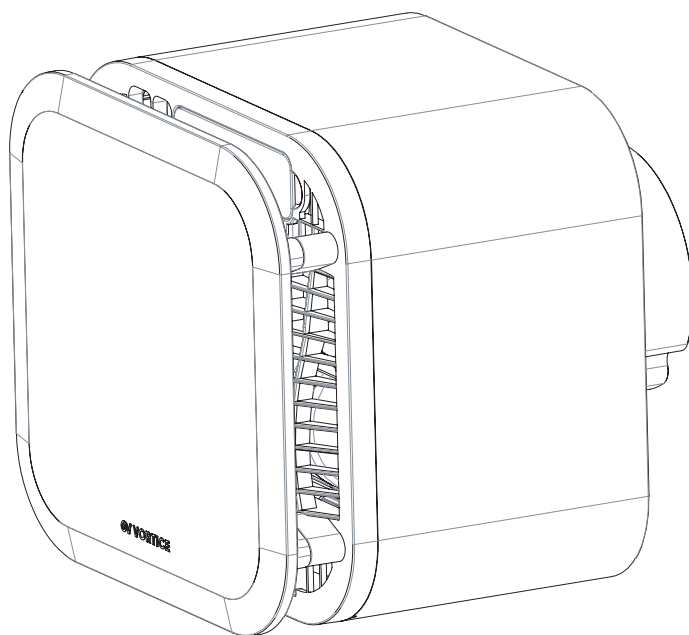




F4L

F4L - SELV



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Read the instructions contained in this booklet carefully before using the appliance. VORTICE cannot assume any responsibility for damage to property or personal injury resulting from failure to abide by the instructions given in this booklet. Following these instructions will ensure a long service life and overall electrical and mechanical reliability. Keep this instruction booklet in a safe place.

1 General informations

1.1 Description of the symbols

1.1.1 Requirement



GENERIC REQUIREMENT.



READING INSTRUCTIONS IS MANDATORY



TURNING OFF THE POWER IS MANDATORY



CONTACT A PROFESSIONALLY QUALIFIED ELECTRICIAN

1.1.2 Prohibiting



GENERIC PROHIBITED.

1.1.3 Danger



GENERIC DANGER.

1.2 Purpose of the manual

This manual contains information on the use and maintenance of the appliance and provides useful information for the correct use of the appliance.



REQUIREMENT

Before installing and using the appliance, read the warnings in this manual carefully

VORTICE shall not be held liable for any damage to persons or property resulting from failure to comply with the instructions listed below. Compliance with these instructions will ensure the electrical and mechanical durability and reliability of the appliance. Always keep this manual. Do not modify or remove any part of the manual or its contents.

2 Compliance

- 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.
- These appliances are designed for use in residential and commercial properties.
- The appliance must be installed by a professionally qualified electrician only.
- Ensure that the electrical system to which the appliance is connected complies with applicable standards.
- An omnipolar switch with a contact opening distance of 3 mm or higher should be provided for installation, enabling complete disconnection under overvoltage category III conditions.
- Products equipped with single-phase wiring (M) engines ALWAYS require connection to 220-240V (or only 230V where required) single-phase lines. Any kind of modification shall be considered as product tampering and shall nullify the relative Warranty.
- Precautions must be taken to prevent the backflow of gas from the gas exhaust pipe or other fuel-burning appliances into the room.
- Fans have been designed to be mounted on windows or external walls.

3 Safety/Warnings



REQUIREMENT

- The product is a professional centrifugal extractor fan for wall or ceiling installation, for ventilation of rooms and extraction into a single duct.
- After removing the appliance from its packaging, ensure that it is complete and undamaged. If in doubt contact an authorised VORTICE service centre. Do not leave packaging within the reach of children or differently able persons.
- Store the appliance out of the reach of children and disabled persons if you decide to disconnect it from the power supply and use it no more.



REQUIREMENT

- In the event that the appliance malfunctions or develops a fault, contact VORTICE immediately. Ensure that only genuine original VORTICE spares are used for repairs.
- Check that the electrical power supply/socket provides the maximum electrical power required by the appliance. If this is not the case, arrange for a qualified electrician to make the necessary modifications.
- In the event that the appliance is dropped or suffers a heavy blow, have it checked immediately by VORTICE.
- Install the appliance so that the impeller is inaccessible from the air outlet side as verified by contact with the Test Finger, in compliance with the current safety regulations. If this is not possible, the

relevant protection accessory must be installed.

- The appliance must be connected to earth (PE \perp) as shown in the wiring diagrams.
- Ensure that the room has an adequate source of fresh air to ensure correct appliance operation. In the event that other non-sealed combustion-based appliances (such as water heater or gas stove) are installed in the same room, check that air replacement is sufficient for all appliances to work effectively together.
- The air to be extracted from the room must be clean (i.e. free of grease, soot, chemical and corrosive agents, and explosive or flammable mixtures) and must not exceed a temperature of 50°C (122°F).



REQUIREMENT

- The electrical specifications correspond to the ones on the data label.



PROHIBITING

- Do not use this appliance for functions other than those described in this booklet.
- Do not make modifications of any kind to this appliance.
- Do not expose the appliance to the weather (rain, sun, etc.).
- Do not operate the appliance where inflammable vapours or substances are present (alcohol, insecticides, petrol, etc.).
- Never immerse the appliance in water or any other liquid, nor use water, especially under pressure, for washing or cleaning the appliance or its parts.
- Keep the air intake and outlet ports of the appliance free of obstructions, to ensure optimum air flow.



ATTENTION

- Certain fundamental rules must be observed when using any electrical appliance:
 - never touch appliances with wet or damp hands;
 - never touch appliances while barefoot;
 - do not allow the unit to be operated by unsupervised children or disabled persons.

4 Product description

F4L, acronym for **Fan For Life**, (hereinafter “the unit”) is a ventilation device designed for air extraction in humid environments such as bathrooms, kitchens, and toilets, both in residential and commercial settings. Air extraction is performed through a rear outlet with a diameter of 100 or 125 mm. The unit complies with protection rating IPX4, which ensures resistance to water splashes from any direction, making it suitable for installation in moisture-prone environments. When correctly installed and used according to the manufacturer’s instructions, the unit guarantees high ventilation performance, long-term reliability, and extended operational life.

The range consists of two versions:

F4L, powered at 230V AC, ideal for standard installations.

F4L-SELV, with 24V DC power supply converted from 230V AC, designed for applications in Zone 1 and Zone 2 according to current regulations.

Note: The device is supplied with a standard 100 mm diameter outlet already installed on the product. A 125 mm diameter outlet is also included in the packaging, allowing adaptation to different system configurations (for outlet replacement, refer to Fig. 5).

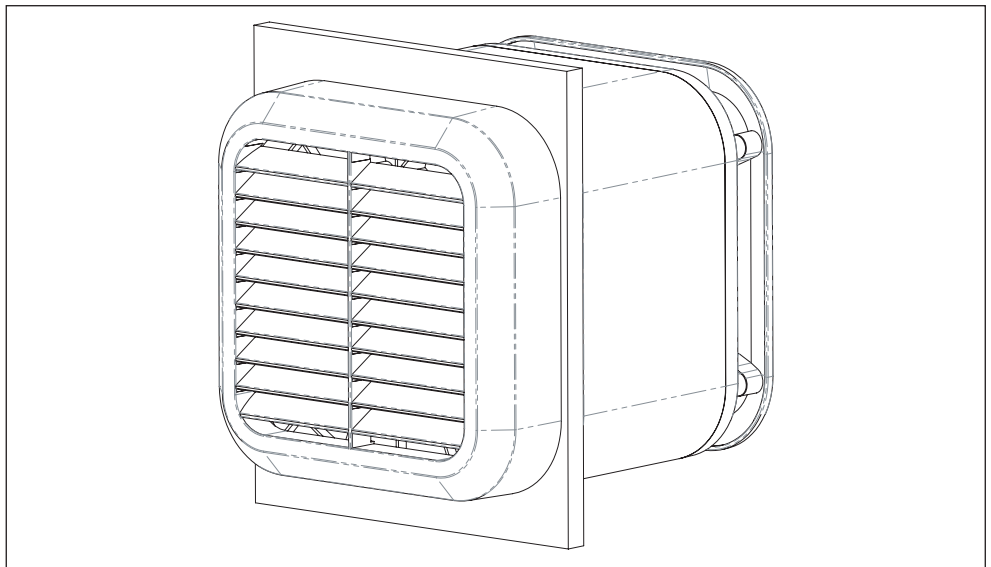
TECHNICAL DATA	
Voltage F4L (AC)	230 V
Voltage F4L-SELV (DC)	24 V (230 V → 24 V)
Frequency (Hz)	50
Max Power (W) @ Boost	37
Maximum flow rate (l/s – m³/h)	73 l/s – 263 m³/h

4.1 Optional accessories

Code: 47013 – F4L-WINKIT

Kit designed for window installation of the device, for glass thicknesses between 12 mm and 28 mm.

