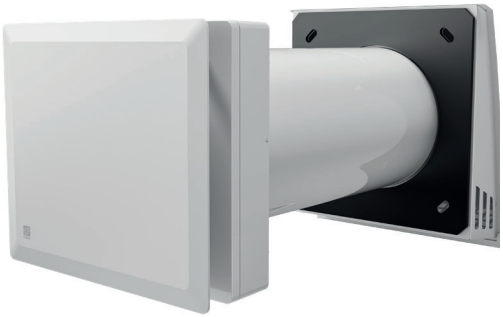
FLEXIT

120245EN-01
2022-06



Muto 100, 160

ART.NR. 120200, 120201

EN

ASSEMBLY AND OPERATION INSTRUCTIONS

Single-room ventilatior

Read the instructions contained in this booklet carefully before using the appliance. FLEXIT cannot assume any responsibility for damage to the product, 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.

Complaints as a result of incorrect or defective installation must be submitted to the installation company responsible.

Contents

Our products are subject to continuous development and we therefore reserve the right to make changes.
...
We also make reservations about any printing errors.
...
Declaration of conformity is on the website, www.flexit.com

Description and use

SINGLE ROOM VENTILATIOR MUTO (hereinafter 'the unit') is a product for decentralised ventilation with heat recovery with an integrated WiFi module for synchronisation with several units.
The unit can be wall-mounted in perimeter walls with a 255 mm minumum tickness for “Single room ventilator Muto 100” and 270 mm minimum thickness for “Single room ventilator Muto 160”.

The unit is available in two versions:
- With a duct Ø100 mm and a maximum air flow rate (in boost mode) of 38 m^3/h:
  - Single room ventilator Muto 100

- With a duct Ø160 mm and a maximum air flow rate (in boost mode) of 40 m^3/h:
  - Single room ventilator Muto 160

Both versions have a remote control and relative humidity, temperature and ambient light sensors. These sensors allow the automatic operation of the unit (“Auto HR%”, “Auto Comfort”, “Auto night” functions).
- Maximum absorbed power “Single room ventilator Muto 100”: 5W.
- Maximum absorbed power “Single room ventilator Muto 160”: 6W.

Main features
- WiFi module for Mesh network.
- Buttons with LED indicators.
- 5 speeds corresponding to 5 airflows.
- 1 input suitable for remote connection with cable compatible with an external temperature sensor) and humidity sensor. Cable length≤30m.
- 1 direct output for fan control.
- Long-term timer (3/6/12 months) with daily countdown for filter clogging control.
- Insulation class: II.
- Power supply: 220-240V ~ 50-60Hz.

Compliance

- This appliance can be used by children no less than 8 years of age and by individuals with limited physical, sensory or mental capacities, or by inexperienced or untrained individuals, provided that they are supervised or have been instructed in safe use of the appliance and understand the associated risks. Children must not play with the appliance. Cleaning and maintenance procedures that can be undertaken by the user must not be entrusted to children, unless under supervision.
- These appliances are designed for use in residential and commercial properties.

DANGER:
Electrical installation must be carried out by an authorized electrician as shown in the wiring diagram.

- The electrical system to which the product is connected must be in compliance with applicable regulations.
- 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 gas coming from the gas flue pipe or from other fuel combustion units from entering into the room.
- Fans have been designed to be mounted on external walls.

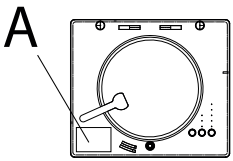
Safety

WARNING:
This symbol indicates that care must be taken to avoid injury to the user.

- Follow the safety instructions to prevent any harm to the user.
- Do not use this appliance for purposes other than those described in this manual.
- Having removed the appliance from its packaging, make certain that it is intact and undamaged. If in doubt, consult a professional or contact the point of sale.
- Do not leave packaging within reach of children or individuals with disabilities.
- Certain basic rules must always be observed when using any electrical appliance: never touch the appliance with wet or damp hands; never touch the appliance when barefoot.
- Do not operate the appliance in the presence of flammable substances or vapours, such as alcohol, insecticides, petrol, etc.
- If the appliance is to be disconnected from the power supply and no longer used, store it out of reach of children and individuals with disabilities.

CAUTION:
This symbol indicates that care must be taken to avoid damaging the appliance.

- Do not make modifications of any kind to this appliance.
- The maintenance instructions must be followed to ensure the appliance does not suffer damage and/or excessive wear.
- Do not expose this appliance to the elements (rain, sun, etc.).
- Do not stand objects on the appliance.
- The inside of the appliance must be cleaned only by a skilled professional.
- Inspect the appliance periodically for visible defects. If the appliance is defective in any way, do not use it; contact a professional or the point of sale.
- If the appliance does not function correctly or develops a fault, contact a professional or the point of sale without delay. Ensure that only genuine original FLEXIT spares are used for any repairs.
- Should the appliance be dropped or suffer heavy impact, have it checked without delay by a professional or the point of sale.
- The appliance must be installed in such a way as to ensure that under normal operating conditions, no one can come into contact with any moving parts or live electrical components.
- In the event of: dismantling the appliance with the appropriate tools, removing the heat exchanger for cleaning recommended: every six months)or removing the motor module, the appliance must first be switched off and disconnected from the electrical power supply.
- Connect the appliance to the electrical power supply/socket only if the rated power of the supply is compatible with the maximum rated power of the appliance. If not, contact a professional electrician without delay.
- Turn off the appliance at the main switch: if the appliance does not function correctly, before cleaning the outside of the appliance, or if the appliance is not going to be used for any length of time.
- The flow of extracted air must be clean (i.e. free of grease, soot, chemical and corrosive agents and explosive or flammable mixtures).
- Keep the air intake and outlet ports of the appliance free of obstructions, to ensure optimum air flow.
- Operating temperature range: -20 ÷ 50°C.
- Specifications for the power supply must correspond to the electrical data on the plate (A).



Structure and equipment

Components common to both models

The main components of the unit are:

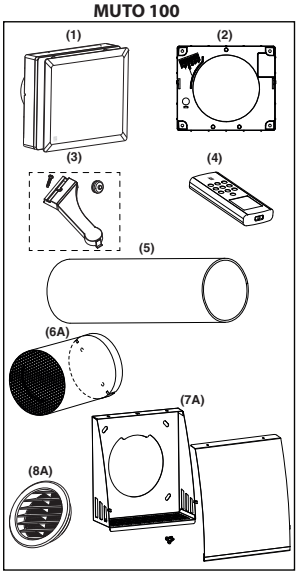
- Main body (1) already assembled which includes:
  - Body with pre-assembled plug-in terminal block, frontal grille and aesthetic panel in polycarbonate (PC) tested according to standard UNI EN ISO 11925-2:2010 and resulted in class E for reaction to fire (according to the EN 13501-1 standard).
  - Motor holder and push-button panel in ABS material.
  - 5-speed reversible EC fan.
  - Integrated electronic board.
  - Closing unit (disk) sealing the front panel to prevent backdraught if the unit is swithed off.
  - Washable internal filter with frame.
- Flange (2) wall mountable with pre-assembled terminal block.
- Terminal block cover with screw and cable gland (3).
- Remote control (4).
- PVC pipe with a lenght equal to 350 mm (5).

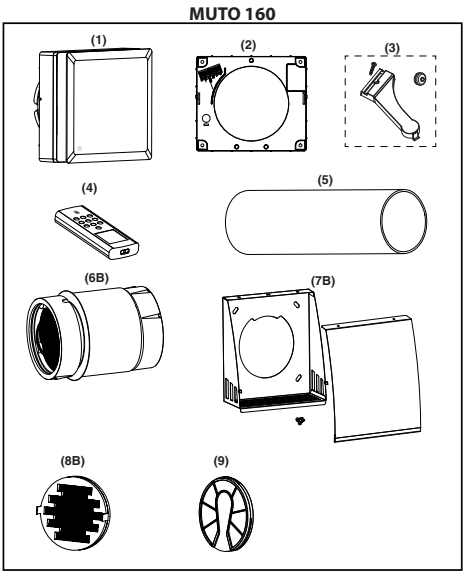
Single room ventilator Muto 100

- Ceramic heat exchanger with external filter (6A).
- External ventilation hood (7A) in painted galvanized steel (RAL 9016).
- Protection grille (8A)

Single room ventilator Muto 160

- Ceramic heat exchanger with two sealing rings in EPP and gasket (6B).
- External ventilation hood (7B) in painted galvanized steel (RAL 9016).
- Washable external filter with holder grids (x2) (9).
- Insect grid (8B).





Single Room Ventilator Muto 100 installation

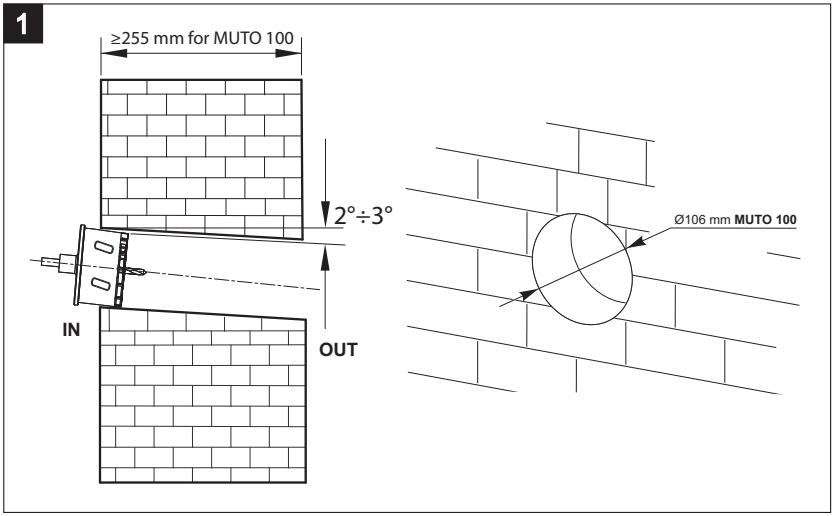
Fig 1 ÷ 17

NOTE:
Before proceeding with the installation, remove the internal protective packaging in the appliance.

