



aeraulika Quantum NEXT Alternating Flow Decentralized VMC Unit Instruction Manual

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aeraulika Quantum NEXT Alternating Flow Decentralized VMC Unit



Product Usage Instructions

Introduction

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

Precautions for Installation, Use, and Maintenance

1. Before installing or using the Quantum NEXT, ensure that the power is turned off.
2. Follow the regulations and guidelines provided in this manual for installation, use, and maintenance.
3. Regularly perform maintenance operations as specified in the manual.

Functionality the manual

- The Quantum NEXT is equipped with a remote control for operation.
- The remote control features various icons for different functions such as airflow direction, speed, filter reset, and mode selection.

Remote Control Icons

- Directional Flow Icon
- Speed Icon
- Filter Reset Icon
- Mode Icon
- ON/OFF Button

Function Description

- The remote control allows you to adjust the airflow direction, select different modes, and control the speed of the Quantum NEXT.
- The Quantum NEXT comes in two models: Quantum NEXT100 and Quantum NEXT150. Each model has different airflow capacities.

LED Indicator

The LED indicator shows different colors to indicate the status of the Quantum NEXT.

- **Green LED:** Indicates normal operation.
- **Red LED:** Indicates an anomaly or error.
- **Blue LED:** Indicates a specific function or mode.

Audio Signal

- The Quantum NEXT emits audio signals for various functions and notifications.
- **Short Audio Signal:** Indicates a normal operation or function.
- **Long Audio Signal:** Indicates an anomaly or error.

Resolution of Anomalies

- If there are no icons displayed on the LCD of the remote control, check if the batteries are low, absent, or not inserted correctly. Replace or insert the batteries correctly.
- If the LCD icon is flashing, check if the batteries are low. Replace the batteries.
- If the yellow LED is on, perform maintenance or replace the filters and reset the filter. If the red LED is on, wait for the defrosting phase to finish or disable the function by pressing the corresponding button.
- To disable the audio signal, press and hold the button for 7 seconds until a green LED appears.

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

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.

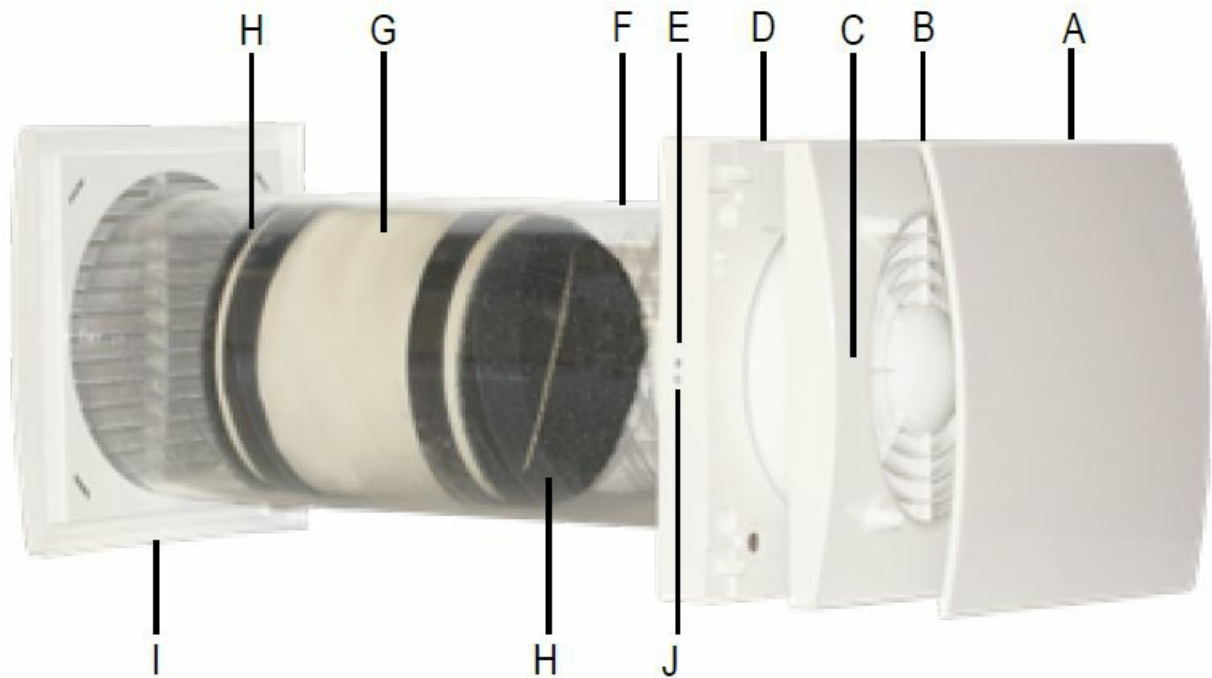
- Do not use the product in the presence of inflammable vapours, such as alcohol, insecticides, gasoline, etc.
- If any abnormalities in operation are detected, disconnect the device from the mains supply and contact a qualified technician immediately. Use original spare parts only for repairs.
- The 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
 - 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.
- Install the product so that the impeller is not accessible from the air outlet side as verified by contact with the Test Finger (test probe “B” of the norm EN61032) in compliance with the current safety regulations.

INTRODUCTION

Quantum NEXT 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 a pair: when one unit is pulling, the other is pushing. The pair of units can be installed in the same room or in different rooms (i.e. living-room 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.

