



aerauliqa QDMEV Single Flow Decentralised Mechanical Extract Ventilation Unit Installation Guide

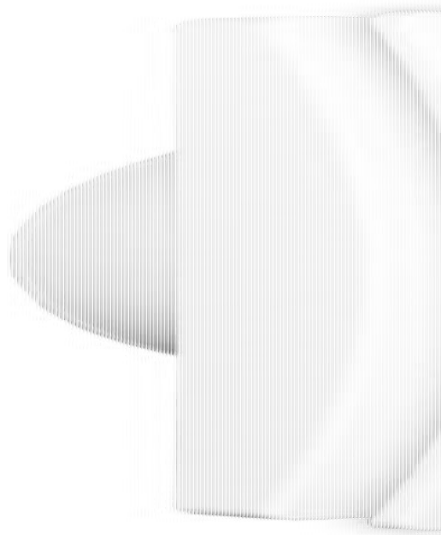
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aerauliqa QDMEV Single Flow Decentralised Mechanical Extract Ventilation Unit



Product Information

QDMEV is a decentralized mechanical ventilation unit designed for air extraction in small/medium-sized rooms. It can be installed on walls, ceilings, or windows. The unit operates at different speeds depending on the settings and conditions. It has various functionalities that can be enabled or disabled using Dip Switches A and B on the electronic circuit.

Technical Specifications:

- Minimum Continuous Speed: 0 to 58m³/h (0 to 16l/s)
- Intermediate Speed: 29 to 72m³/h (8 to 20l/s)
- Maximum Speed (Through-Wall Installation): 90m³/h (25l/s)
- Maximum Speed (In-Room Installation): 72m³/h (20l/s)

Operation:

Upon power-up, the unit runs at the minimum continuous speed. If the humidistat or timer is activated, the unit runs at the intermediate speed. If an external switch is activated, the unit runs at the maximum speed. After the external switch is turned off, the unit continues to run at the intermediate speed for a period of time before returning to the selected minimum speed (or intermediate speed if the humidistat or run-on timer is active).

Product Usage Instructions

1. Ensure that the unit is installed by technically qualified personnel in compliance with regulations.
2. Set the desired speed and functionalities using Dip Switches A and B on the electronic circuit.
3. For minimum continuous speed, set Dip Switch A as per the table provided in the manual.
4. For intermediate speed, activate the humidistat or run-on timer.
5. For maximum speed, use an external switch, remote ambient sensor, or light switch.
6. Refer to the manual for further maintenance and troubleshooting instructions.

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 flammable 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: 0°C up to +40°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 omni polar 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 into 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.

Ceiling installation

In order to guarantee the IPX4 degree of protection against moisture in case of ceiling installation, use the appropriate ceiling mount kit, which is not included. Use only the rear entry hole for supply cables. If there is a possibility of condensation along the air discharge duct, provide a drainage system to prevent condensation from discharging into the environment through the fan.

Attention: do not mount the product on the ceiling without this kit.

INTRODUCTION

QDMEV is a decentralized mechanical ventilation unit designed to ensure air extraction in small/medium-sized rooms. Suitable for air discharge in the presence of long ducted system. Wall, ceiling or window installation (fig.1).

TECHNICAL SPECIFICATIONS

- Material: high quality, impact and UV-resistant ABS color RAL 9010.
- Design front cover removable for cleaning without the use of tools.
- High efficiency aerodynamic fan with “winglet” blades to optimize quietness and efficiency.
- Single phase EC Brushless motor for energy saving, with integral thermal protection.
- Motor mounted on high quality ball bearings.
- Selectable minimum speed for continuous running and intermediate speed.
- Option to boost from minimum speed through LS connection.
- Selection of the installation type (through wall or in-room).
- Selection of smart humidity control and intelligent run-on timer.
- Selection of constant volume mode.
- Suitable for continuous running.
- The fan is double insulated: no earth connection is required.
- IPX4.
- Power supply 220-240V~ 50/60Hz

OPERATION

Upon power-up, the unit runs at the minimum continuous speed.

If humidistat or timer is activated, the unit runs at the intermediate speed.

If the external switch is activated, the unit runs at the maximum speed.

After the external switch is off, the unit continues to run at the intermediate speed for a period of time, then it returns to the selected minimum speed (or to the intermediate speed in case humidistat or run-on timer operation is on).

The functionalities can be set/enabled through the Dip Switches A and B on the electronic circuit (with disconnected from the main supply unit).

MINIMUM CONTINUOUS SPEED

Upon power-up, the unit runs at the minimum continuous speed settable from 0 to 58m³/h (i.e. from 0 to 16l/s) by means of the switches as per table Dip Switch A.

INTERMEDIATE SPEED

The unit runs automatically at the intermediate speed settable from 29 to 72m³/h (i.e. from 8 to 20l/s) by means of the switches as per table Dip Switch A.