NOTE:
Before carrying out installation, remove the spacers inside the PVC installation pipe and cut the pipe according to the wall thickness.

It is mandatory to install “Single Room Ventilator Muto 100” within a perimeter wall with a 255 mm minumum thickness.

1



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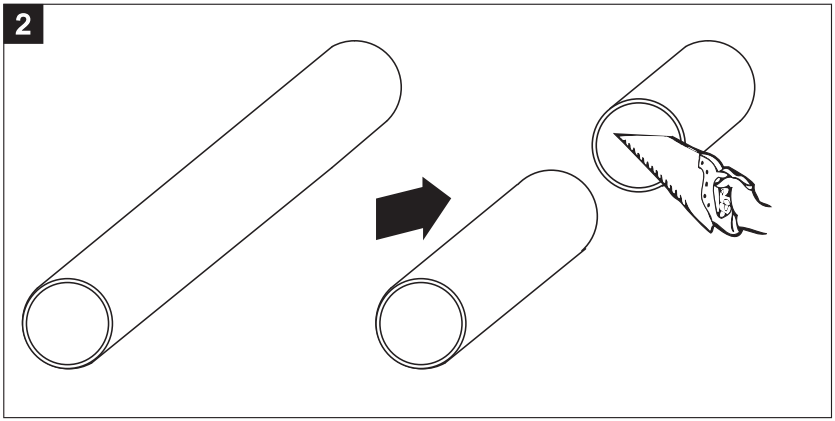

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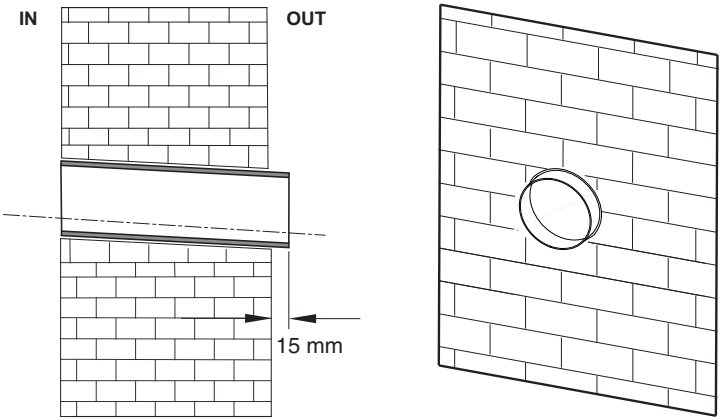

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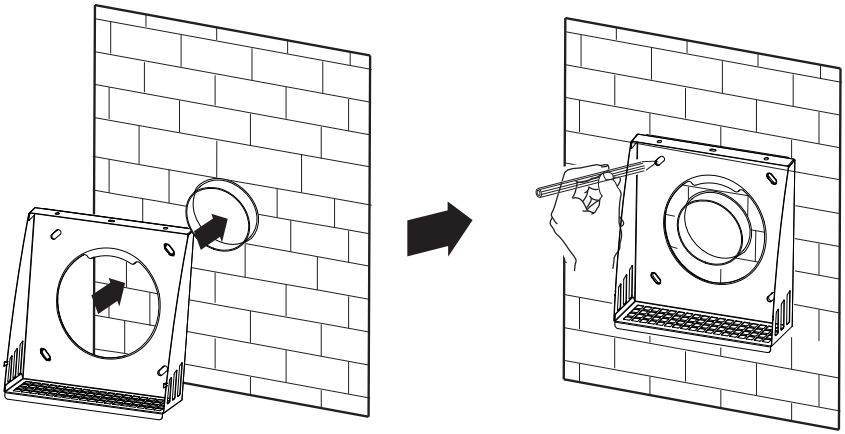

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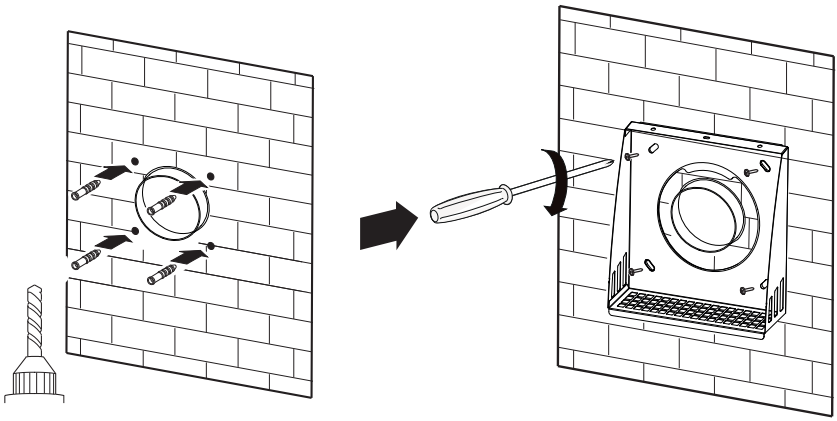

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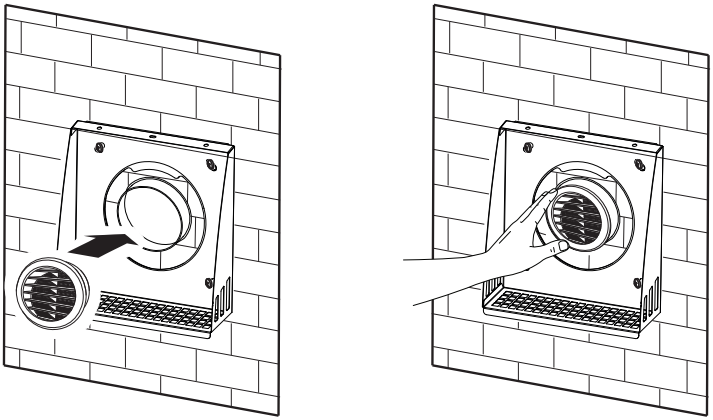

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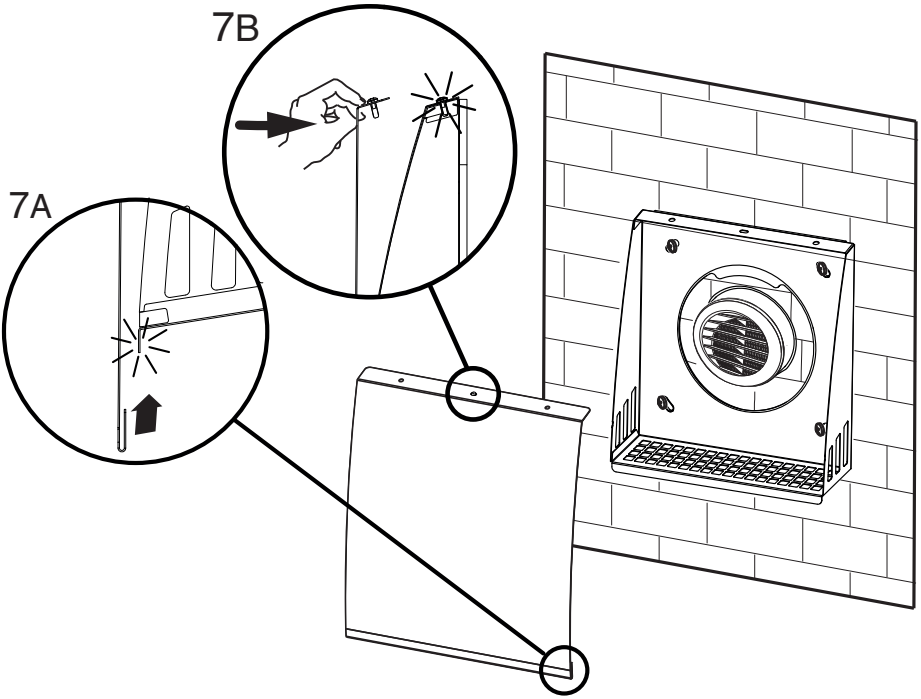

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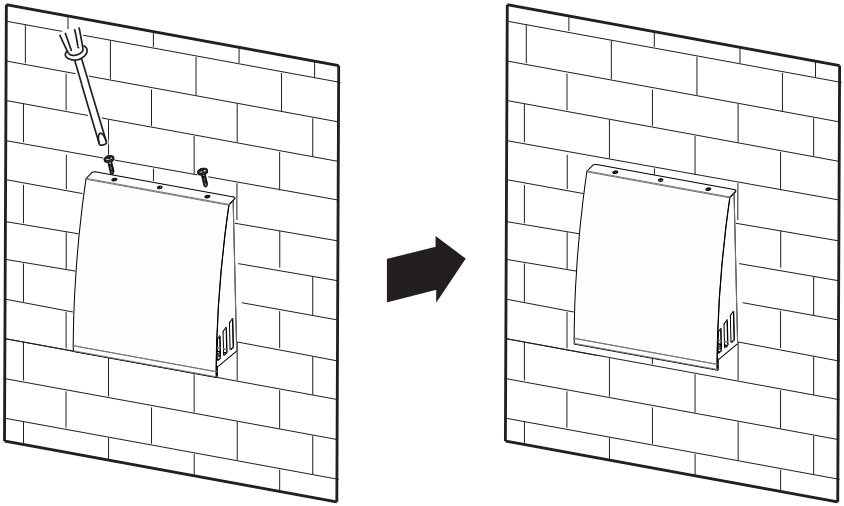

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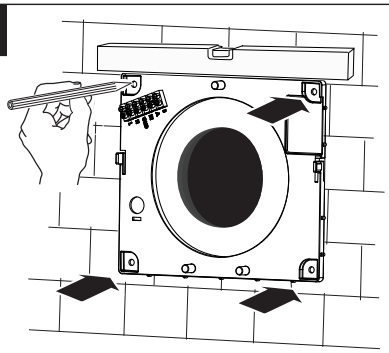

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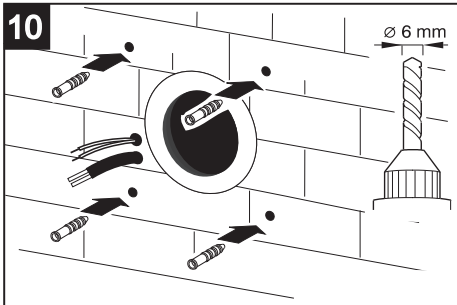

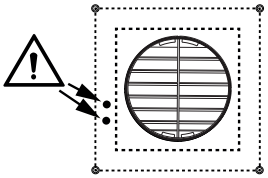

Drill the two holes for the power cables and PCB signal cables inside the dotted area.