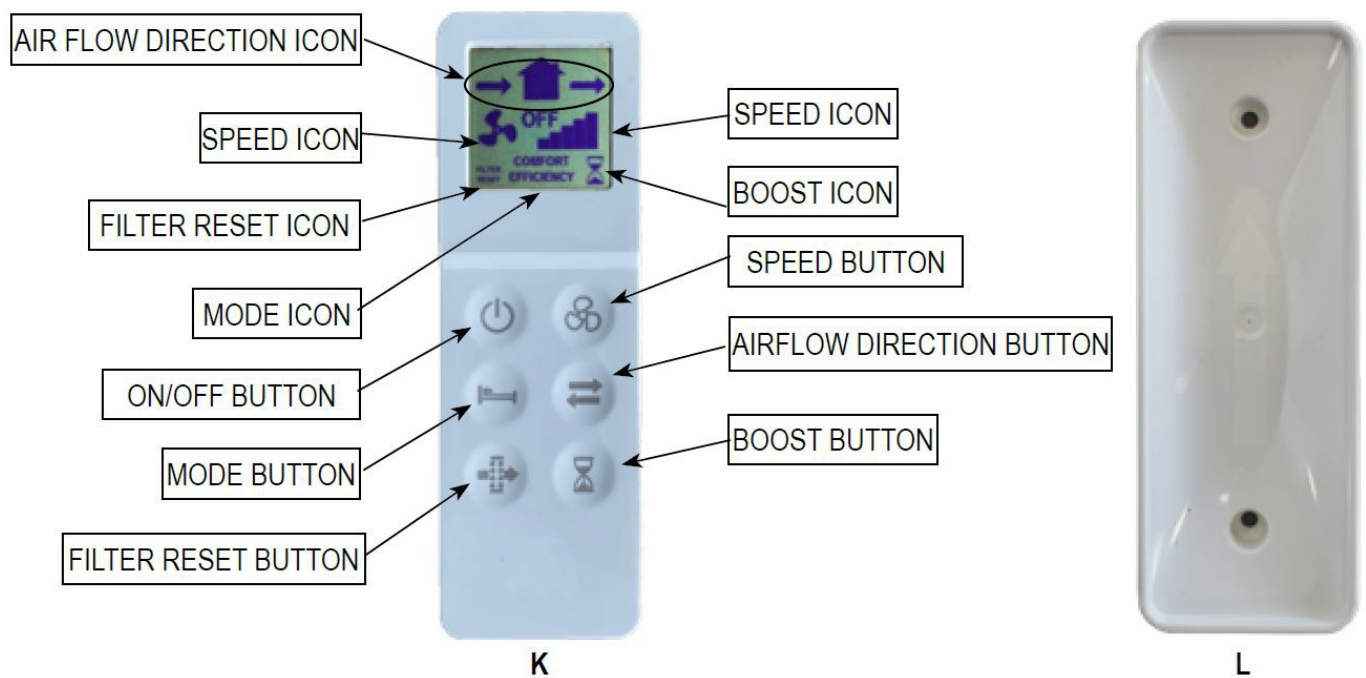
TECHNICAL SPECIFICATIONS



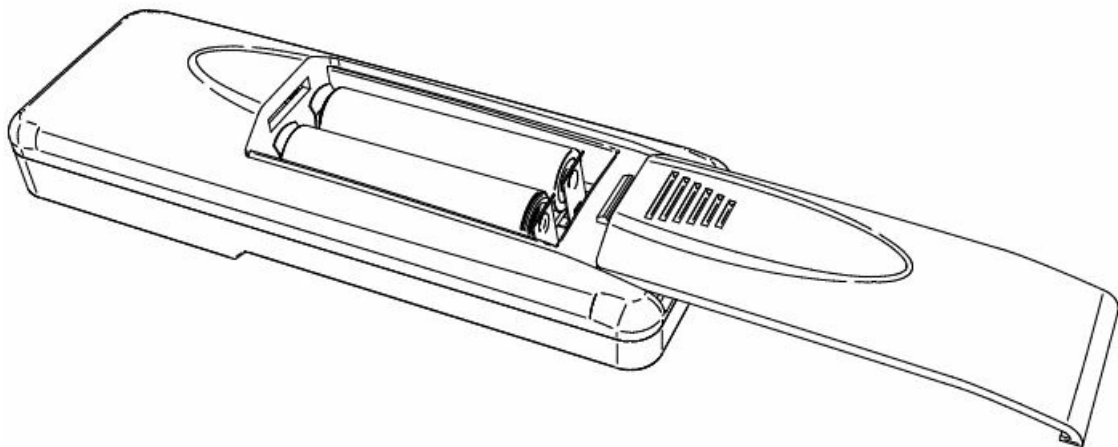
- Design front cover (A) removable for cleaning without the use of tools.
- Inner ventilation unit (B) and wall support base (D) made of high quality, impact and UV-resistant ABS, colour RAL 9010.
- Integrated multi-colour led (C) to obtain a visual feedback of the unit status.
- Smart humidity control.
- Integral temperature sensor for the automatic management of the inversion time (comfort mode).
- Automatic anti-frost protection to prevent frost building up on the heat exchanger.
- Wall support base (D) provided with a magnet “coupling/uncoupling” system which allows the ventilation unit to be removed from its base during maintenance.
- Back-up touch button (J) at the side of the ventilation unit.
- 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.
- Telescopic pipe (F) adaptable to the wall thickness.
- Antimortar cap designed to be used also as template during the installation of the wall support base.
- Regenerative heat exchanger with ceramic core (G) with high thermal efficiency, equipped with washable anti-dust filters (H).
- External grille (I) made of high quality, impact and UV-resistant ABS, colour RAL 9010, with anti-insect net and water drip guard.
- Infra-red remote controller with touch technology, LCD display and wall base supplied as standard. Made from ABS, RAL 9010.
- The unit is double insulated: no earth connection is required.
- No need of condensation drainage system.
- IPX4 degree of protection.
- Power supply 220-240V~ 50Hz.

OPERATION

REMOTE CONTROLLER



- The unit is supplied with an infrared remote controller (K) as standard, as well as its support base (L) 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; anytime a touch button is pressed, the setting shown on the LCD display is transferred to the unit. The IR receiver is placed on the left side of the ventilation unit (E): it is recommended to point the controller towards the receiver when any setting needs to be transferred.



























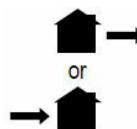

- One remote controller can control more units.
- To activate the remote controller it is necessary to insert two AAA type batteries (not supplied).





VENTILATION UNIT

- 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.

FUNCTIONS DESCRIPTION

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 (comfort mode).			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 70 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					
	Quantum NEXT100	Quantum NEXT150			
Speed 1	10m3/h	20m3/h			green short
Speed 2	14m3/h	30m3/h			green short
Speed 3	17m3/h	40m3/h			green short

Speed 4	21m3/h	50m3/h			green	short
Speed 5	25m3/h	60m3/h			green	short
ON/OFF						
	Unit can be switched on or off		OFF	red	long	
			LCD ON	green	short	
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	
Free cooling						
	The unit runs in “extract only” or “intake only” to avoid heat recovery when not needed.			green	short	
Filter reset						
	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	yellow	short	
Smart humidity control						

	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	
Antifrost					
	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	
Acoustic signal					
	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

BACK UP BUTTON

In case the remote controller gets lost or the batteries are dead, ON and OFF position can be selected from the on board touch button (J), pressing the button for at least 3 seconds.

	LED COLOUR	ACOUSTIC SIGNAL
ON	green	short
OFF	red	long

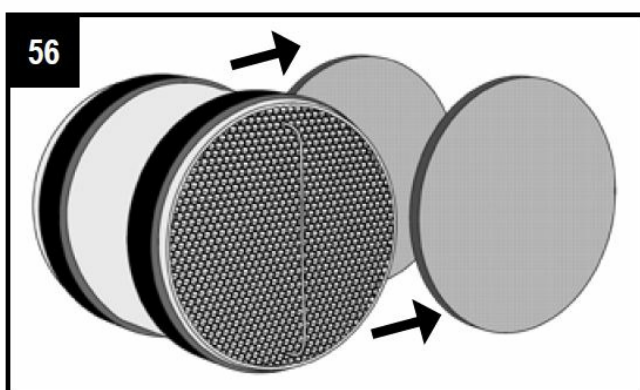
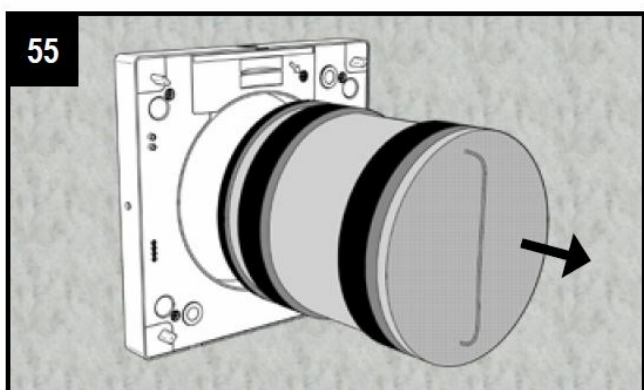
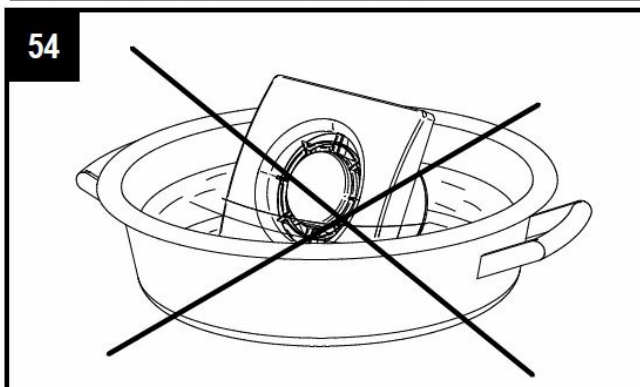
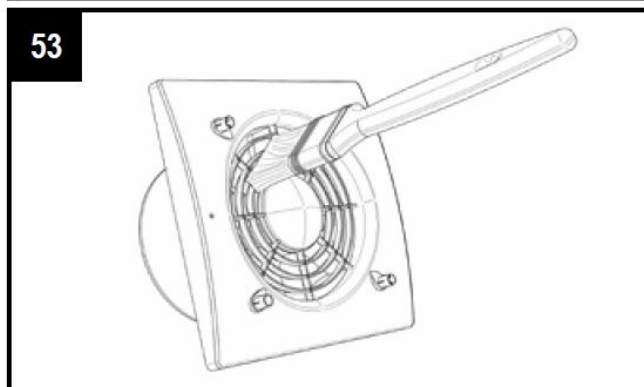
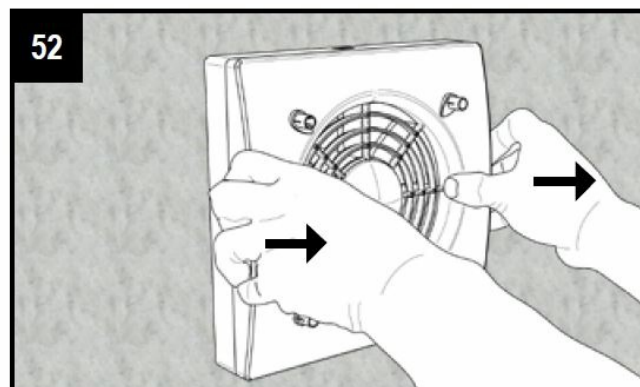
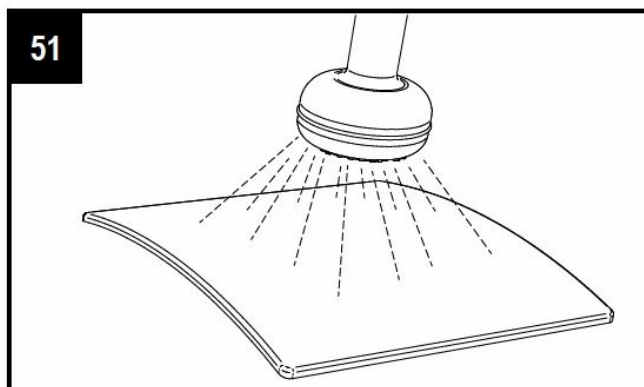
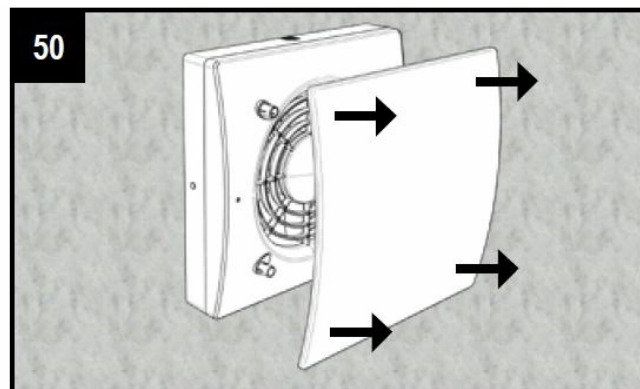
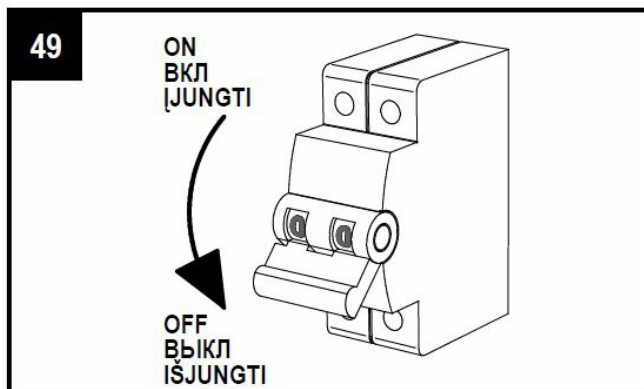
SYNCHRONISATION OF A NUMBER OF UNITS