The intermediate speed can be activated when either of the below conditions have been met:

- The humidistat has been activated;
- The run-on timer has been activated.

MAXIMUM SPEED

The maximum speed fixed, at 90m³/h (i.e. 25l/s) in through-wall or 72m³/h (i.e. 20l/s) in in-room installation, can be activated through external switch, remote ambient sensor or light switch.

INSTALLATION TYPE

Based on the selected installation type, the unit scales its speed (minimum, intermediate and maximum) to obtain the selected air flow rates.

- Through-wall installation: unit is typically mounted on an external wall or window and discharge direct to the outside.
- In-room installation: unit is typically mounted on the ceiling or internal wall which are ducted to the outside.

NOTE: the unit runs at a higher speed when In-room installation is selected.

The installation type can be selected by means of the switches as per table Dip Switch A.

DIP SWITCH A											
1	2	3	4		installation	min speed		intermediate speed		max speed	
						m3/h	l/s	m3/h	l/s	m3/h	l/s
0	0	0	0	default	through-wall	18	5	47	13	90	25
0	0	on	0		through-wall	18	5	29	8	90	25
0	on	0	0		through-wall	29	8	47	13	90	25
0	on	on	0		through-wall	29	8	40	11	90	25
on	0	0	0		through-wall	40	11	47	13	90	25
on	0	on	0		through-wall	47	13	58	16	90	25
on	on	0	0		through-wall	58	16	72	20	90	25
on	on	on	0		through-wall	0	0	47	13	90	25
0	0	0	on		in-room	18	5	47	13	72	20
0	0	on	on		in-room	18	5	29	8	72	20
0	on	0	on		in-room	29	8	47	13	72	20
0	on	on	on		in-room	29	8	40	11	72	20
on	0	0	on		in-room	40	11	47	13	72	20
on	0	on	on		in-room	47	13	58	16	72	20
on	on	0	on		in-room	58	16	72	20	72	20
on	on	on	on		in-room	0	0	47	13	72	20

DIP SWITCH B		
1	constant flow	
on	enabled	
0	disabled	default

CONSTANT FLOW OPERATION

When the constant flow operation is enabled, the unit speeds up or slows down depending on the variations of the resistances caused by long length ducting or external windy conditions.

The constant flow operation can be enabled/ disabled by means of switch 1 of Dip Switch B.

DIP SWITCH B		
2	humidistat	
on	disabled	
0	AUTO	default

HUMIDISTAT

The unit is equipped with a humidity sensor that operates in AUTO mode, i.e. the humidistat, which records the humidity levels, triggers if there is a steep variation of the humidity and if humidity level is over 65%. If the humidistat is activated, the unit runs at the intermediate speed and continues to run for a fixed time of 5 minutes after the humidity level stabilizes.

The humidistat can be enabled/ disabled by means of switch 2 of Dip Switch B.

DIP SWITCH B		
3	timer	
on	disabled	
0	AUTO	default

RUN-ON TIMER

The unit is equipped with a run-on timer. When the external switch is turned off, the unit continues to run at the intermediate speed for the a period of time defined as follows:

- If the external switch is activated for less than 3 minutes, the unit does not run-on;
- If the external switch is activated for between 3 and 10 minutes, the unit runs on for 5 minutes;
- If the external switch is activated for between 10 and 20 minutes, the unit runs on for 10 minutes;
- If the external switch is activated for over 20 minutes, the unit runs on for 15 minutes.

When the time is expired, the unit returns to the minimum continuous speed. The run-on Timer can be enabled/disabled by means of switch 3 of Dip Switch B.

DISPOSAL AND RECYCLING



Information on disposal of units at the end of life.

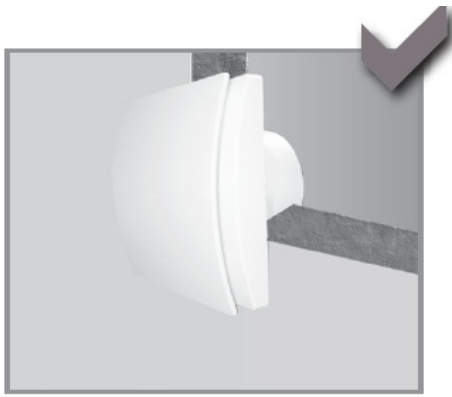
This product complies with EU Directive 2002/96/EC.

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.

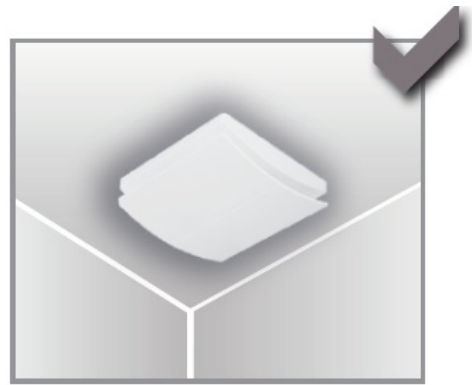
Separate collection of decommissioned equipment for recycling, treatment and environmentally compatible disposal helps to prevent negative effects on the environment and on health and promotes the recycling of the materials that make up the equipment.