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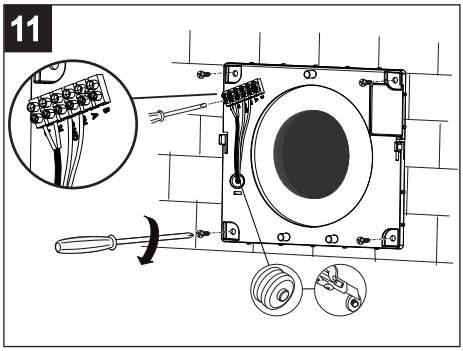

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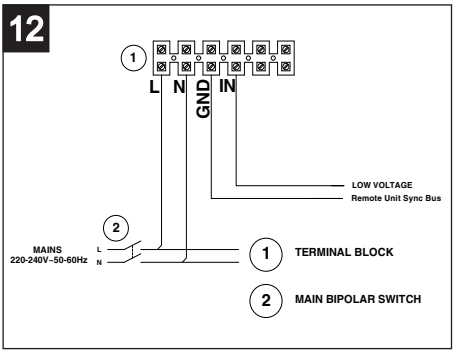

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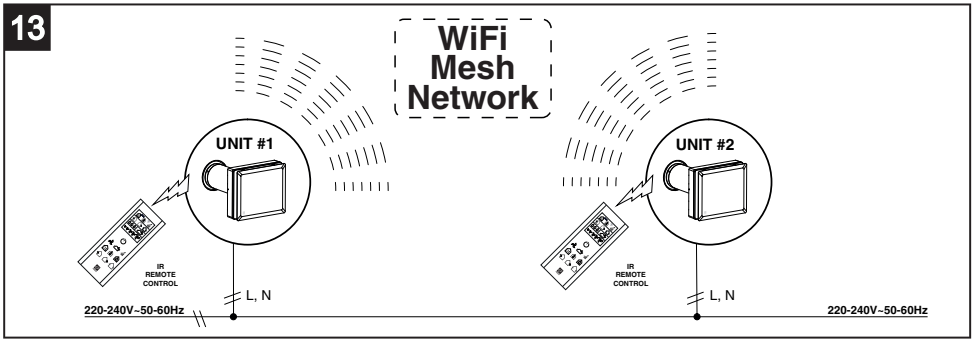

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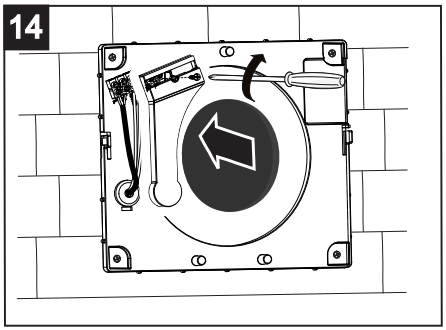

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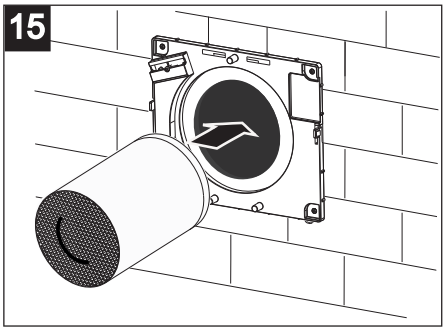

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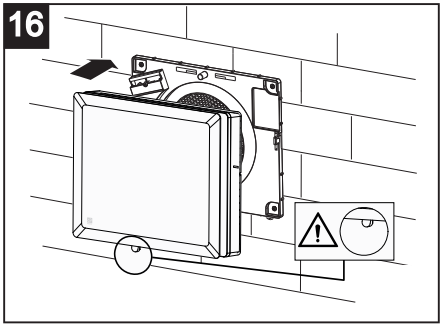

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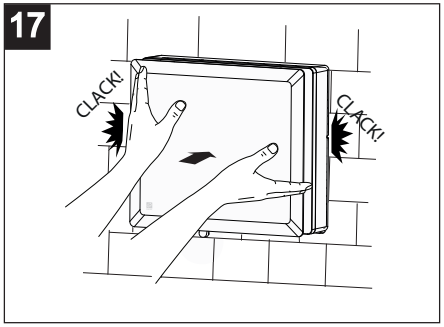


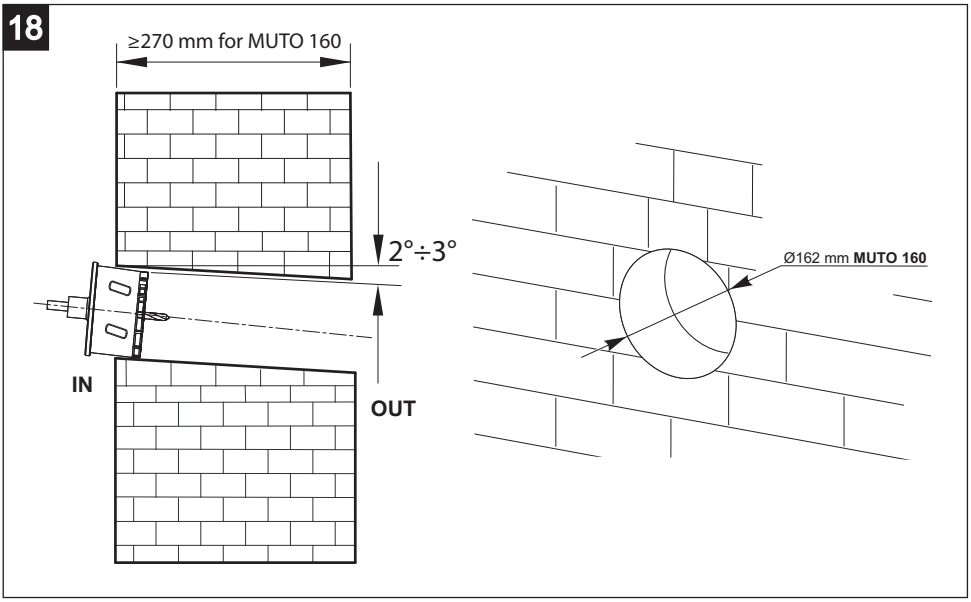
Single room ventilator Muto 160 installation

Fig 18 ÷ 35.

NOTE:
Before proceeding with the installation, remove the internal protective packaging in the appliance.

NOTE:
Before carrying out installation, remove the spacers inside the PVC installation pipe and cut the pipe according to the wall thickness.

It is mandatory to install “Single room ventilator Muto 160” model within a perimeter wall with a 270 mm minumum thickness.



“Single room ventilator Muto 160” - GRILLE MOUNTING - FROM OUTSIDE

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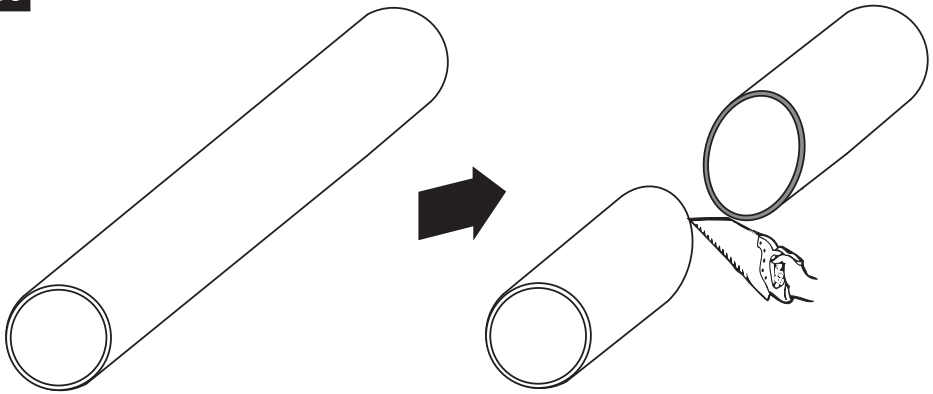

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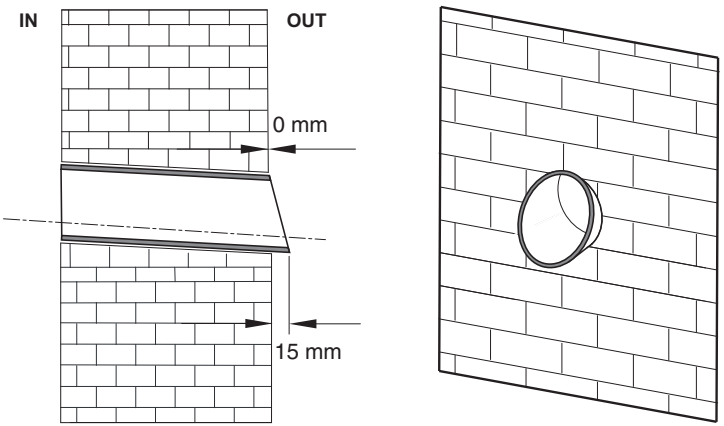