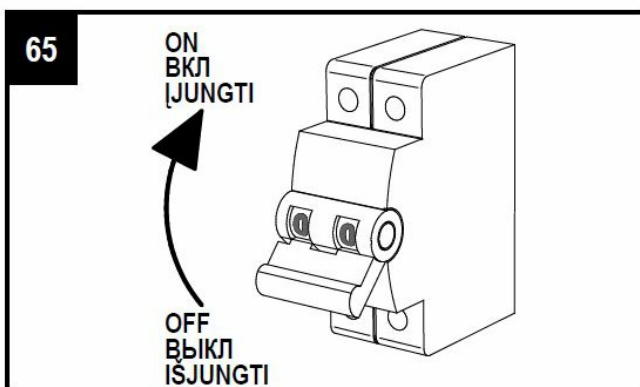
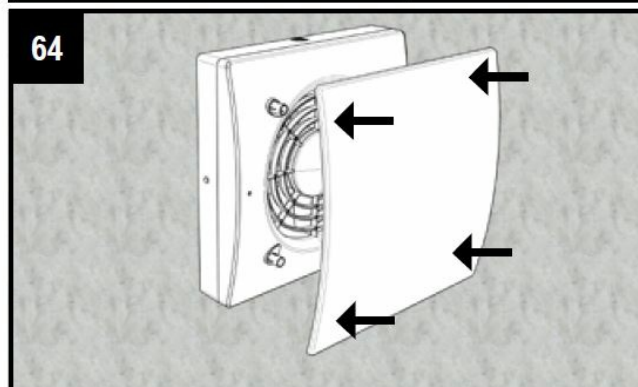
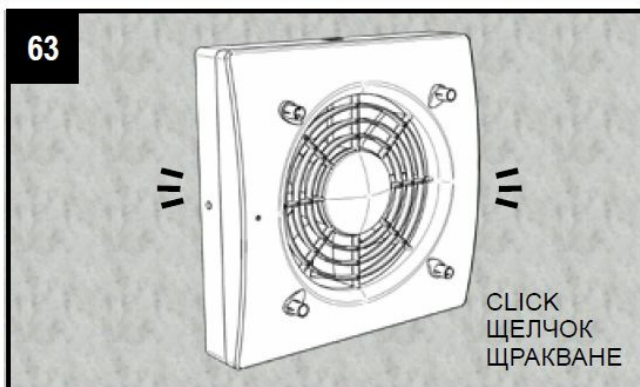
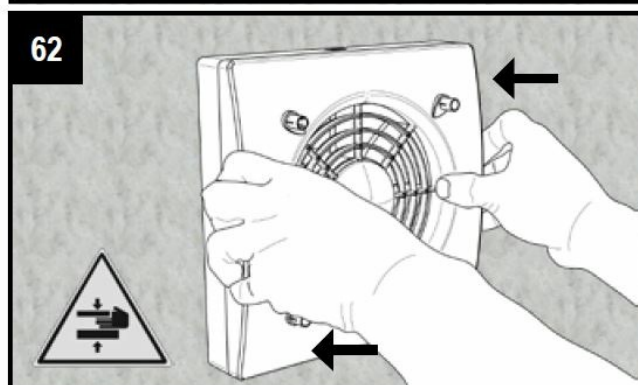
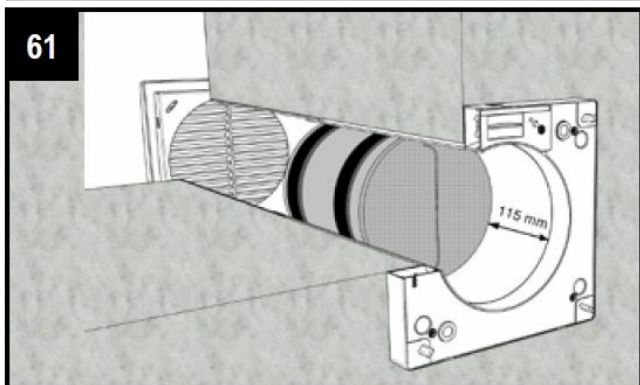
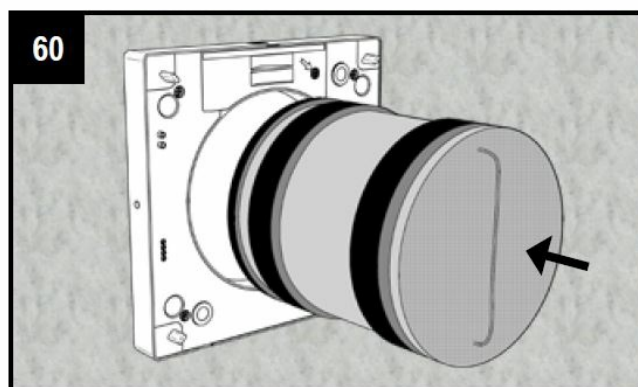
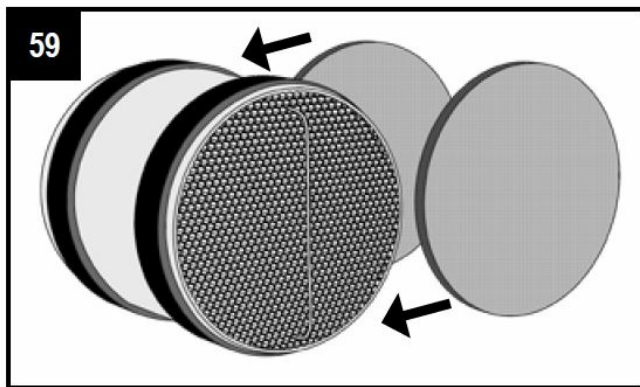
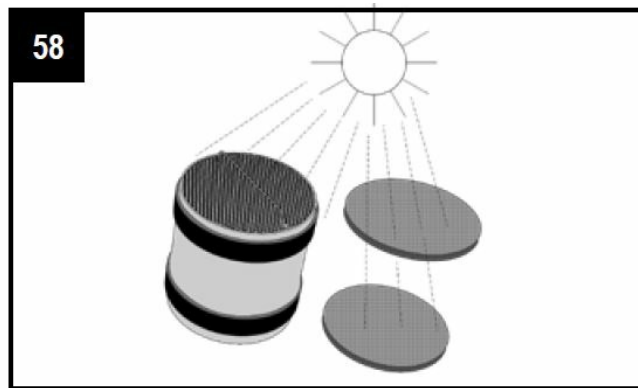
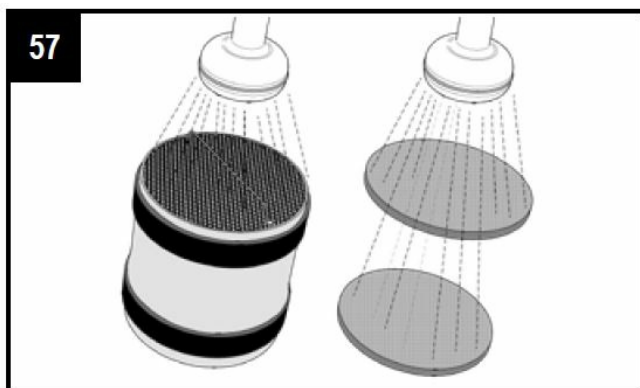
It is possible to synchronize up to 10 units contemporaneously, through wire (2 pole twisted pair type, max 30m length) so to have mode and inversion time synchronized. When the unit is switched on for the first time, the rotation direction of each unit (clockwise or anti-clockwise) is automatically established. Other functionalities like speed, smart humidity control and boost, continue to be controlled independently on each single unit. Wiring diagram as per fig. 16B.

MAINTENANCE AND TROUBLESHOOTING

MAINTENANCE






Maintenance can be carried out by the user as shown in figures 49-65.





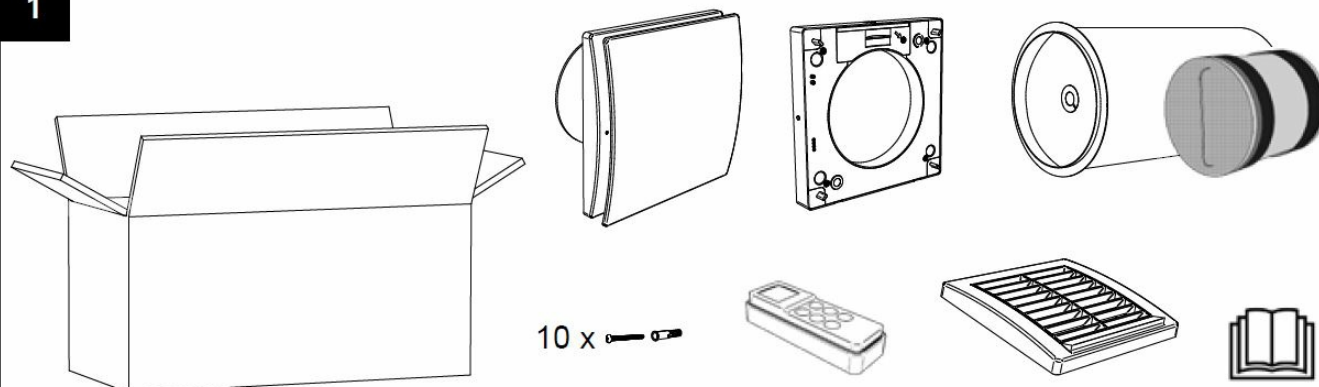
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TROUBLE SHOOTING

