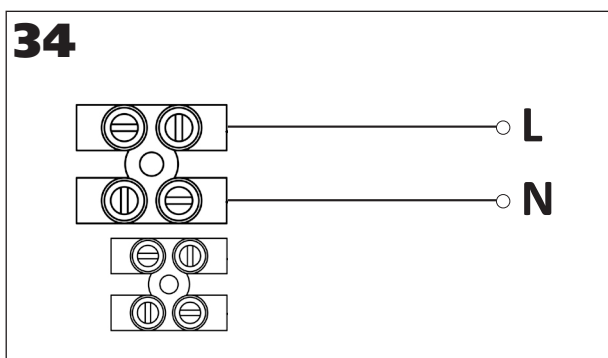
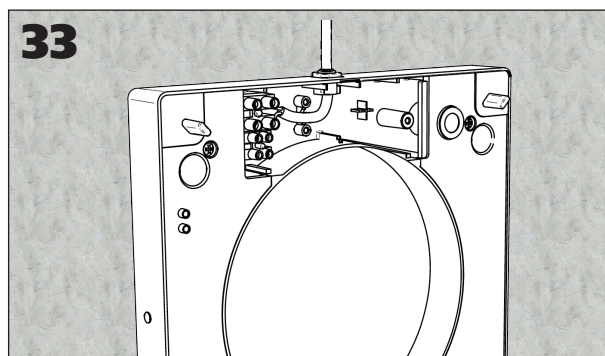
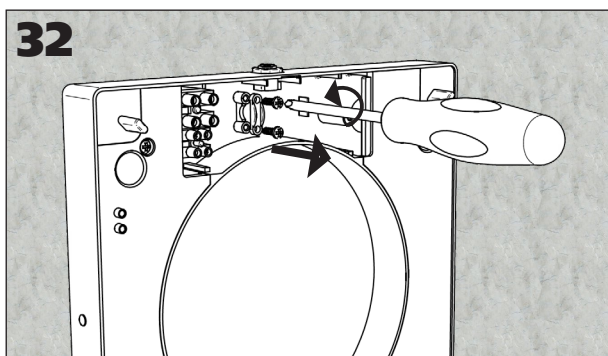
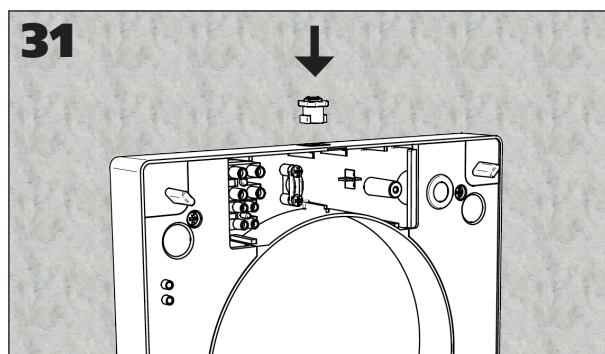
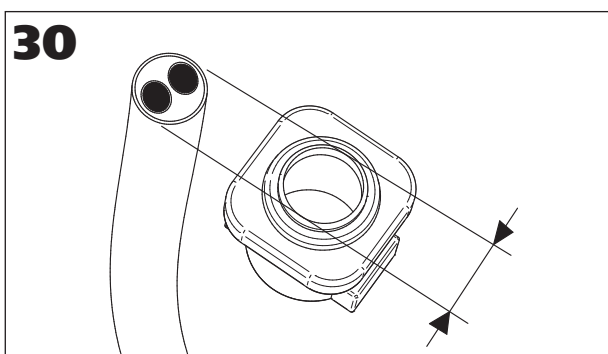
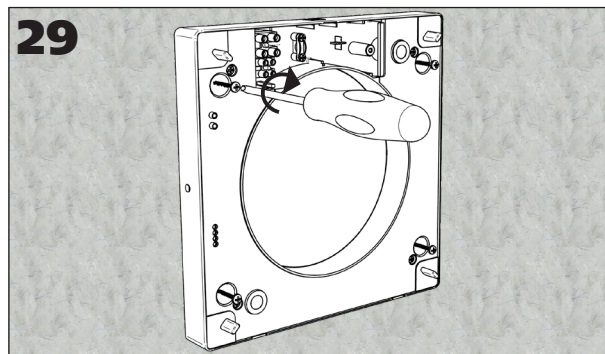
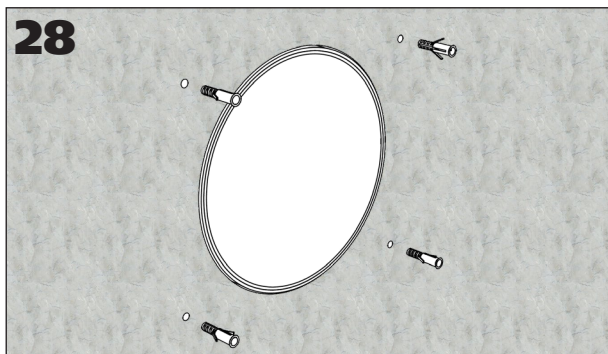
HRU-WALL



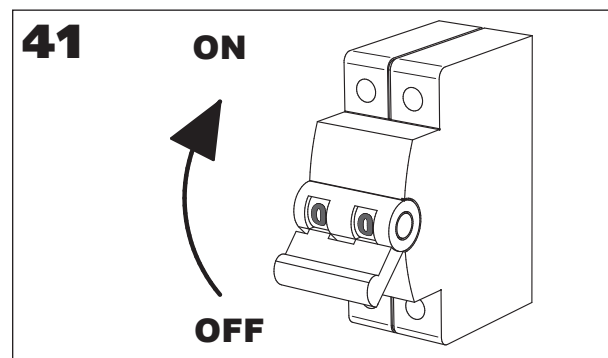
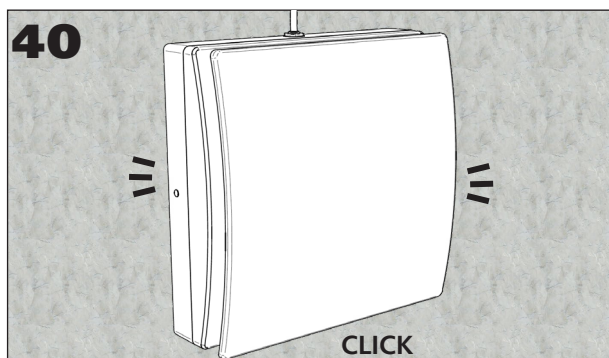