Note: the accessory is not included in the packaging.



5 Structure and equipment

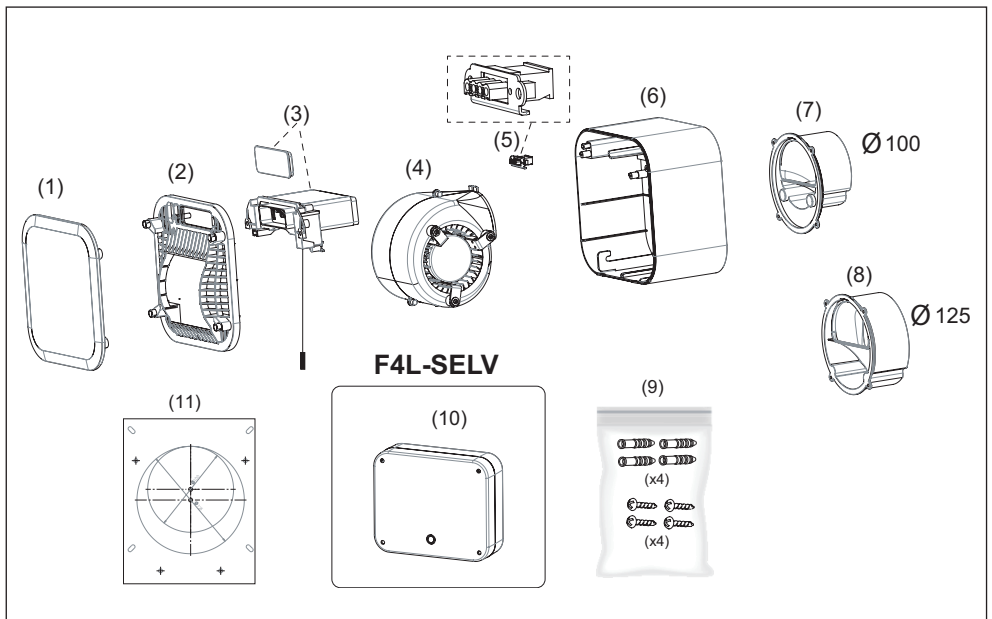
Common components for all models:

- Front panel (1)
- Grille (2)
- PCB box + Cover + Rubber Cap (3)
- Motor-fan assembly (4)
- Terminal block / Connector (5)
- Main body (6)
- Ø100 mm outlet (7)
- Ø125 mm outlet (8)
- Screws and wall plugs for wall mounting (9)
- Drilling template (11)

Model F4L-SELV

In addition to the common components, the F4L-SELV model is equipped with:

- Transformer box from 230V to 24V (10)



6 Installation Procedure

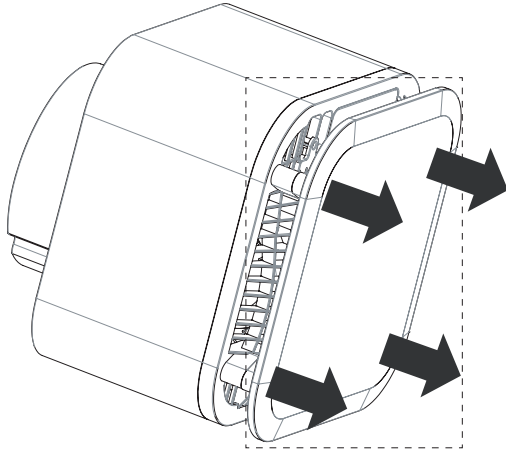
The product is supplied pre-assembled and factory-tested. For the first installation, remove the unit from the packaging and proceed with disassembly according to the technical instructions provided below.

For window-mounted appliance installation with dedicated accessory, refer to the instruction manual of accessory **Cod. 47013 - F4L-WINKIT**.

6.1 Front Panel Removal

- Release the front panel by disengaging the 4 snap-fit pins, pulling and removing the panel (Fig. 1).

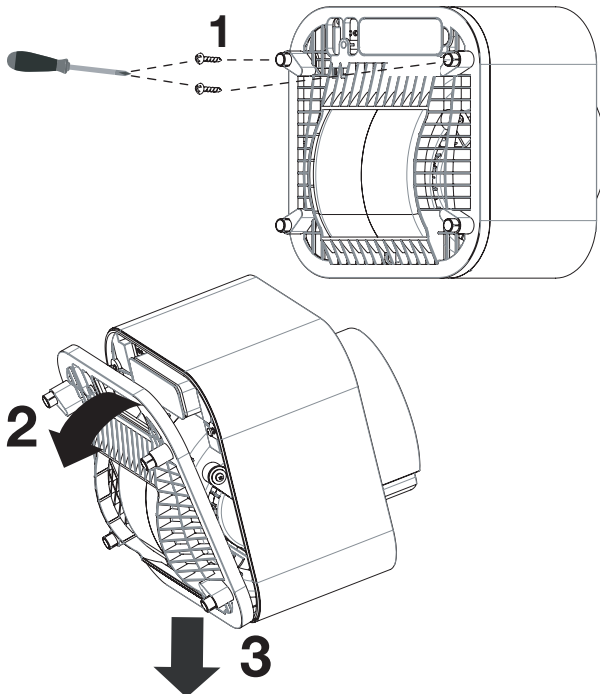
1



6.2 Grille Removal

- Using a screwdriver, unscrew the two fastening screws located at the top.
- Lift the upper part of the grille by rotating it as shown in the figure, then push the grille downward to release the lower snap-fit tabs (Fig.2).

2



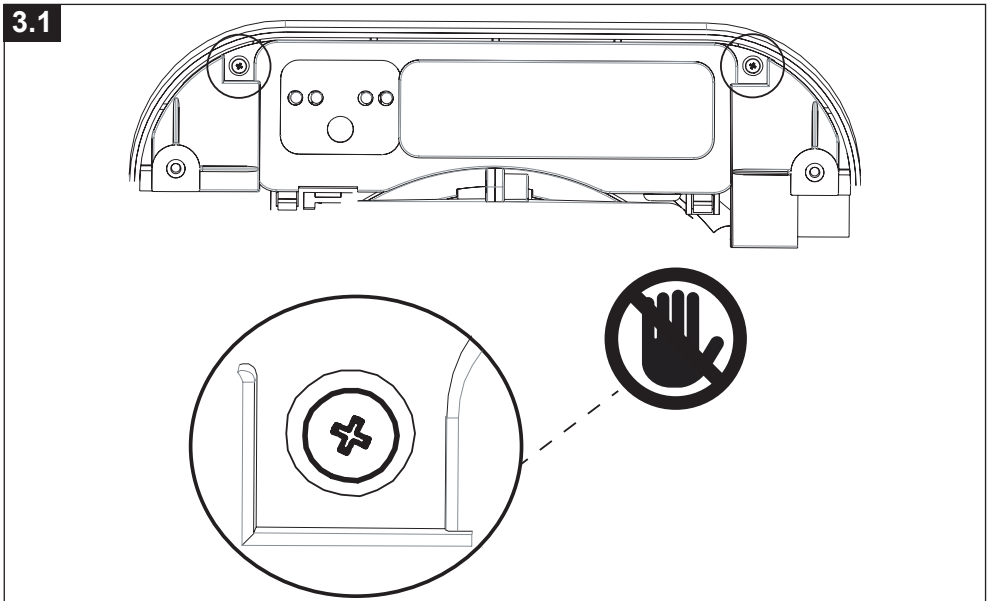
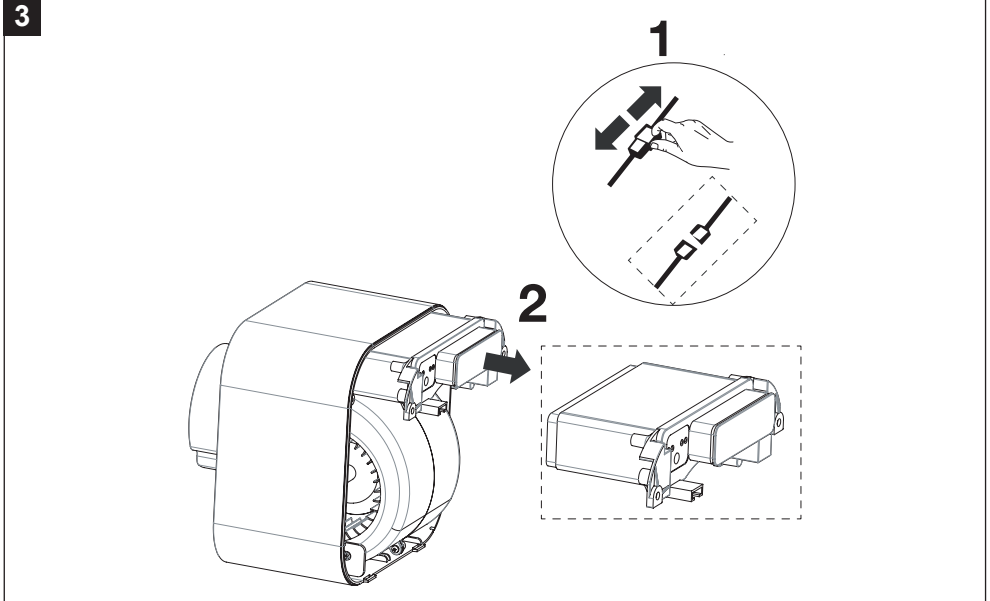
6.3 PCB Box Removal

- Disconnect the electrical connector that links the PCB Box to the motor-fan assembly before removing the PCB Box (Fig. 3).