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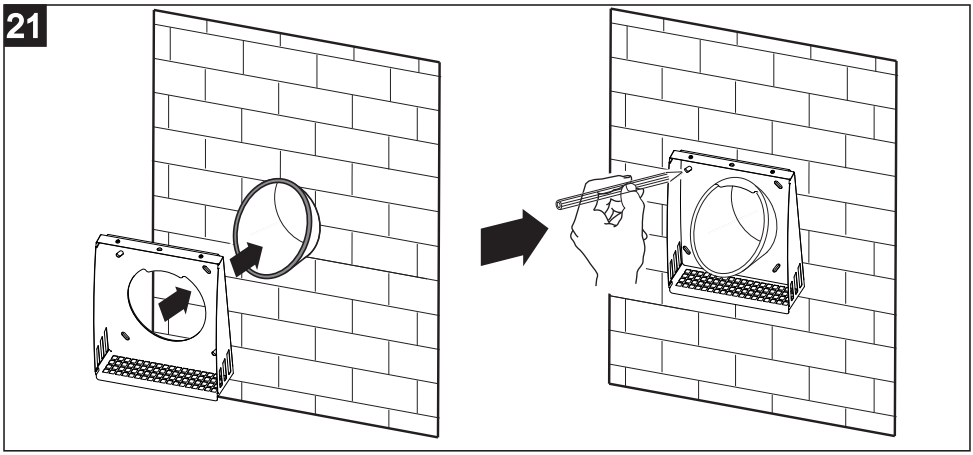

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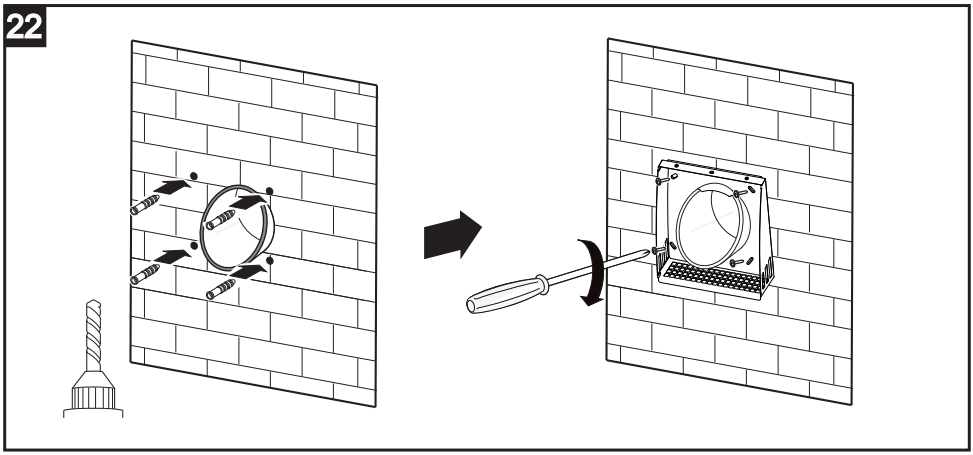

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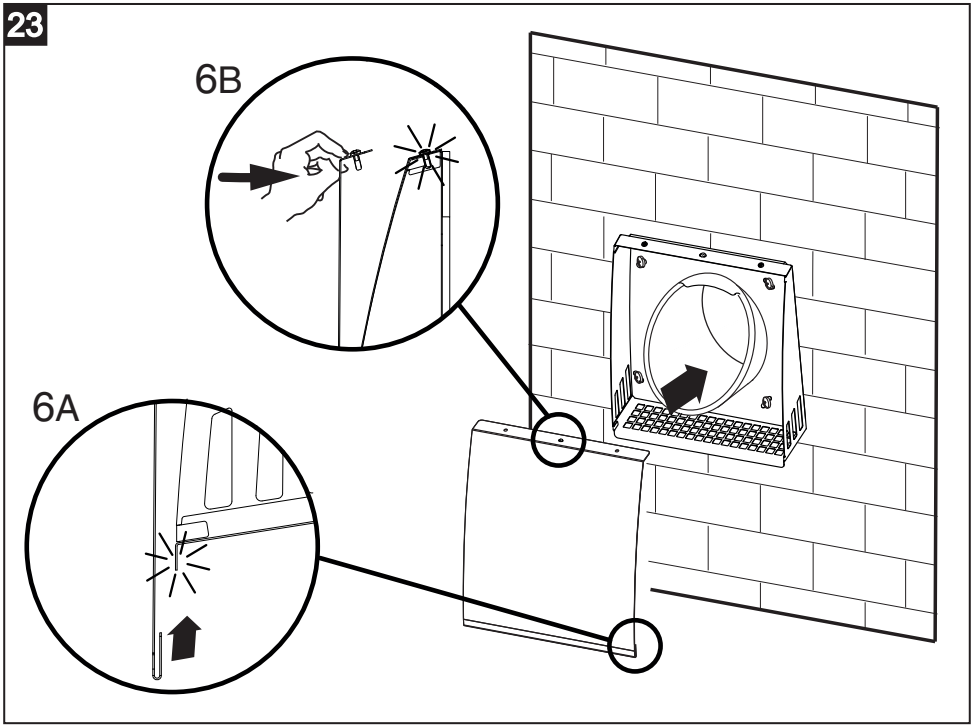

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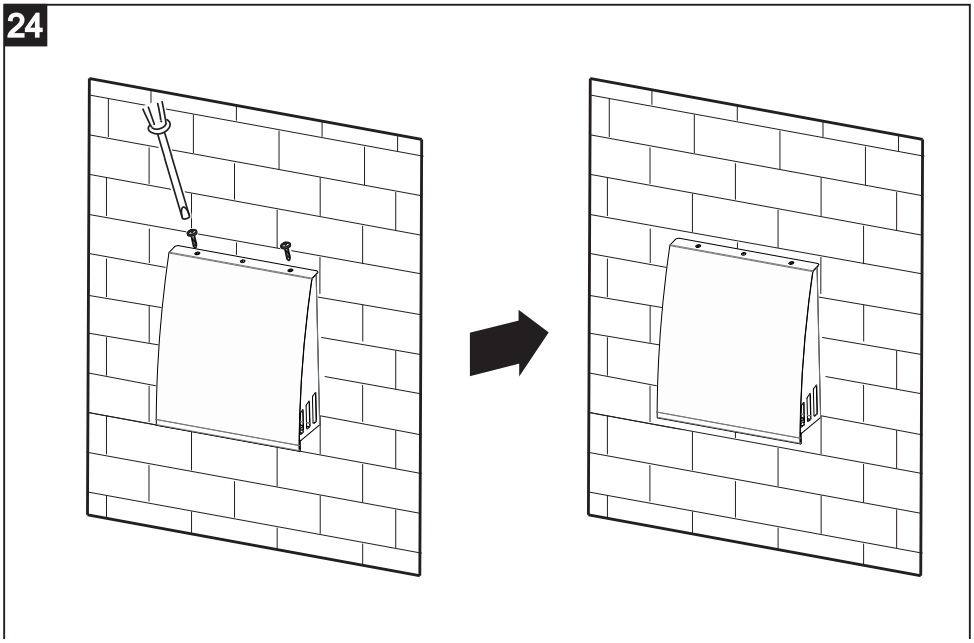

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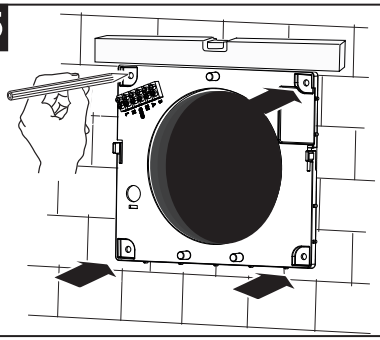

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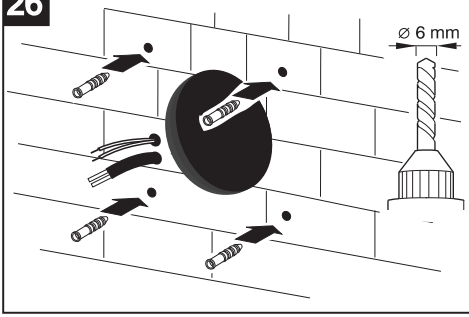

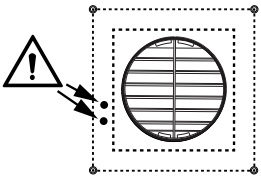

Drill the two holes for the power cables and PCB signal cables inside the dotted area.

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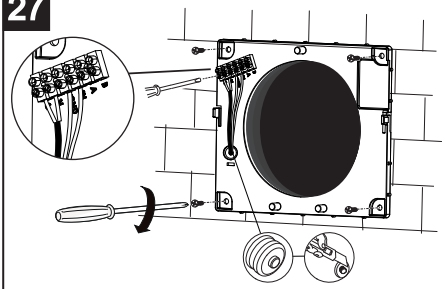

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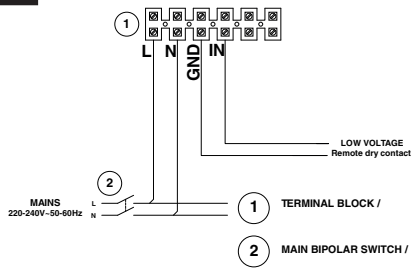
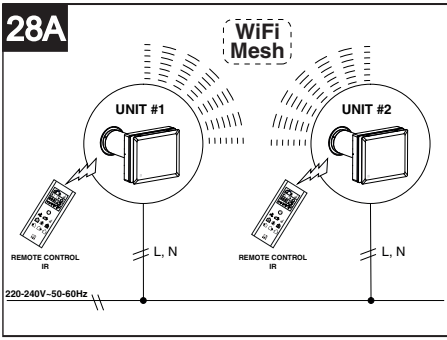


28A



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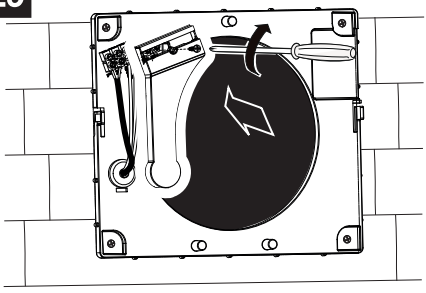

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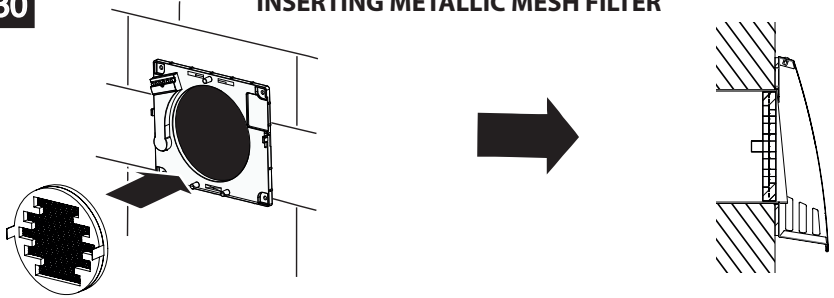
INSERTING METALLIC MESH FILTER