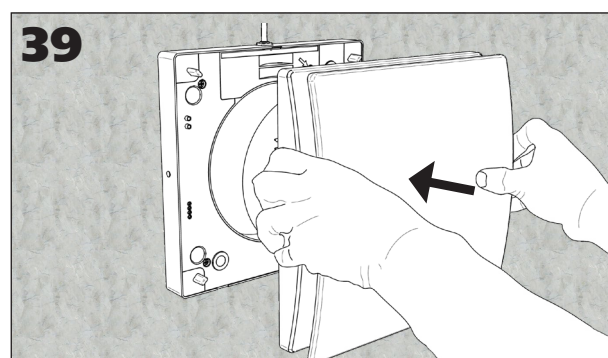
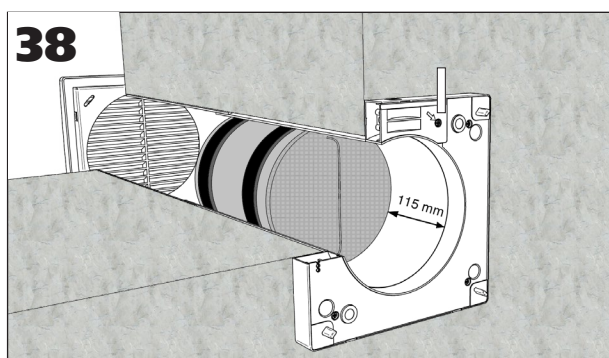
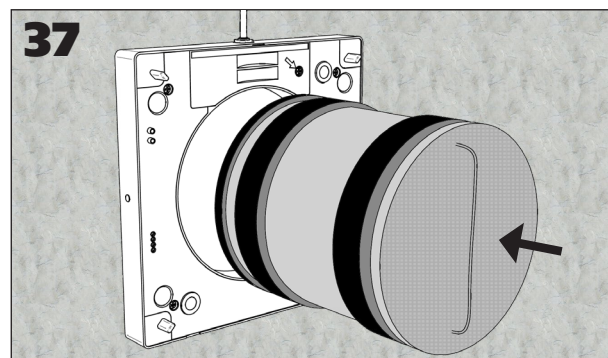
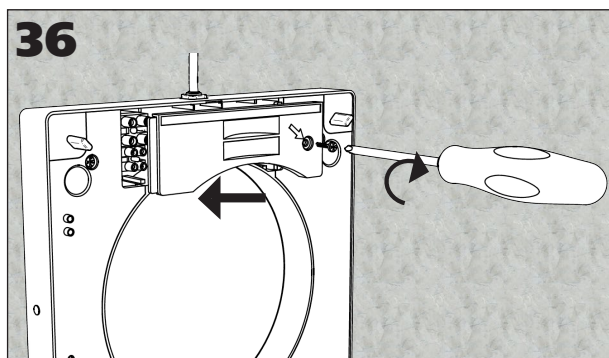
UWAGA! Kabel:
NOTE! Surface cable (for one unit wiring):
H03VV-F ; H05VV-F
2 X 0,5 ÷ 1,5 mm²



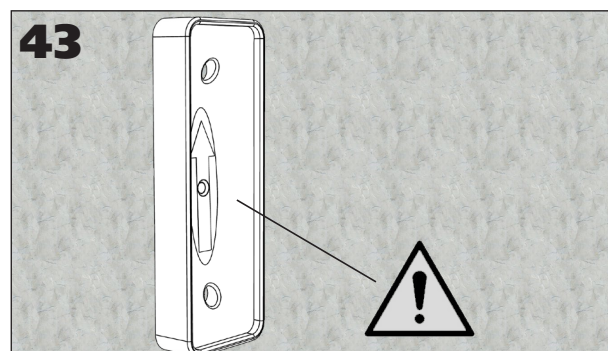
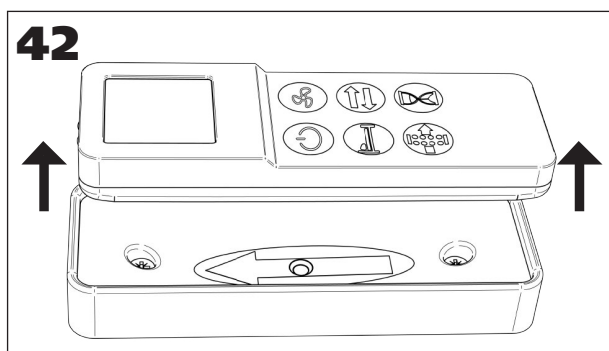
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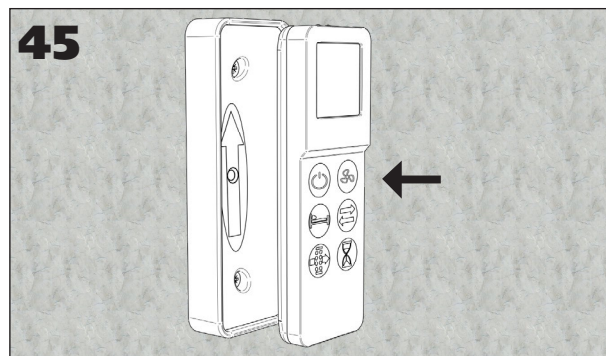