Improper disposal of the product by the user may result in administrative sanctions as provided by law.

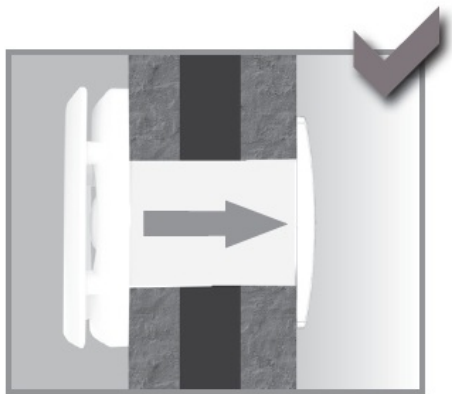
INSTALLATION (Fig.1)



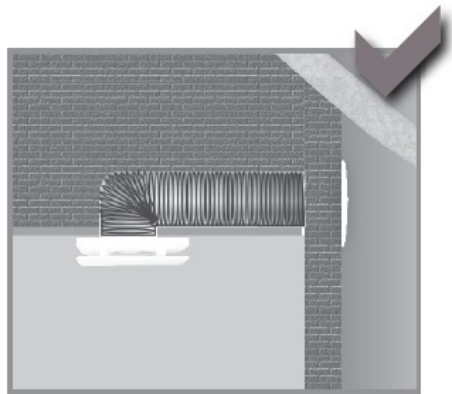
wall



ceiling (accessory on demand)

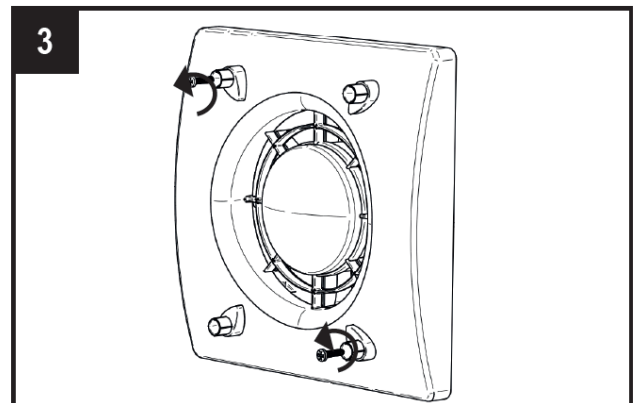
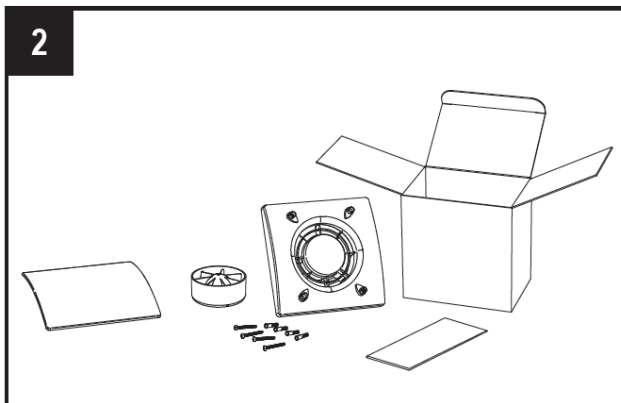