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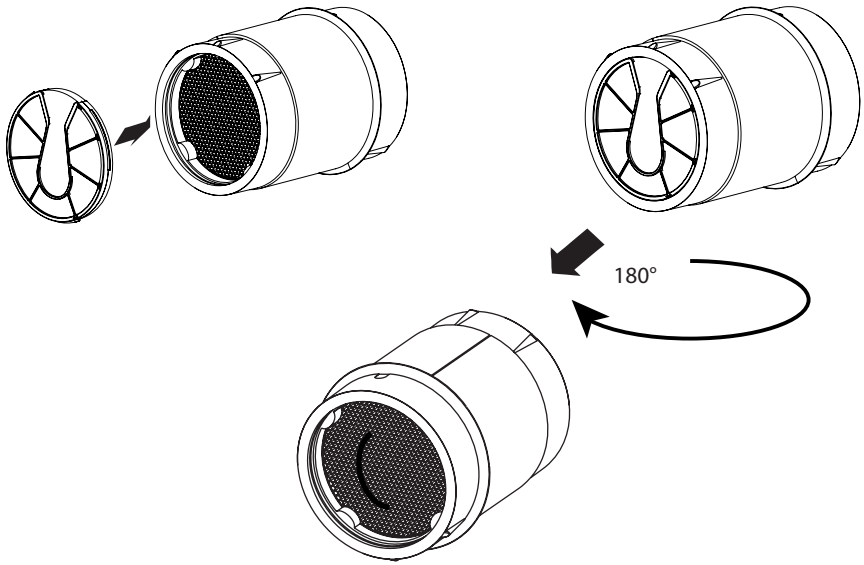
“Single room ventilator Muto160” - INSERTING THE EXTERNAL FILTER



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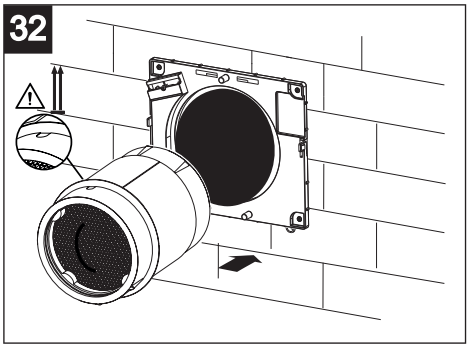

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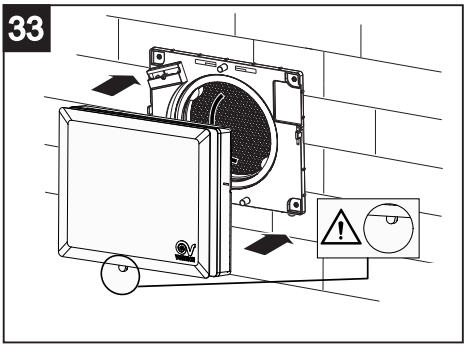

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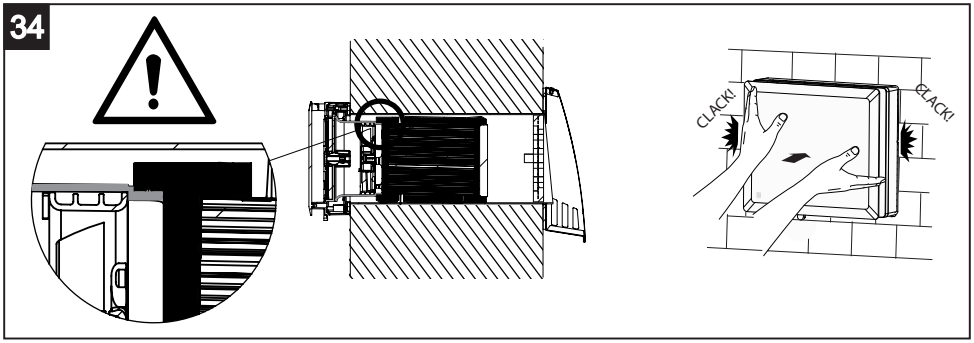
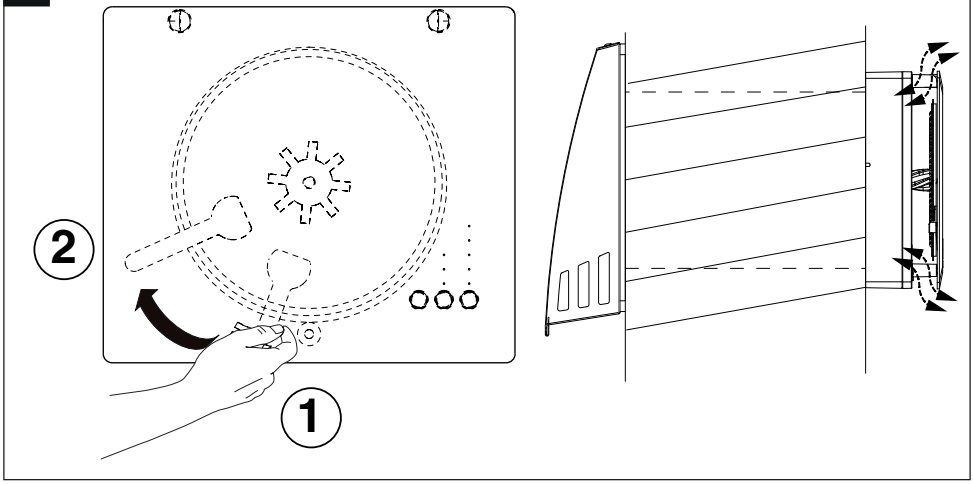


Use

(fig. 35)
To use the appliance, make sure the lever of the closing disk is in the open positiion, by rotating the lever to position 2.

35

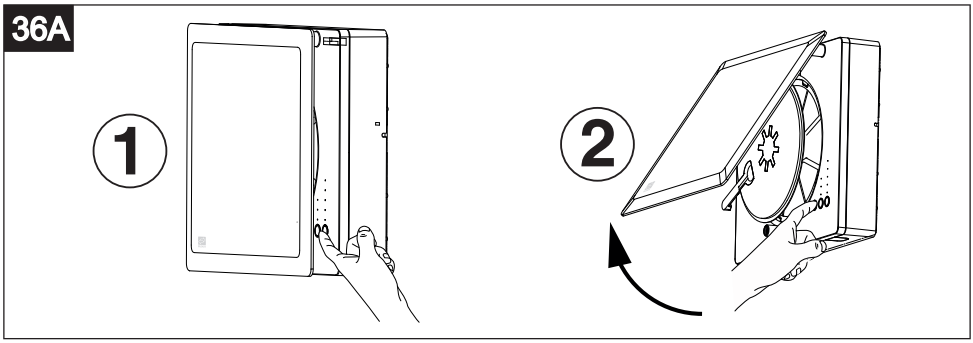


Description of the unit commands

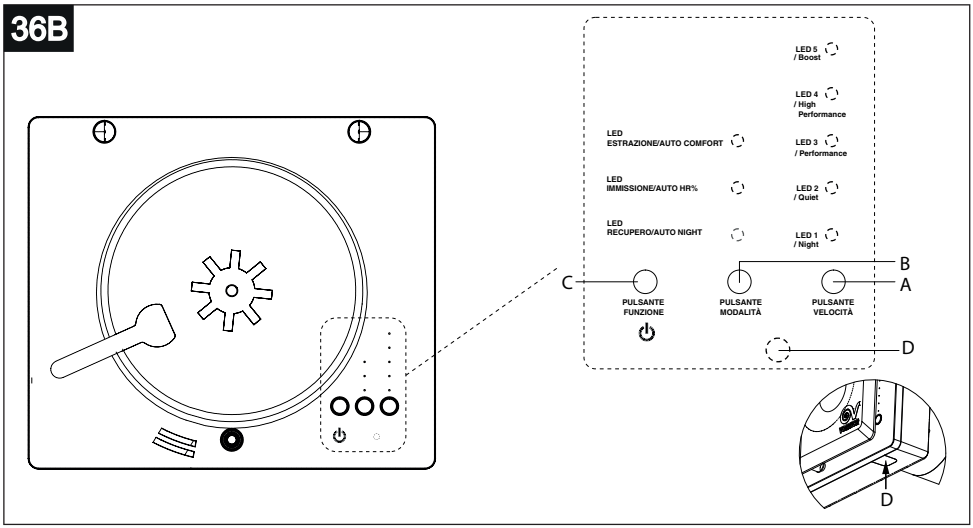
Fig. 36A:

WARNING:
The control panel is accessible by inserting the hand in the space between the cover and the front panel (1) or by lifting up the cover (2).

36A



The unit is controlled by means of on-board buttons (Fig. 36B).



A: Speed key: 5 position selector (Night / Quiet / Performance / High performance / Boost). LED 1- LED 5: speed / air flow from min to max. Press the button cyclically to select the desired value. The white LEDs from 1 to 5 will light up to indicate the speed from 1 to 5.

B: Mode key: three position selector. Press repeatedly to cycle through the different modes: recovery, intake, extraction, ventilation mode (intake and extraction LEDs switch on simultaneously).

The respective LEDs will light up steadily:
- *RECOVERY* heat recovery (the system works like an heat recovery unit, with cyclic inversion of the direction of rotation).
- *INTAKE* the system operates as a fan, with room air intake.
- *EXTRACTION* the system works as a fan, with air extraction from the room.
- *VENTILATION MODE* If the unit is connected to one or more units via a WiFi network, the *VENTILATION MODE* mode can be set: if set as an even unit the unit will operate in extraction mode, if set as an odd unit the unit will operate in intake mode, creating an air current in the environment.

Note 1: Ventilation mode can be selected automatically via the external IR remote control (see fig. 29).