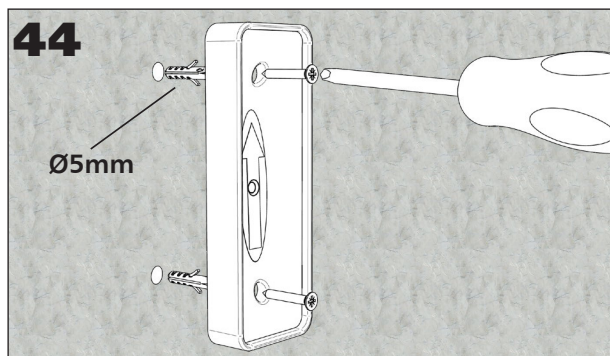
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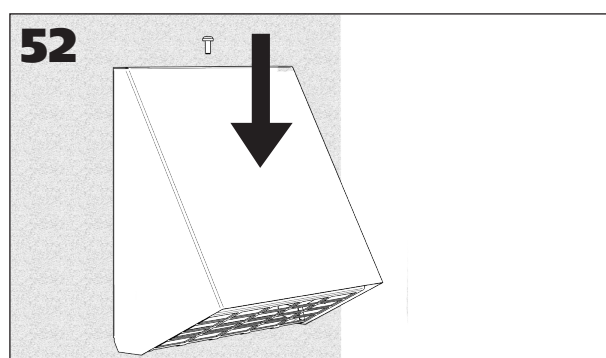
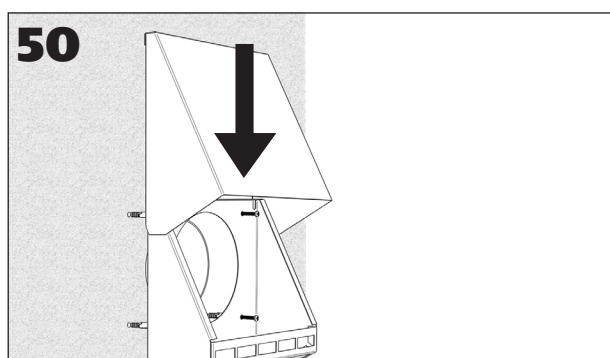
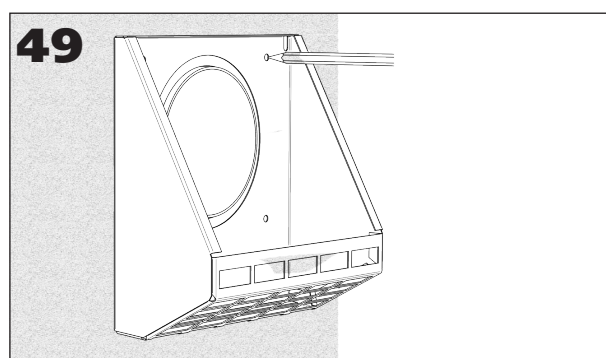
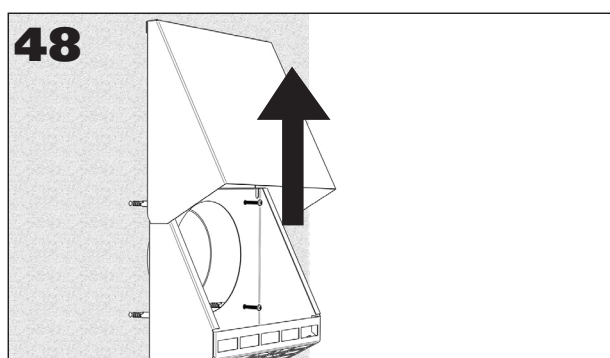
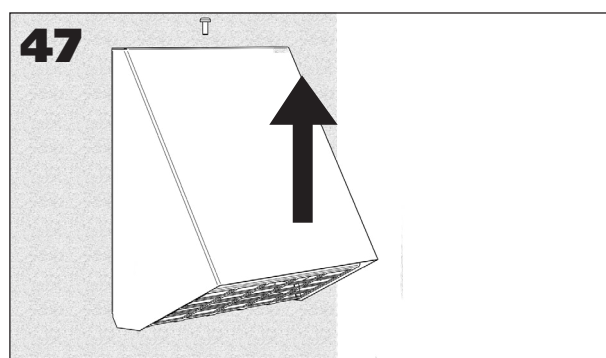
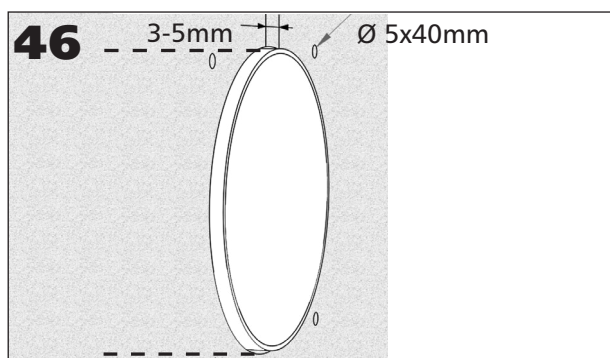