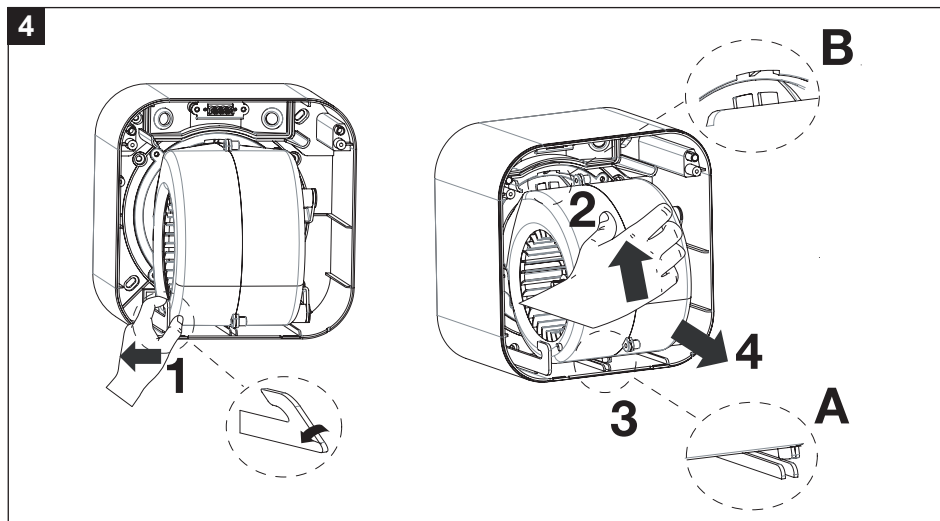
ATTENTION

- Do not open the PCB BOX! Opening the PCB BOX and removing the related fixing screws to access the electronic boards is strictly reserved for Vortice authorized service centers.



6.4 Removal of the fan motor assembly

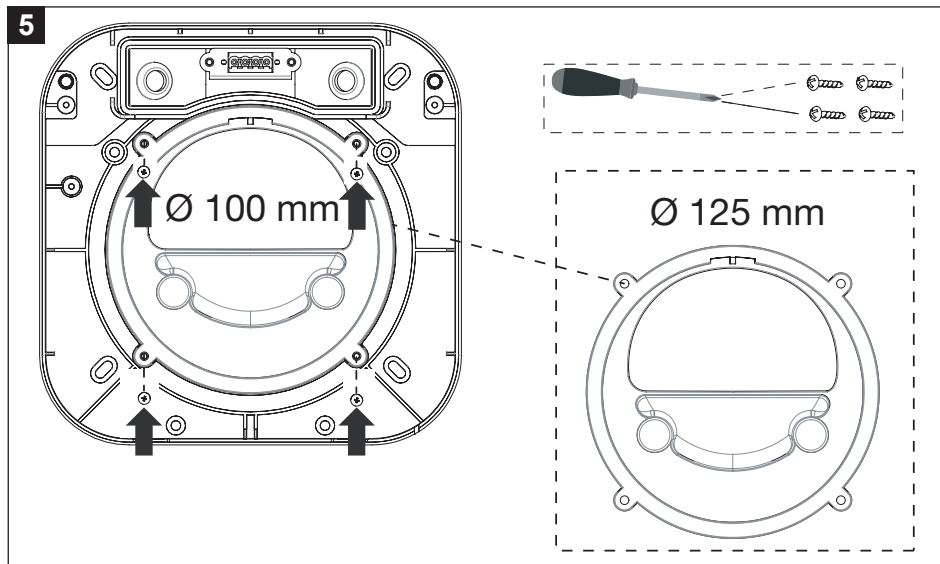
- To proceed with removal, gently push the release lever (1) sideways outward; slightly tilt the fan-motor assembly (2) upward to release the lower sliding tab (3) from the track (see detail A). This action will automatically disengage the upper snap-fit tabs (see detail B), allowing complete removal of the fan-motor assembly (4) (Fig. 4).



6.5 Possible replacement of the Outlet (Ø100 mm → Ø125 mm)

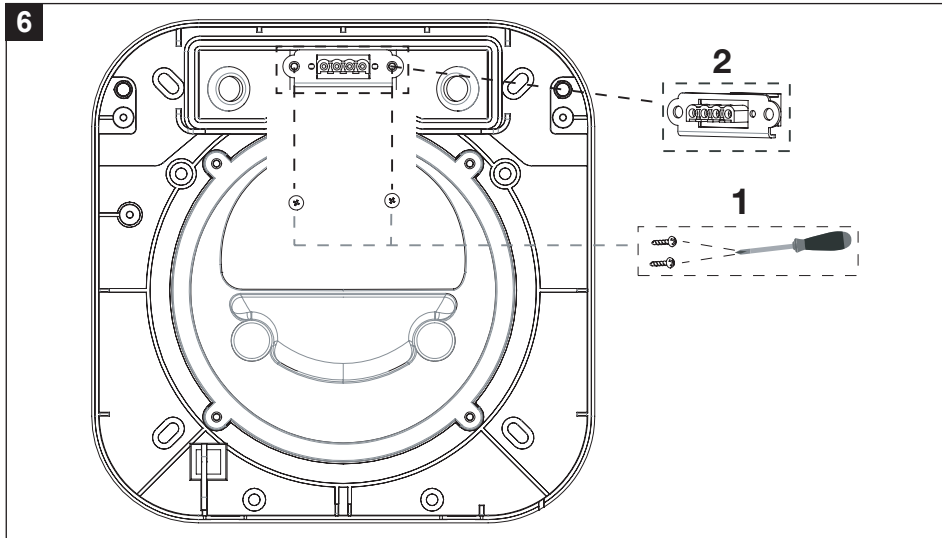
Note: The product is supplied with the Ø100 mm outlet pre-installed on the unit. A Ø125 mm outlet is also included in the packaging, to be used alternatively depending on installation specifications. **Skip this paragraph if installation of the Ø125 mm outlet is not required.**

- Using a screwdriver, remove the four screws securing the existing nozzle. Position the new Ø125 mm nozzle in alignment with the same holes and secure it using the same screws (Fig. 5).



6.6 Removal of the connector bracket

- Use a screwdriver to remove the two screws securing the connector bracket. Once removed, the rear terminals will be accessible for performing the electrical wiring (Fig. 6).

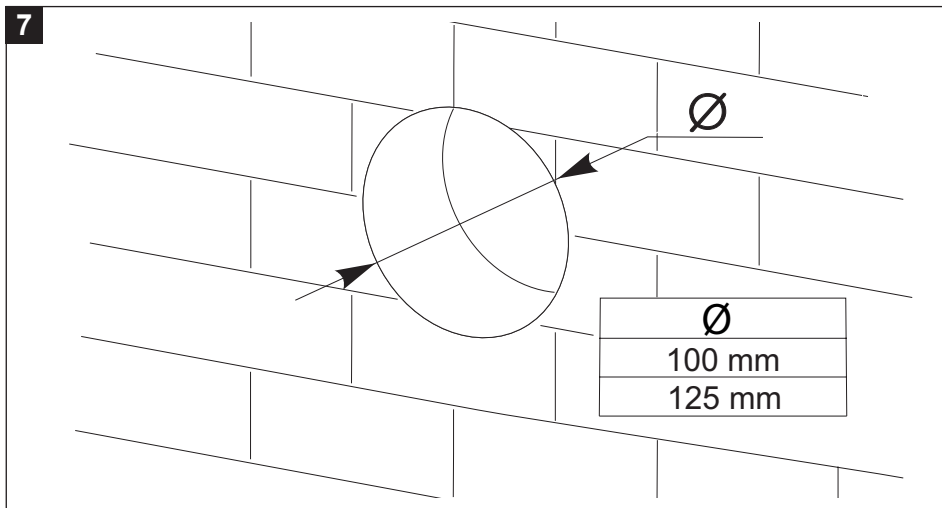


7 Wall installation

7.1 Drilling the wall for ventilation exhaust hole

- Proceed with drilling the wall according to the selected nozzle size (diameter 100 mm or 125 mm) (Fig.7). Use the supplied drilling template to facilitate the operation and ensure correct positioning.