Note 2: The WiFi module allows to balance the air flow rates of intake and extracted air, provided that the total number of installed units is equal to an even number. For example, 4 units can be connected to the WiFi network, setting two units as “even” and two units as “odd”. Air flow balancing will not occur if an odd number of units is installed.

Note 3: To see how to set the unit as an even or an odd unit, refer to the section "parameter programming sequences".

Note 4: The backlighting of the keys on the unit remains active for one minute from the last press of any key.

Note 5: The backlighting of the keys remains active for 15 seconds from the last press of any key.

C: Function key to activate or deactivate the 3 different AUTO functions available and activate or

deactivate the stand-by mode.

To activate or deactivate the stand-by mode:
If the unit is switched on and the *FUNCTION* key is pressed (stand-by / on-off function), the fan stops and the LEDs of the SPEED column turn off. If the appliance is off and you press the FUNCTION button, the appliance starts at the speed and mode previously set.
The available functions are:

- Auto night
  The ambient light sensor detects the presence or absence of ambient light and, depending on whether the measurement is higher or lower than the threshold value set via SW (fixed value that cannot be changed by the user) it allows or prevents both the switch to a speed higher than the minimum both the transition to boost speed via remote input or HR% sensor. Therefore, at night when the presence of daylight is not detected, the appliance switches to minimum speed preventing the switch to a speed higher than the minimum one.
  When the presence of daylight is detected again, the appliance returns to operate at the previously set speed, and it is allowed the switch to higher speeds or boost via remote input or HR% sensor.
- Auto HR%:
  In case of presence of humidity beyond the alarm threshold (60%, 75% or 90% - the default value is 75%), it is automatically selected the extraction mode at maximum speed.
- Auto comfort:
  In heat recovery mode, the period that determines the inversion of rotation of the fans is fixed based on the temperature of the air introduced into the room: if too cold, the cycle time is reduced.

To enable a function (fig. 37):

1. press the FUNCTION button for more than 2 seconds.
2. press the SPEED button to select one of the three LEDs (LED 1, LED 2, LED 3) corresponding to the AUTONIGHT / AUTO HR% / AUTO COMFORT functions.
3. press the MODE button to enable the function -> the chosen LED in the mode column blinks.
4. to SAVE the settings, press the FUNCTION button for more than 2 seconds.
   All SPEED LEDs blink 4 TIMES to indicate correct storage.
5. to CANCEL and exit the setting procedure, press the FUNCTION key once. All SPEED LEDs blink ONLY ONCE WITHOUT SAVING any changes made.
6. to CHECK which function is assigned to the appliance, press the FUNCTION button for more than 2 seconds: the LED corresponding to the set function blinks for about 20 seconds, then all the speed LEDs flash and the unit returns to standard display.

Note: The user can enable all the three functions simultaneously.

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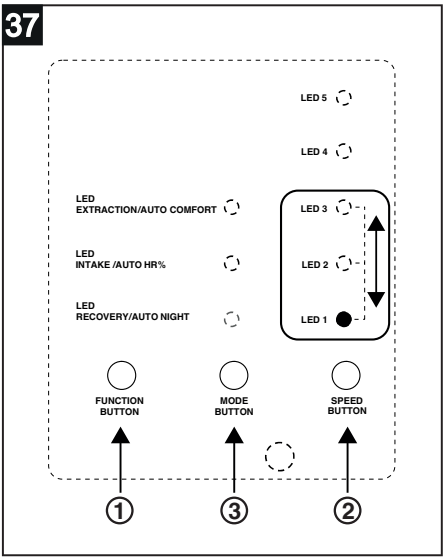
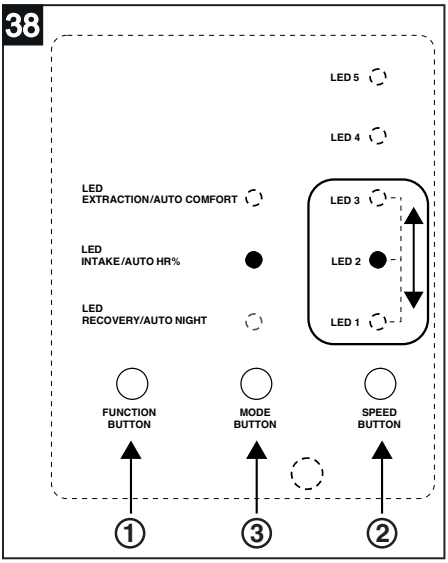


To disable a function (fig. 38):

1. press the FUNCTION button for more than 2 seconds.
2. press the SPEED button to select one of the three LEDs (LED 1, LED 2, LED 3) corresponding to the AUTONIGHT / AUTO HR% / AUTO COMFORT function to be disabled.
3. press the MODE button to disable the function.
4. to SAVE the settings, press the FUNCTION button for more than 2 seconds. All SPEED LEDs blink 4 TIMES to indicate correct storage.
5. to CANCEL and exit the setting procedure, press the FUNCTION key once. All SPEED LEDs blink ONLY ONCE WITHOUT SAVING any changes made.
6. to CHECK which function is assigned to the appliance, press the FUNCTION button for more than 2 seconds: : the LED corresponding to the set function blinks for about 20 seconds, then all the speed LEDs flash and the unit returns to standard display.



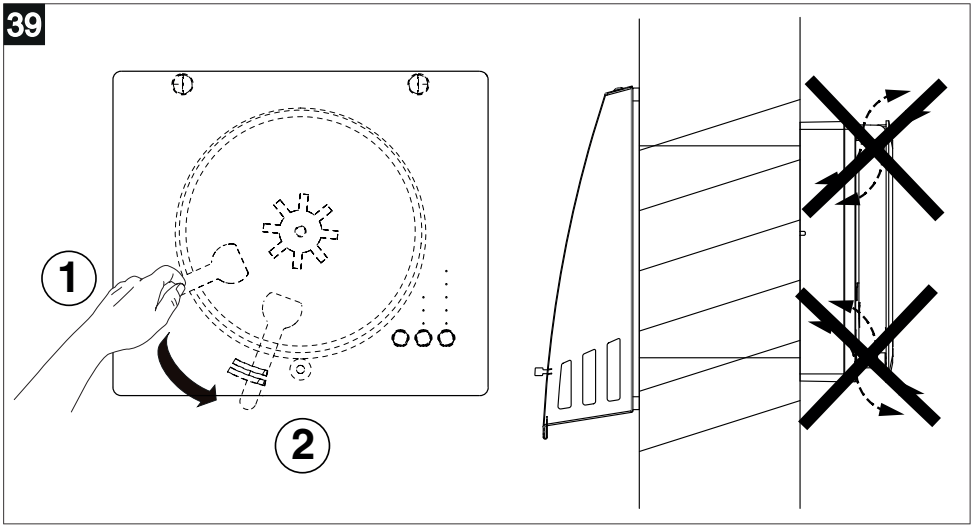
D: Filter LED

One led **D - fig. 25B)** shows the status of the filters:

- LED OFF: filters are clean
- LED ON: filters to be cleaned or replaced (for each day of operation, a counter in the memory is increased and when the maximum preset time is reached (90/180/365 days), the signalling LED lights up).
  Refer to section “maintenance and cleaning”.

Closing of the unit

To avoid air to come inside the room, set the unit in stand-by mode by pressing the FUNCTION key (LEDs in the SPEED column switch off) and turn the lever to close position (fig. 39).



Parameters programming sequences

By means of appropriate actions on the keyboard buttons, it is possible to reset the clogged filter counter, or program the unit's operating parameters, as specified below:

To entry in programming mode:
- Press simoultaneously all the three buttons (Speed - Mode - Function).
- LED 5 turns on white.
- Press the buttons in the following sequence: Speed - Speed - Mode - Function - Function – Mode.

To set the relative humidity threshold:
- Press the SPEED button.
- The currently set threshold is displayed by lighting one of the white LEDs 1, 2 or 3 depending on whether the value is 60%, 75% or 90% (the default value is 75%).
- Press SPEED button to modify the threshold value.
- Press the FUNCTION button to confirm.
- All the speed LEDs from 1 to 5 will blink briefly to indicate that the value has been stored and the unit will return to normal operation.
- If you do not press the FUNCTION button within 20 sec, the unit will return to normal operation without storing.

To select cycle time:
- Press MODE button.
- The currently set time is displayed by lighting one of the white LEDs in position 1, 2 or 3 depending on whether the time is 50, 60 or 90s. (Default value = 60s).
- Press the SPEED button to change the value.
- Press the FUNCTION button to confirm.
- All the speed LEDs from 1 to 5 will flash briefly to indicate successful storage and the unit will return to normal operation.
- If the FUNCTION button is not pressed within 20 sec, the unit will return to normal operation without memorizing.

NOTE:
Cycle time programming can only be carried out on the unit set as master.

To select the clogged filter alarm interval:
- Press the FUNCTION button.
- The time currently set is displayed by lighting one of the white LEDs in position 1, 2 or 3 depending on whether the interval is equal to 90, 180 or 365 days.
- Press the SPEED button to modify the value.
- Press the FUNCTION button to confirm.
- All the speed LEDs from 1 to 5 will blink briefly to indicate that the storage has taken place and the equipment will return to normal operation.
- If the FUNCTION key is not pressed within 20 sec, the unit will return to normal operation without memorizing.

To reset the clogged filter counter:
- Press the SPEED - MODE - FUNCTION buttons simultaneously.
- Press the buttons in the following sequence: Mode - Mode - Speed - Speed - Mode - Mode.
- Press the Function key within 20 sec.
- All the speed LEDs from 1 to 5 will blink briefly to indicate that the reset has taken place and the unit will return to normal operation.
- If the FUNCTION button is not pressed within 20 sec, the unit will return to normal operation without having reset the filter timer.