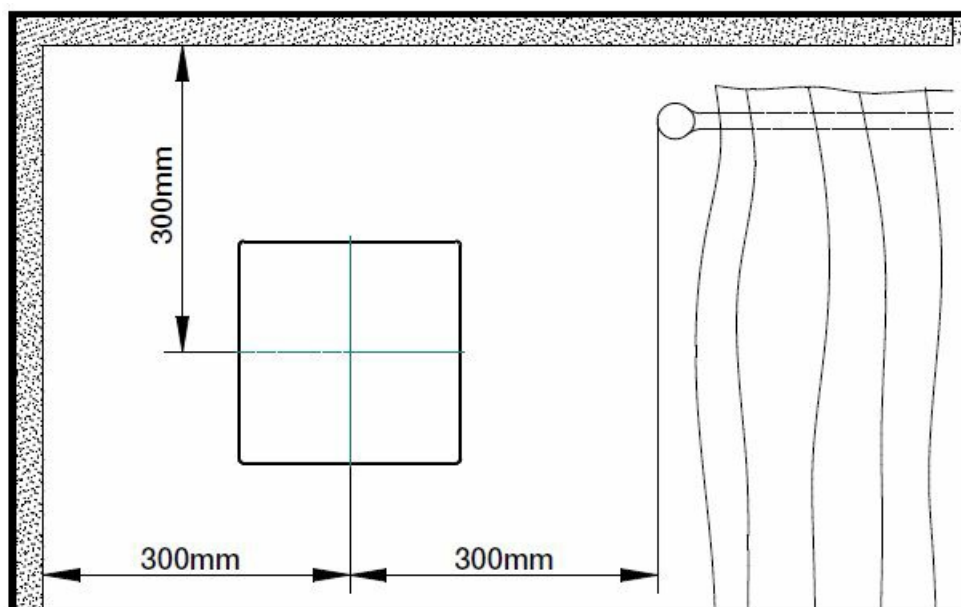
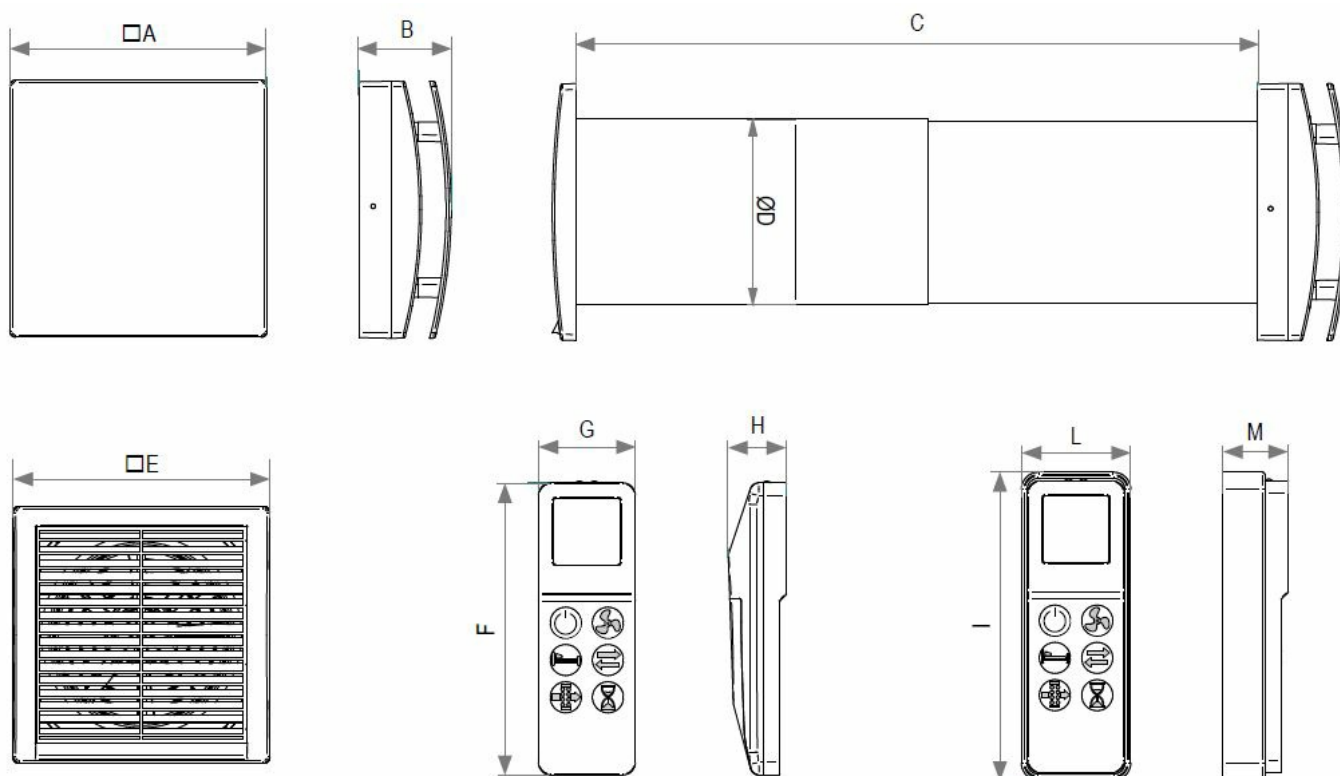
ANOMALY	POSSIBLE CAUSE	SOLUTION
No icon shown on the controller LCD display	Batteries are dead	Change the batteries
	Batteries are not present	Check that batteries are in there
	Batteries are wrongly positioned	Position the batteries correctly
The icon  flashes on the LCD display	Low batteries	Change the batteries
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
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.

WHAT IN THE BOX

1

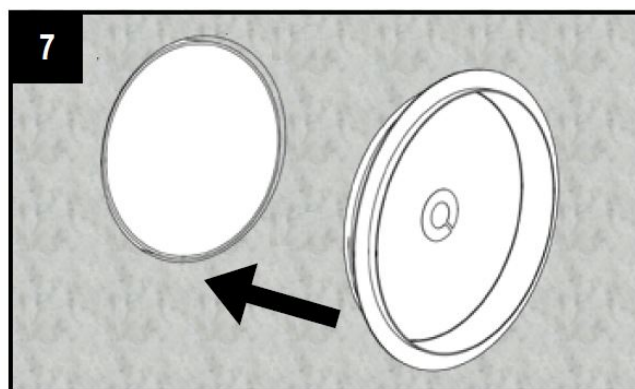
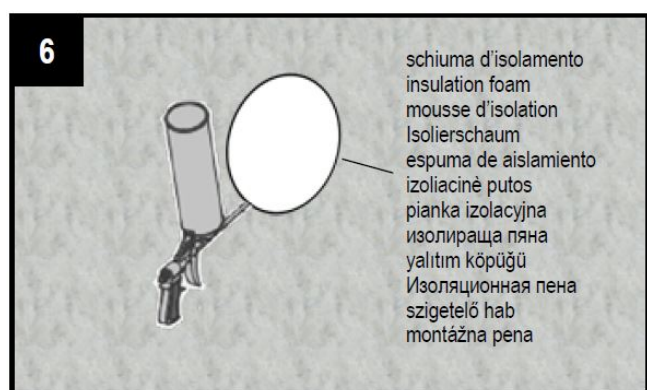
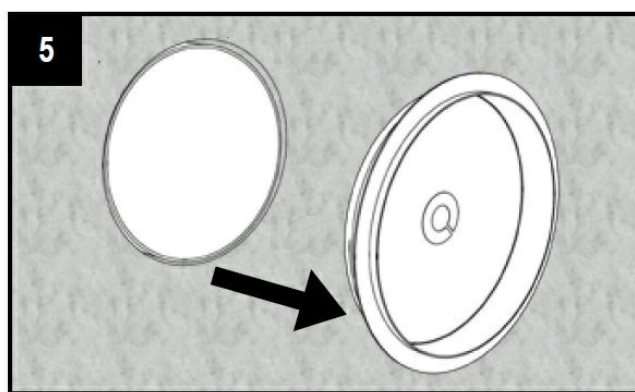
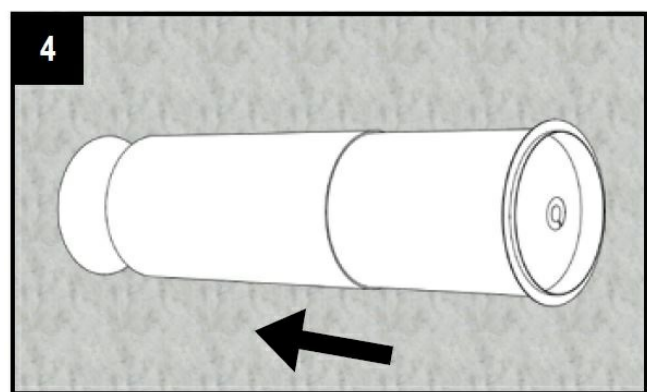
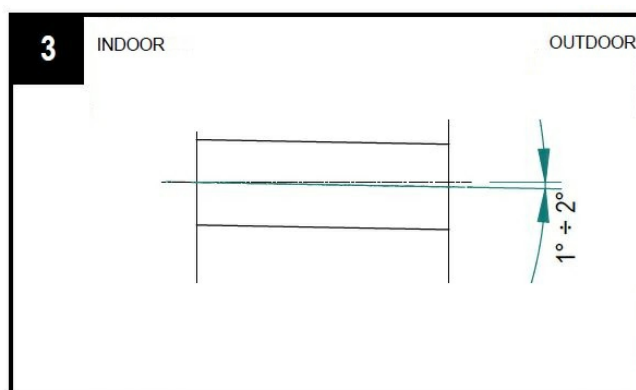
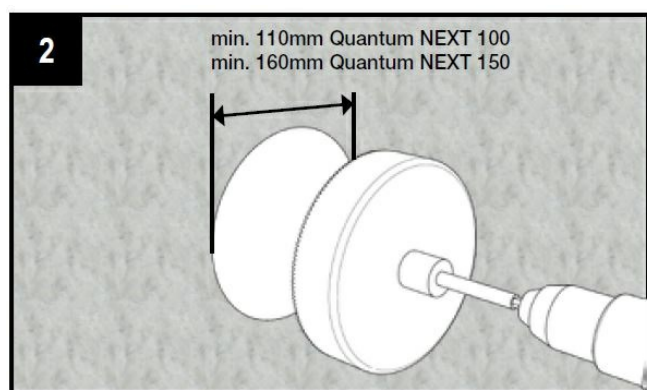