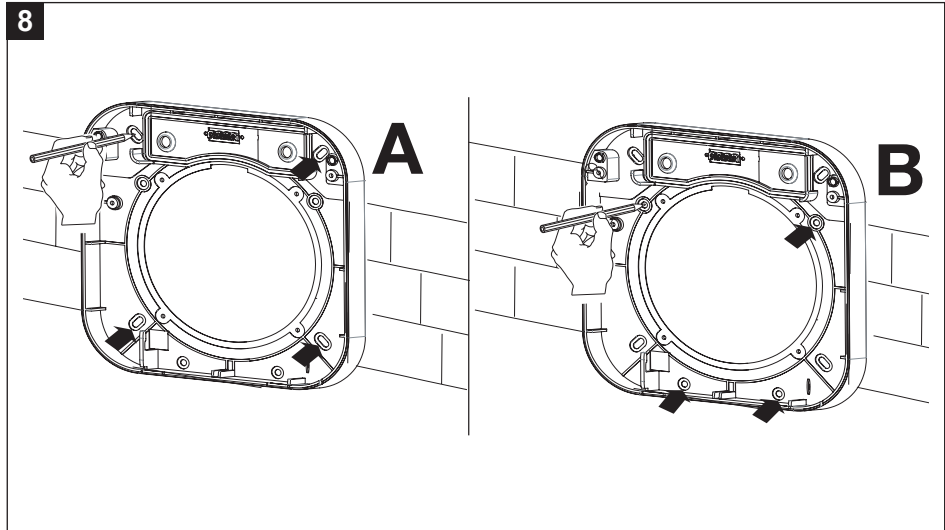
Note: If the hole in the wall is already present, refer to the procedure shown in Fig. 8.



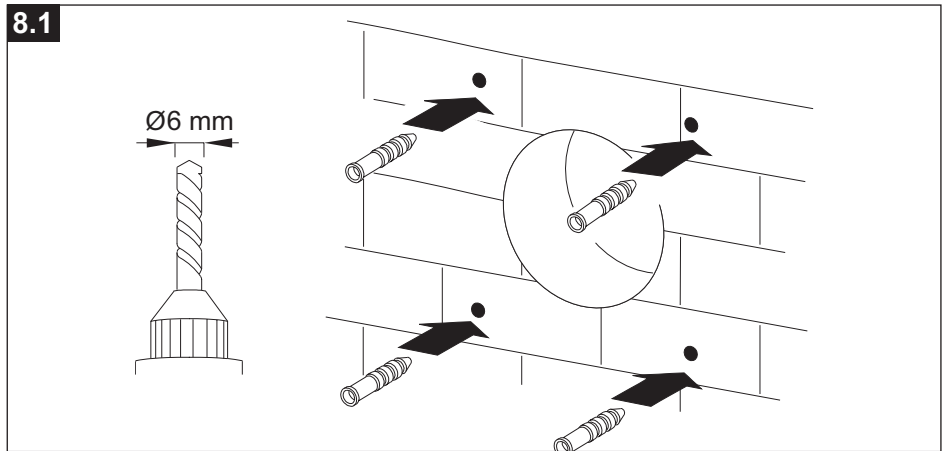
7.2 Drilling the wall for product installation

- Place the product against the wall and, using a pencil, mark the fixing points (see Fig. 8).

Note: The 4 oval holes represent the recommended fixing solution by Vortice (see detail A). Alternatively, the other 4 fixing holes on the product can be used (see detail B), depending on the specific installation conditions.



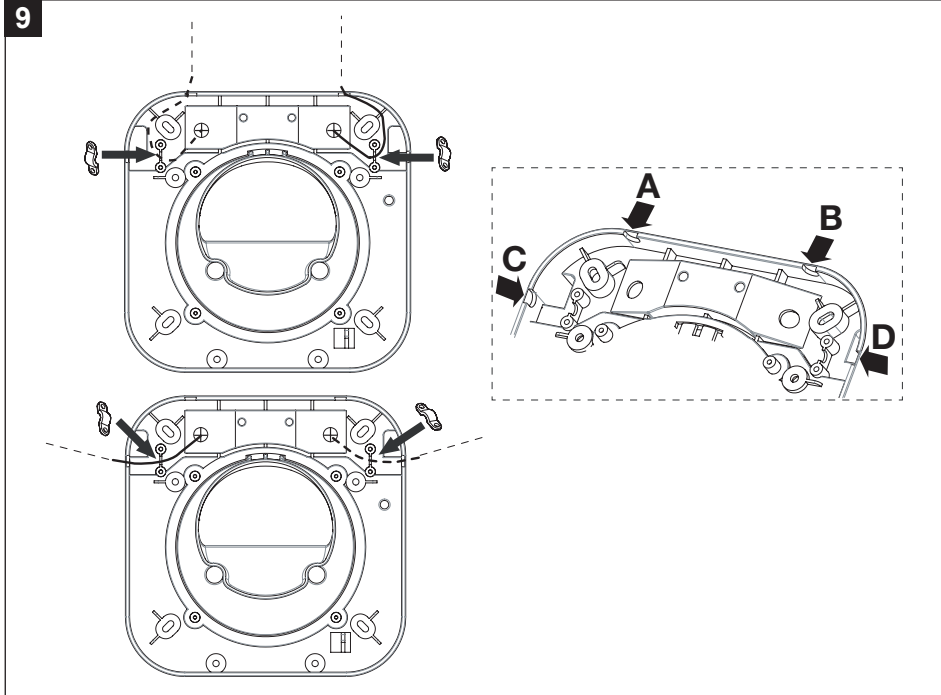
- Drill the wall at the marked points, then insert the supplied wall plugs (Fig. 8.1).



7.3 Power Cable Positioning

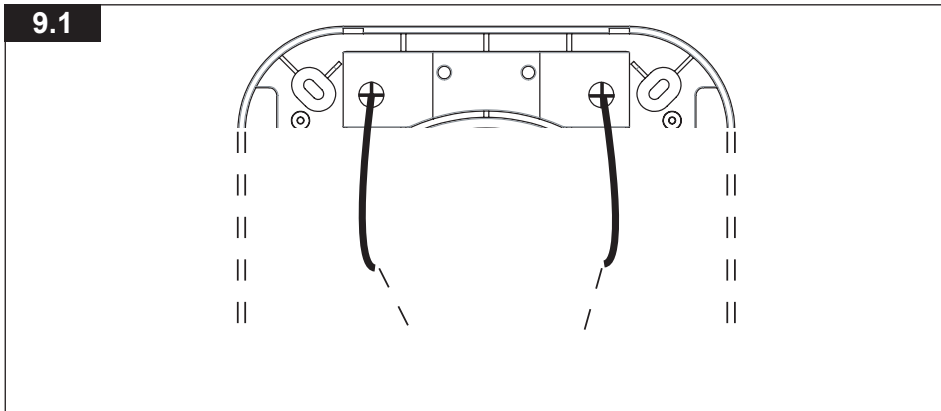
7.3.1 Wiring coming from external conduit

The device is equipped with four possible cable entry points: two at the top (A and B) and two on the sides (C and D). Select the most suitable entry point based on the system configuration. Using a suitable tool, break the cable entry tab, then open the integrated cable gland and insert the power cable. Secure the cable with the supplied cable clamp (Fig. 9).