NOTE:
For regular operation between multiple units, it is necessary to set the type of unit (Master / Slave and Even / Odd)

To set the unit as “WiFi Mesh” Master:
- Press simultaneously the Speed - Mode - Function buttons.
- Press in sequence the following buttons: Mode - Mode - Speed - Speed - Function - Function.
- Press the Mode button within 20 sec.
- All speed LEDs from 1 to 5 will blink briefly to indicate that the unit has been set as master unit.
- If you do not press the MODE button within 20 sec, the unit will return to normal operation without making any changes to the settings.

NOTE:
Only one unit must be set as MASTER in a specific network . The other units must be set as SLAVE

To set the unit as “WiFi Mesh” Slave:
- Press simultaneously the Speed - Mode - Function buttons.
- Press in sequence the following buttons: Mode - Mode - Speed - Speed - Function - Function.
- Press the SPEED button within 20 sec.
- All speed LEDs from 1 to 5 will blink briefly to indicate that the unit has been set as Slave.
- If the SPEED button is not pressed within 20 sec, the unit will return to normal operation without making any changes to the settings.

To set the unit as “Even Unit”:
- Press simultaneously the buttons: Speed - Mode - Function
- Press in sequence the buttons: Speed - Speed - Function - Function - Mode - Mode.
- Press the SPEED button within 20 sec.
- All speed LEDs from 1 to 5 will blink briefly to indicate that the unit has been set as an even numbered unit.
- If the SPEED button is not pressed within 20 sec, the unit will return to normal operation without making any changes to the settings.

To set the unit as an “Odd Unit”:
- Press simultaneously the Speed - Mode - Function buttons.
- Press in sequence the buttons Speed - Speed - Function - Function - Mode - Mode.
- Press the FUNCTION key within 20 sec.
- All speed LEDs from 1 to 5 will blink briefly to indicate that the unit has been set as an odd-numbered unit.
- If the Function button is not pressed within 20 sec, the unit will return to normal operation without making any changes to the settings.

WiFi Mesh Network

The WiFi module creates a mesh wifi network to synchronize the units. The mesh network is identified by a particular SSID (Service Set Identifier), which will be generic by default during installation and will become unique for each particular network once installation is completed.

To set the SSID (Service Set Identifier) of the WiFi mesh network

NOTE:
The machines are set as SLAVE by factory default. You must therefore set a unit as MASTER by pressing the MODE - MODE - SPEED- SPEED - FUNCTION – FUNCTION buttons in sequence and then the MODE button.

- Press the SPEED - MODE - FUNCTION buttons on the MASTER unit at the same time.
- Press the MODE - MODE - SPEED - SPEED - MODE - MODE buttons in sequence.
- Press the SPEED button within 20 seconds
- All speed LEDs from 1 through 5 will briefly blink to indicate that SSID = VOR_XXXXXXXX has been set on EACH SINGLE UNIT IN THE NETWORK
- If the SPEED button is not pressed within 20 seconds, all SPEED LEDs from 1 to 5 will light up for 1 second without blinking to indicate that the appliance will return to normal operation without resetting the network SSID.

NOTE:
The change from the default network SSID "VORTICE_HRW" to a unique network SSID is mandatory in order to prevent interference between different units belonging to different networks (for example, in the case of two independent flats separated by a wall, etc.).

NOTE:
You must have a smartphone or network detection unit handy to view the names of the assigned networks.

NOTE:
To set the SSID in the case of two installed networks (for example two networks on two different floors) follow these steps:

1. **Switch off the units that are not part of the network on which you want to operate (for example those on the upper floor if you want to set the network on the lower floor) to prevent them not to be assigned the same SSID.**
2. **Then, from the MASTER unit, assign the unique network identifier (SSID) by pressing the MODE - MODE - SPEED - SPEED - MODE – MODE buttons in sequence and then the SPEED button.**
3. **To set up another network (the upper floor in the example), you do not need to turn off the units of the other set up network as they already have a unique SSID.**

To reset the mesh WiFi network (global / all network units) SSID:

- Press the SPEED - MODE - FUNCTION buttons at the same time.
- Press the MODE - SPEED - FUNCTION - MODE - SPEED- FUNCTION buttons in sequence.
- Press the MODE button within 20 second
- All the speed LEDs from 1 to 5 will flash briefly to indicate execution of the command:
  - Reset the SSID = VORTICE_HRW (default) FOR ALL UNITS ON THE NETWORK.
- If the MODE button is not pressed within 20 seconds, all speed LEDs 1 to 5 will light up for 1 second without flashing, indicating that the machine will return to normal operation without resetting the network SSID.

To reset the WiFi mesh network (local / single unit on the network) SSID:

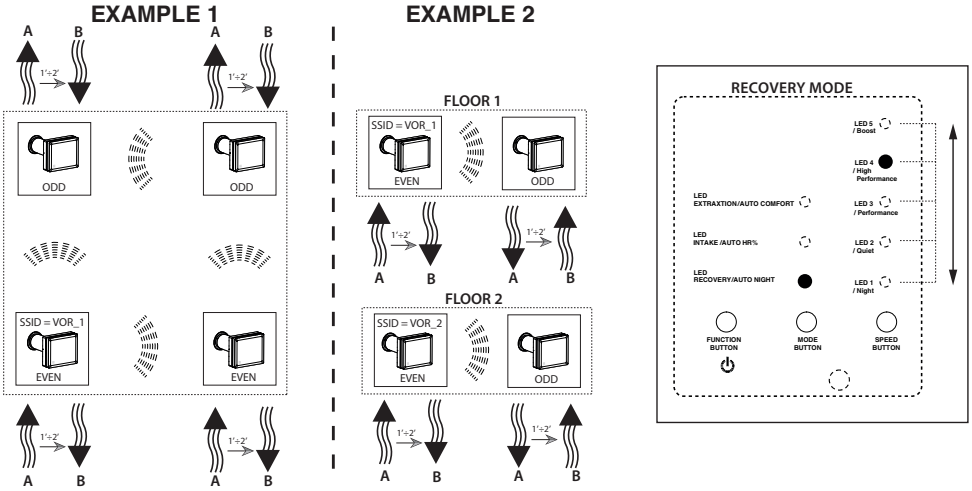
- Press the SPEED - MODE - FUNCTION buttons set as SLAVE at the same time.
- Press the MODE - MODE - SPEED - SPEED - MODE - MODE buttons in sequence..
- Press the SPEED button within 20 seconds
- All the SPEED LEDs from 1 to 5 will blink briefly to indicate that SSID = VORTICE_HRW (default) has been reset FOR THE SINGLE UNIT ONLY.
- If the SPEED button is not pressed within 20 seconds, all SPEED LEDs from 1 to 5 will light up for 1 second without blinking to indicate that the appliance will return to normal operation without resetting the network SSID.

MAC Address and SSID

The MAC Address is assigned by the manufacturer of the WiFi module itself and it is unique.
The last 4 hexadecimal digits of the MAC Address (UAA = Unique Address Assignment) of the master unit are used to generate the unique SSID of the network:
VOR_XXXXXXXX (e.g. VOR_34F5E4E7)
Each digit consists of two hex characters ranging from 0 to 255 (0x00-0xFF).
The default SSID is instead VORTICE_HRW with default password = “12345678” which cannot be changed.

Adding one or more new units to an existing mesh network

1. Go into programming mode by pressing simultaneously the SPEED - MODE - FUNCTION buttons.
2. From any unit of this network, reset all the network identifiers (SSID) of each unit in the existing network by pressing the MODE - SPEED - FUNCTION - MODE - SPEED - FUNCTION buttons in sequence and then the MODE button.
3. Or, if there are units with unknown SSIDs or which are different from the network SSID, set each unit to SLAVE mode by pressing the MODE - MODE - SPEED - SPEED - FUNCTION - FUNCTION buttons in sequence and then the SPEED button. Afterwards set the default identification (SSID) on each unit by pressing in sequence the buttons MODE - MODE - SPEED - SPEED - MODE - MODE and then the SPEED button.
4. If a MASTER unit has not yet been defined, a network unit must be set as MASTER by pressing the MODE - MODE - SPEED - SPEED - FUNCTION - FUNCTION buttons in sequence and then the MODE key..
5. Finally assign the unique network identification (SSID) from the MASTER unit by pressing the MODE - MODE - SPEED - SPEED - MODE - MODE buttons in sequence and then the SPEED button.



Remote I/O

The connected unit can be remotely controlled via clean contacts on remote input 1. If the remote input is active, the keyboard on the machine is disabled.

- Remote input # 1:
- With input contact 1 closed, all the connected fans work in extraction at maximum speed.
- If 20 seconds since the last key press have not elapsed:
- The white EXTRACTION LED lights up.
- The white 1,2,3,4,5 LEDs light up.

IR remote control

Both models are equipped with a remote control with LCD display. By default the recovery function, the auto-comfort, auto HR% and autonight modes are active. The humidity threshold is set at the maximum value (90%) and the speed is set to the maximum in order to obtain the maximum air flow rate (5 fans displayed).
The remote control transmits its default state to the unit and consequently updates the state on the appliance. If the state of the unit does not synchronize with the state of the remote control, point the remote control towards the unit and press a button on the remote control to activate the synchronization. After inserting the batteries, the remote control is active. After pressing the ON / OFF button, the dispay looks like in figure 40:

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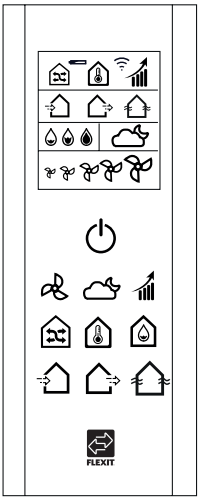

FUNCTION	Default state	LCD ICON
HEAT RECOVERY MODE	ON	
AUTO COMFORT FUNCTION	ON	
TIMED BOOST FUNCTION	OFF	
SUPPLY MODE	OFF	
EXTRACTION MODE	OFF	
VENTILATION MODE	OFF	
AUTO HR % (60% - 75% - 90%)	HIGH (90% - three drops on)	
AUTO NIGHT	ON	
FAN SPEED	HIGH (five fans displayed)	
LOW BATTERY	OFF	

Keys description:

- **On/Off FUNTION**

Press **ON/OFF** key to start the unit or to select the STANDBY mode.

