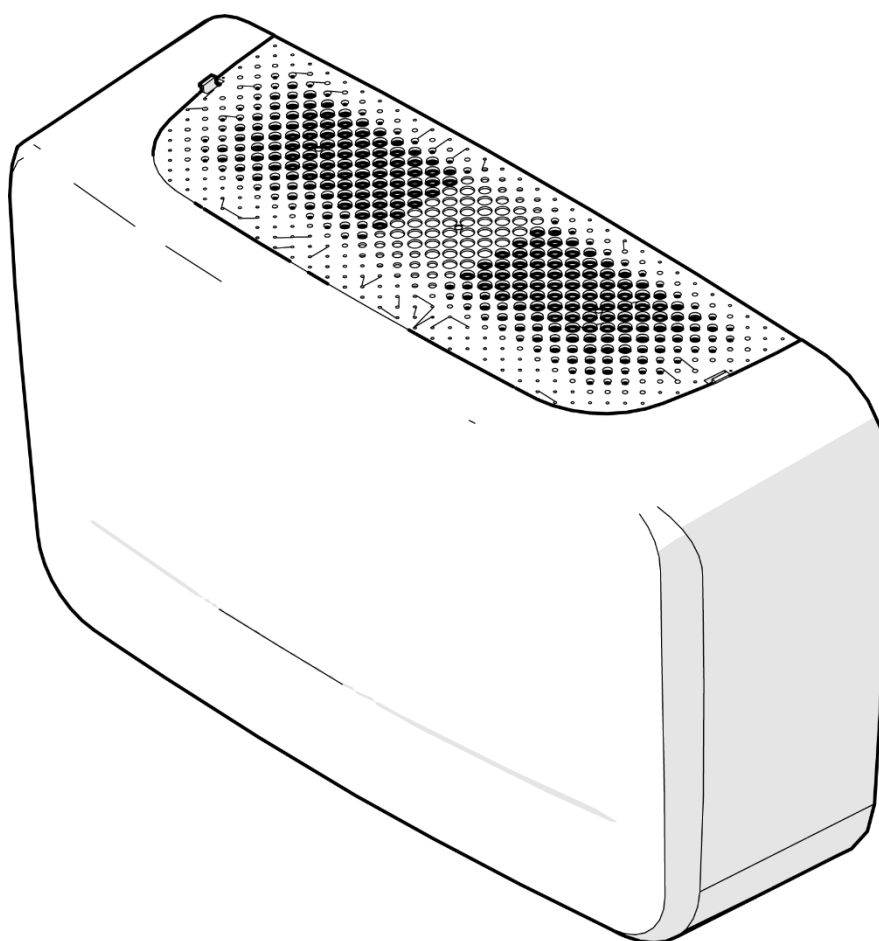




# HIGH EFFICIENCY PUNCTUAL HEAT RECUPERATOR WITH REMOTE CONTROL DUO WALL



USER AND INSTALLER MANUAL

**PLEASE READ THIS MANUAL CAREFULLY BEFORE USING THE UNIT.**

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## 1. FOREWORD

This manual indicates the intended use of the unit and provides instructions for transporting, installing, mounting, adjusting, and operating the unit. It provides information for maintenance work and residual hazards and instruction for personnel.

The user and maintenance manual must be read and used as follows:

- Every operator, engaged in the use or maintenance of the unit, must read this manual in its entirety and with the utmost attention and comply with what is stated;
- The employer must ensure that the operator has the necessary aptitude to operate the unit and has carefully read the manual; the employer must also carefully inform the operator about the risks of accidents and in particular about the risks deriving from noise, about the personal protective equipment provided and about the general accident prevention rules provided for by international laws or standards and those of the country where the unit is to be used;
- The manual must always be available to the user, the managers, the persons in charge of the transport, installation, use, maintenance, repair and final dismantling;
- Keep the manual in areas protected from humidity and heat and consider it an integral part of the unit for its entire duration, handing it over to any other user or subsequent owner of the unit;
- Make sure that any updates received are incorporated into the text;
- Do not damage, remove, tear or rewrite the manual or parts of it for any reason, in case it is lost or partially damaged and therefore it is no longer possible to read its contents completely, it is recommended to request a new manual to the manufacturer by communicating the machine serial number on the data plate.

Pay close attention to the following symbols. Their function is to emphasize particular information such as:



**Note "notes" add additions or suggestions for the proper use of the unit.**



**"Caution!" notes indicate dangerous situations that may occur with the use of the unit to prevent damage to property and the unit itself.**



**"Danger!!!" notes indicate serious dangerous situations that may occur with the use of the unit to ensure the safety of people.**

The manufacturer has the right to update production and manuals, with no obligation to update earlier versions except in special cases.

This manual reflects the state of the art at the time the unit was placed on the market and cannot be considered inadequate simply because it was subsequently updated to reflect new technology.

To request any updates or additions to the user manual, which shall be considered an integral part of the manual, please forward your request to the contact details given in this manual.

Contact the manufacturer for further information and any suggestions for improvement of the manual.

The manufacturer invites, in case of sale of the unit, to indicate the address of the new owner to facilitate the transmission of any additions to the manual to the new sender.

### 1.1 RESPONSIBILITY

The unit is guaranteed in accordance with the contractual agreements made at the time of sale.

The manufacturer considers himself exempt from any liability and obligation, and the form of guarantee provided for in the sales contract for any accident to persons or things that may occur due to:



- **failure to observe the instructions contained in this manual with regards to operation, use, maintenance and events which are in any case unrelated to the normal and correct use of the unit;**

- **modifications made to the unit and safety devices without the prior written authorization of the manufacturer;**
- **attempts at repairs carried out on their own account or by unauthorized technicians;**
- **Failure to perform regular and consistent maintenance or use of non-original spare parts.**

In any case, if the user attributed the accident to a defect of the unit, he must prove that the damage occurred was a main and direct consequence of such "defect".

## 1.2 OPERATING DIRECTIVES

The service regulations described in this manual are an integral part of the delivery of the unit.

These standards, moreover, are intended operator already expressly instructed to conduct this type of unit and contain all the information necessary and indispensable for the operating safety and the optimum use of the unit.