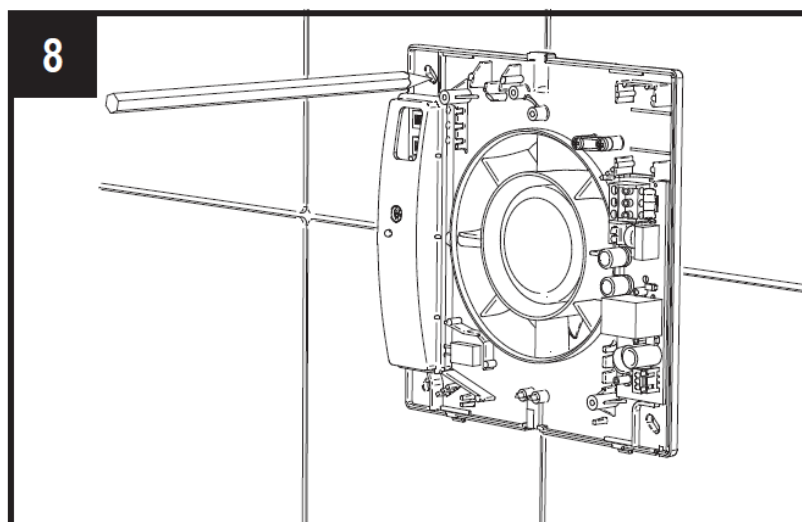
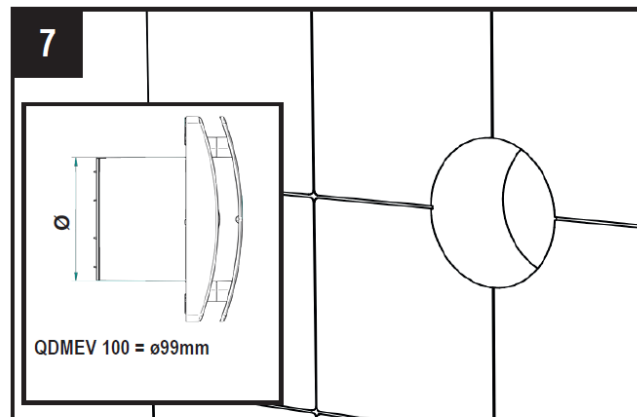
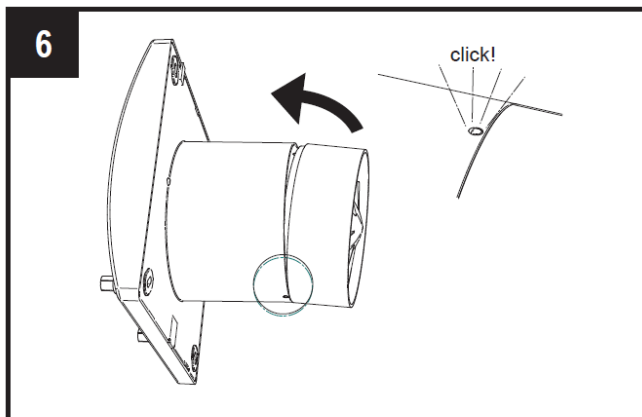
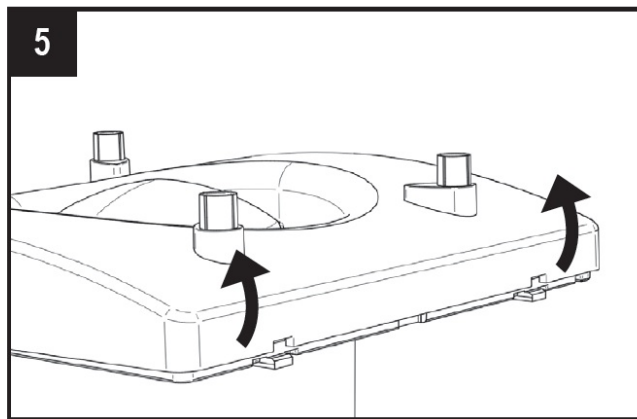
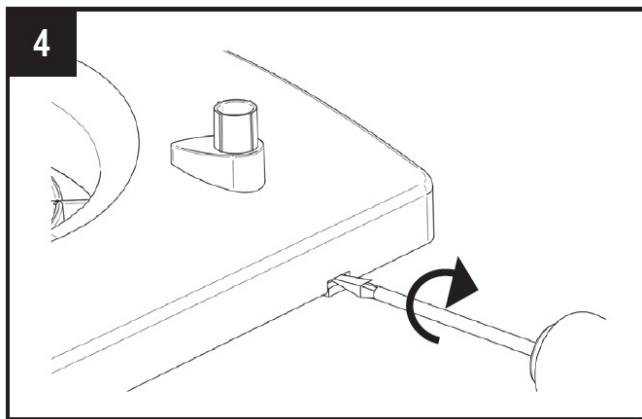
direct exhausting



