

SERIES 5422M

MORE VMC SPOT

ALTERNATING FLOW HEAT RECOVERY UNIT
WITH INFRARED REMOTE CONTROL



Installation, use and
maintenance manual

SERIES 5422M
MORE VMC SPOT

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1. INTRODUCTION

1.1 PRECAUTIONS

This product is artistically made in conformity to applicable CEE rules and is manufactured to allow rooms and similar air change, wherever the product is installed. Please follow all these indication to ensure performance, mechanical and electrical reliability and keep always this instruction leaflet. Do not use this product for different application unless indicated by us.

1. Remove packing and make sure that the appliance is undamaged.
2. Check that your electrical voltage and frequency correspond to those marked on the fan rating label; Install the product so that the blades are at a height of at least 2,3 m above the floor.
3. This appliance must only be used for the purpose it was built for, i.e. air replacement for domestic and similar purposes.
4. Do not operate the appliance in the presence of inflammable vapours (alcohol, petrol, etc.).
5. Before carrying out any cleaning or maintenance disconnect the mains electrical supply to the fan by means of a double pole switch or remove the plug. Any maintenance and cleaning operation that requires dismantling the unit must only be done by someone who is a property qualified person.
6. Make sure you have completely assembled the product before running.
7. Periodically, at least once a year or more frequently in case of heavy use, remove dirt and incrustation from the impeller and motor casing and, if necessary, clean or replace the filter. It is also very important to make sure the impeller is not deformed or cracked, is able to rotate freely and without oscillation, and is properly fixed to the shaft.
8. When the appliance is out of use, remove the power lead. Moreover, make potentially dangerous parts harmless, especially with regard to children who might play with appliance when it is not in use.
9. Installation must be carried out by qualified personnel according to manufacturer's instructions. Incorrect installation can cause damage to people, animals or properties for which the manufacturer cannot be considered liable.
10. The fan is a fixed appliance and the main supply must be done by flexible cable with plug or by a onnipolar switch with a minimum opening of the contacts of 3 mm.
11. When installing the fan in a room containing a combustion heater ensure that there is sufficient air to supply both appliances. This is to ensure the efficient operation of the heater and to allow a proper operation of the fan. The fan must discharge into a single fume pipe or directly outside.
12. 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.

1.2 INTENDED USE

The product is artistically made and it is installed to allow a constant air exchange inside the room. The recovery system can be generally installed in residential or public places.

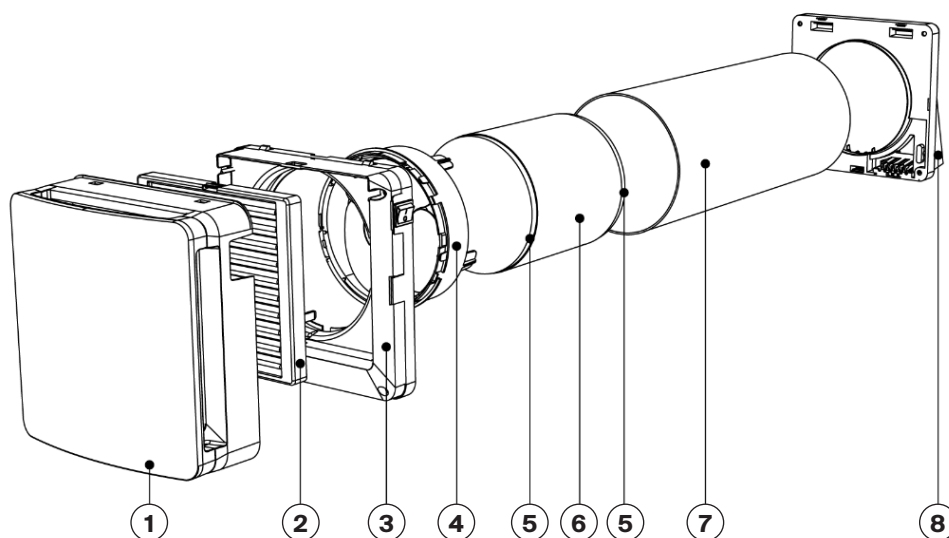
The product is supplied with a ceramic heat exchanger that accumulates heat during the extraction of hot air coming from the room while, during the air intake from the outside, the device transfers to the inlet cold air, the thermal energy stored in the heat exchanger.

The product is designed for wall installation. The duct containing the heat exchanger is supplied for walls with a maximum thickness of 500mm; the duct can be shortened to a minimum of 250mm.

The extracted or incoming air must not contain inflammable or explosive mixtures, chemical vapors, dusts, oils and other pathogenic substances in general.

1.3 PRODUCT OVERVIEW

The product is composed of a main unit with front tilting panel to be placed inside the room, a recessed duct that contains the ceramic heat exchanger and filters and an external soundproof grille.



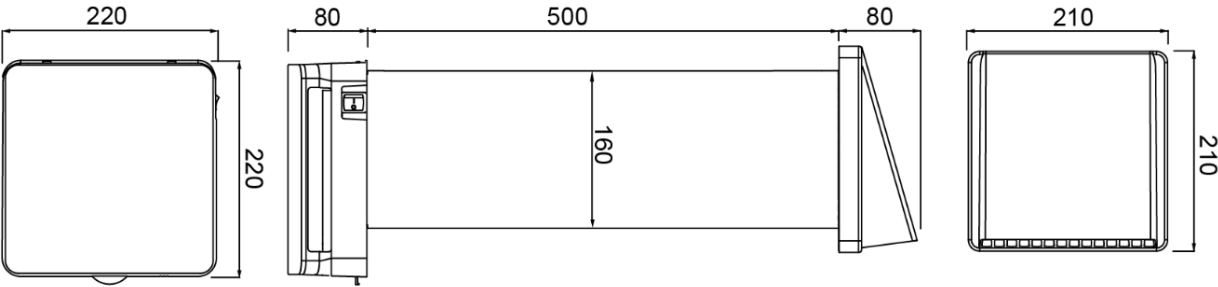
MORE VMC SPOT

- ① Cover
- ② Shutter
- ③ Main unit
- ④ Motor-impeller
- ⑤ Motor-impeller
- ⑥ Caps for recessed duct
- ⑦ 500mm recessed duct
- ⑧ External grille

1.4 TECHNICAL DATA

The heat recovery system is categorized as a class II product with IPX4 protection degree.
The heat recovery system is projected for indoor installations with working temperatures between -30 °C and +50 °C.
The design of the heat recovery system is in continuous evolution; therefore, some models may differ from those described in this manual.

DIMENSIONS (mm) MORE VMC SPOT



TECHNICAL PARAMETERS MORE VMC SPOT

VOLTAGE AT 50HZ [V]		220-240			
MAX EFFICIENCY		93%			
SPEED	Night	1	2	3	
FLOW RATE [m³/h]	10	20	40	60	
POWER [W]	3,9	4,2	5,5	6,7	
NOISE AT 3m dB(A)	4	9	21	30	

2. INSTALLATION

2.1 INTRODUCTION

Installation must only be carried out by properly qualified person.

Make sure that the main electrical supply in the installation room is disconnected before starting the electrical operations of assembly.

The appliance must not be installed near curtains, drapes, etc. as these could compromise the correct working of the product.

Make sure that, once installed, the fan blades are placed not less than 2,30m away from the floor below to the product.

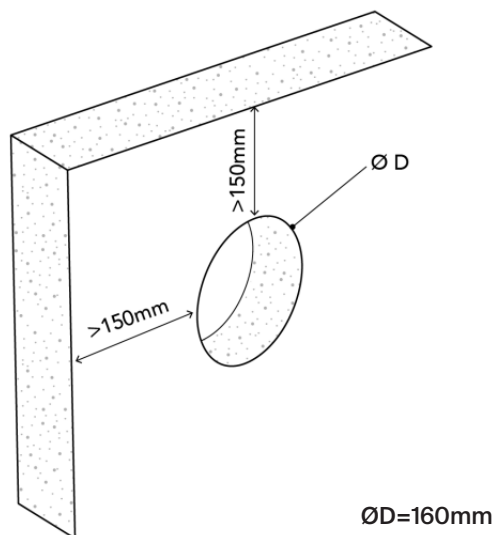
In case of installation of more than one appliance, the distance between the products must be at least 3 meters.

Before assembling or using this product, carefully read all the instructions in this manual and be sure to own all the necessary material for the installation.

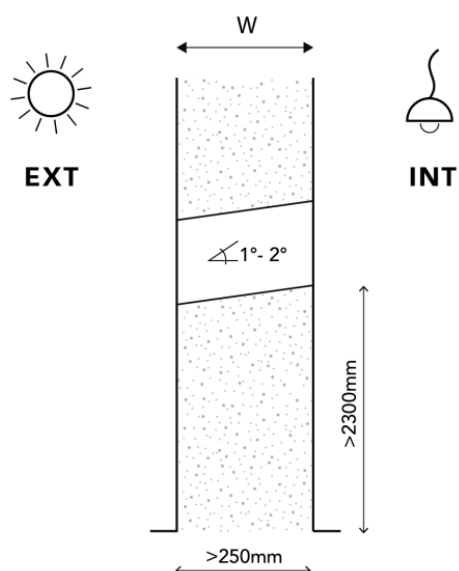
Scrupulously follow the instructions in this manual.