Rushed and deficient preparations force improvisation.

This is the cause of many accidents that can be avoided by following these technical instructions compiled with reference to Machinery Directive 2006/42/EC, as amended.

In any case always observe national safety standards;

Carefully read and strictly observe the following prescriptions:

- Initial start-up should only be carried out by qualified personnel;
- During installation or when you need to work on the unit, you must strictly follow the rules reported on this manual, follow the instructions on the unit and take any necessary precautions;
- Possible accidents to people and things can be avoided by following these technical instructions compiled with reference to the Machinery Directive 2006/42 / EC and subsequent amendments. In any case always observe national safety standards;
- Do not remove or damage the protections, labels and writings, especially those required by law and, if no longer legible, you must replace them.

The Machinery Directive 2006/42/EC gives the following definitions:

**DANGEROUS AREA:** any zone within and / or near a machine in which the presence of an exposed person constitutes a risk to the health and safety of the same.

**EXPOSED PERSON:** Any person who is wholly or partially in a hazardous area

**OPERATOR:** The person(s) in charge of installing, operating, adjusting, maintaining, cleaning, repairing, and transporting the machine.



**All operators must comply with the international safety regulations and the country of destination of the unit in order to avoid possible accidents.**

As a reminder, the European community has issued a number of directives concerning the safety and health of workers, including Directives 89/391/EEC, 89/686/EEC, 89/654/EEC, 89/655/EEC, 89/656/EEC, 86/188/EEC, 92/58/EEC and 92/57/EEC, which each employer is obliged to comply with and enforce on his or her staff.

The units were designed and built according to the current state of the art and current rules of technology.

Compliance was made with the laws, regulations, prescriptions, ordinances, and directives in force for such machines.

The materials used and the equipment parts, as well as the production processes, quality assurance and control meet the highest safety and reliability requirements.

By using them for the purposes specified in this user manual, handling them with due diligence and carrying out accurate maintenance and overhauls to perfection, you can maintain continuous and lasting performance and functionality of the units.

## 1.3 INTERVENTIONS AND MAINTENANCE

It should be remembered that the manual is never a substitute for adequate user experience; for some particularly demanding maintenance operations, this manual is a reminder of the main tasks to be performed by operators with specific training acquired, for example, by attending training courses at the manufacturer.

Please read the following suggestions carefully:

- Constant and careful preventive maintenance always guarantees the high operational safety of the unit. Never postpone necessary repairs and have them carried out only and exclusively by specialized personnel, using only original spare parts;
- Operators' workplaces should be kept clean, tidy, and clear of objects that may restrict free movement.
- Operators should avoid clumsy operations, in awkward positions that may affect their balance.
- The workplace must be adequately lit for the intended operations. Insufficient or excessive lighting can pose risks.
- Any intervention on the unit must be carried out by qualified personnel;
- Before carrying out any intervention or maintenance on the unit, make sure that the power supply has been disconnected;
- Make sure that the safety devices work correctly and that there is no doubt about their operation; otherwise do not start the unit under any circumstances;
- Use only tools prescribed by the unit manufacturer. To avoid personal injury, do not use worn or damaged, low-quality, or improvised tools;
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lacking experience and knowledge, unless they have received supervision or instruction regarding the use of the appliance from a person responsible for their safety
- children must be supervised to ensure that they do not play with the appliance
- precautions must be taken to prevent backflow of gas into the room from the open gas flue or other fuel-burning appliances
- It is forbidden the use of flammable fluids during cleaning operations.

For cleaning the unit does not use diesel, petrol or solvents as the former leave an oily layer that promotes adhesion of dust, while solvents (although weak) damage the paint and thus favor the formation of rust. If a jet of water penetrates the electrical equipment, in addition to inducing oxidation of the contacts, it can cause the unit to malfunction. Therefore, do not use water or steam jets on sensors, connectors or any electrical parts.



**Once the unit has been cleaned, the operator should check for any worn or damaged parts or parts that are not solidly attached; if not, ask the maintenance technician for assistance;**

#### 1.4 INTENDED USE

These units are point (room-by-room) heat recuperators, to be installed at the perimeter wall, which allow ventilating a room without ductwork and without losing heat by emitting exhaust air.

Their use is recommended within the operating limits given in this manual.



**Place the unit in environments where there is no danger of explosion, corrosion, fire and where there are vibrations and electromagnetic fields. It is also forbidden to operate in a different way from what is indicated or to neglect operations necessary for safety.**

#### 1.5 GENERAL SAFETY RULES

##### WEAR PROTECTIVE CLOTHING

Each operator must use personal protective equipment such as safety shoes, gloves, safety goggles, noise protection earphones and helmet for head protection.



##### FIRE EXTINGUISHER AND FIRST AID

Place a first aid kit and fire extinguisher near the unit. Periodically make sure that the fire extinguishers are charged and that the way to use is clear. In case of fire, use it according to current regulations and contact the fire brigade. Check periodically that the first aid *kit* is complete. Make sure to have first aid phone numbers nearby.



The provision of a fire extinguisher and first aid kit is the responsibility of the owner of the property where the unit is installed.



## WARNINGS FOR INSPECTIONS AND MAINTENANCE

Apply a sign with the words: "UNDER MAINTENANCE" on all sides of the unit.

Check the unit carefully by following the list of operations in this manual.

### SAFETY PLATES



Generic hazard



Burn Hazard



Danger of moving organs



Presence of hazardous electrical voltage



Danger of stab wounds

## 2. PRODUCT DESCRIPTION

DUO WALL recuperators are designed for controlled ventilation of apartments, hotels, bars and any other civil, residential and commercial environment.

The unit is equipped with a polystyrene air-to-air exchanger, with an efficiency of more than 90 percent, which allows fresh air to enter the room and heat to be recovered from the exhausted air expelled.

DUO WALL recuperators combine state-of-the-art technical solutions with an aesthetically pleasing appearance, thanks to elegant external covers.

DUO WALL is designed to be mounted in exterior walls from 50 mm to 500 mm thick. Special extensions make it possible to overcome greater thicknesses (see section: CONDUCT FOR THICK WALLS).