ducted

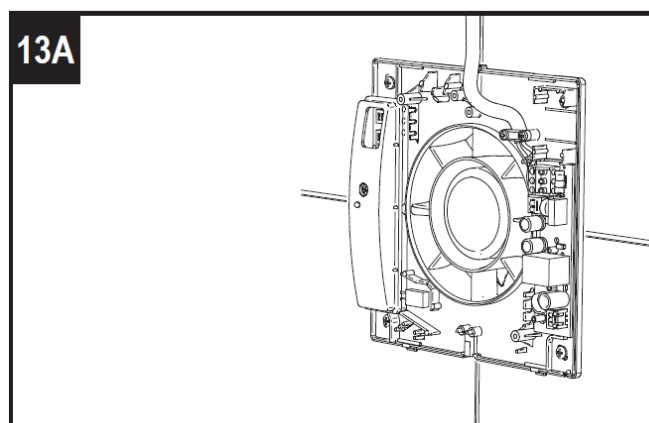
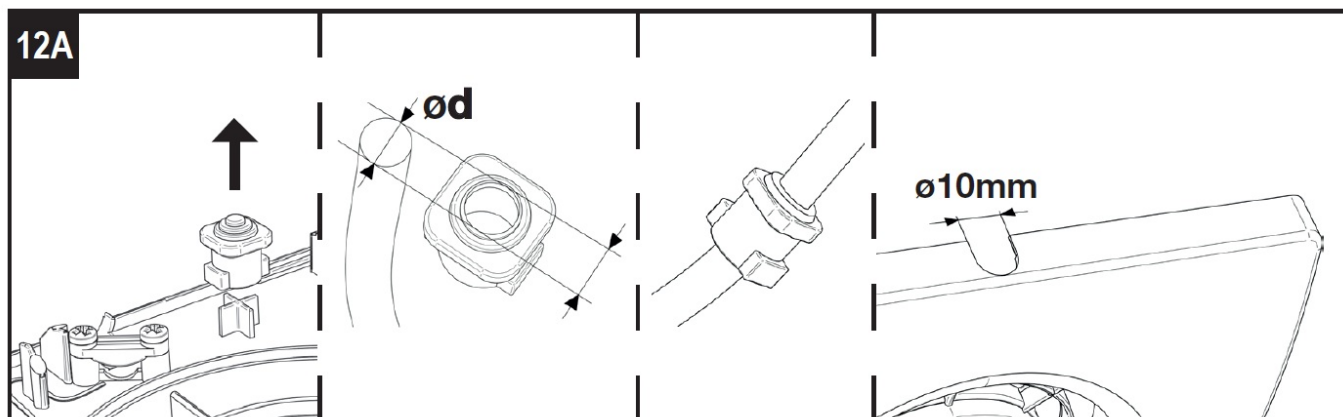
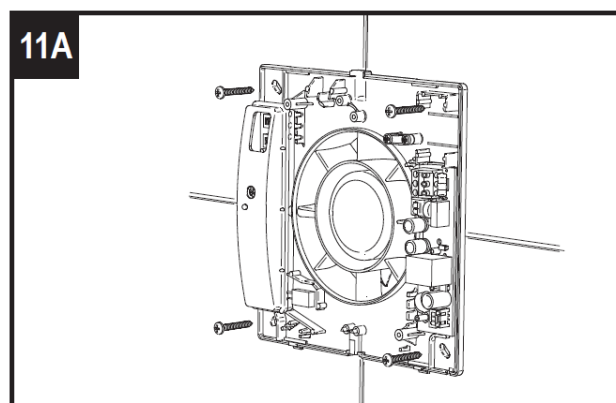
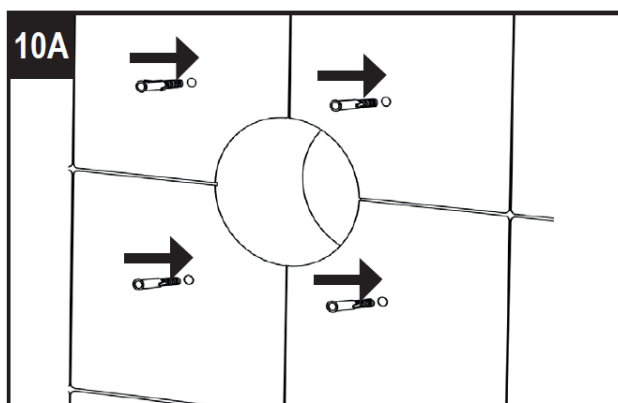
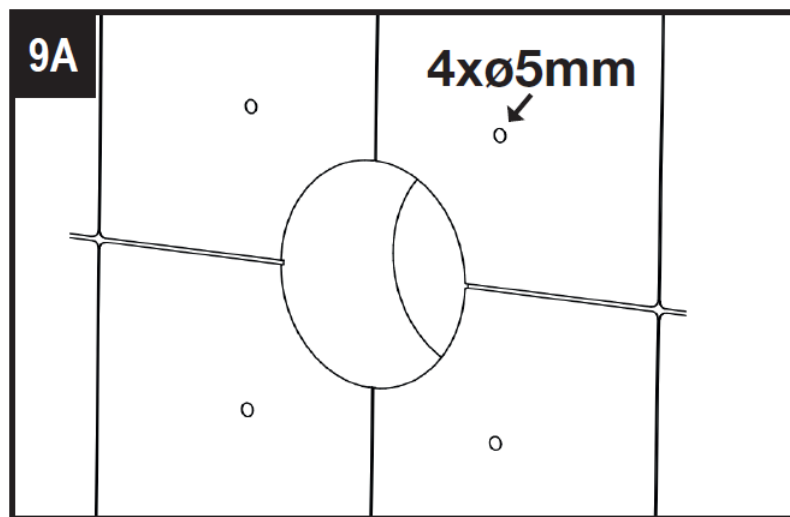
MOUNTING AND WIRING DIAGRAM