DIMENSIONS

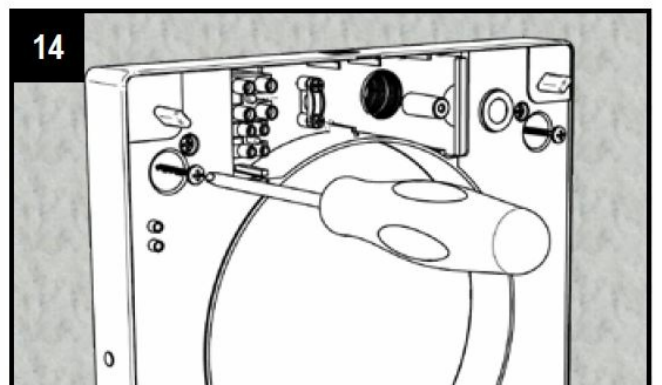
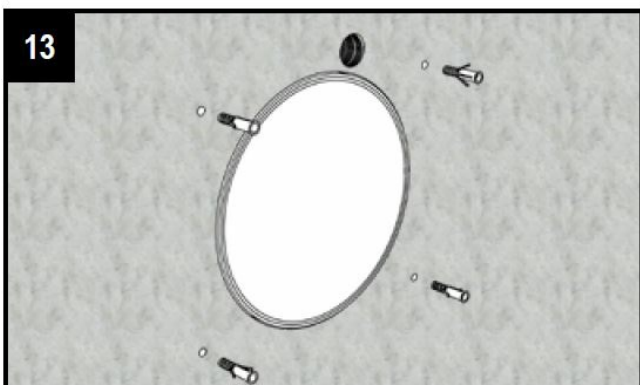
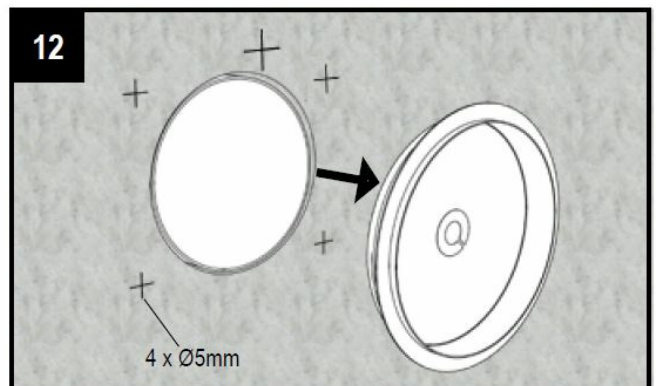
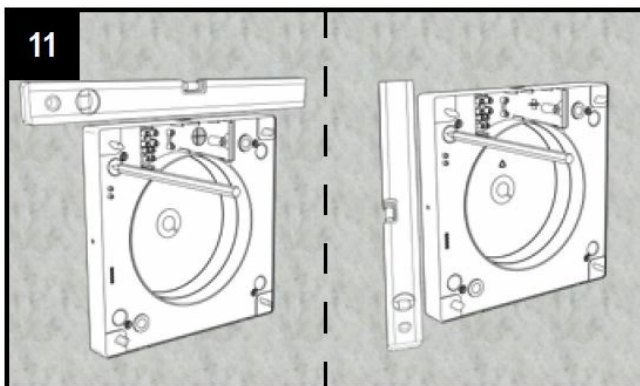
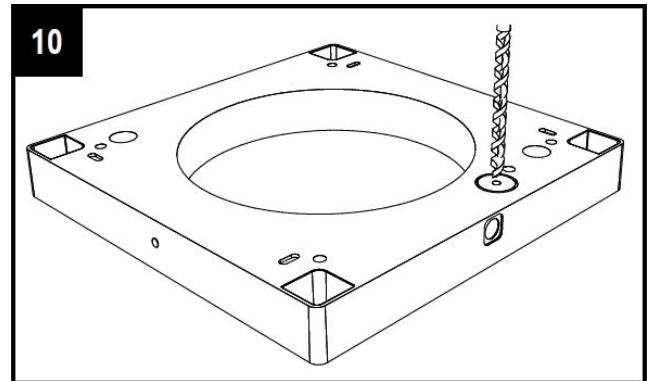
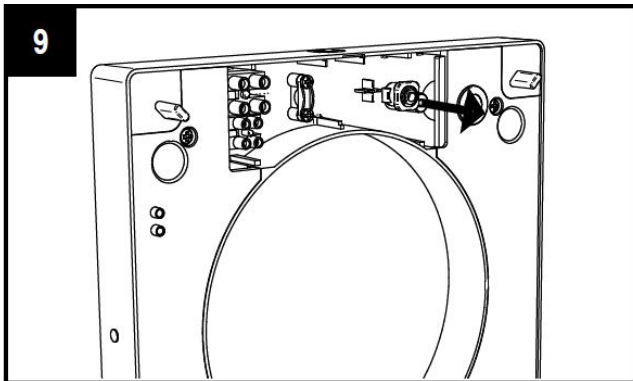
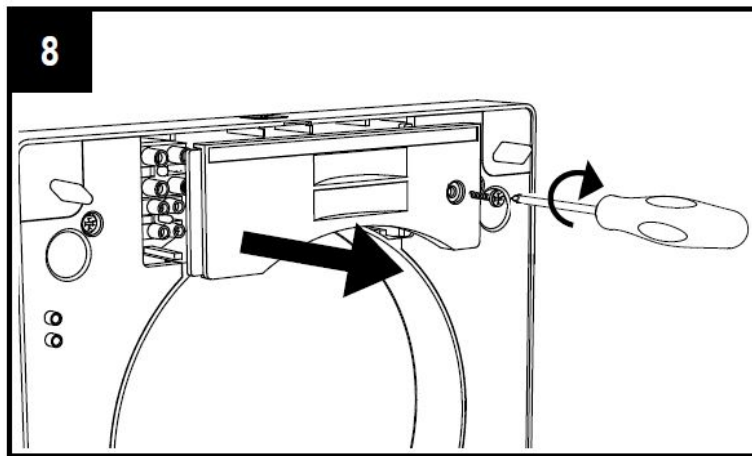