The low air speed avoids the annoying draughts of traditional air conditioning systems and ensures maximum environmental comfort.

The exclusive use of absolute quality parts in the aerologic and electrical parts puts the DUO WALL units at the highest level of the state of the art in terms of efficiency, reliability and sound power output.

### 2.1 STRUCTURE AND OPERATION

The unit consists of: an indoor unit, two outdoor grilles and two ducts. The central indoor unit contains the exchanger, two fans and three filters and presides over operation; the outdoor grilles protect against rain and insects.

One of the filters is placed on the air inlet from the outside and prevents the entry, from the outside of objects that could damage exchanger or fan, while two other filters are placed on the air inlet to the room and air extraction from the room.

The unit is equipped with a nonvolatile memory clock, which signals every 2000 hours of operation the opportunity to check the filters, with the lighting of an LED, located on the left side of the unit. Once the filters have been replaced and the programmer reset, the LED remains off until another 2000 hours of operation have elapsed.

The heat exchanger recovers heat from the exhausted air, to heat the air fed into the room.

The ventilation unit must be installed in a location where water or other substances cannot enter and damage its components.

DUO WALL can operate in different modes:

**EXTRACTION:** the unit operates permanently in extraction.

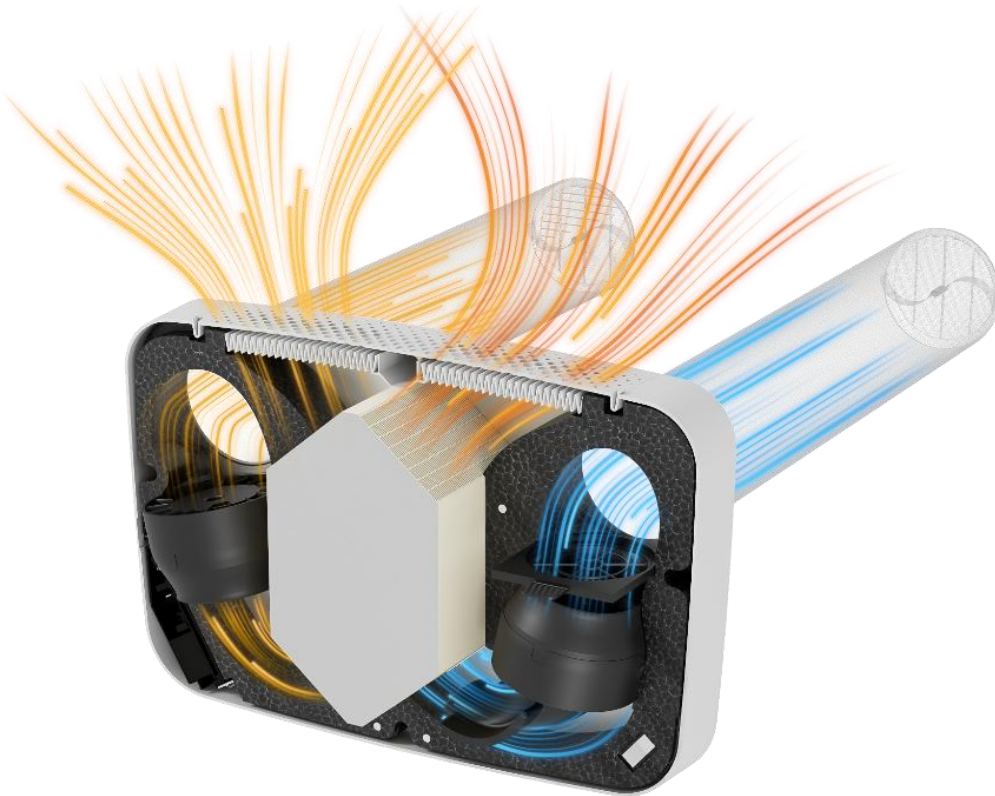
**IMMISSION:** the unit operates permanently in immission.

**HEAT RECOVERY:** the unit operates constantly as heat recovery.

**NIGHT FUNCTION:** if activated, the speed is reduced to "Superminimum" level so that air exchange continues, without producing noise. In automatic, the preset ventilation is reactivated as the brightness increases.

**HUMIDITY FUNCTION:** if activated, the ventilation rises to the maximum level, as long as the room humidity remains above the preset level.

**IONIZER** function: when activated, the air is ionized to precipitate dust.



## 2.2 OPERATING LIMITS

The recuperator should be used in temperatures between  $-20^{\circ}$  and  $+40^{\circ}$ , with relative humidity below 97%. If installed in dimly lit locations, the "night" function may not be usable.

## 3. OPERATION OF SEVERAL INTERCONNECTED DEVICES

When you want to manage ventilation from a single room, several units can be connected in cascade.

With cascading, one remote control, operating on the first appliance, called the "Master," is sufficient to operate all the other "Slaves."

Appliances operating in different rooms can also be cascaded, provided that they have similar needs to each other and it is useful to manage them with one control.

The maximum number of recuperators that can be connected in cascade is ten pieces.

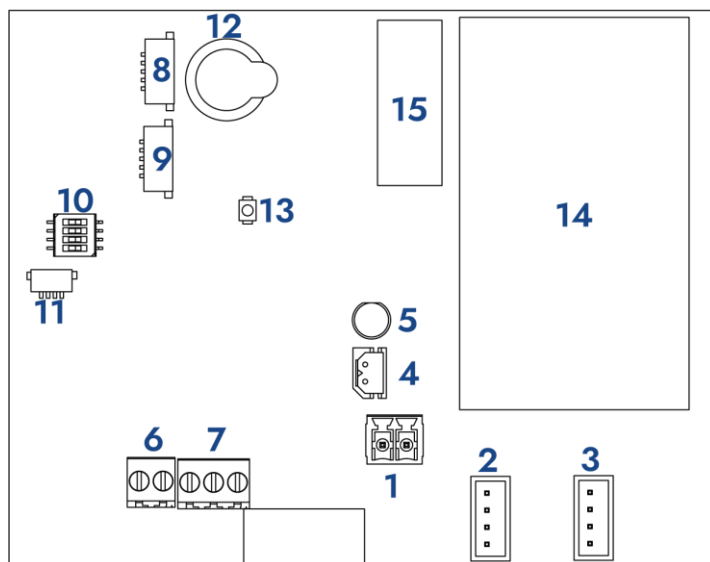
## 4. ELECTRICAL CIRCUITS

### 4.1 ELECTRICAL EQUIPMENT

All electrical and electronic equipment is made and wired in compliance with low voltage and electromagnetic compatibility standards for household applications.