2.2 PREPARATION

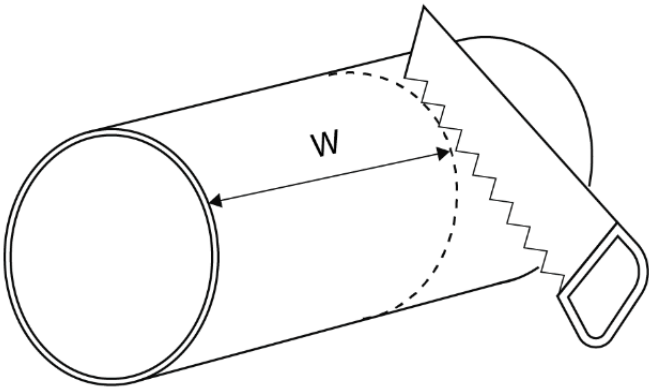
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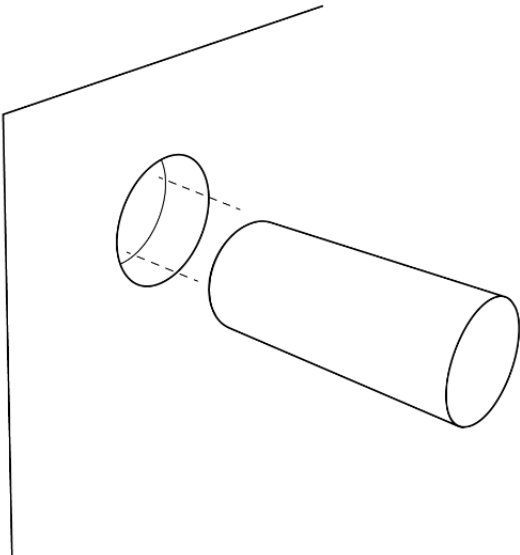
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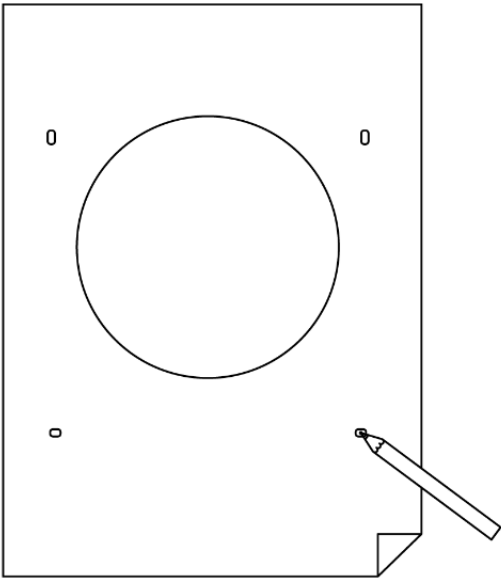
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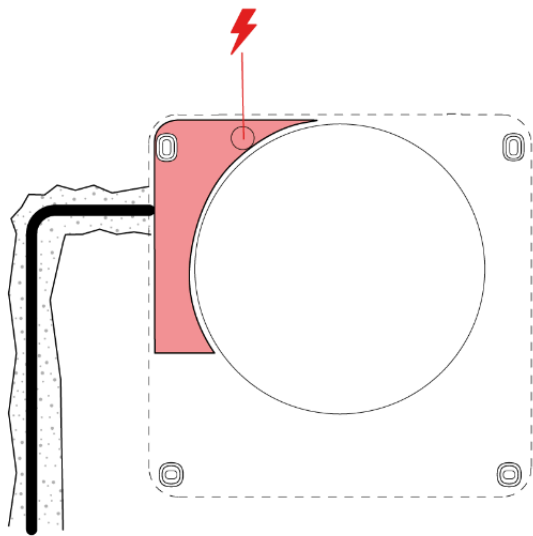
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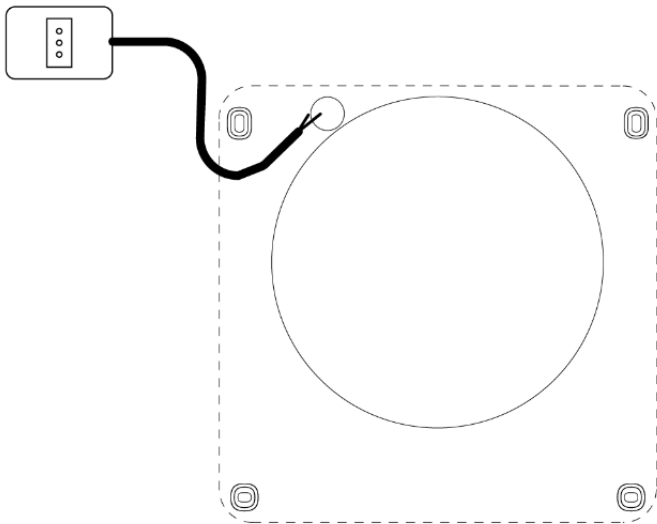
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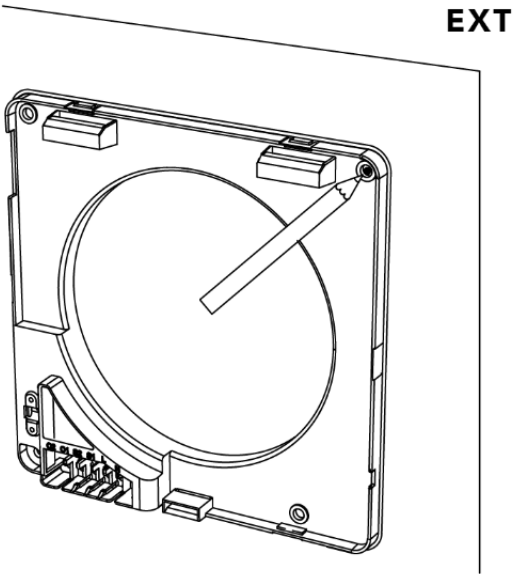


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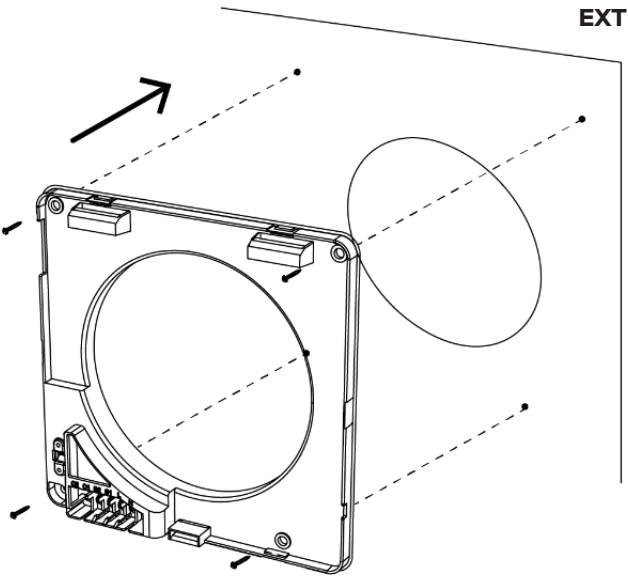