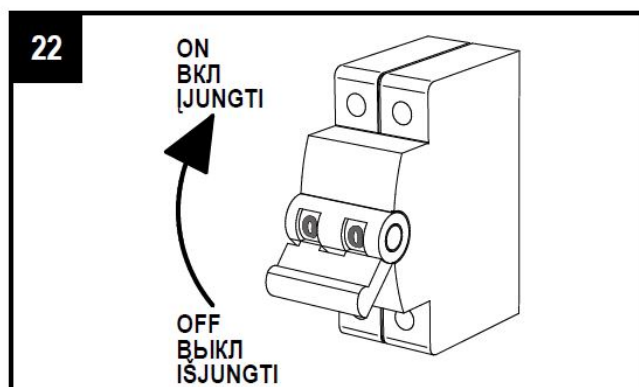
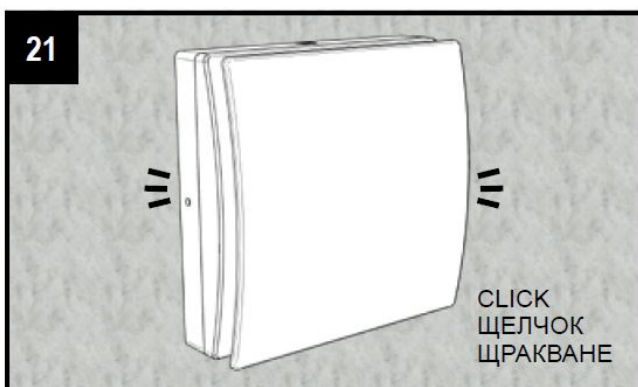
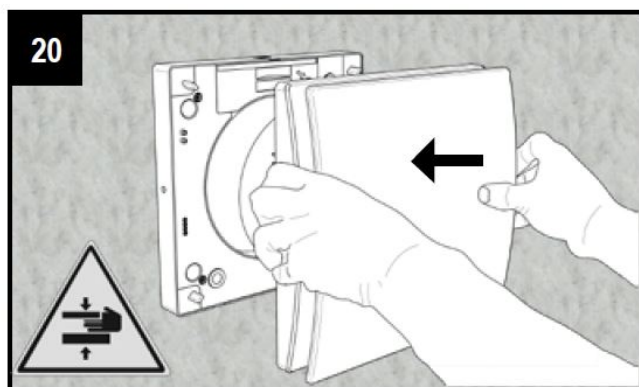
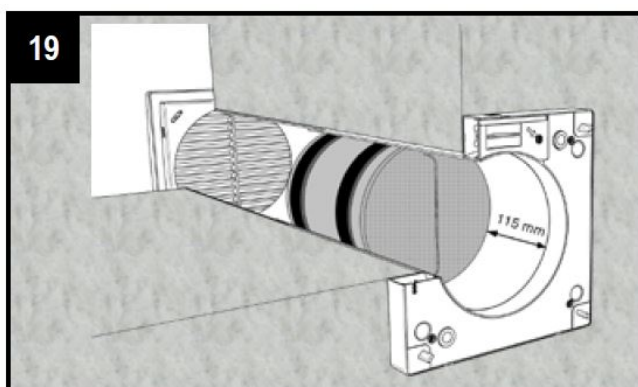
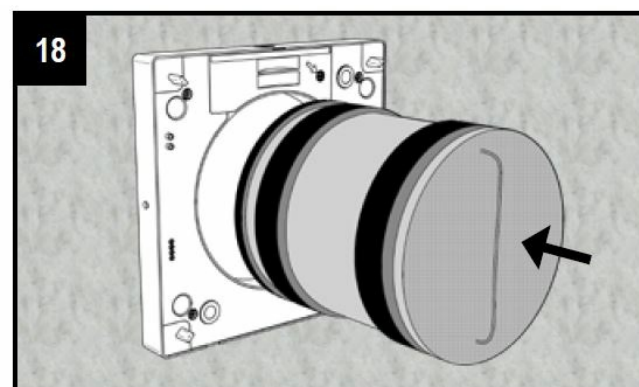
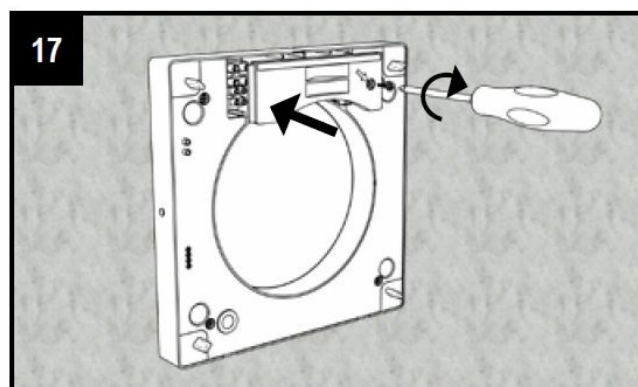
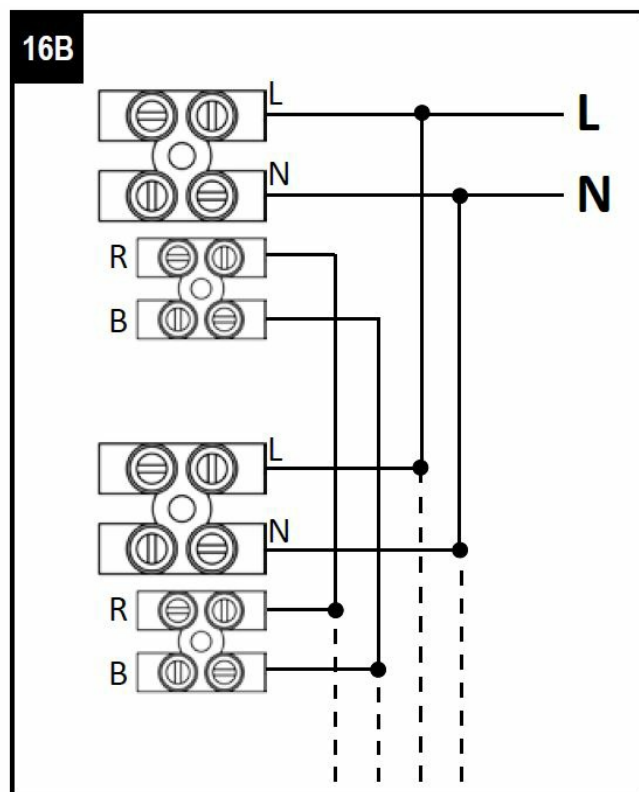
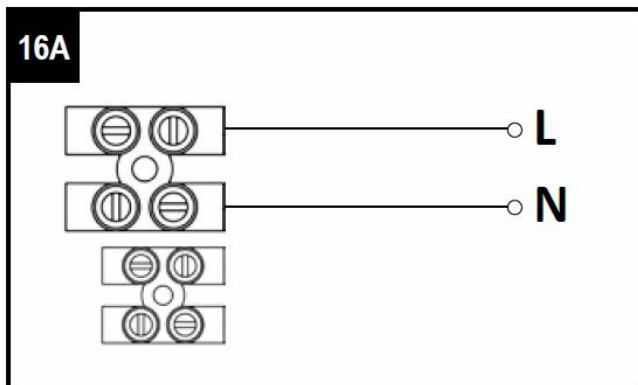
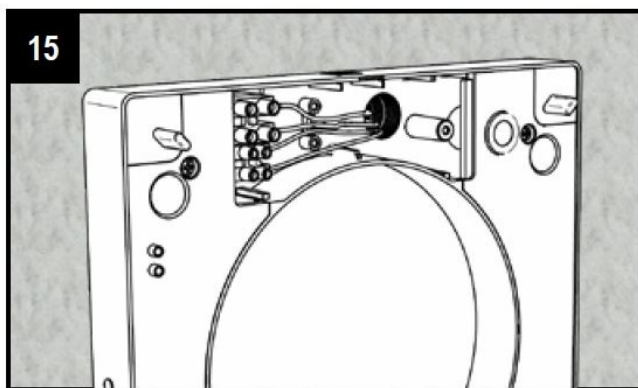
	"A	B	C	ØD	"E	F	G	H	I	L	M
Quantum NEXT 100	218	77,5	300÷570	110	164	117,5	39	23	124	44	26,5
Quantum NEXT 150	218	77,5	300÷570	159	218	117,5	39	23	124	44	26,5

INSTALLATION INSTRUCTIONS

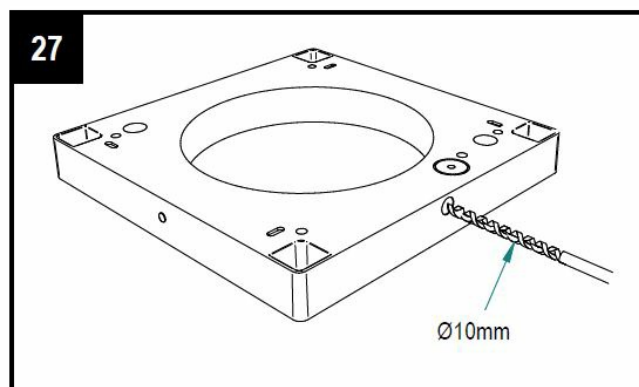
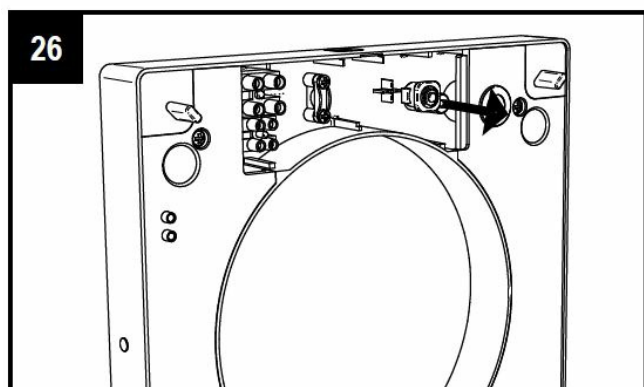
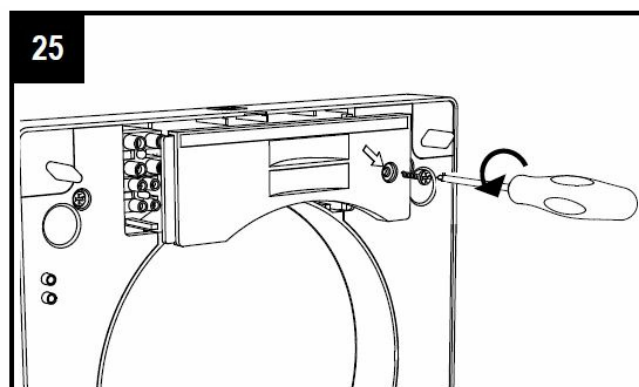
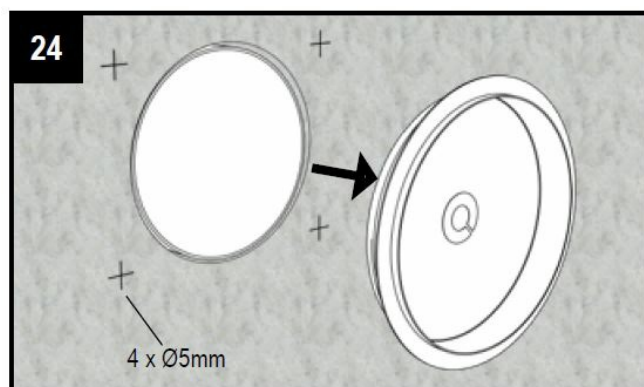
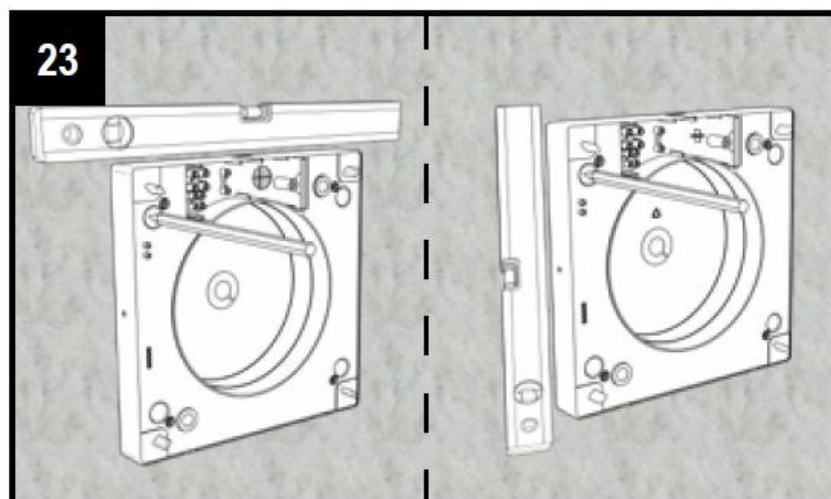