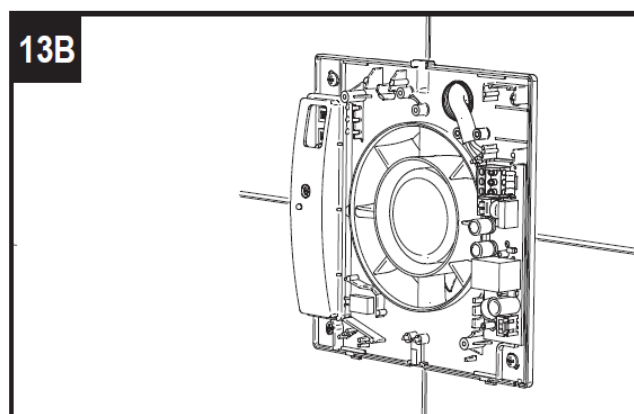
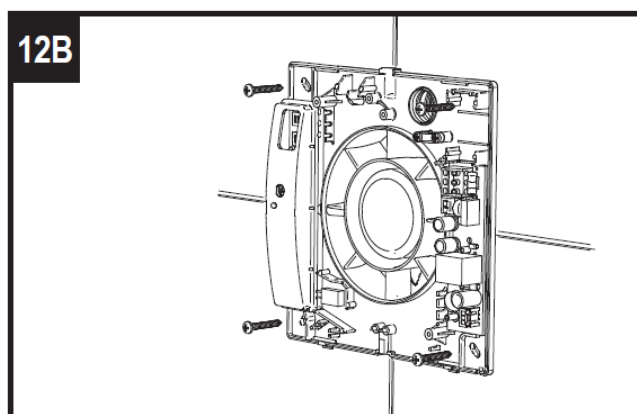
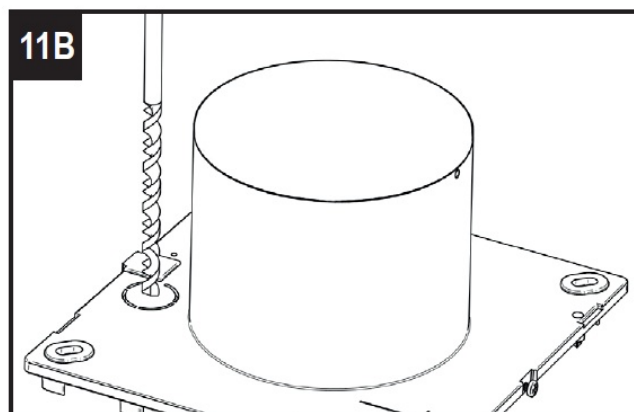
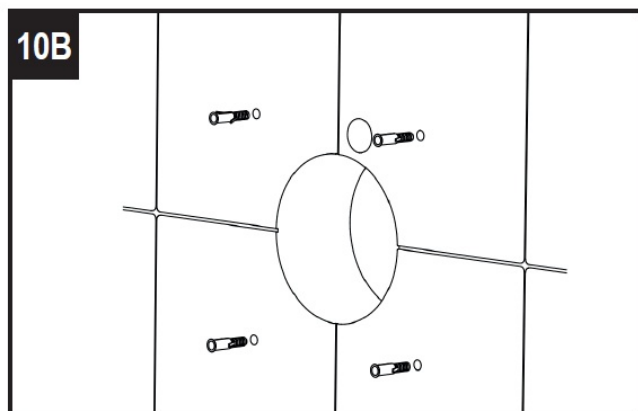
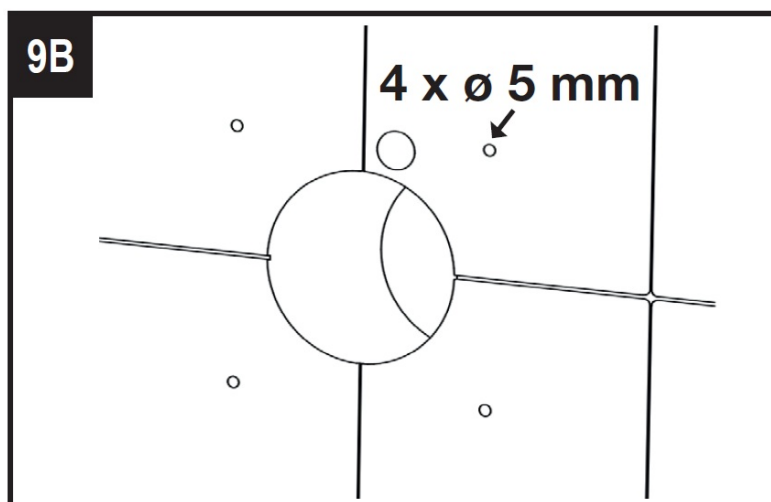
SURFACE CABLE