2.3 PRODUCT MOUNTING

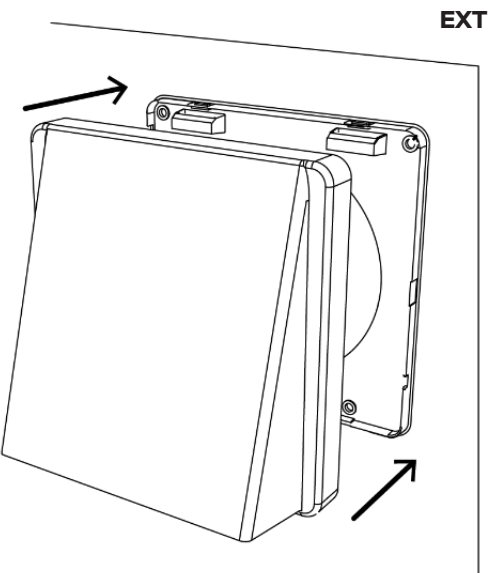
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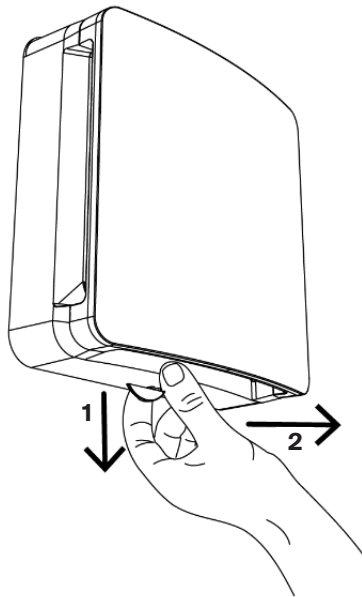
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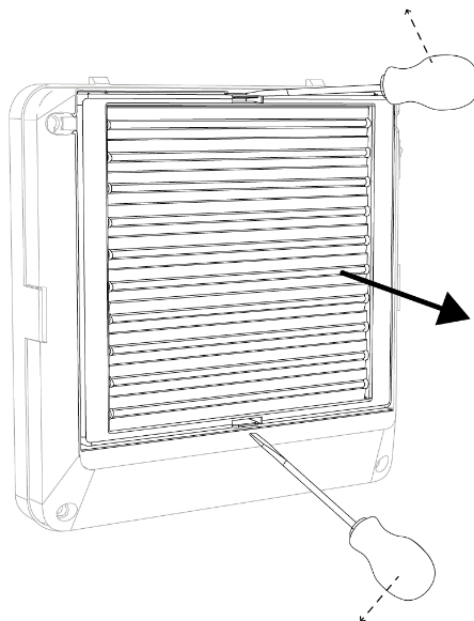
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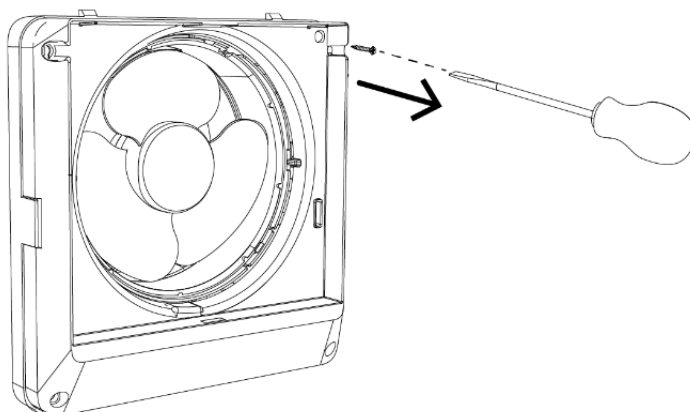
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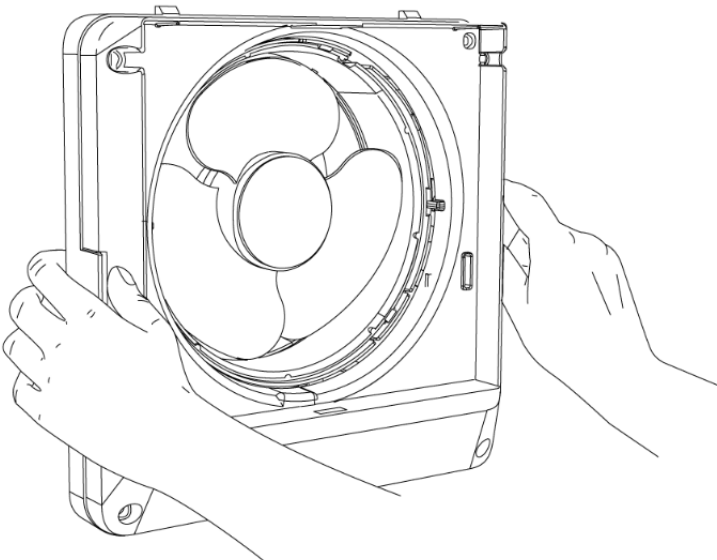
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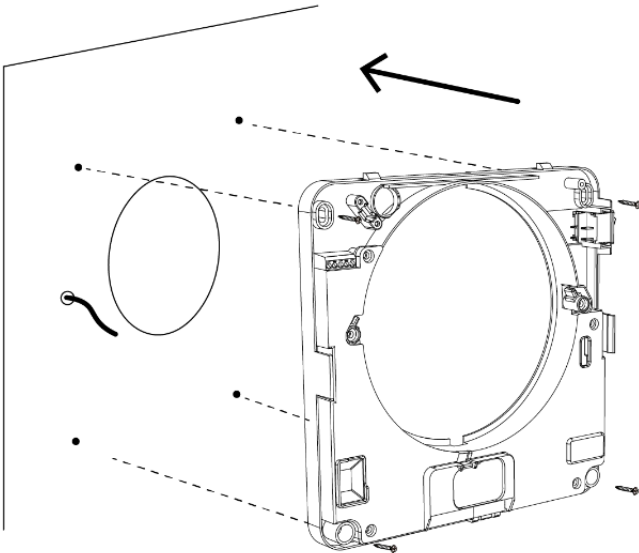
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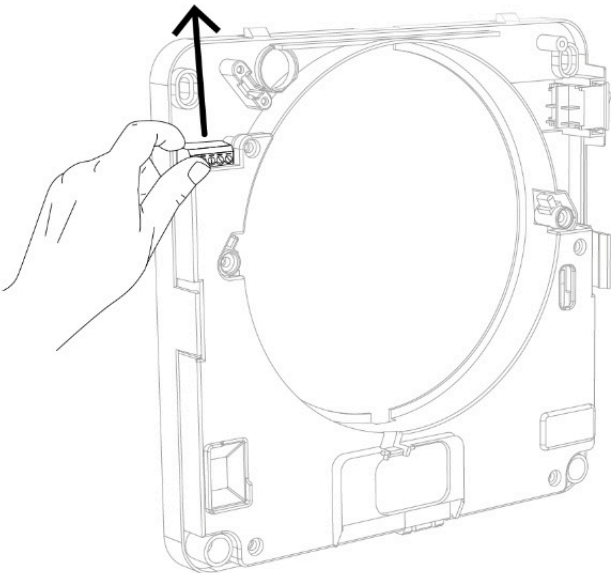
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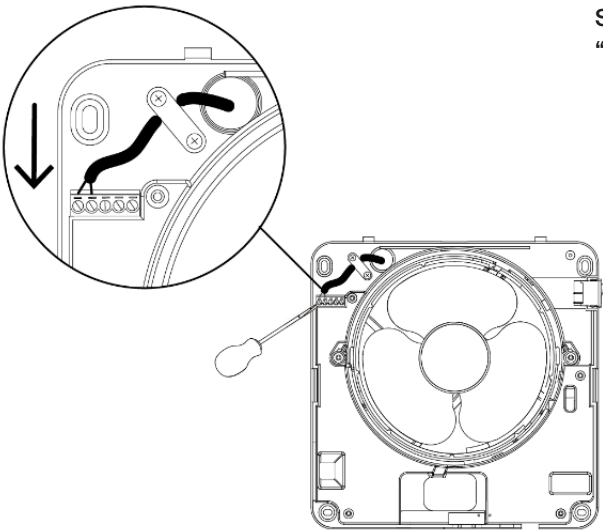


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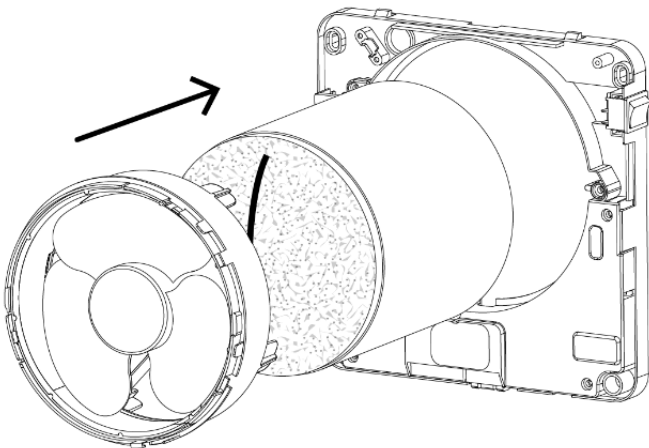


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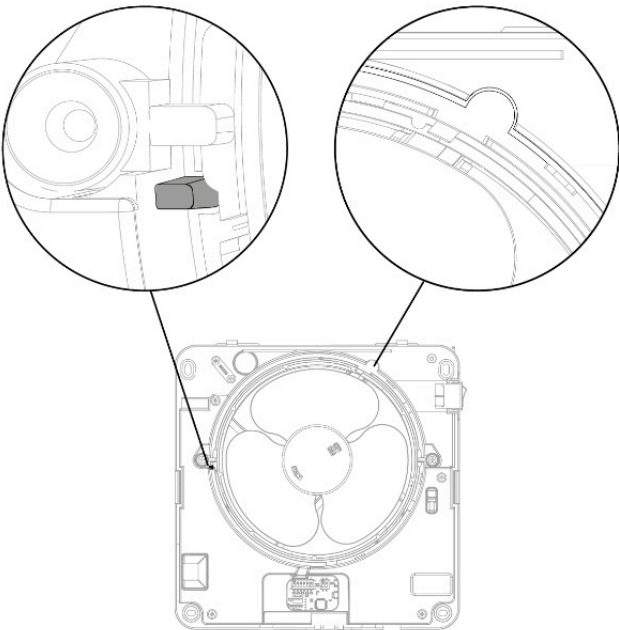
See section
“ELECTRICAL CONNECTIONS”