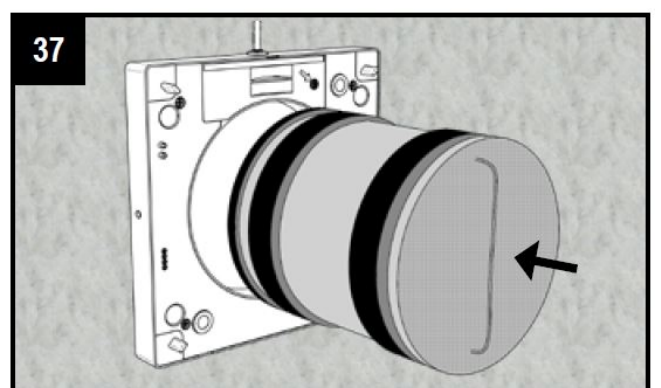
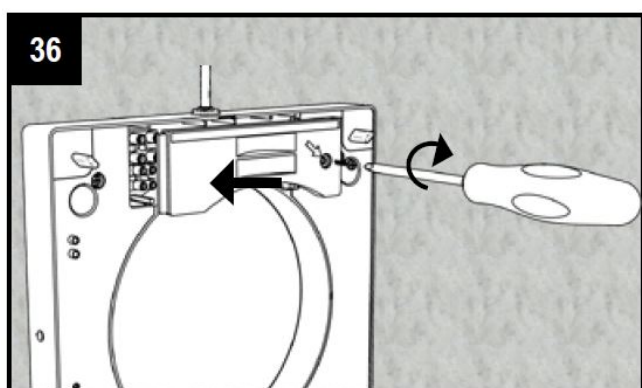
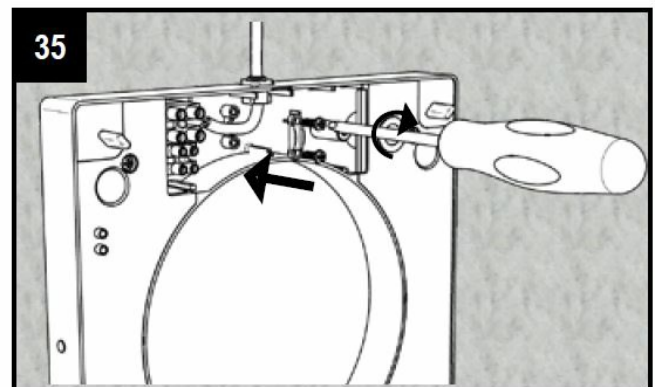
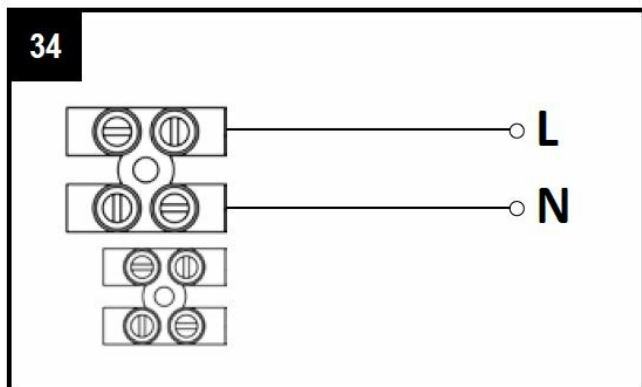
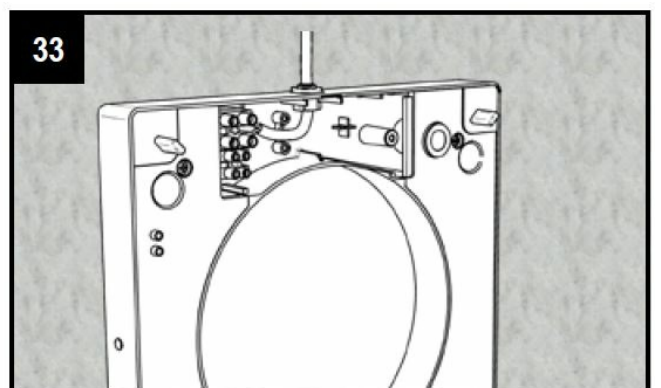
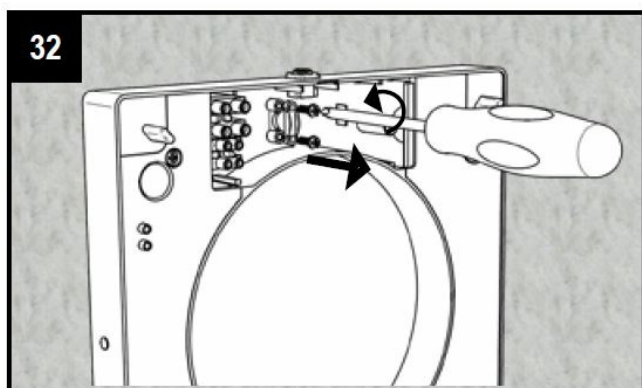
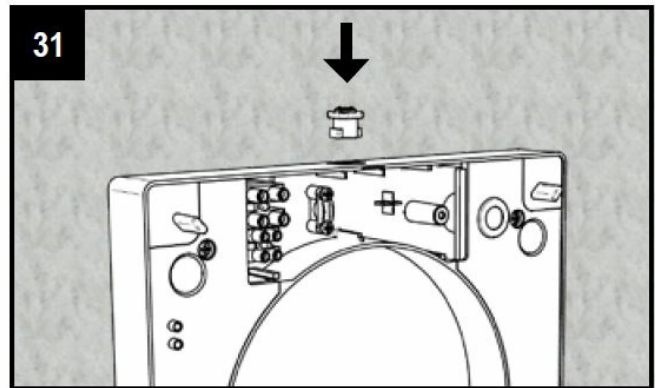
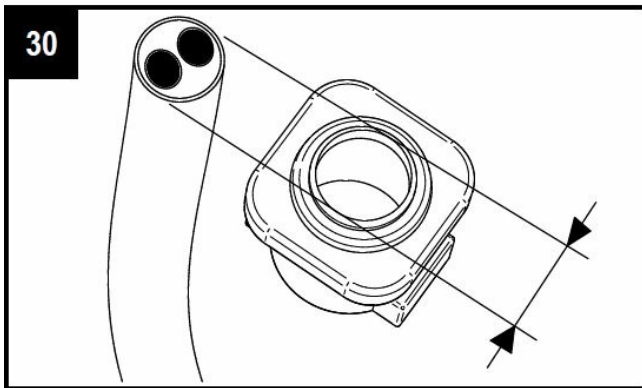
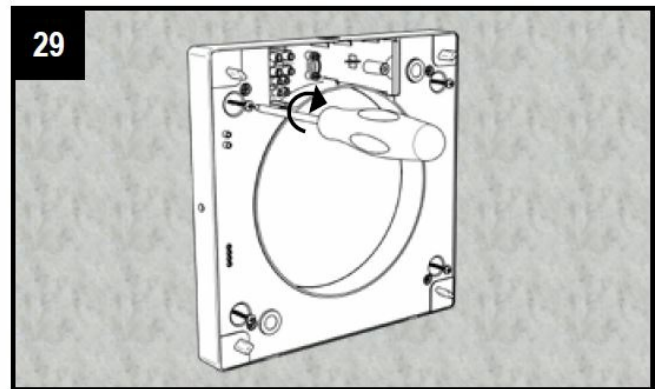
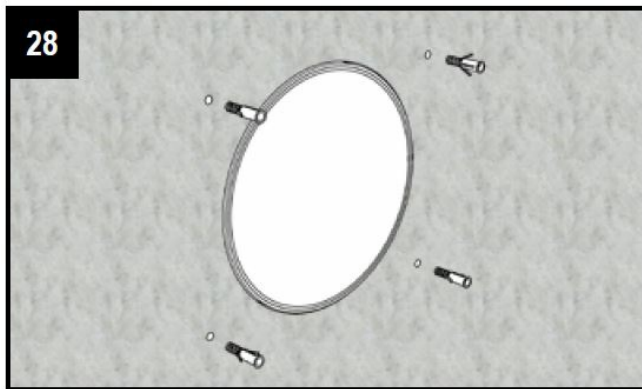
- **RECESSED CABLE ENTRY:** H03VV-F ; H05VV-F
 - 2 X 0,5 ÷ 1,5 mm²