- H03VV-F ; H05VV-F
- 2 X 0,5 ÷ 1,5mm²
- 3 X 0,5 ÷ 1,5mm²

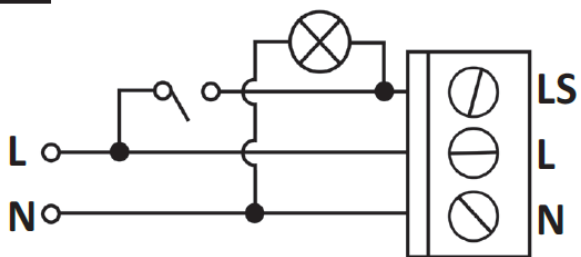


RECESSED CABLE ENTRY

- H03VV-F ; H05VV-F
- 2 X 0,5 ÷ 1,5mm²
- 3 X 0,5 ÷ 1,5mm²



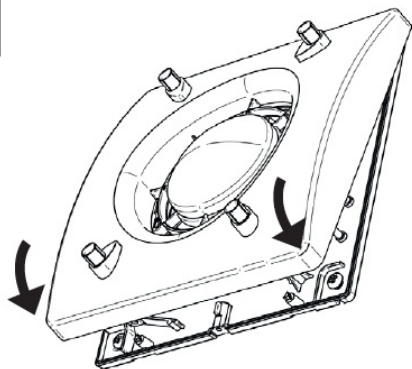
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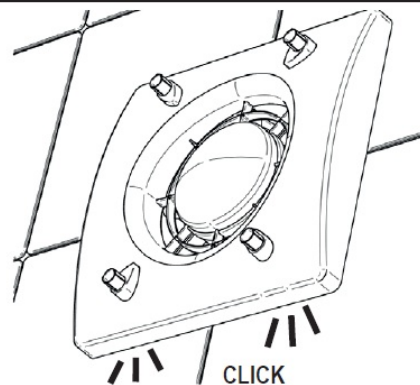
15

- When wiring to the PCB terminals, do not overtighten the screws: maximum torque 0,15Nm.

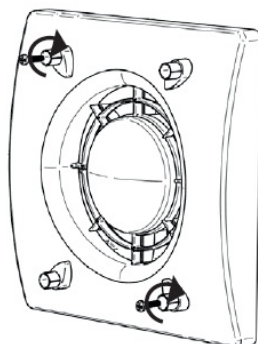
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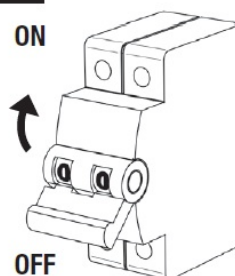
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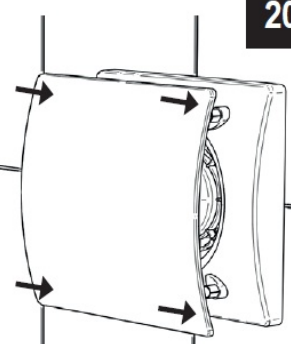
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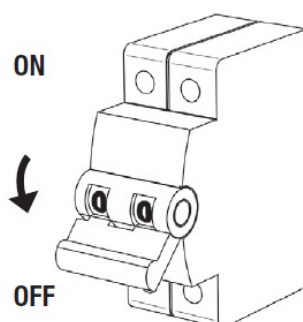


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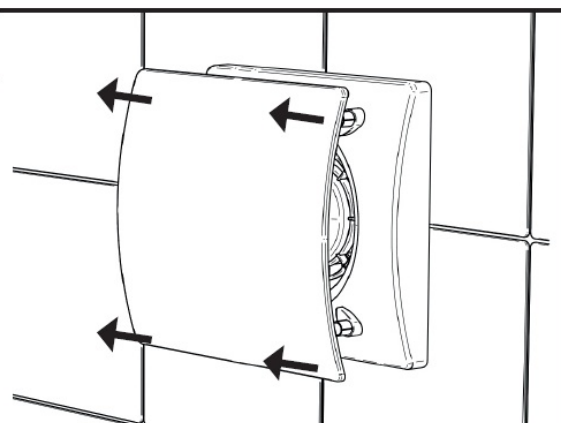