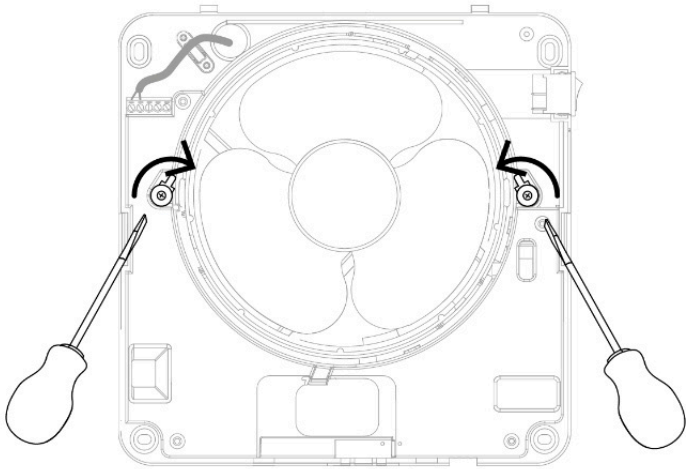
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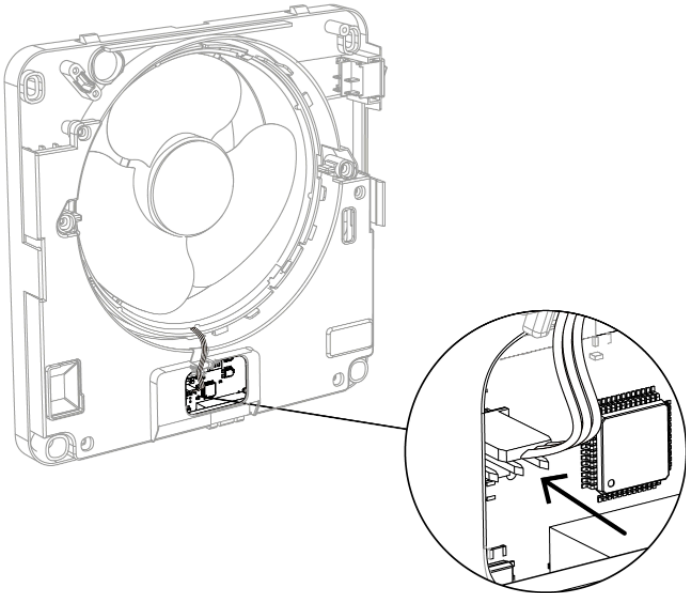
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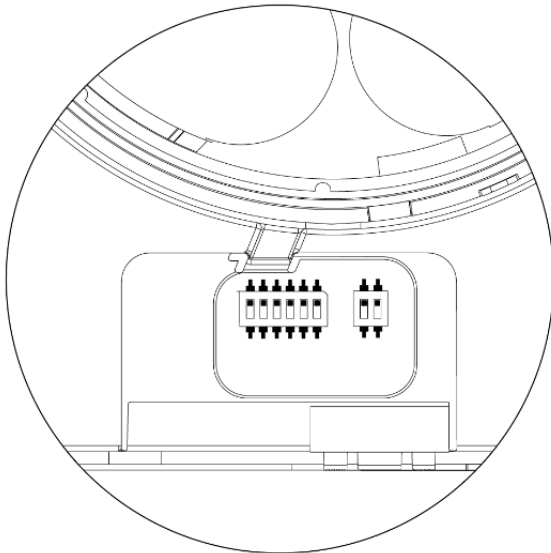
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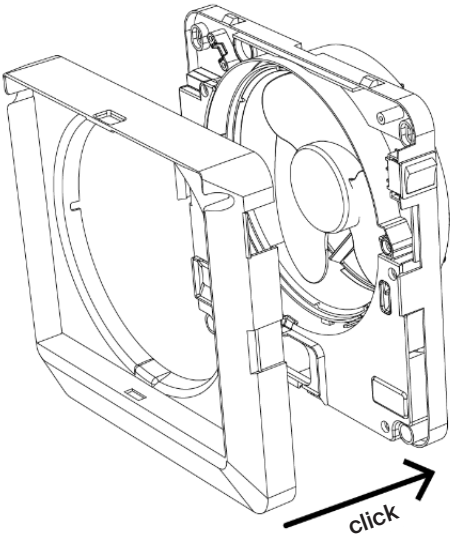


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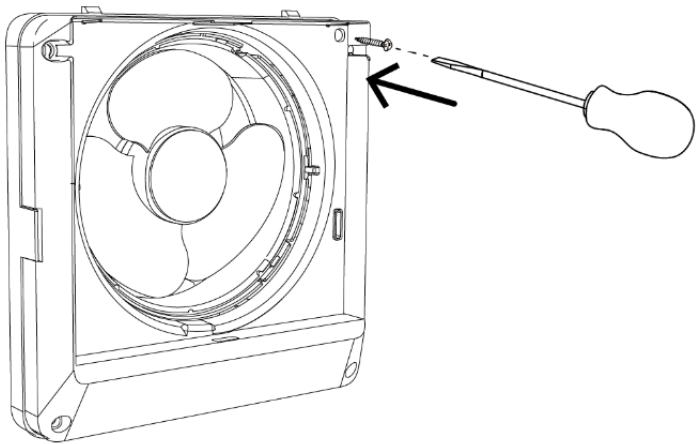


See sections
“CONFIGURATION”

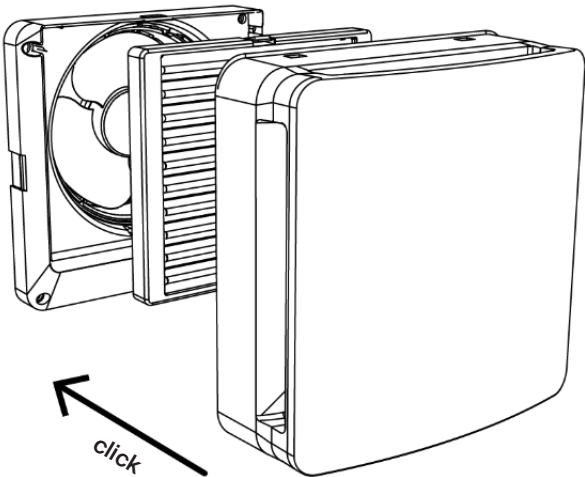
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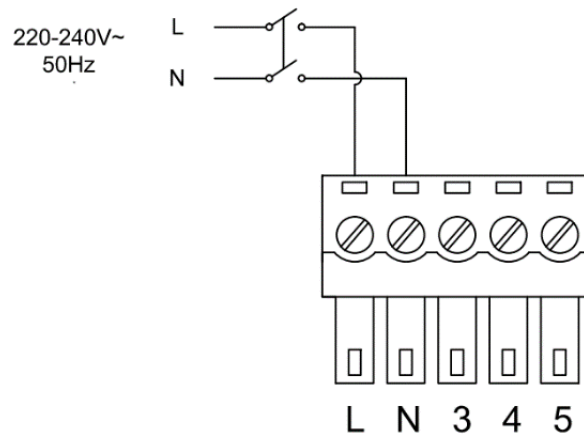


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2.4 ELECTRICAL CONNECTIONS

Single unit connection

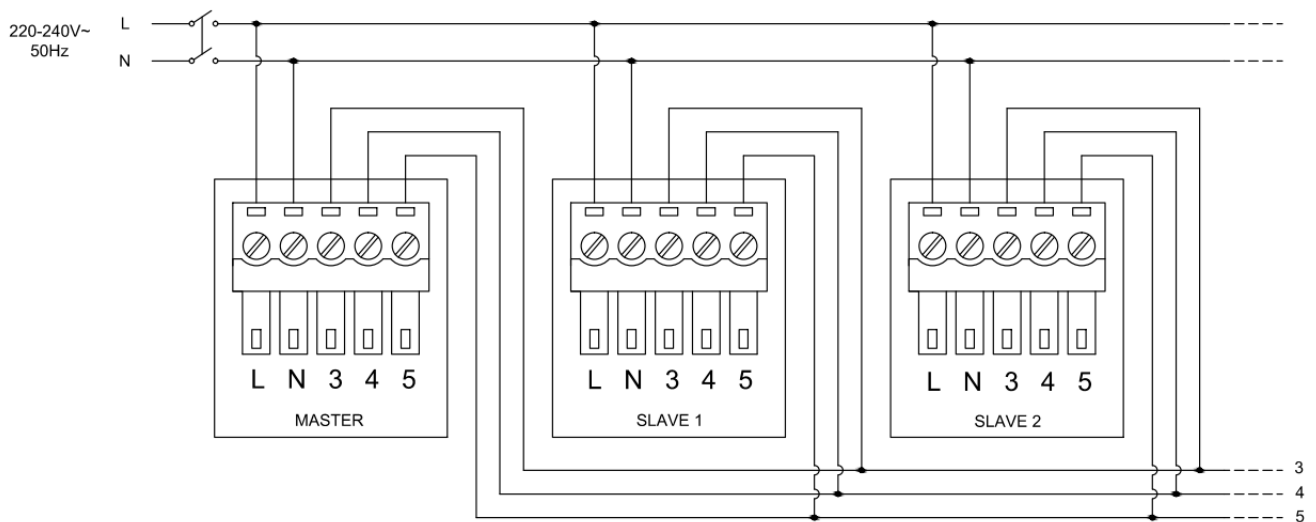


MASTER-SLAVE system connection



WARNING

during this stage all the products must have the main switch set on “0”.



WARNING

Humidity and twilight sensors will detect the values from the first unit connected.

In case of a system with long wires or with a lot of electric/electronic equipment may cause signal disturbance to use shielded cables and connect a termination resistor of 120ohm on pin 3 and 4 of the terminal block of the last SLAVE.