7.3.2 Wiring coming from inside the wall

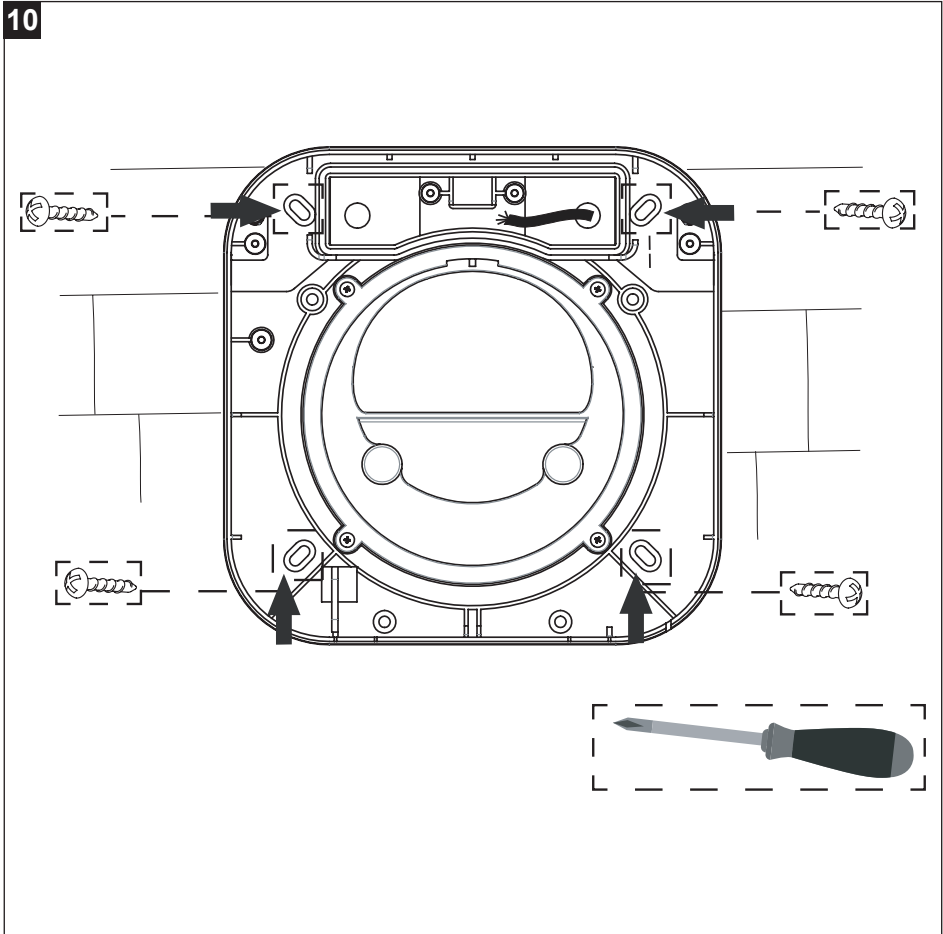
Select the most convenient entry point on the back of the device, based on the system configuration. Open the integrated cable gland and insert the power cable through the selected entry point (Fig. 9.1).



7.4 Wall Mounting

Fix the base of the product to the wall using the supplied screws, to facilitate the assembly of the remaining components (Fig. 10).

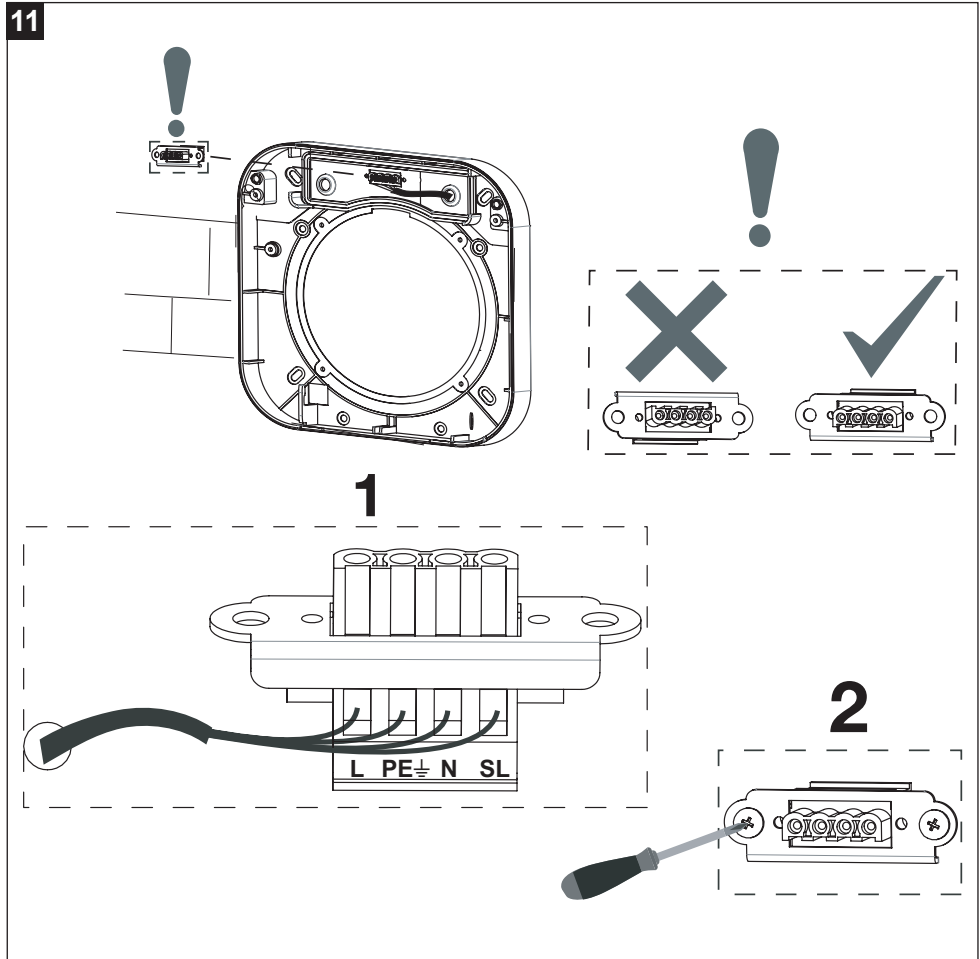
10



7.5 Connection

Connect the power cable to the terminal block according to the indicated wiring diagram (1), then proceed with reassembling the connector using the supplied screws (2) (Fig. 11).

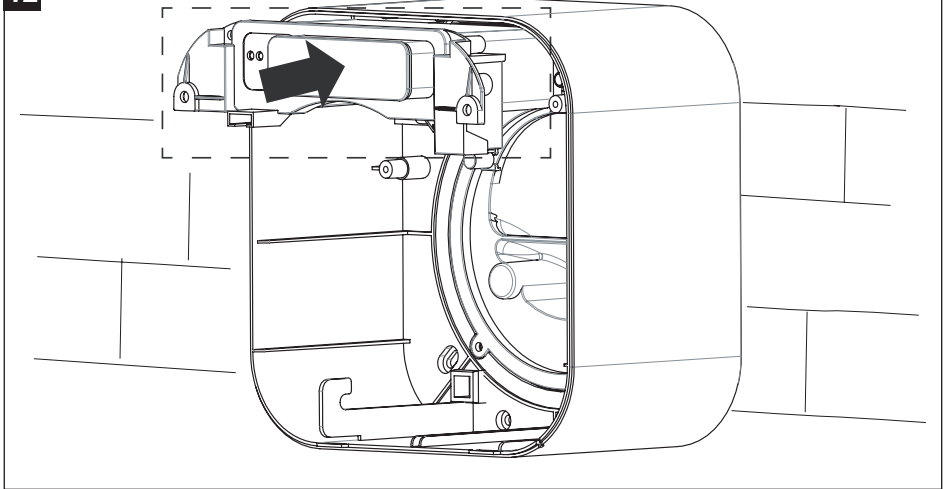
Note: Make sure that, during assembly, the terminal block is correctly oriented (Fig. 11).



7.6 Product Assembly Completion

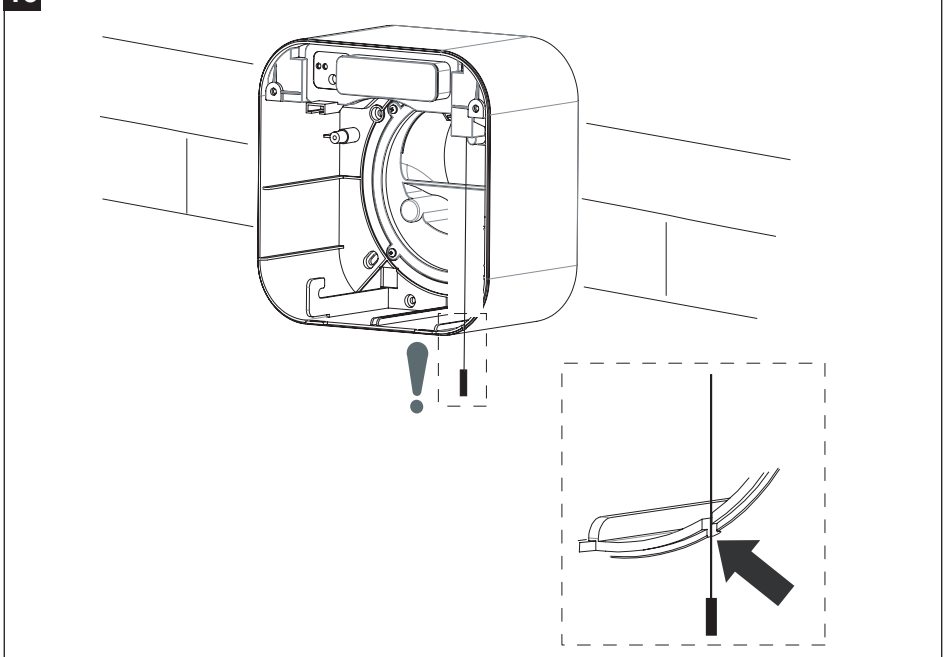
- Proceed with the completion of the assembly by carefully repositioning all previously removed components, following the sequence shown in the images below:

12

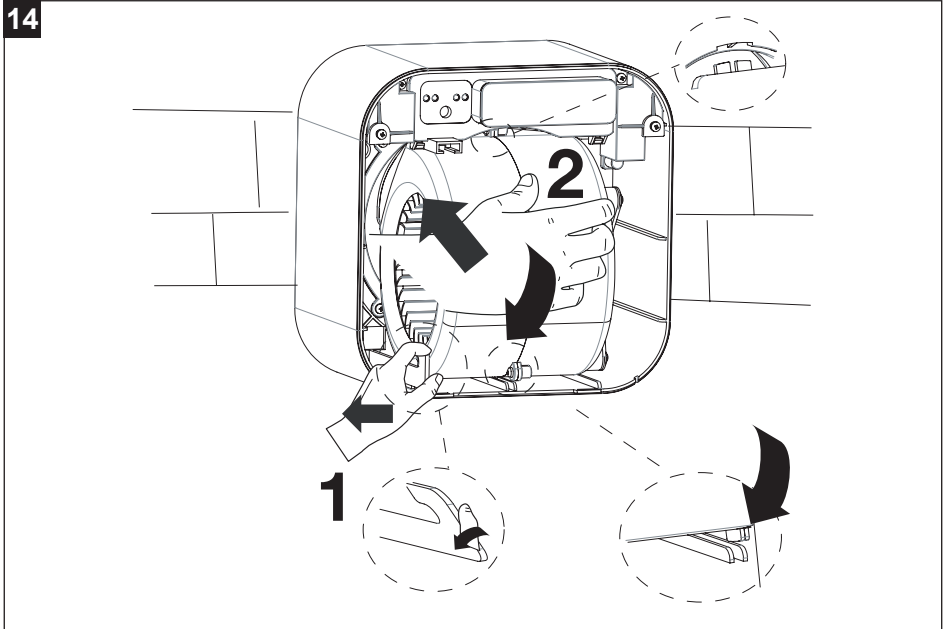


Note: Before proceeding with the assembly, make sure that the Pull-cord switch string is correctly inserted into its designated slot (Fig. 13).

13

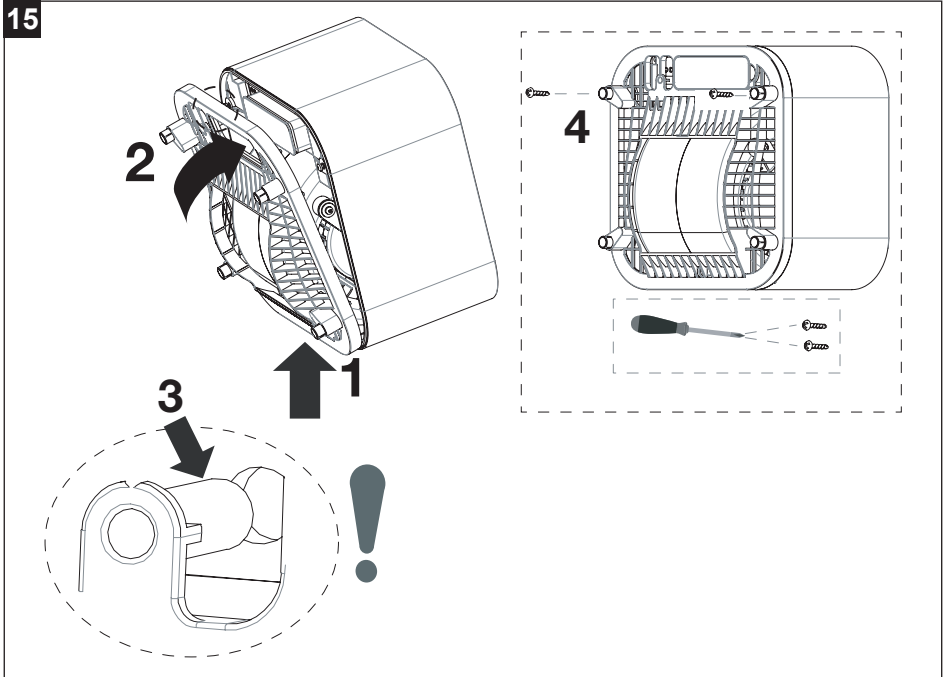


14

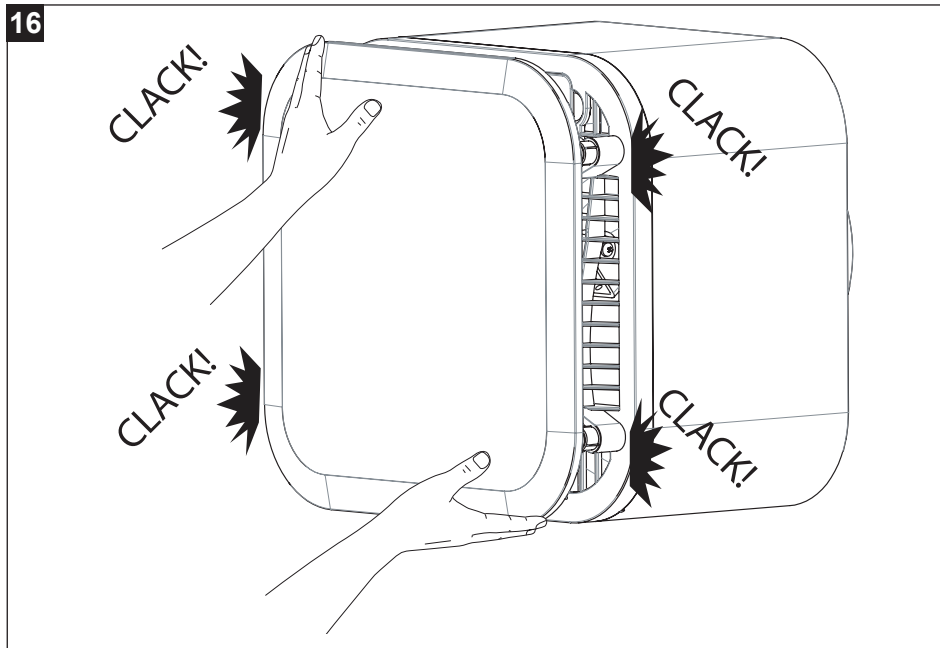


Note : Make sure the safety magnet (3) is correctly inserted into the PCB Box hole to restore the product's power supply. Then, tighten the two upper screws (4) to complete the fastening (Fig. 15).

15



16

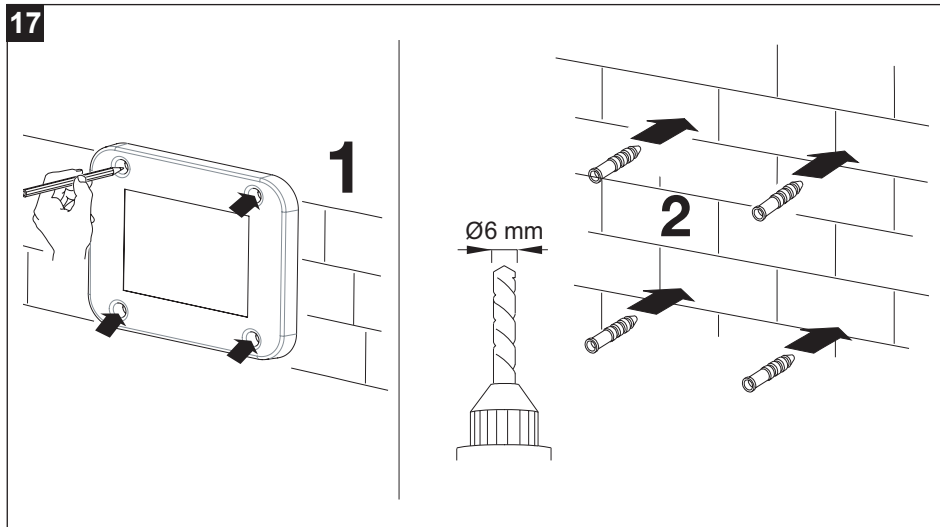


7.7 Installation of 230-24 V (SELV) transformer box

For the SELV version, proceed with the installation of the transformer box as follows:

- Place the box against the wall and, using a pencil, mark the fastening points (1).
- Drill the wall at the marked points; then insert the supplied wall plugs (2) (Fig. 17).