The fans, equipped with low-consumption reversible EC motors with adjustable flow rate, are extremely quiet. Having installed the fan in the properly prepared hole (see Section 9.4), connect an electrical power outlet (110-240 Vac ~ 50-60 Hz).

Pos	Description
1	Power supply terminal Power supply input 110V-240Vac - 50-60Hz
2	Fan connector output
3	Fan connector input
4	Ionizer connector
5	Ionizer activation status LED
6	Output signal terminal Output control signal to next device
7	Input signal terminal Input signals from previous device or remote control
8	Sensor Card Connector
9	Connector for Wi-Fi+ card (TQCT07 accessory)
10	Dip-Switches
11	Connector for Touch Display
12	Buzzer
13	Reset button
14	24Vdc power supply
15	Fuse

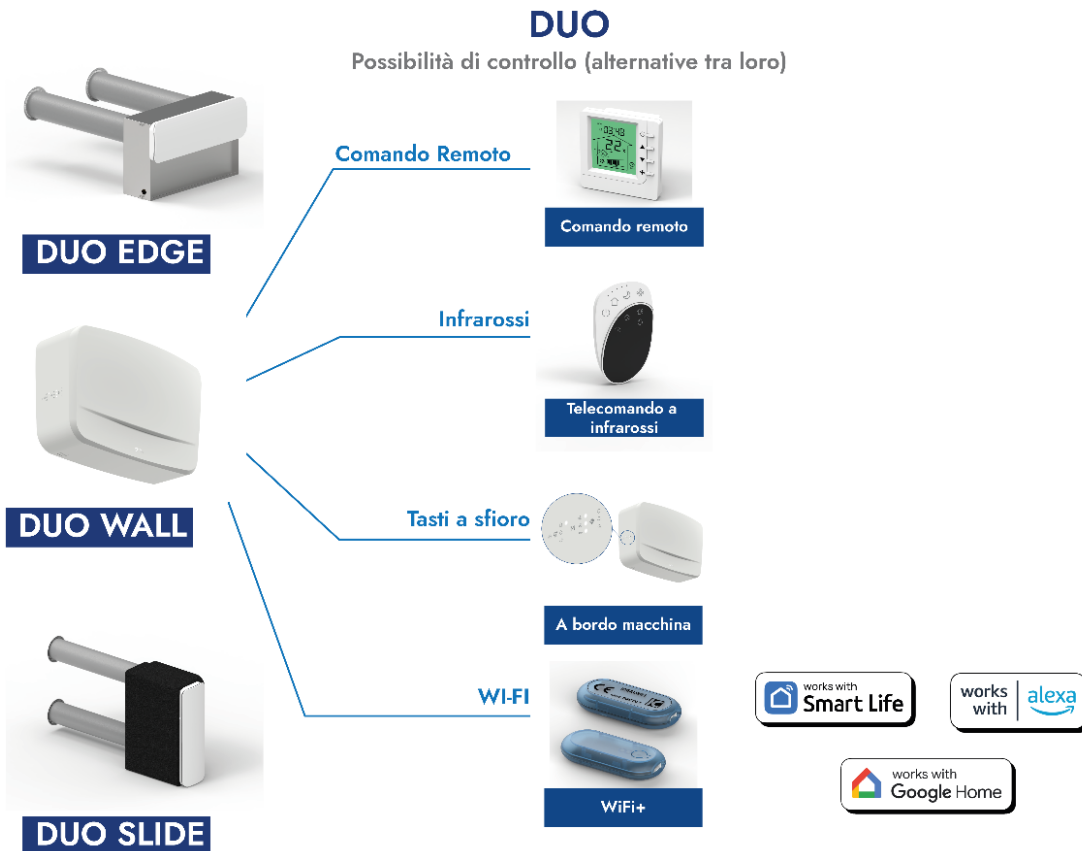


## 5. COMMANDS AND OPERATION

### 5.1 MODE OF CONTROL

The unit can be controlled alternately by means of:

- Remote control
- Remote control as standard
- On-board touch buttons
- Control via App by pairing with WIFI+ accessory (cod. TQCT07 - optional)













### 5.2 ON-BOARD BUTTONS

The on-board buttons are located on the left side of the device and are touch buttons: just place your finger on them to control them.

If several devices are installed in cascade, only the first one (master) accepts commands, whether they come from the on-board buttons or the remote control.

All other devices (slaves) are controlled by the master.

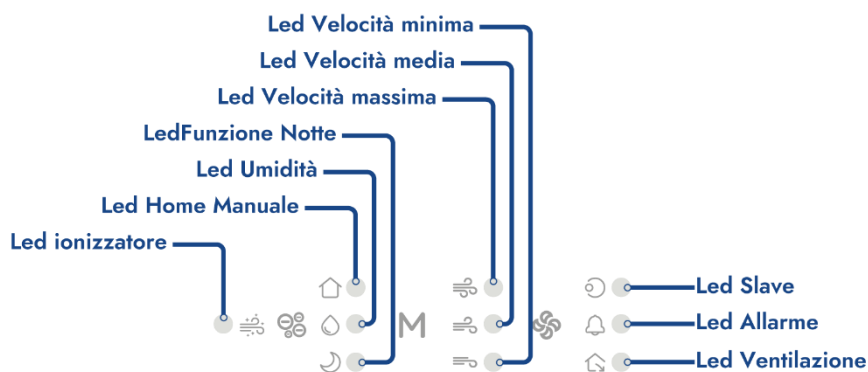









Key	Description	Function
	<b>Mode</b>	<p>The button <b>M</b> allows you to choose the mode of operation:</p> <ul style="list-style-type: none"> <li>Manual home - Heat recovery active (Led "" on)</li> <li>Night function active (Led "" lit)</li> <li>Device shutdown</li> </ul> <p>Pressing this key returns to the manual Home function</p>
	<b>Speed</b>	<p>This key allows you to choose the operating speed of the fan in the Home manual and ventilation modes:</p> <ul style="list-style-type: none"> <li>Super-minimum speed (Orange Led "" lit steadily)</li> <li>Minimum speed (White led "" lit steadily)</li> <li>Medium speed (White led "" lit steadily)</li> <li>Maximum speed (White led "" lit steadily)</li> </ul>
	<b>Ionizer</b>	<p>This key enables the air ionizer function:</p> <ul style="list-style-type: none"> <li>When the ionizer is active the led "" will be permanently on.</li> </ul>




### 5.3 ON-BOARD LEDs

On-board LEDs are located on the left side of the device.