- **FAN SPEED FUNCTION**

Fan speed selection is always available. Press Fan key to select fan speed (MINIMUM \ LOW \ MED \ HIGH \ BOOST). Fan speed mode will cycle as below:

FAN SPEED	LCD ICON
>MINIMUM > LOW > MED > HIGH > BOOST > MINIMUM...	

- **"AUTO NIGHT" FUNCTION**

AUTO NIGHT function is always available. Press AUTO NIGHT button at any time to toggle AUTO NIGHT function on and off.

AUTO NIGHT	LCD ICON
>ON > OFF > ON >...	> > > ...

- **"TIMED BOOST" FUNCTION**

Press TIMED BOOST button at any time to toggle TIMED BOOST function ON and OFF.

NOTE: If TIMED BOOST function is ON, TIMED BOOST icon remains active for 30 minutes and then switches off. If TIMED BOOST is ON and then TIMED BOOST key is pushed, then TIMED BOOST icon will immediately switch off.

NOTE: If TIMED BOOST function is ON, then the five fan speed icon must be ON:

TIMED BOOST	LCD ICON
>ON > OFF > ON >...	> > icon OFF> ...
ON >...	> > icon OFF after 30 minutes

- **"HEAT RECOVERY" MODE**

Press "heat recovery button" at any time to select HEAT RECOVERY mode.

HEAT RECOVERY	LCD ICON
>ON	>

NOTE: if HEAT RECOVERY button is pushed, then SUPPLY icon , EXTRACT icon , VENTILATION MODE icon will switch off.

- **"AUTO COMFORT" FUNCTION**

Press AUTO COMFORT button at any time to toggle AUTO COMFORT function ON and OFF.

AUTO COMFORT	LCD ICON
>ON > OFF > ON >...	> >icon OFF > ...

- **HUMIDITY THRESHOLD**

Press UMIDITY THRESHOLD button to select UMIDITY THRESHOLD value (OFF/ LOW/ MED / HIGH). UMIDITY THRESHOLD value will cycle as in the following table:

HUMIDITY THRESHOLD VALUES	LCD ICON
>OFF >LOW > MED > HIGH ...	>icon OFF > > > ...

- **“SUPPLY” MODE**

Press the “supply” button at any time to select SUPPLY mode.

SUPPLY	LCD ICON
>ON	>

NOTE: if SUPPLY button is pushed , then HEAT RECOVERY icon , EXTRACTION icon and VENTILATION MODE icon will switch off.

- **“EXTRACTION” mode**

Press “extraction” button to select this mode.

EXTRACTION	LCD ICON
>ON	>

NOTE: if EXTRACTION button is pushed, , then HEAT RECOVERY icon , SUPPLY icon and VENTILATION MODE icon will switch off.

- **“VENTILATION MODE” mode**

Press VENTILATION MODE button to select this mode.

VENTILATION MODE	LCD ICON
>ON	>

NOTE: if VENTILATION MODE button is pushed, then HEAT RECOVERY icon , SUPPLY icon and EXTRACTION will switch off.

- **“Low battery indication” function**

When the remote control has been used for a long time and there is no enough power left, the remote control will show “low battery indication” on the LCD, it shows the user need to replace a new battery. It will blink all the time till the battery has been replaced.

- **“Backlight” function**

When using the remote control, the LEDs backlight is on. If the remote control has not been used for 10 seconds, the backlight function is turned off for energy saving.

- **“Reset” function**

A small hole in the back of the remote control works as reset function.

Technical data

Model		Single Room Ventilator Muto 100	Single Room Ventilator Muto 160
Max absorbed power (W)		5	6
Nominal duct diameter (mm)		100	160
Airflow max (m^3/h)	Night	6	15
	Quiet	10	22
	Performance	15	30
	High Performance	21	38
	Boost	38	40
Sound powerlevel Lw [dB(A)]	Night	36,6	36,5
	Quiet	41,2	38,4
	Performance	49,5	42,9
	High Performance	53,1	48,1
	Boost	66,8	49,3
Pressure max (Pa)	Night	10	17
	Quiet	20	24
	Performance	40	37
	High Performance	45	46,5
	Boost	135	47
Soundpressure level Lp [dB (A)] 3m	Night	19,1	19,0
	Quiet	23,7	20,9
	Performance	32,0	25,4
	High Performance	35,6	30,6
	Boost	49,2	31,8
Equivalent Continuous Sound Pressure Level [LAeq,nT dB(A)]	Night	29,0	30,1
	Quiet	33,8	35,7
	Performance	39,4	37,9
	High Performance	43,9	42,1
	Boost	54,5	42,3

Maintenance and cleaning

Before starting any maintenance or cleaning operation set the unit to standby mode (LEDs in SPEED column turn off) and wait for the fan to stop.

Filters cleaning
The maintenance time for filters can be set to 90, 180 or 365 days (see the section "Parameters programming sequences").

Cleaning /replacement of internal filter (fig. 41):
Remove the closing disk (1), remove the filter (2), wash or replace it and reposition it in its seat with the filter frame; re-insert the closing disk.

Cleaning /replacement of external filter for "Single Room Ventilator Muto 160" (fig. 42):
Follow the steps from 1 to 6 and repeat them in the reverse order once the filter has been cleaned or removed.

Cleaning/ replacement of external filter for "Single Room Ventilator Muto 100" (fig. 43):
Follow the steps from 1 to 6 and repeat them in the reverse order once the filter has been cleaned or removed.
On every model it is mandatory to reset the saturated filter situation by following the procedure described in the section "parameters programming sequence", before returning to the normal functioning of the unit.

N.B. Failure to clean or replace filters causes problems for system efficiency, including:
- Increase in pressure losses and reduction of air flow.
- Decrease in machine yield and worsening of the indoor climat.

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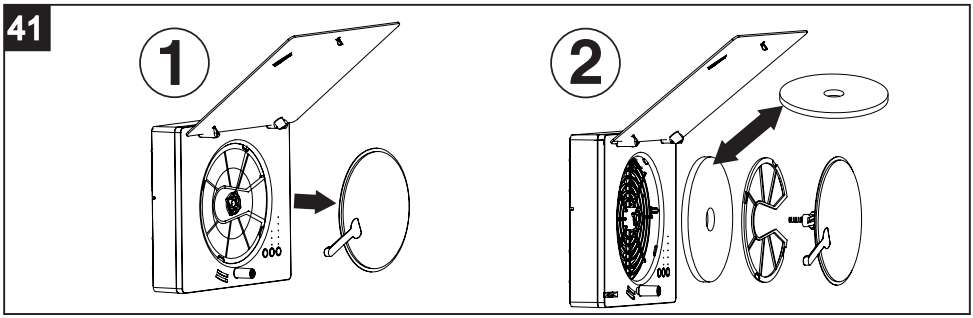

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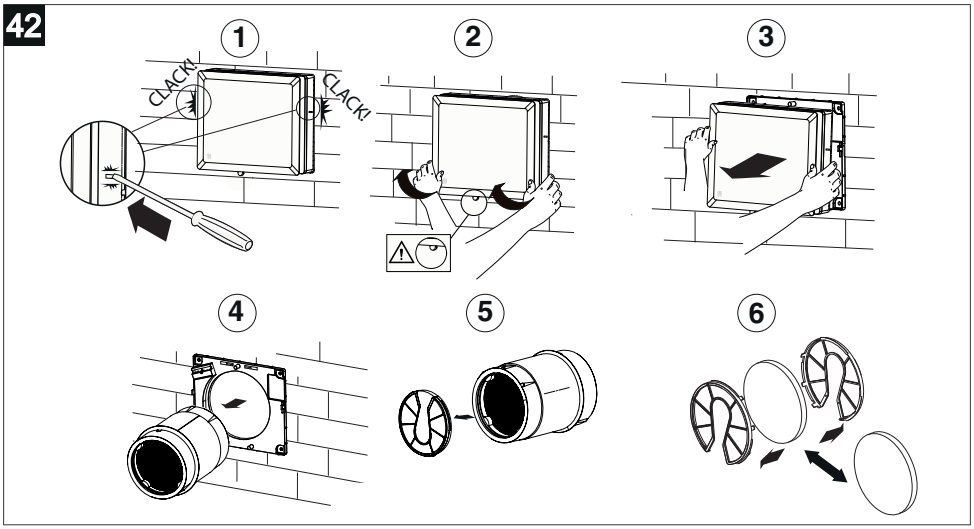

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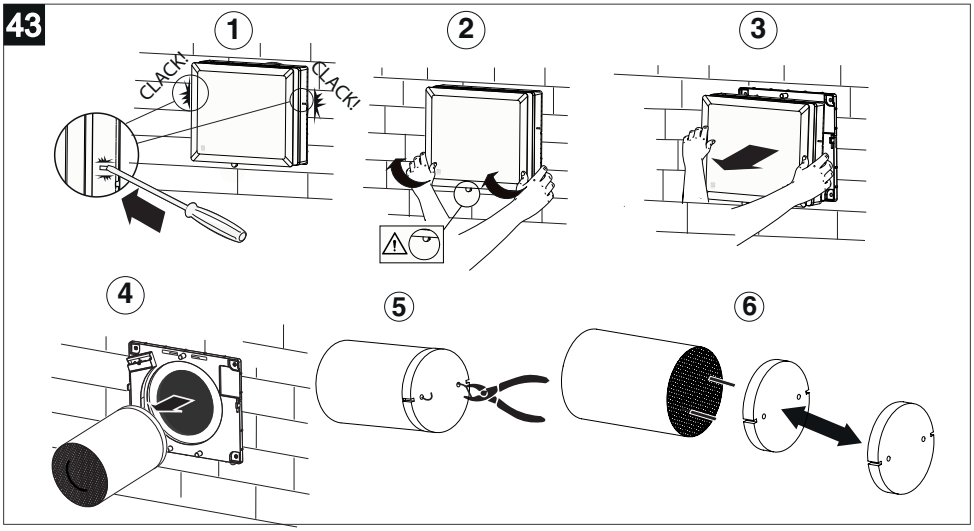

Disposal

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.

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