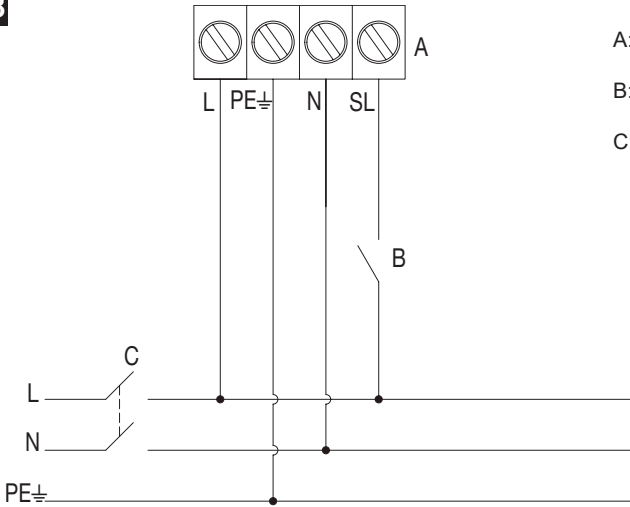
17



8 Wiring diagrams

F4L

18



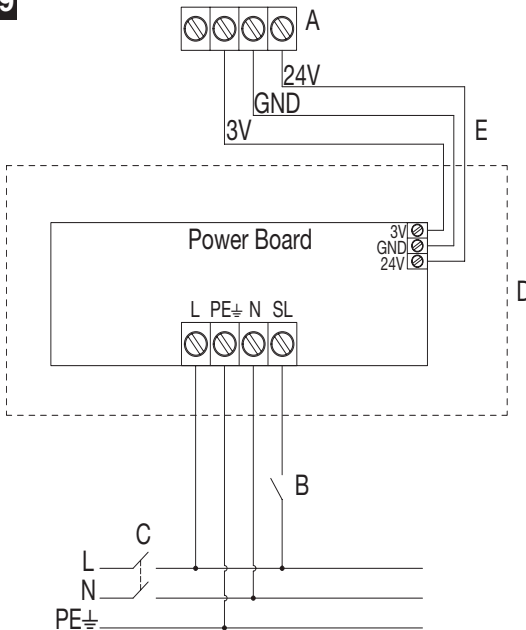
A: Main terminal block

B: Remote switch

C: Main bipolar switch

F4L-SELV

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A: Main terminal block

B: Remote switch

C: Main bipolar switch

D: SELV box

E: Three-core connection cable:

Cable length – Cable size:

Up to 2m – 0.75 mm²

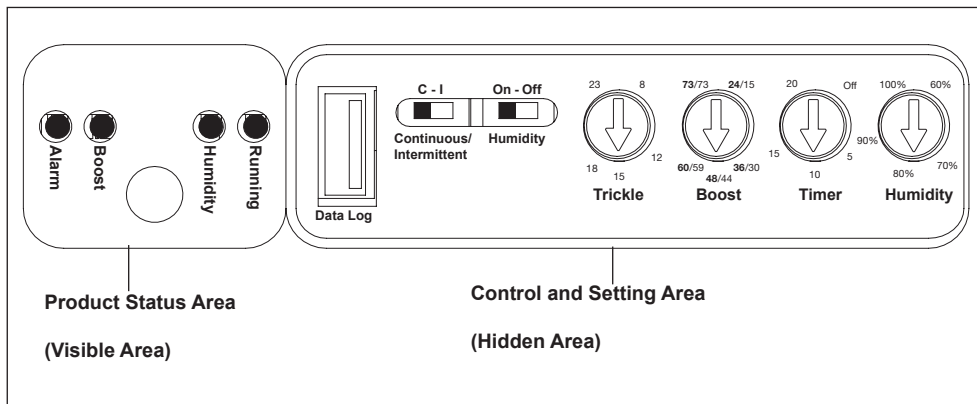
Up to 4m – 1.0 mm²

Up to 6m – 1.0 mm²

(Max) Up to 10m – 1.5 mm²

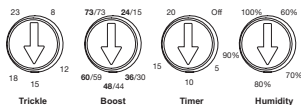
9 Operation and Adjustment

9.1 Interface



9.2 Default Factory Settings

- Continuous Mode: Enabled (C)
- Humidity Switch: Enabled (On)
- Potentiometers: All factory-set to mid-range (central position)



9.3 Panel Areas

- **Status Area (visible):** LED, indications of the product's operating status and any alarm signals.
- **Control and Setting Area (hidden):** contains switches and potentiometers. This area is protected by a rubber cap that must be removed to access the configuration controls.

9.3.1 Status Area

The panel includes the following LED indicators:

• ALARM (red):

The red color indicates a system anomaly. It is activated in the following cases:

- 1 flash every 3 seconds → Fault in the internal humidity and temperature sensor
- 2 flashes every 3 seconds → Fault in the magnetic switch
- 3 flashes every 3 seconds → Possible fault in the external CO₂ sensor
- 6 flashes every 3 seconds → Faulty motor fan

Note: the remote CO₂ sensor is not included; available as an optional upon request.

- **BOOST (green)**
- **HUMIDITY (green)**
- **RUNNING (green)**

The green color indicates that the corresponding function is active.

9.3.2 Operating Switches

The panel is equipped with two switches (Dip Switch):

- **C/I:** Selection of Continuous or Intermittent operation.
- **ON/OFF (Humidity):** Activation / deactivation of automatic control based on detected humidity level.

9.3.3 Potentiometers

- **TRICKLE:** Adjustment of airflow in continuous mode (Continuous).
- **BOOST:** Adjustment of airflow in Boost mode (Continuous / Intermittent).
- **TIMER:** Adjustment of the Boost Function Deactivation Time.
- **HUMIDITY:** Adjustment of the humidity threshold for product activation (Continuous).

9.3.4 Data Log

Built-in USB port for downloading data logging files and updating product firmware.

9.3.5 Use of the USB stick

- **Data Download:** When a USB stick is inserted into the Data Logger port for data download, all LEDs flash during the transfer procedure. Once the upload is complete, the 4 LEDs stop flashing and the user can remove the USB stick.

Note: Before starting the data download, make sure the USB stick is completely empty. If firmware update files (e.g., .bin file) are present, they must be removed before proceeding.

- **Firmware update:** When a USB stick is inserted into the Data Logger port for firmware update, the green LEDs flash during the procedure. Once the update is complete, the 3 LEDs stop flashing and the user can remove the USB stick.

9.4 Continuous/Intermittent Mode Operation

Continuous Mode (Continuous)

- The device delivers a continuous airflow defined by the position of the Trickle potentiometer. Activating the Pull-cord (via string) or the external remote switch will activate Boost mode. On de-activating the Boost mode the overrun timer runs for the value set on the Timer potentiometer. Then, the product will automatically return to the previously set Trickle mode.

Intermittent Mode (Intermittent)

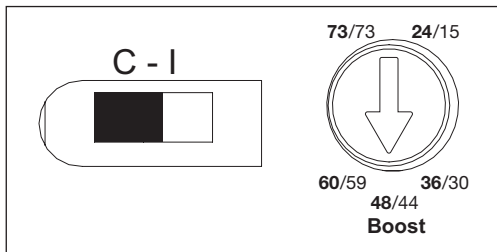
- The device normally remains in Standby mode and operates only upon command, by activating the Pull-cord (via string) or the external remote switch. The delivered airflow rate will be defined by the position of the Boost potentiometer. On de-activating the Pull-cord or the external remote switch the overrun timer runs for the value set on the Timer potentiometer. Then, the product will automatically return to Standby mode.

Airflow Adjustment

The airflow is adjustable via two dedicated potentiometers: **Trickle and Boost**.

- In continuous mode (**Trickle**), the airflow can be set between 8 and 23 l/s (*28,8 and 82,8 m³/h*).
- In **Boost** mode, two different adjustment ranges are available depending on the selected operating mode:
 - Continuous Mode: values on the left (**bold**), airflow range between 24 and 73 l/s (*86.4 and 262.8 m³/h*)

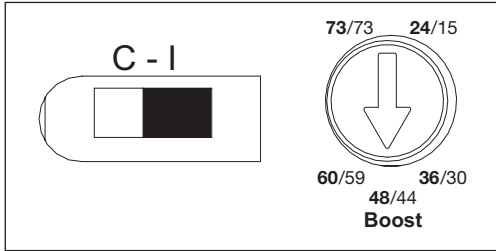
Internal scale: 24 to 73 l/s



ENGLISH

- Intermittent Mode: values on the right, airflow range between 15 and 73 l/s (54 and 262.8 m³/h)

External scale: 15 to 73 l/s



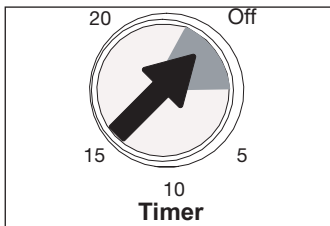
Note: The airflow values indicated on the product refer to an installation (on wall or window) with direct air expulsion to the outside. If the exhaust is not direct but conveyed through bends or long ducts that generate additional resistance to the airflow, it is essential to verify and adjust the actual airflow. The verification must be carried out using a certified measuring instrument (e.g., anemometer). This operation is essential to ensure optimal system performance and compliance with the ventilation requirements established by current regulations.