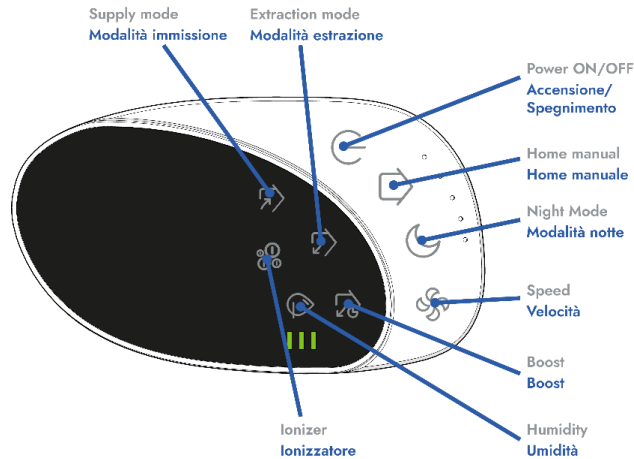
The LEDs indicate in which mode DUO WALL is operating at that moment.



Led	Description	Function
	<b>Manual Home</b>	<ul style="list-style-type: none"> <li><b>Led on:</b> Standard operating mode, any fan speed can be selected manually. In this mode, the fan alternates between air intake and exhaust, and heat recovery is active (unless the ventilation led is on)</li> </ul>
	<b>Humidity</b>	<ul style="list-style-type: none"> <li><b>Led on:</b> humidity control is on, room humidity is not over the set threshold, you can choose the fan operation speed.</li> <li><b>LED flashing:</b> The preset humidity threshold has been exceeded, Kers+ activates the maximum speed until the humidity falls below the preset threshold.</li> </ul> <p>Humidity control and its threshold can only be set by remote control. Humidity control is incompatible with the night function.</p>
	<b>Night function</b>	<ul style="list-style-type: none"> <li><b>Led on:</b> the night function has been activated. In this mode, the twilight sensor reduces the speed to "super minimum" level so as not to disturb sleep. When this mode is on, at night, all the LEDs on the machine are turned off and the fan remains running.</li> <li><b>Led off:</b> the night function is not active</li> </ul>
	<b>Minimum speed</b>	<ul style="list-style-type: none"> <li><b>Orange led:</b> super-minimum speed active</li> <li><b>White led:</b> minimum speed active</li> </ul>
	<b>Medium speed</b>	<ul style="list-style-type: none"> <li><b>White led:</b> medium speed active</li> </ul>
	<b>Maximum Speed</b>	<ul style="list-style-type: none"> <li><b>White led:</b> maximum speed active</li> </ul>
	<b>Ventilation</b>	<ul style="list-style-type: none"> <li><b>Led on:</b> the fan is running in the extract-only direction</li> <li><b>Led flashing:</b> the fan is running in the inlet-only direction. The choice between input or extraction in this function is made through the remote control with the appropriate buttons</li> <li><b>Led off:</b> the fan operates in the alternating direction by recovering heat.</li> </ul>















	<b>Alarm</b>	<ul style="list-style-type: none"> <li>• <b>Led on:</b> Generic device error</li> <li>• <b>Led flashing:</b> Filters dirty signal</li> </ul>
	<b>Slave</b>	<ul style="list-style-type: none"> <li>• <b>Led off:</b> Device operates independently or is a MASTER, can be controlled by remote control or from device board.</li> <li>• <b>Led on:</b> this recuperator is a SLAVE, so it does not accept direct commands, but commands must be applied to the relevant Master</li> <li>• <b>Led flashing:</b> following receipt of a command, the device signals its rejection, either because it is commanded by a Master device or because an external controller is commanding it.</li> </ul>
	<b>Ionizer</b>	<ul style="list-style-type: none"> <li>• <b>Led off:</b> Ionization function is not active</li> <li>• <b>Led on:</b> The air ionization function has been activated</li> </ul>

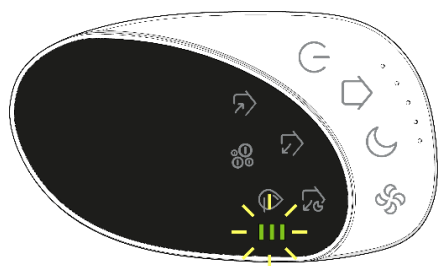
## 5.4 REMOTE CONTROL



The operating distance of the remote control can be affected by the environment in which it operates.