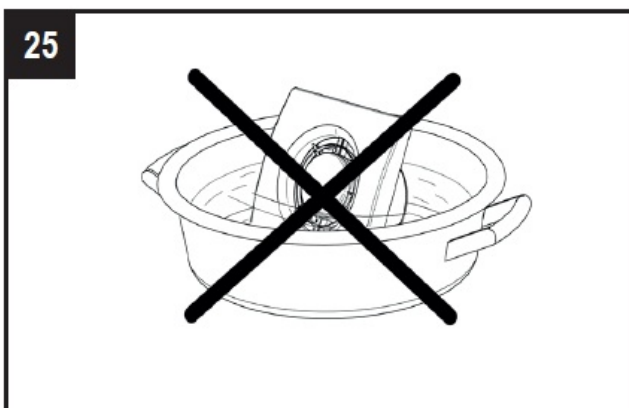
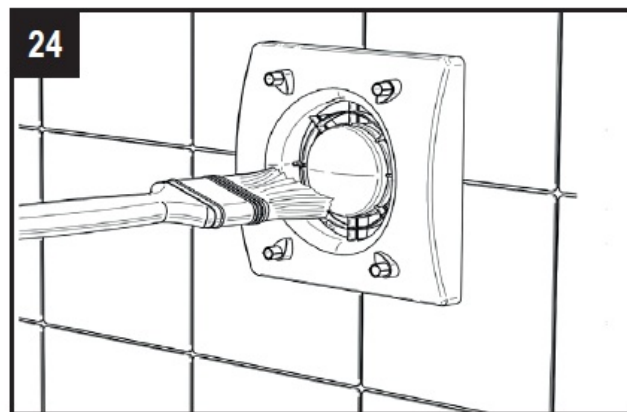
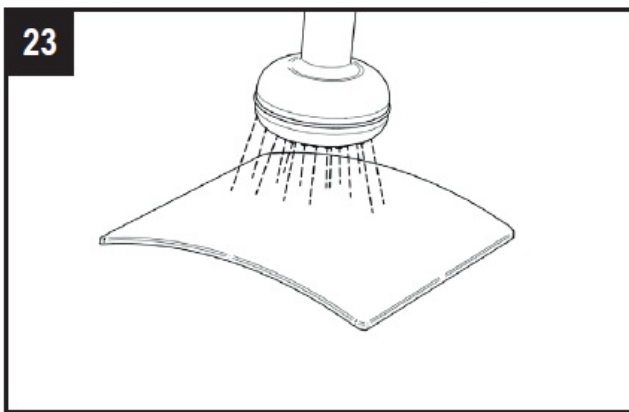
MAINTENANCE / CLEANING

21



22





ErP Directive Regulations 1253/2014 – 1254/2014

a)	Mark	–	aEraulIQa
b)	Model	–	QDMEV 100
c)	SEC – SEC class	–	C
c1)	SEC warm climates	kWh/ m2.a	-11,1
c2)	SEC average climates	kWh/ m2.a	-25,5
c3)	SEC cold climates	kWh/ m2.a	-50,6
	Energy label	–	No
d)	Unit typology	–	Residential – unidirectional
e)	Type of drive	–	multiple multi-speed drive
f)	Type of Heat Recovery System	–	absent
g)	Thermal efficiency of heat recovery	%	N/A
h)	Maximum flow rate	m3/h	97
i)	Electric power input at maximum flow rate	W	6
j)	Sound power level (LWA)	dBA	50
k)	Reference flow rate	m3/h	68

l)	Reference pressure difference	Pa	20
m)	Specific power input (SPI)	W/m ³ /h	0,040
n1)	Control factor	–	0,65
n2)	Control typology	–	Local demand control
o1)	Maximum internal leakage rate	%	N/A
o2)	Maximum external leakage rate	%	N/A
p1)	Internal mixing rate	%	N/A
p2)	External mixing rate	%	N/A
q)	Visual filter warning	–	N/A
r)	Instructions to install regulated grilles	–	check the instruction booklet
s)	Internet address for pre/ disassembly instructions	–	www.aerauliqa.com
t)	Airflow sensitivity to pressure variations	%	N/A
u)	Indoor/outdoor air tightness	m ³ /h	52
v1)	AEC – Annual electricity consumption – warm climates	kWh	0,3
v2)	AEC – Annual electricity consumption – average climates	kWh	0,3
v3)	Annual electricity consumption – cold climates	kWh	0,3
w1)	AHS – Annual heating saved – warm climates	kWh	11,9
w2)	AHS – Annual heating saved – average climates	kWh	26,2
w3)	AHS – Annual heating saved – cold climates	kWh	51,3

via Mario Calderara 39/41, 25018 Montichiari (Bs)


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

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Documents / Resources

	<p>aerauliqa QDMEV Single Flow Decentralised Mechanical Extract Ventilation Unit [pdf] Installation Guide</p> <p>QDMEV Single Flow Decentralised Mechanical Extract Ventilation Unit, QDMEV, Single Flow Decentralised Mechanical Extract Ventilation Unit, Decentralised Mechanical Extract Ventilation Unit, Mechanical Extract Ventilation Unit, Extract Ventilation Unit, Ventilation Unit</p>
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References

- [!\[\]\(2dc8cdc0c918df88cde61039ecf68682_img.jpg\) AERAULIQA – Air & Life Quality](#)
- [!\[\]\(793119bf0d613bd9b598fb8668922511_img.jpg\) AERAULIQA – Air & Life Quality](#)

Manuals+.