11.1 Montaż ścienny pilota/ Remote controller wall mounting



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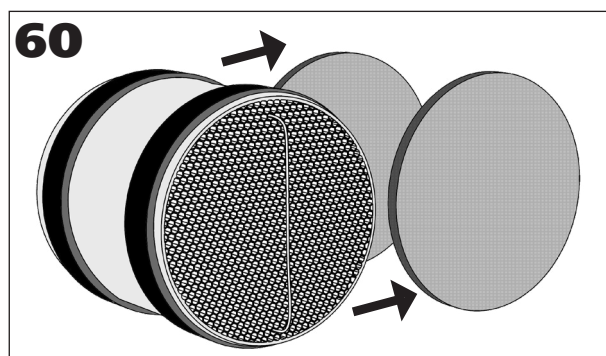
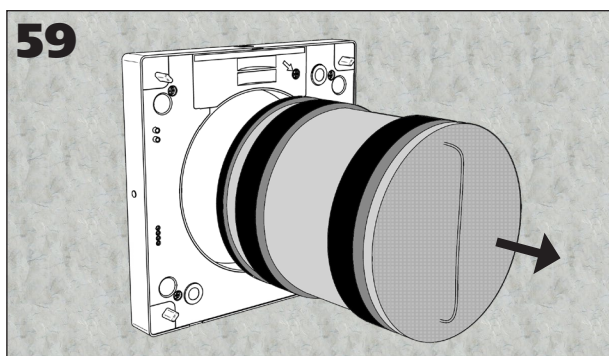
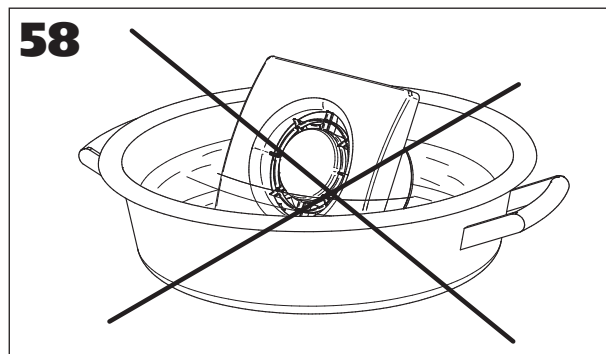
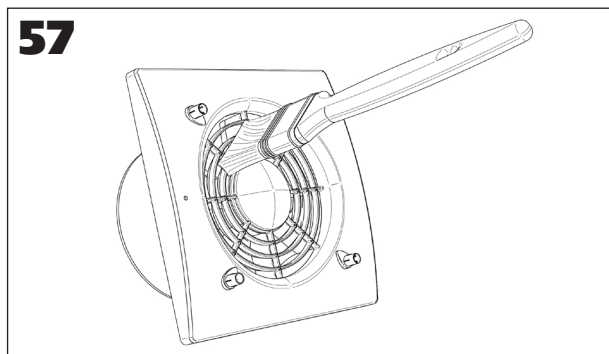
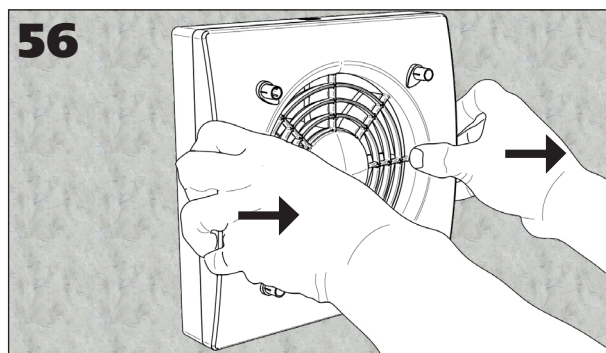
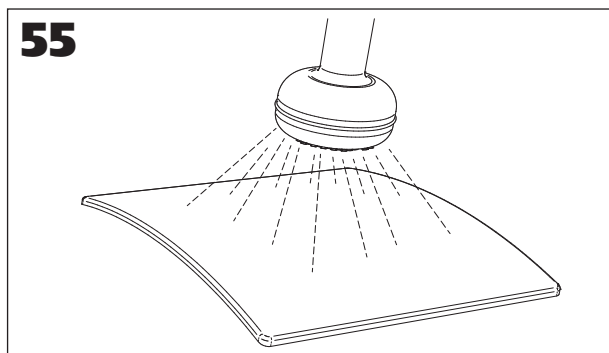
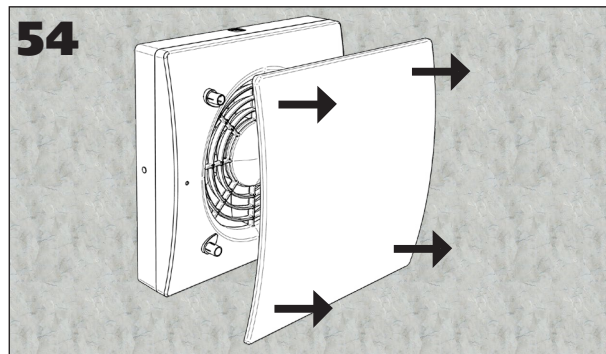