Possible operations:

Key	Description	Function
	<b>ON/OFF</b>	<ul style="list-style-type: none"> <li>• The button  turns the unit on and off</li> </ul>
	<b>Manual Home</b>	<ul style="list-style-type: none"> <li>• Activates the heat recovery mode with alternating 60-second cycles of extraction and input</li> <li>• Returns the unit to manual home mode</li> <li>• Any input-only, extraction-only or extraction boost functions are deactivated</li> </ul>
	<b>Night Mode</b>	<ul style="list-style-type: none"> <li>• Activates Night Mode: in darkness, the device goes into super-minimum speed with heat recovery active. When the room is lit it resets to manual Home Mode</li> </ul>
	<b>Speed</b>	<ul style="list-style-type: none"> <li>• Changes the speed among several available by switching between:</li> <li>• Super-minimum speed (Orange Led " lit steadily)</li> <li>• Minimum speed (White led " lit steadily)</li> <li>• Medium speed (White led " lit steadily)</li> <li>• Maximum speed (White led " lit steadily)</li> </ul>
	<b>Air Supply Mode</b>	<ul style="list-style-type: none"> <li>• Activates the new air only mode.</li> </ul>
	<b>Exhaust mode</b>	<ul style="list-style-type: none"> <li>• Activates the Exhaust air only mode.</li> </ul>
	<b>Extraction Boost</b>	<ul style="list-style-type: none"> <li>• Activates Extraction Boost Mode: the device runs at maximum speed in expulsion for 1/2 hour. The speed LEDs are flashing and the ventilation LED is on steadily</li> </ul>
	<b>Humidity</b>	<ul style="list-style-type: none"> <li>• Activate or deactivate the humidity control, three bars on the remote control light up to indicate the humidity threshold (1 bar: low desired humidity, the device will activate maximum speed frequently – 3 bars: high desired humidity – the device will activate maximum speed rarely)</li> </ul>
	<b>Ionizer</b>	<ul style="list-style-type: none"> <li>• Activates the ionization mode of the air introduced into the room.</li> </ul>



If, when pressing any button, you notice the 3 green lights flashing simultaneously without hearing any "beep" from the device, it means that the remote control has flat batteries, therefore replace them.

## 5.5 REMOTE CONTROL

When the contact relating to the Remote Control is closed, DUO WALL does not accept commands from the remote control or from on the machine.

The active remote control is indicated by an orange minimum speed LED and a white medium speed LED.

When the device receives the command, heat recovery at medium speed is active.

When the device is not receiving the command it switches off. From that moment it is possible to control it manually using the buttons on the machine or from the remote control by pressing the On/Off button twice.

If the remote control is reactivated, it will take precedence over any previous setting.

The Remote Control is not compatible with Master/Slave configuration.



## 5.6 WIFI CONNECTION

### (COMPATIBLE WITH 2.4 GHZ NETWORKS ONLY)

The device can be connected to the WiFi network by installing the "Wi-Fi+" accessory, code TQCT07, which must be purchased separately.

Before using Wi-Fi for the first time, you need to configure the Wi-Fi signal and settings via your smartphone or tablet. This will enable communication between the connected devices.

It is recommended to also activate Bluetooth for quick device recognition.

### DOWNLOAD THE SMART LIFE APP



Search for "Smart Life" in the Apple Store or Google Play and complete the account registration.



### WI-FI+ INSTALLATION AND PAIRING

For correct installation of the TQCT07 accessory, follow the instructions in the video accessible via the following QR code.

Once pairing is complete, you will be able to manage the device's functions remotely as long as you are connected to the Internet.

Connecting the device to the Smart Life app also makes it possible to pair it with Google Home and

Alexa if desired.

Through this association it is therefore possible to manage the device also via voice commands.

It is recommended that you assign a unique name to each device connected to the SmartLife app to simplify remote management.

### ALEXA VOICE COMMANDS

Using the Alexa virtual assistant, you can manage some of the device's functions with voice commands (see the table below for available commands):

Hey Alexa, turn on "device name"



Okay

Hey Alexa, increase "device name"



Okay

Command type	Available ALEXA commands
Switching on	Hey Alexa, turn on "device name"
Shutdown	Hey Alexa turn off "device name"
Speed	Hey Alexa increase "device name"
	Hey Alexa, reduce "device name"

### GOOGLE HOME VOICE COMMANDS

Using Google Assistant, you can manage many of the device's functions directly with voice commands (see the table below for available commands):

Ok Google, turn on "device name"



Okay, I'll turn on "device name"

Ok Google, set "device name" to low

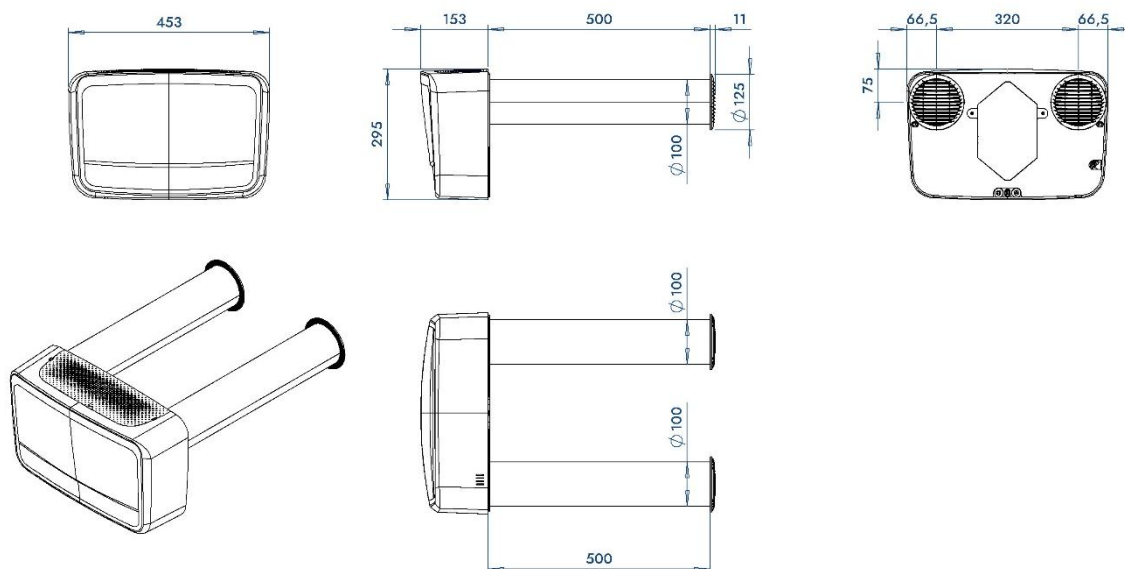


Okay, I set "device name" to low

Command type	Available commands GOOGLE HOME
Switching on	Ok Google turn on "device name"
Shutdown	Ok Google turn off "device name"
Speed	Ok Google set "device name" to very low
	Ok Google set "device name" to low
	Ok Google set "device name" to media
	Ok Google set "device name" to high

## 6. TECHNICAL DATA

### 6.1 DIMENSIONAL DRAWING



All measurements are in mm

## 7. AFTER SALES

### 7.1 TROUBLESHOOTING

Listed below are the most common causes that can cause the unit to freeze, or at least to operate abnormally. The division is made on the basis of easily identifiable symptoms.