9.5 Timer

The timer allows ventilation to remain active for a predefined period after the function is turned off via Pull-Cord or external remote switch.

- Adjustment range: from 1 to 20 minutes in continuous mode.
- Activation mode: via Pull-cord or external remote switch (e.g., connected to the bathroom light switch).
- Timer Off: timer function disabled.

Note: The OFF position of the Timer corresponds to the end stop of the adjustment knob. However, there is an inactivity zone (dead zone), shown in grey in the figure below, within which the Timer remains set to OFF. The minimum operational setting value of the Timer is approximately 1 minute.



9.6 Humidity Control Operation (Humidity = ON)

Note: This function is available only in Continuous mode (Continuous)

If activated, the system continuously monitors the relative humidity level in the environment. Based on the set threshold value, the device will operate as indicated in the following table:

Relative Humidity Value (RH)	
0%	In this humidity range (RH < 60%), the automatic humidity control is not active. The device's operating speed is set using the Trickle potentiometer.
10%	
20%	
30%	
40%	
50%	
60%	In this humidity range (RH > 60%) the automatic control is active; the system automatically adjusts the operating speed. If the ambient humidity value exceeds the set threshold, the product speed will double compared to the one selected via the Trickle potentiometer.
70%	
80%	
90%	
100%	Below the RH threshold value, the device will automatically restore the previously set Trickle speed.

10 Maintenance and Cleaning



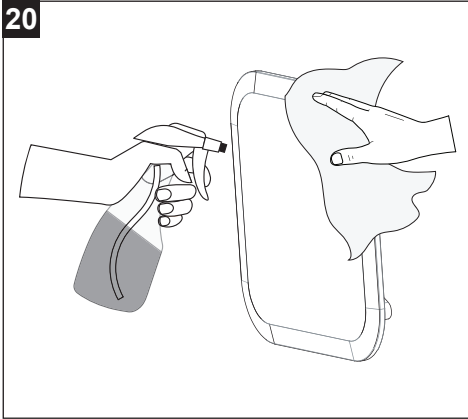
REQUIREMENT

- Make sure the product is disconnected from the power supply before removing the front grille.

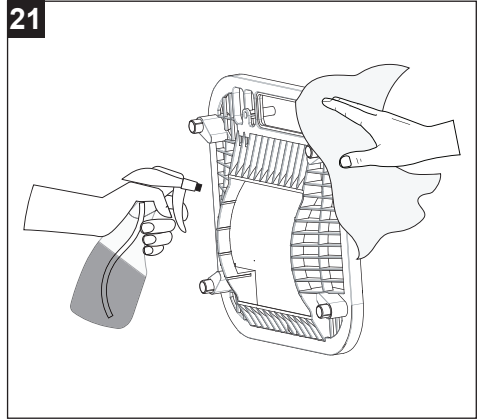
10.1 Front panel, grille, and main body

Use a soft cloth dampened with warm water or a mild, non-aggressive detergent.

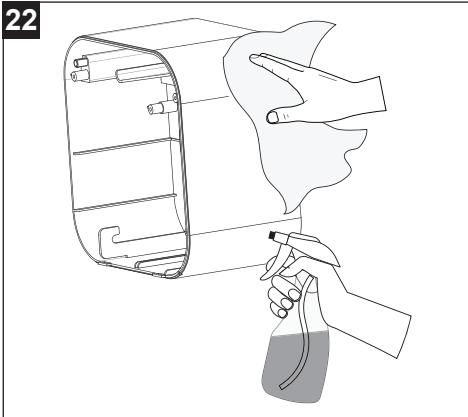
20



21



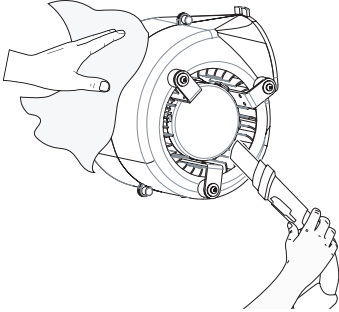
22



10.2 Fan unit

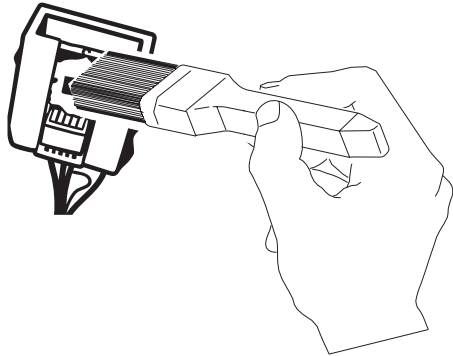
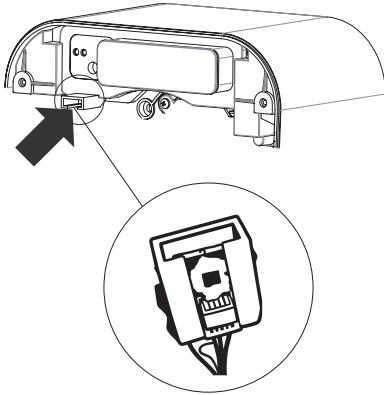
It can be cleaned after being removed from the product (See Fig. 5). Use a cloth dampened with a mild, non-aggressive detergent for the external surfaces of the scroll. The impeller can be cleaned with a vacuum cleaner, removing dust and debris.

Note: Never immerse the fan unit in water.

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10.3 Humidity Sensor

Remove dust using a brush to ensure accurate humidity detection (Fig. 24).

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11 Disposal

This product complies with Directive 2012/19/EU on the management of waste electrical and electronic equipment (WEEE).

The crossed-out wheeled bin symbol on the appliance indicates that, at the end of its life, the product should not be discarded together with household waste but must be taken to a separate collection point for electrical and electronic equipment. This will avoid negative effects on the environment and health, and will encourage correct treatment, disposal and recycling of the materials from which the product is made.



Contact the municipal authority for the location of this type of facility. Alternatively, the distributor is obliged to take back the appliance to be disposed of free of charge in exchange for the purchase of an equivalent appliance.

WARRANTY

5.199.084.226

Thanks for choosing a VORTICE product.

This unit is covered by a 10-year warranty applicable only to products installed and used in the United Kingdom (UK) and Republic of Ireland.

The warranty starts from the date of purchase of the products which must be proved by the purchaser by means of a suitable fiscal document issued by the seller (receipt or invoice), indicating the date of purchase and the product model purchased.

This warranty covers any defect or break down that arises due to faulty materials or construction, provided the unit was correctly installed and operated according to the instruction manual.

Any defects and/or failures arising from:

- a. normal wear and tear of the product or its components.
- b. incorrect or improper use of the product, contrary to the instructions and warnings provided by VORTICE.
- c. installation of the product contrary to the instructions provided by VORTICE or in any case contrary to the latest standards in force for the installation of electrical products.
- d. incorrect connection to the power supply network or power supply voltage different from that envisaged for the appliance, or different from the limit established by the CEI standard (+/- 10% of the nominal value).
- e. incorrect and/or deficient maintenance and/or maintenance carried out contrary to the instructions provided by VORTICE.
- f. maintenance and/or other interventions carried out by unauthorised personnel or by persons not authorised by VORTICE.
- g. failures resulting from incorrect transport or storage conditions of the product not attributable to VORTICE;
- h. tampering and modification of the product by a party other than VORTICE or not expressly authorised by the latter in writing.

are excluded from this warranty.

Please see here your unit serial number:

PACKAGED	-	TESTED
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To claim under terms of warranty please contact:

Technical Support: technical@vortice.ltd.uk

VORTICE LIMITED

Beeches House
Eastern Avenue
Burton on Trent
DE13 0BB

Tel: +44 (0) 1283 492949

Fax: +44 (0) 1283 544121

Providing a receipt as proof of purchase indicating date and name of the seller together with this page containing the serial number of the product.



VORTICE S.p.A. si riserva il diritto di apportare tutte le varianti migliorative ai prodotti in corso di vendita.
VORTICE S.p.A. reserves the right to make improvements to products at any time and without prior notice.
VORTICE S.p.A. se réserve le droit d'apporter toutes les variations afin d'améliorer ses produits en cours de commercialisation.
VORTICE S.p.A. behält sich vor, alle eventuellen Verbesserungsänderungen an den Produkten des Verkaufsangebots vorzunehmen.
VORTICE S.p.A. se reserva el derecho a hacer cambios en los productos para su mejora en cualquier momento sin previo aviso.
VORTICE S.p.A. 公司 股份有限公司 保留在产品销售期间进行产品改良的权利。

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