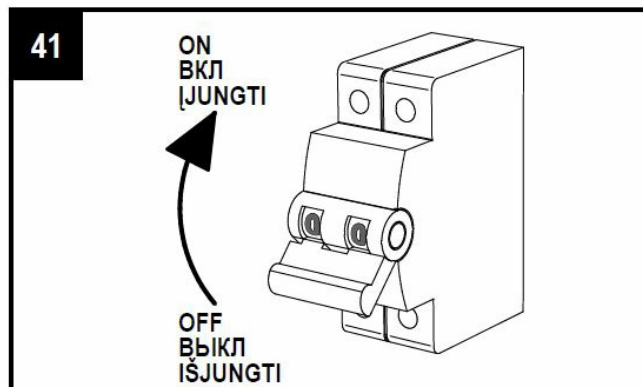
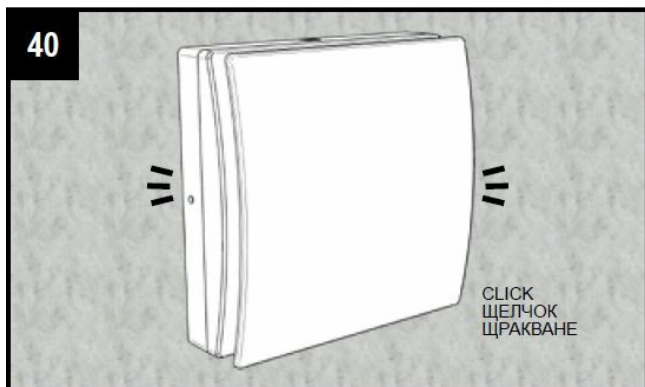
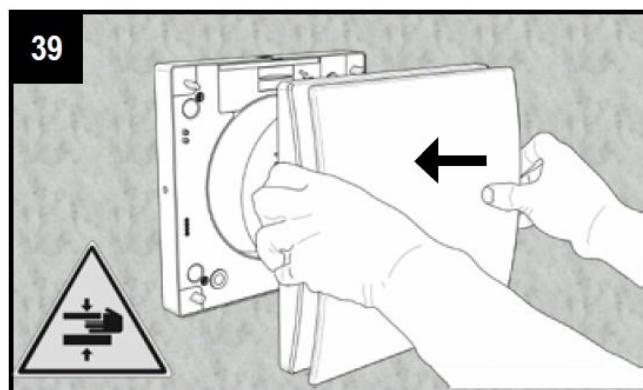
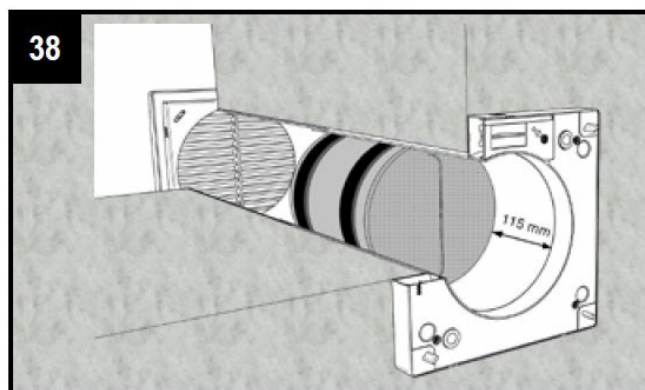




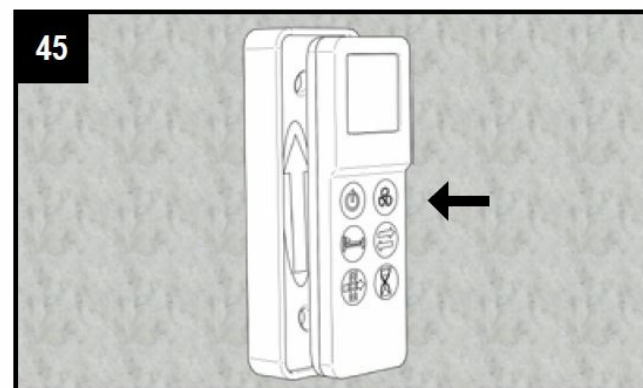
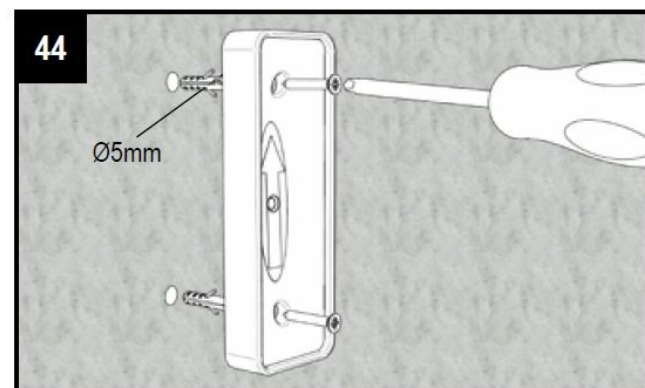
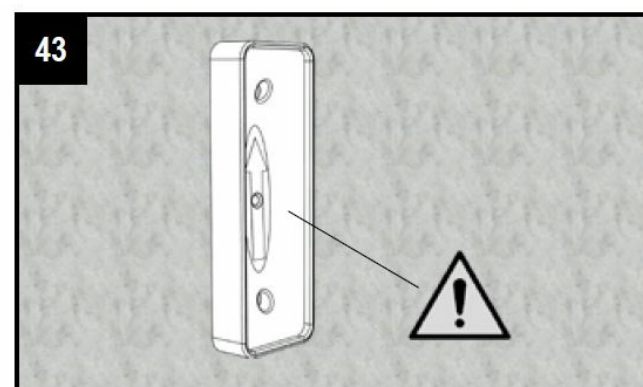
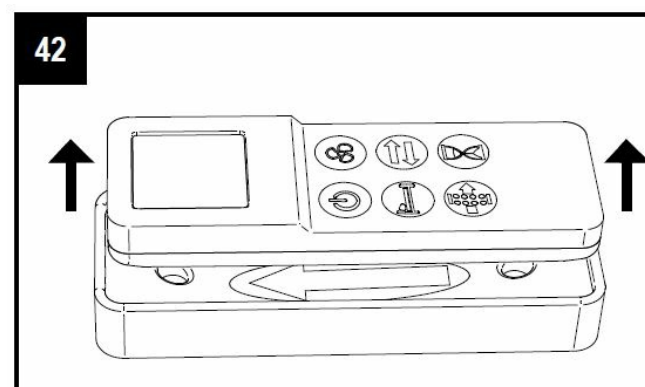
- **SURFACE CABLE (for one unit wiring):** H03VV-F ; H05VV-F
 - 2 X 0,5 ÷ 1,5 mm²



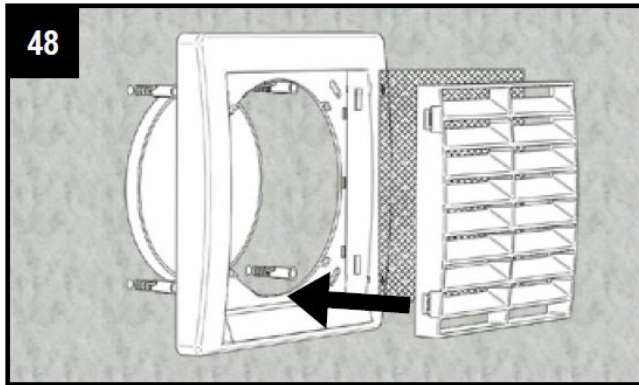
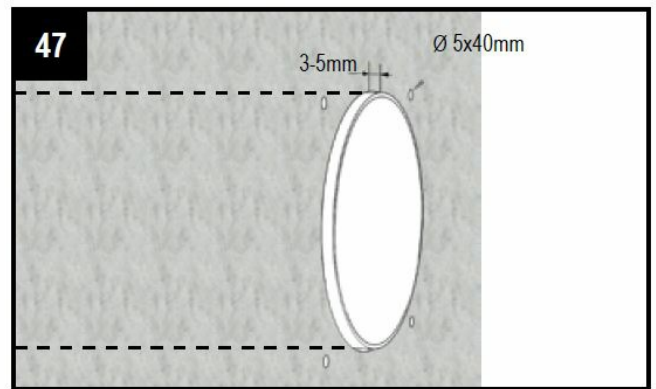
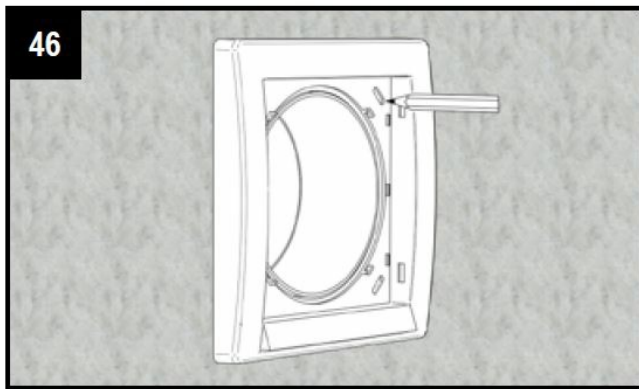




REMOTE CONTROLLER WALL MOUNTING



EXTERNAL GRILLE



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.

More Information

ErP Directive – Regulations 1253/2014 – 1254/2014

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- info@aerauliqa.it

Aerauliqa srl reserves the right to modify/make improvements to products and/or this instruction manual at any time and without prior notice.

Documents / Resources

[illegible]

References

- [!\[\]\(815df092dd722ee9268ef8e6d0193e3a_img.jpg\) AERAULIQA – Air & Life Quality](#)
- [User Manual](#)