NR	ANOMALY	POSSIBLE CAUSES	CORRECTIVE ACTIONS
1	The unit does not start	No power supply to the unit	Check their presence on the power terminals
		One or more speed LEDs flash	Wait until the shutter is fully open
		Engine blocked, impeller clogged	Turn off the unit Fix engine jam, clean propellers Restart the unit
2	Low air flow	The speed was set too low	Choose a higher speed
		The fan or exchanger filter is dirty	Clean or replace the filters, clean the fan and the recuperator (see the maintenance chapter).
3	The circuit breaker trips	A short circuit has produced an overcurrent.	Turn off the unit and contact a service center.
4	The device does not apply the commands sent by the remote control	The remote control battery may be dead. The remote control does not flash when sending the pulse to the device.	Replacing the remote control batteries
		The device is a slave, it emits three beeps to reject the command and the Slave LED flashes three times	None – expected behavior for a slave device. Command the master
		The device is controlled by an external contact, the medium speed LED is lit in white and the super minimum speed LED is lit in orange	None – expected behavior for a device controlled by external control. Disable external control to be able to control the device with the remote control
		The device is in standby mode. Commands other than switching on are rejected with two beeps.	Turn on the device using the power button on the remote control or using the buttons on the machine
5	Vibrations and noises	The fan is dirty	Clean the fan
		The screws on the casing or outer cap are loose.	Tighten the screws on the drive and the outer cap.

Deformation of the motor assembly: the fan blades touch the tube.

Loosen the fixing screws and shim

6

Alarm LED on

If the LED is intermittent, the filters are dirty.

Clean or replace the filters, clean the fan and the recuperator (see the maintenance chapter).

If the LED is on steadily: generic alarm

Call for assistance

## 7.2 ROUTINE MAINTENANCE



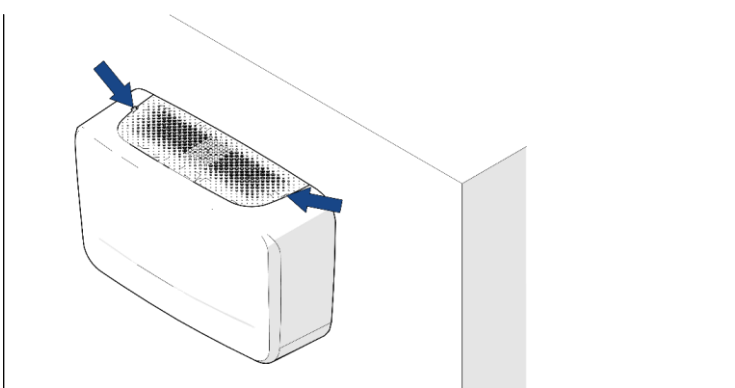
**Disconnect the unit from the mains before carrying out any maintenance.**

Proper functioning of the appliance requires regular cleaning of the filters or their replacement when necessary. Clean the exchanger from any dust that may settle over time.

### REPLACING INTERNAL FILTERS

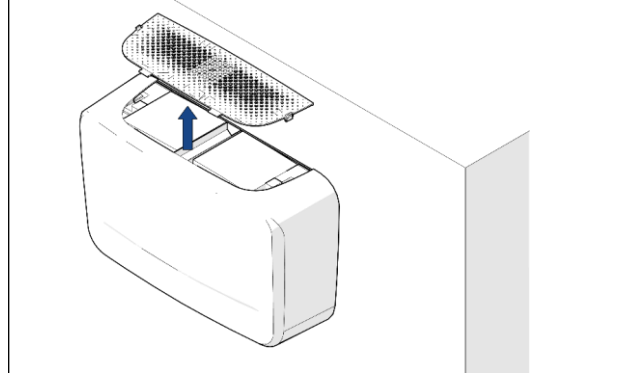
Perform the following steps:

#### Removing the internal filter cover – 1



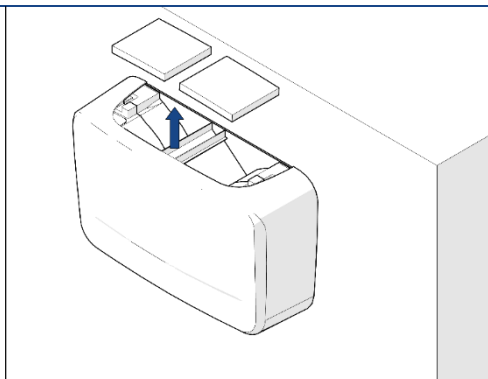
From the upper side, lightly press the two springs that attach the filter cover to the internal cover.

#### Removing the internal filter cover – 2



Then lift the filter cover

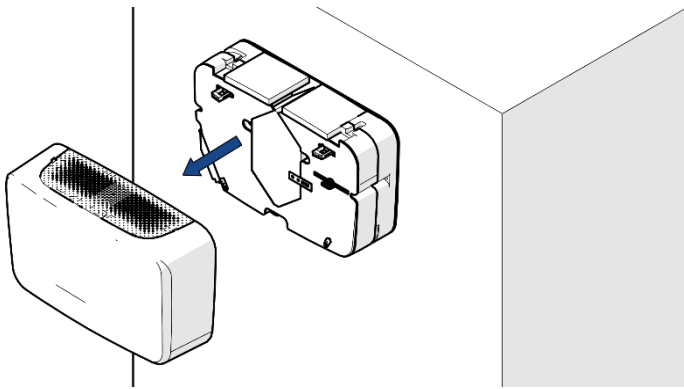
#### Removing the front panel of the internal unit – 3



Now you can remove the filters and replace them with new ones. Reassemble by performing the operations in reverse order.