2.5 CONFIGURATION

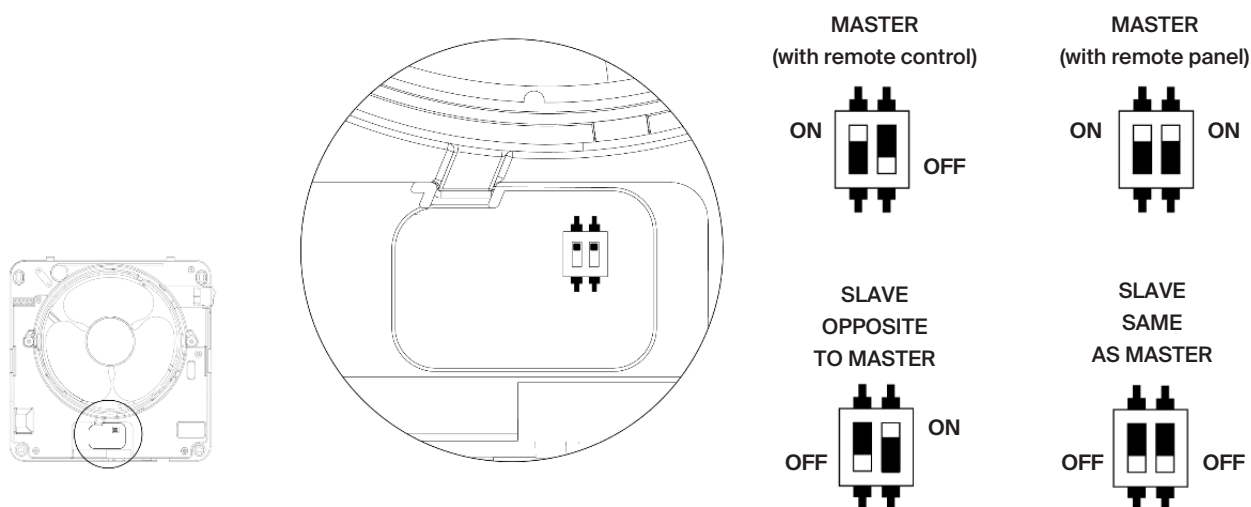
For configuration, please follow the instructions below, taking into consideration that the first unit installed will be the **MASTER** and all the others in sequence **SLAVE OPPOSITE** to **MASTER** and **SLAVE SAME AS MASTER UNIT**.



WARNING

The **MASTER** is the only unit receiving commands from control device, that will detect the ambient conditions through the sensors and thus controlling all the system.

If you have a remote panel with CO₂ sensor, the CO₂ will be detected directly by the control panel.



In case of large indoor space or systems on multi-floors, it is recommended to split the system into zones (living area-sleeping area or 1st floor-2nd floor) for easier control of the units.

2.6 CONFIGURATION RESET

ACTIVE AND WIRELESS

In case of mistakes in the configuration of the units through dip switches, both for system coding (**WIRELESS** version) and for **MASTER-SLAVE** configuration please follow the instructions:

- Switch OFF the unit through main switch
- Change the configuration of dip switches as needed
- Switch ON the unit through main switch

The unit is properly set with the new configuration.

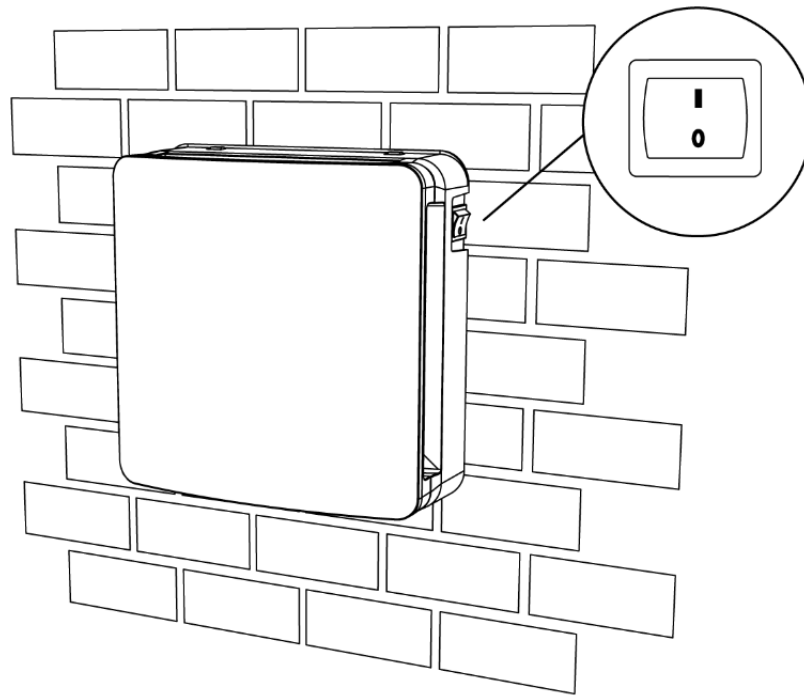


WARNING

By keeping the unit ON, no change of configuration is possible. The unit will continue to run as per previous setting.

3. INSTRUCTION FOR USE

Possible to turn ON and OFF through switch placed on the unit.



The product has three main running modes and other six modes to be selected through quick buttons.

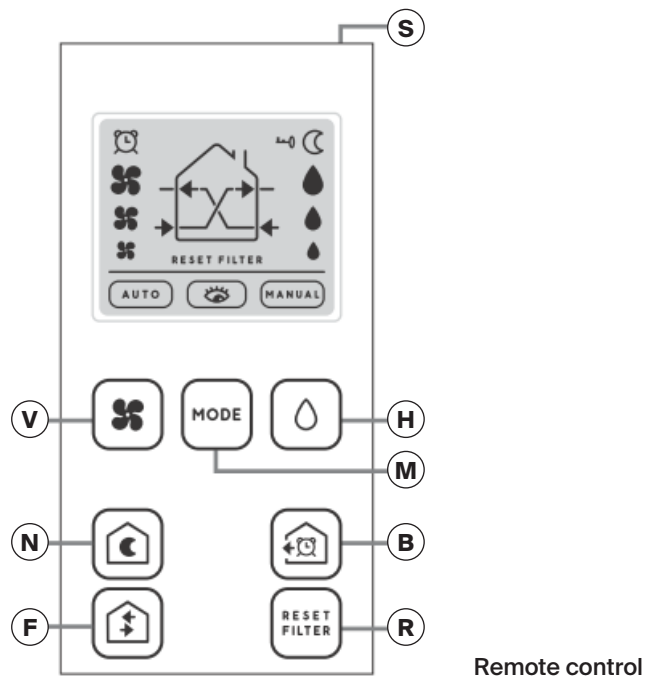
The three main modes to be selected through **MODE** button:

- **AUTOMATIC mode**
- **SURVEILLANCE mode**
- **MANUAL mode**

The six additional modes to be selected through quick buttons:

- **NIGHT mode**
- **BOOST mode**
- **MASTER-SLAVE AIR FLOW mode**
- **SLAVE-MASTER AIR FLOW mode**
- **EXTRACTION mode**
- **INTAKE mode**

BUTTONS FUNCTION LIST



WARNING (REMOTE CONTROL)

The remote control get into stand-by mode after being inactive for 60 seconds when the icon with key appears on display. To unlock press the button (S) on the upper side of the remote control.



WARNING (REMOTE PANEL)

The remote panel gets into stand-by mode after being inactive for 60 seconds. To unlock press the button (S).



WARNING

If the unit is connected to other units in the same system, only the MASTER unit will receive commands that will transfer to all the other SLAVE units connected in sequence.

AUDIO-VISUAL SIGNALS

• Command receipt

When the unit properly receives the command will make a "BIP" sound and the **LED will flash white**.

• Surveillance mode

When the product is in surveillance mode the **red LED** blinks every 60sec.

• Humidity alarm

When the unit gets into humidity alarm the **red LED** will light up fixed.

• Filter Alarm

When the unit gets into filter alarm the **red LED** will blink every second.

If you have a remote panel, humidity alarm and CO₂ alarm (only for CO₂ version) will be shown only on the remote panel display.

**WARNING**

When turning on the unit the first time and when passing from stand-by or switch OFF to switch ON, the tilting front cover will take 40 seconds to open.

**NOTE**

The meaning of “heat recovery operation” corresponds to standard operation of the product i.e. 70 seconds in extraction and 70 seconds in intake reversing the cycle with open tilting front cover.

AUTOMATIC MODE

To get into this mode, repeatedly press the button **MODE (M)** to see the image below on display.

When pressing **MODE** button the mode will change in the sequence (AUTO, SURVEILLANCE, MANUAL, AUTO, SURVEILLANCE...).

In this mode the **HUMIDITY button (H)** is active to select the desired threshold.

In this mode both humidity and twilight sensors are active, the units will run by themselves without the need to give commands.

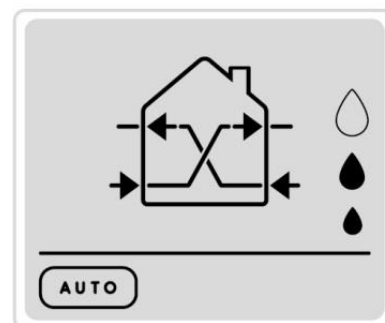
Hereinafter explaining how the units run in different situations with related operating mode:

- In standard humidity (or CO₂*) conditions during the day the units run at the medium speed and with heat recovery.
- In standard humidity (or CO₂*) conditions during the night the units run at the minimum speed and with heat recovery.
- In case of humidity (or CO₂*) alarm during the day the units run in extraction at the medium speed.
- In case of humidity (or CO₂*) alarm during the night the units run in extraction at the night speed.