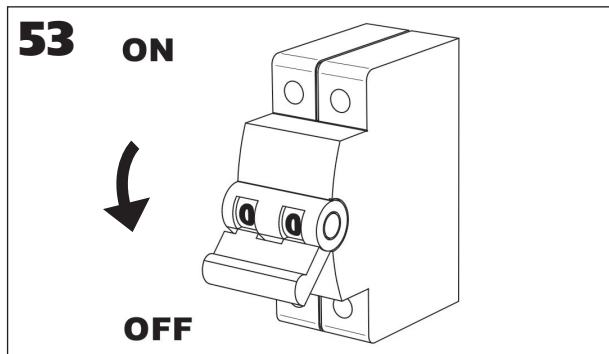


11.2 Montaż czerpni zewnętrznej/ External hood installation

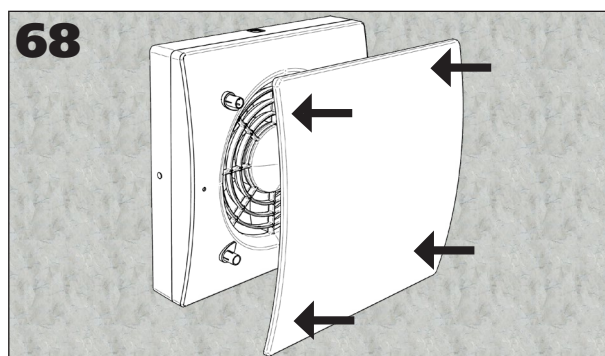
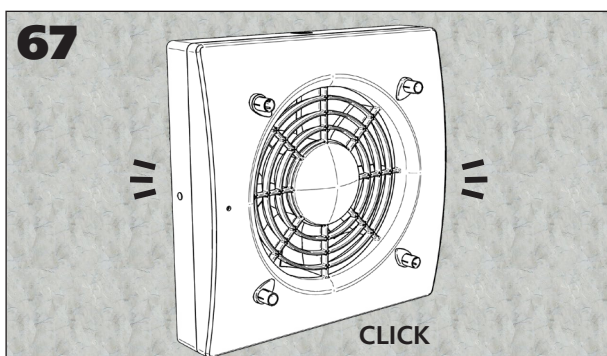
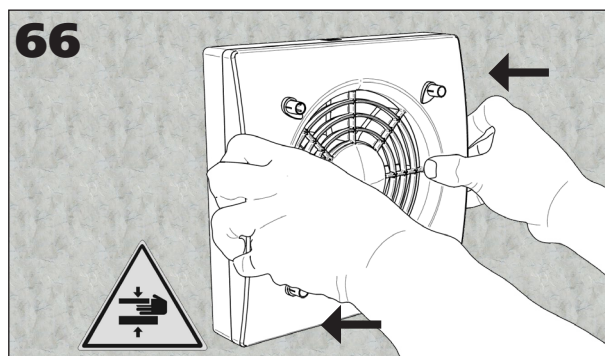
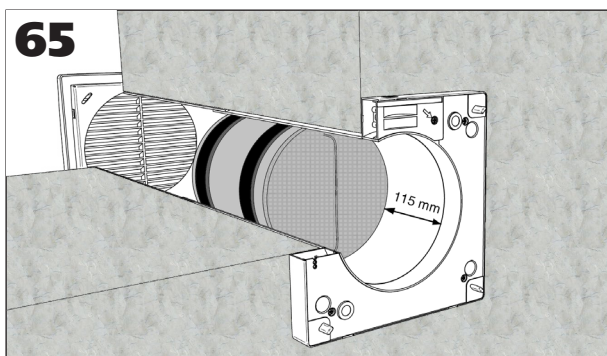
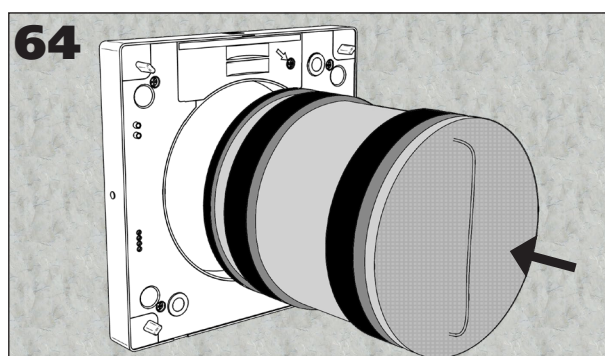
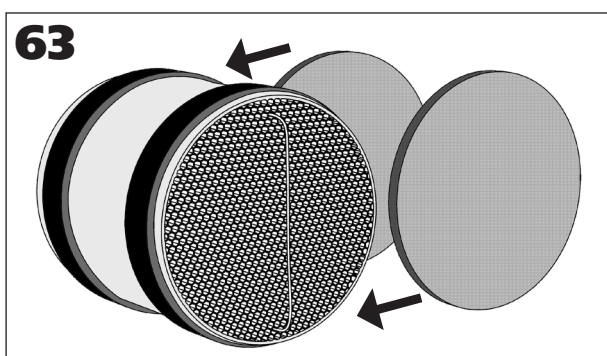
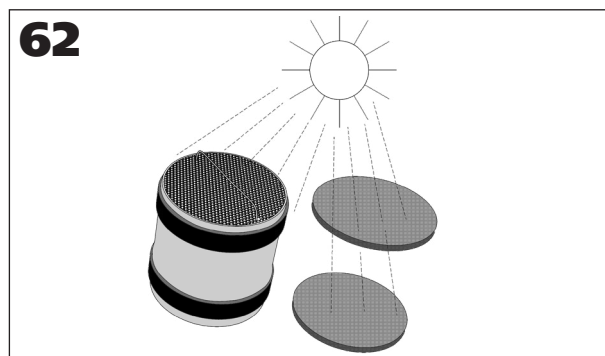