The units get into humidity alarm when the **MASTER** unit detects in the room a humidity level higher than the set threshold among the three values available (40%, 60%, 90%).

Advice for use

Recommended mode during standard use of product; once the humidity level is set, the system will run by itself without the need of any further action.



Remote control

* The CO₂ value will be detected only if you have a control panel with an integrated CO₂ sensor.

SURVEILLANCE MODE

To get into this mode, repeatedly press the button **MODE (M)** to see the image below on display. When pressing **MODE** button the mode will change in the sequence (AUTO, SURVEILLANCE, MANUAL, AUTO, SURVEILLANCE...).

In this mode the **HUMIDITY button (H)** is active to select the desired threshold.

In this mode both humidity and twilight sensors are active, the units will be normally in stand-by with front panel closed, so that when the humidity level in the room exceeds the set threshold the units start running in extraction.

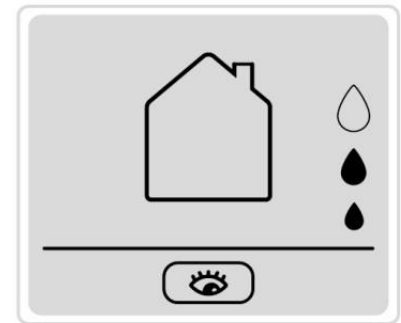
Hereinafter explaining how the units run in different situations with related operating mode:

- In standard humidity (or CO₂*) conditions the units are in stand-by with the front panel closed and the sensors active.
- In case of humidity (or CO₂*) alarm conditions during the day the units run in extraction at the medium speed.
- In case of humidity (or CO₂*) alarm conditions during the night the units run in extraction at the night speed.

The units get into humidity alarm when the **MASTER** unit detects in the room a humidity level higher than the set threshold among the three values available (40%, 60%, 90%).

Advice for use

Recommended mode when heat recovery is not needed but essential to have a proper ventilation in the room because of humidity (or CO₂). Typical use in holiday homes since heat recovery is not needed and just a proper ventilation is essential to prevent air stagnation in the premises.



Remote control

* The CO₂ value will be detected only if you have a control panel with an integrated CO₂ sensor.

MANUAL MODE

To get into this mode, repeatedly press the button **MODE (M)** to see the image below on display.

When pressing **MODE** button the mode will change in the sequence (AUTO, SURVEILLANCE, MANUAL, AUTO, SURVEILLANCE...).

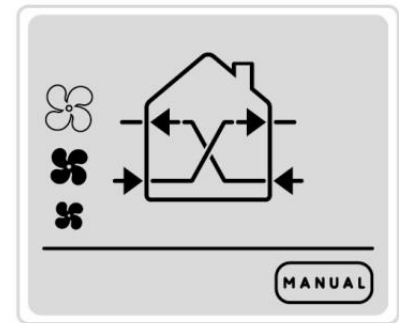
In this mode the **IMPELLER button (V)** is active to select the desired speed.

In this mode the sensors are disabled and the units will run with heat recovery.

The end user can select the desired speed to run the units and this condition remains until a different command is entered.

Advice for use

Recommended mode when heat recovery is required independently from humidity levels or when needed to set a fixed speed for all the products.



Remote control

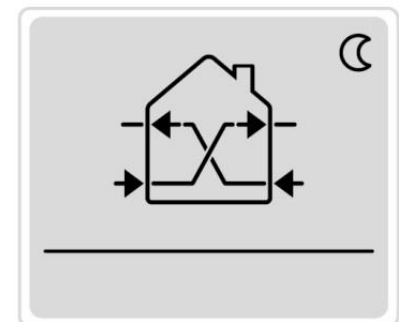
NIGHT MODE

To get into this mode, press the button **NIGHT (N)** to see the image below on display.

In this mode all the units will run at the night speed with heat recovery until another command is entered.

Advice for use

Recommended mode when the external environment is very quiet and even the minimum speed of the unit is perceived.



Remote control

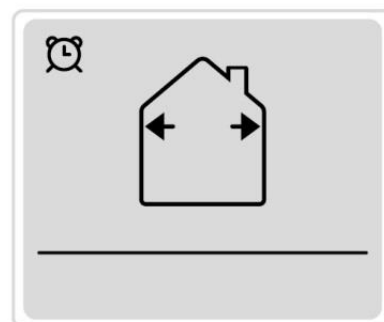
BOOST MODE

To get into this mode, repeatedly press the button **TIMER (B)** to see the image below on display.

By pressing this button in any of the modes all the products will run in extraction at the maximum speed for 20 minutes, at the end of the cycle they will resume the previous set mode.

Advice for use

Recommended mode to quickly extract unhealthy air or strong odors without the need to set again the units afterwards.



Remote control

MASTER-SLAVE AIR FLOW MODE

To get into this mode, press the button **FLOW (F)** to see the image below on display.

When pressing **FLOW** button the mode will change in the sequence MASTER-SLAVE AIR FLOW, SLAVE-MASTER AIR FLOW, EXTRACTION, INTAKE, MASTER-SLAVE AIR AIRFLOW...).

In this mode the **IMPELLER button (V)** is active to select the desired speed.

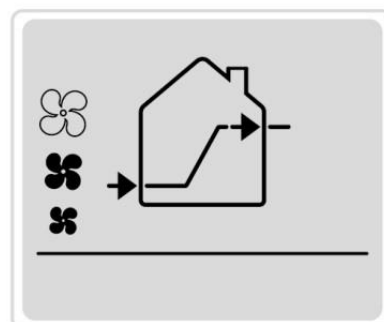
In this mode the units generate a continuous air flow going from **MASTER** or **SLAVE SAME AS MASTER** units to **SLAVE OPPOSITE TO MASTER** excluding heat recovery.

Advice for use

Recommended mode to isolate odors in a room, like in the kitchen, generating a continuous air flow towards it.

This is also suitable for use as free-cooling in summer season, in fact when external temperature is lower than internal one, there is no need to recover heat but to blow fresh air into the house.

By pressing the specific function button all the units will constantly run in the desired direction with the possibility to change the speed as required.



Remote control

SLAVE-MASTER AIR FLOW MODE

To get into this mode, repeatedly press the button **FLOW (F)** to see the image below on display.

When pressing **FLOW** button the mode will change in the sequence MASTER-SLAVE AIR FLOW, SLAVE-MASTER AIR FLOW, EXTRACTION, INTAKE, MASTER-SLAVE AIR AIRFLOW...).

In this mode the **IMPELLER button (V)** is active to select the desired speed.

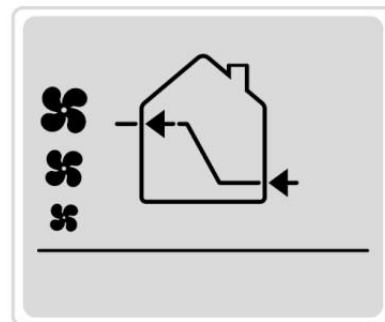
In this mode the units generate a continuous air flow going from **SLAVE OPPOSITE TO MASTER** to **MASTER** or **SLAVE SAME AS MASTER** units excluding heat recovery.

Advice for use

Recommended mode to isolate odors in a room, like in the kitchen, generating a continuous air flow towards it.

This is also suitable for use as free-cooling in summer season, in fact when external temperature is lower than internal one, there is no need to recover heat but to blow fresh air into the house.

By pressing the specific function button all the units will constantly run in the desired direction with the possibility to change the speed as required.



Remote control

EXTRACTION MODE

To get into this mode, repeatedly press the button **FLOW (F)** to see the image below on display.

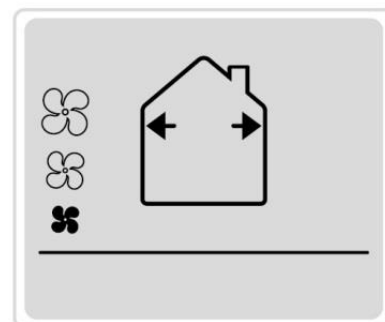
When pressing **FLOW** button the mode will change in the sequence MASTER-SLAVE AIR FLOW, SLAVE-MASTER AIR FLOW, EXTRACTION, INTAKE, MASTER-SLAVE AIR AIRFLOW...).

In this mode the **IMPELLER button (V)** is active to select the desired speed.

By pressing the specific function button all the units will constantly run in extraction with the possibility to change the speed as required.

Advice for use

Recommended mode to extract a lot of stale air, to the disadvantage of the heat recovery, when rooms are very crowded like during parties, anniversaries...



Remote control

INTAKE MODE

To get into this mode, repeatedly press the button **FLOW (F)** to see the image below on display.
When pressing **FLOW** button the mode will change in the sequence MASTER-SLAVE AIR FLOW, SLAVE-MASTER AIR FLOW, EXTRACTION, INTAKE, MASTER-SLAVE AIR AIRFLOW...).

In this mode the **IMPELLER button (V)** is active to select the desired speed.

By pressing the specific function button all the units will constantly run in intake with the possibility to change the speed as required.

Advice for use

Recommended mode to intake a lot of fresh air, to the disadvantage of the heat recovery, when rooms are very crowded like during parties, anniversaries...



Remote control

4. MAINTENANCE

4.1 WHEN IS NEEDED

Every 3000 working hours the indicator blinking.

Run the **MASTER** unit to alert that maintenance on the products is required. All the units will continue to run according to the preset function without possibility to change it until the maintenance operations are carried out. Once maintenance is performed, press the button **FILTER (R)** on the remote control to reset the alarm.

Advisable to replace the filters when becoming worn thus compromising the proper air filtration and their efficiency, or at least **within 2 years**.

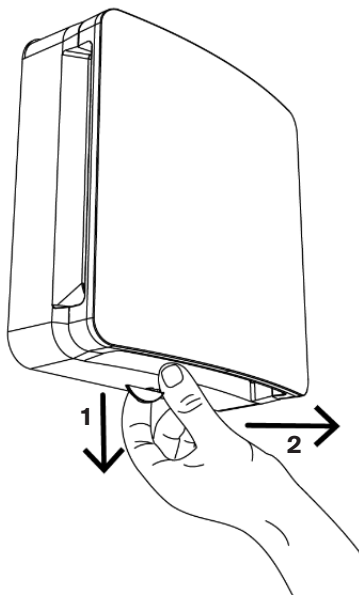
Contact your local retailer/distributor to get a filter kit replacement.

4.2 HOW TO PERFORM

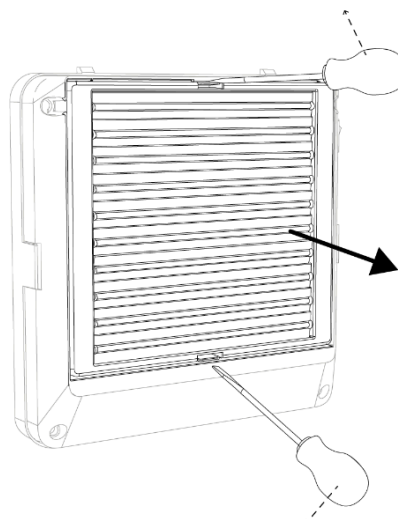
All the maintenance operations are intended for qualified personnel only.

Make sure that the network connection in the room is disconnected before performing maintenance operations.

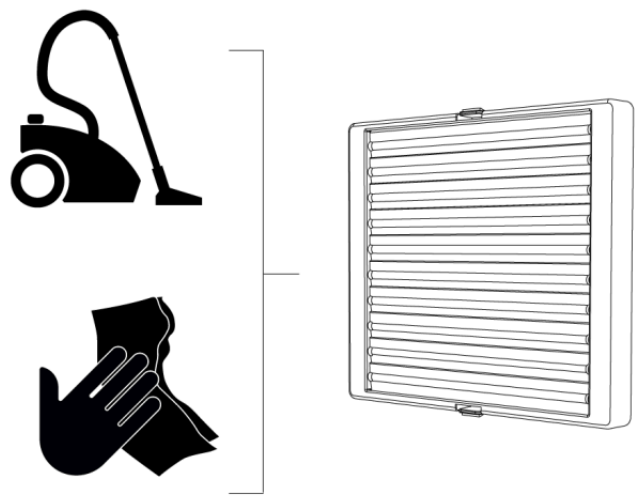
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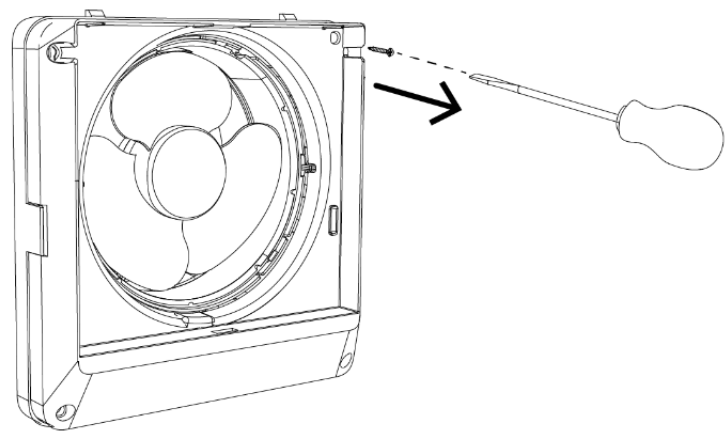
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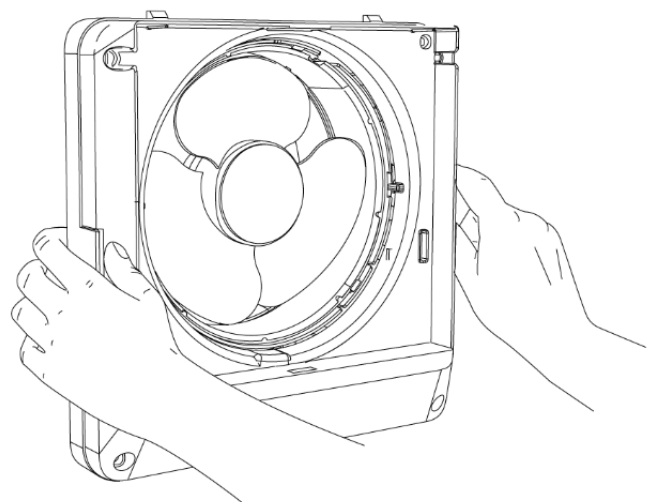
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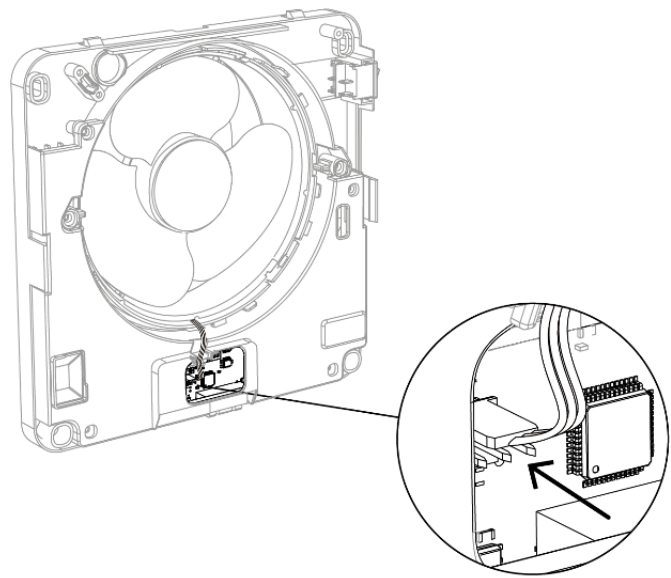
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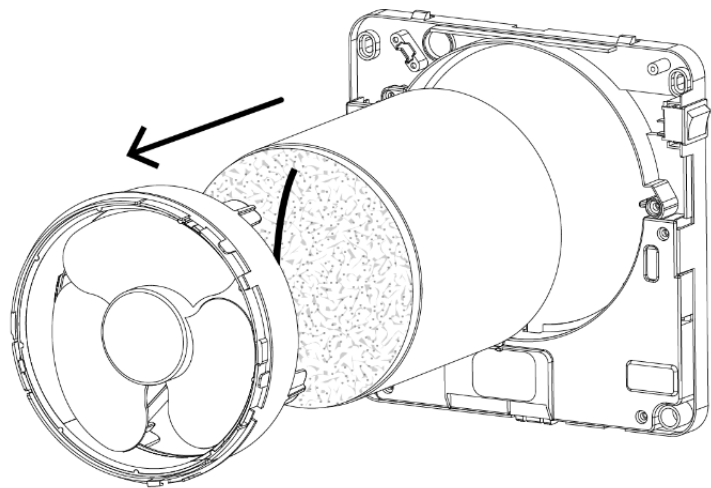
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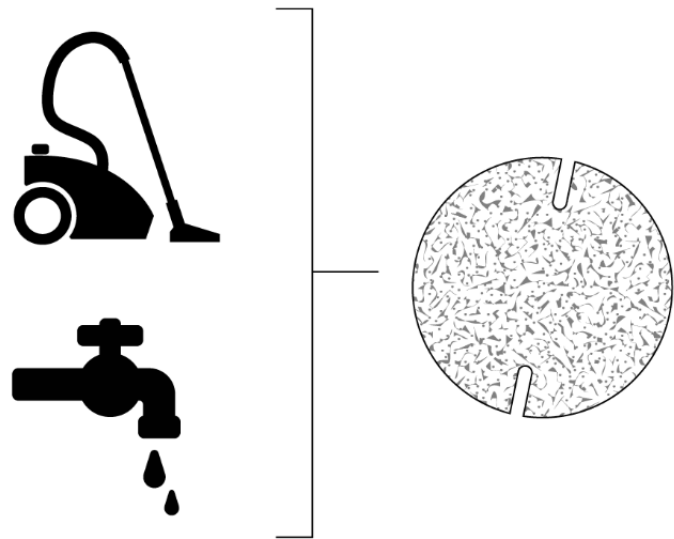
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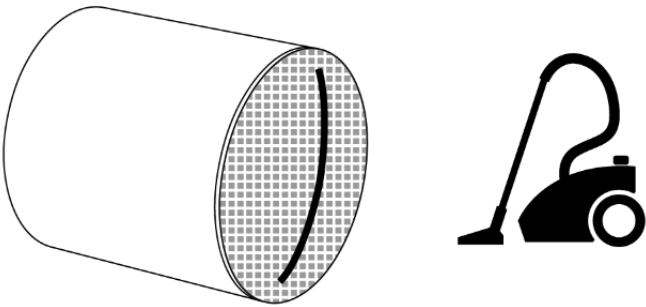
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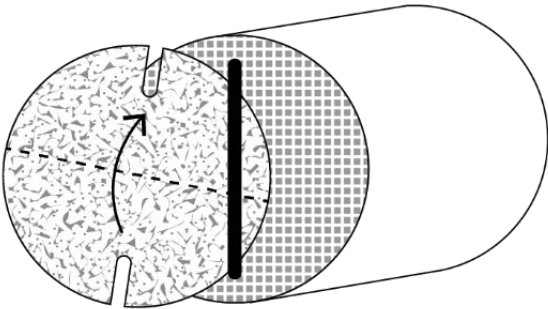
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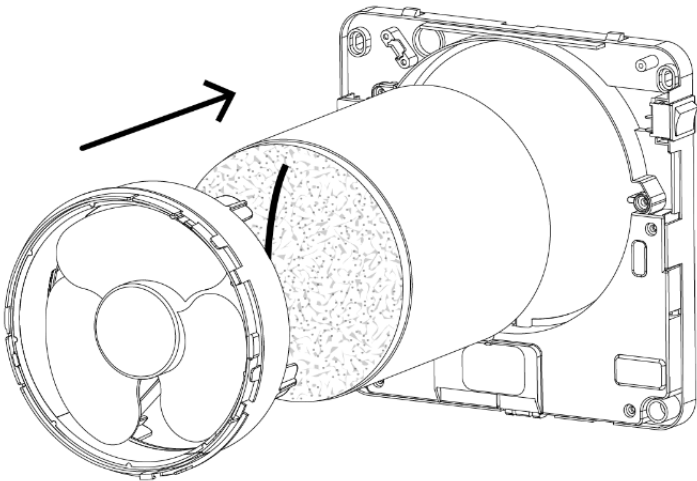
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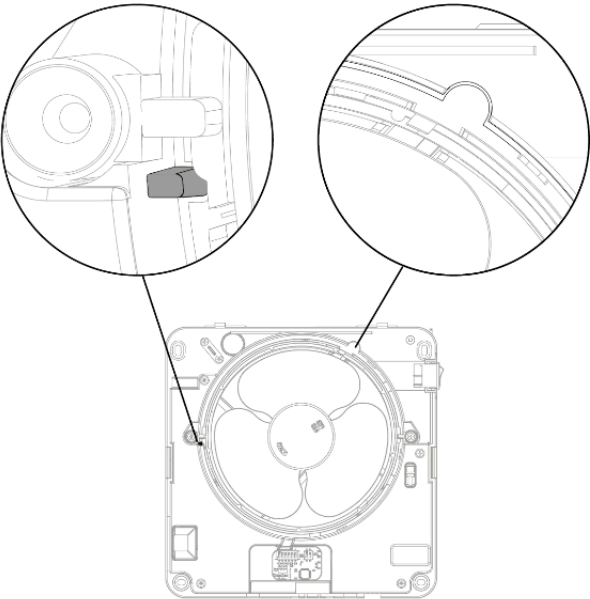
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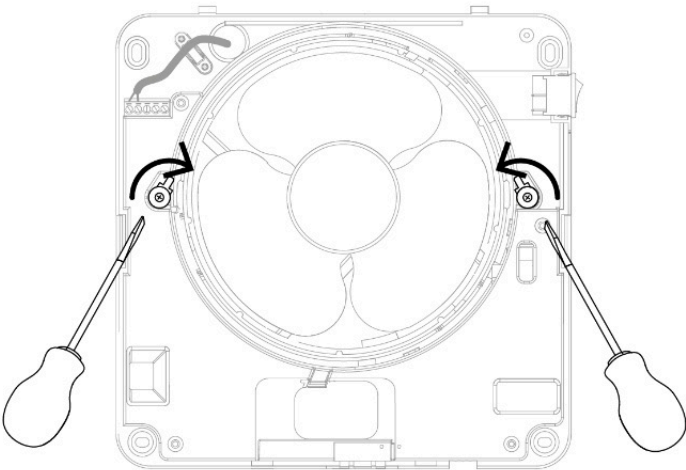
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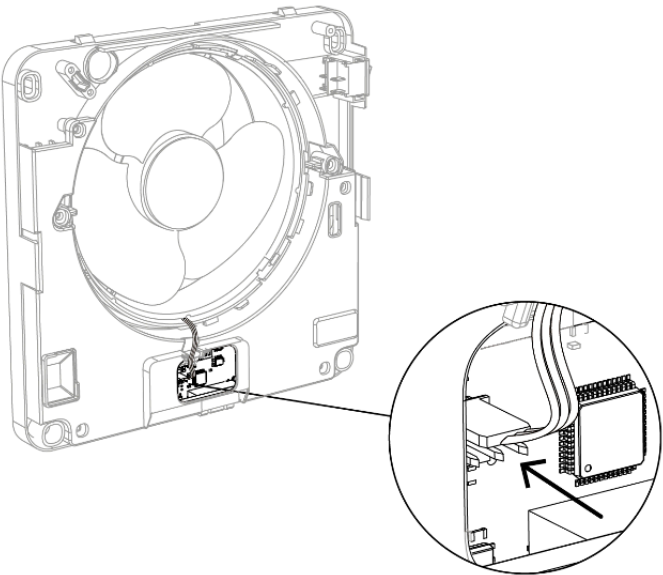
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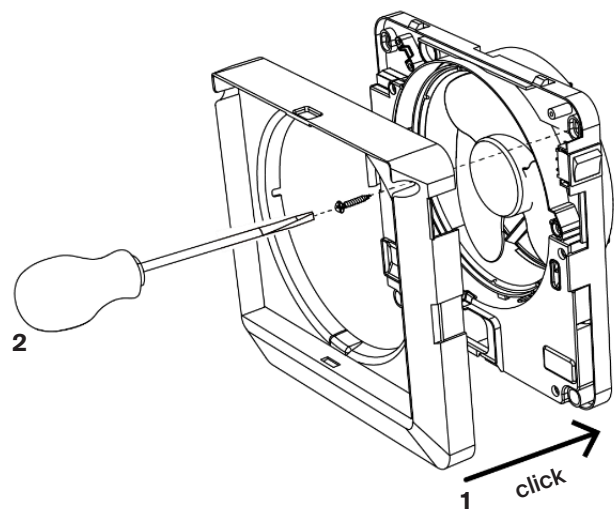
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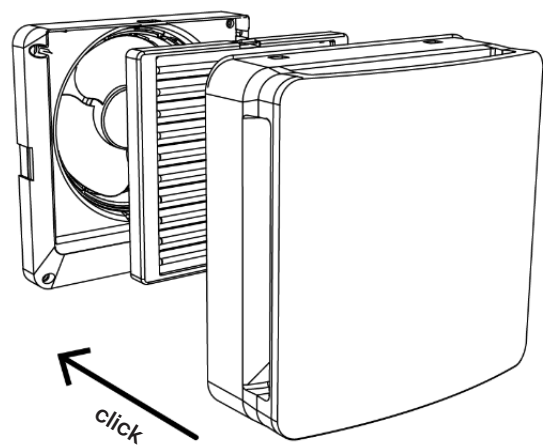
14