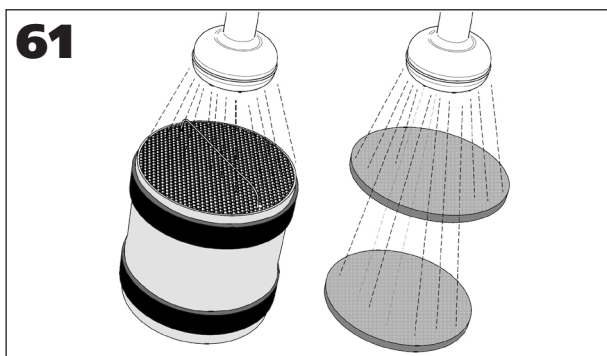


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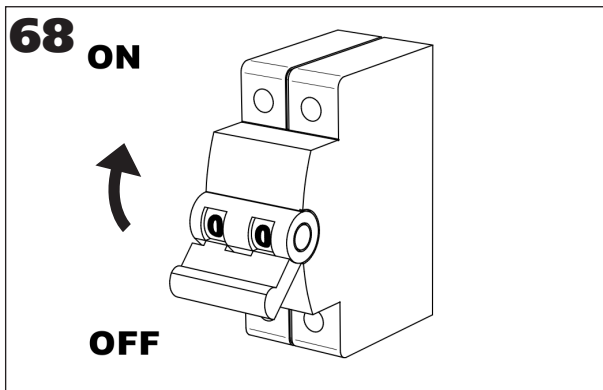
11.3 Konserwacja/ Maintenance



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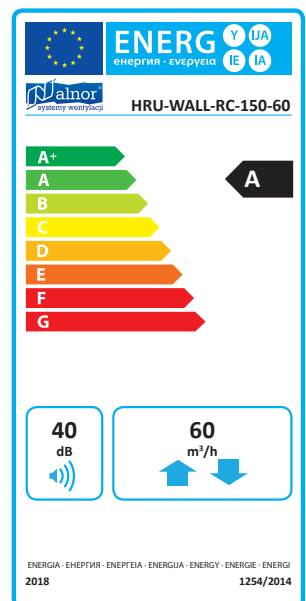
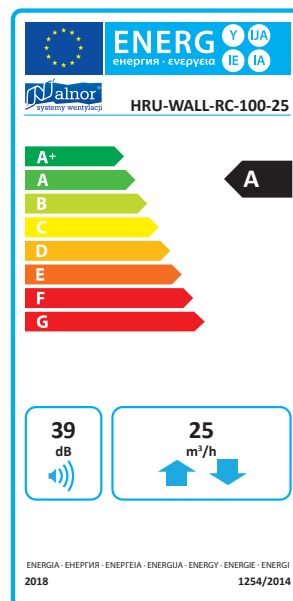
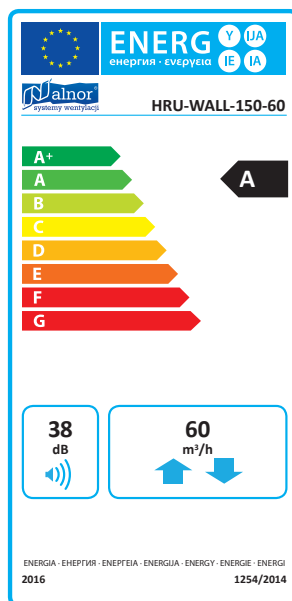
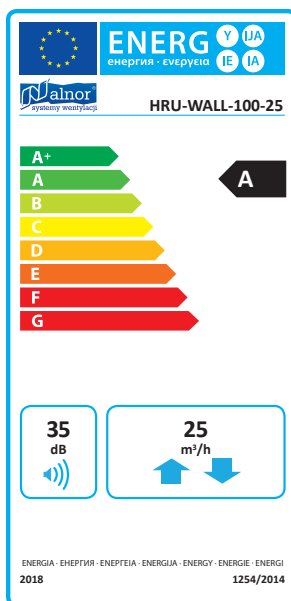


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12. Etykieta energetyczna / Energy Label

Model	Poziom mocy akustyczne L_{wa} Sound power level L_{wa} [dB]	Wydajność Airflow [m ³ /h]	Klasa energetyczna Energy class
HRU-WALL-100-25	35	25	A
HRU-WALL-150-60	38	60	A
HRU-WALL-RC-100-25	39	25	A
HRU-WALL-RC-150-60	40	60	A



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13. Rejestr prac konserwacyjnych, serwisowych / Maintenance-cleaning register

	<i>Czyszczenie filtr Filter cleaning</i>	<i>Wymiana Filtra Filter replacement</i>	<i>Czyszczenie wymiennika Heat exchanger cleaning</i>
DATA/DATE			
DATA/DATE			
DATA/DATE			
DATA/DATE			
DATA/DATE			
DATA/DATE			
DATA/DATE			
DATA/DATE			
DATA/DATE			

Instrukcja obsługi

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