15



16



5. FAQ

DESCRIPTION	REMEDY
The product doesn't start	<p>Ensure that the product is properly connected to the mains</p> <p>Ensure that the ON/OFF switch (I/O) is in ON (I) position</p>
The product properly starts but doesn't get any signal from the remote control	<p>Ensure that the remote control is including the battery</p> <p>Ensure that the battery in the remote control is charged</p> <p>The commands are received only by the MASTER unit of the system, make sure to send the commands to the right unit</p> <p>Ensure that the dip switches are properly set (MASTER)</p>
The product properly starts, gets signals from the remote control but the impeller doesn't turn	<p>Need to wait 40 seconds for the automatic shutter starts opening</p> <p>Ensure that the product is not in surveillance mode</p> <p>Ensure that the impeller is not obstructed</p>
The product doesn't get any signal from the remote control and the red led flashes	<p>Perform maintenance and filter reset as indicated in the manual</p> <p>Ensure that the remote control is including the battery</p> <p>Ensure that the battery in the remote control is charged</p>
The product runs only in extraction and the red led is ON	<p>Raise the threshold of the hygrostat with H button</p>
The red LED blinking on the SLAVE unit	<p>No communication between MASTER and SLAVE units</p> <p>Ensure the proper connection among the units</p> <p>Ensure that the dip switches are properly set</p>



WARNING

If the problem detected is different from those listed above or whether the problem is not solved after following the indications, need to contact an authorized service center.

[illegible]

STORAGE WARNINGS



Store the product in the closed package/container in a clean area protected from frost, moisture, exposure to sunlight, heat sources, open flames or sources of ignition. Avoid sudden temperature fluctuations by maintaining optimal temperature and humidity conditions (temperature 10-35 °C / humidity <80%). Ensure that there is no danger of damage from the presence of other miscellaneous materials or possible handling by unauthorized persons. Please refer to the individual product data sheet for further details of proper storage.

RBM spa reserves the right to improve and change the products described and relevant technical data at any moment and without prior notice. The information and pictures contained in this document are intended for information purposes only, are not binding and do not exempt the user in any case from strictly following the regulations in force and good practice standards.

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