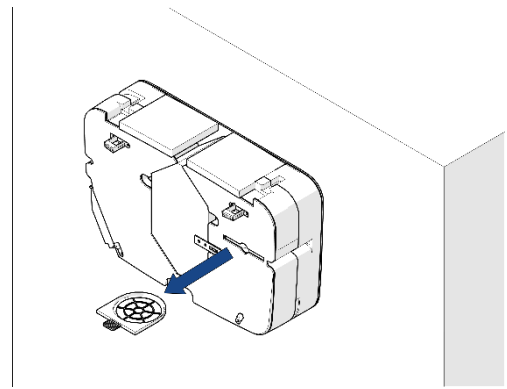
## CLEANING THE EXTERNAL FILTER

1



Remove the front cover by pulling it towards you

2



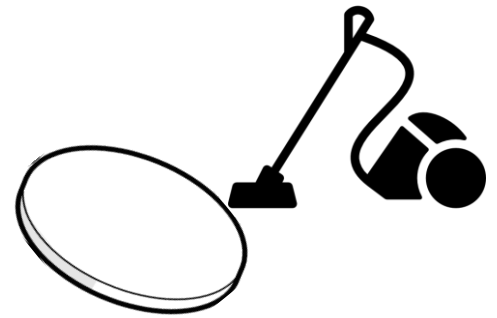
Remove the external filter and wash it. Make sure it is completely dry before reinserting the filter.

3



Clean the filter with water and let it dry.  
The filter must only be reinserted when completely dry.

4

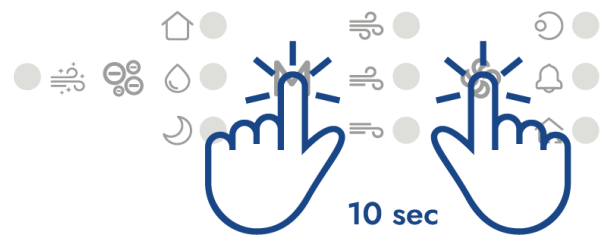


Alternatively, the filter can also be cleaned with a vacuum cleaner.

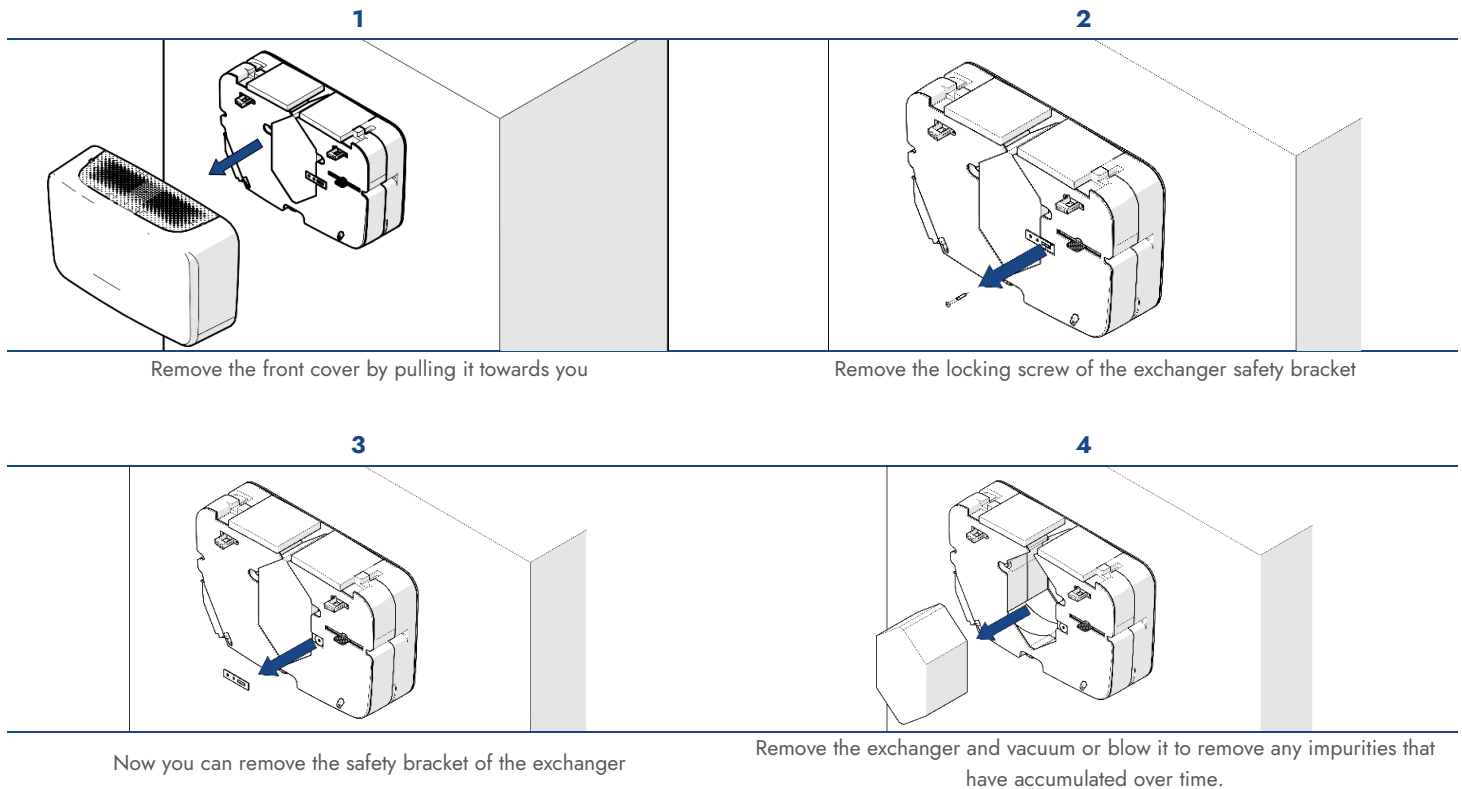
## ALARM RESET

The filter, maintained in this way, lasts approximately three years. To remind you when to clean it, a red LED on the device is activated by a timer after approximately 3 months of operation.

To reset the filter cleaning timer, hold down the buttons on the machine at the same time for at least 10 seconds. **M** And . The "humidity" LED flashes 5 times, the device restarts and the filter cleaning timer is reset.



## CLEANING THE EXCHANGER

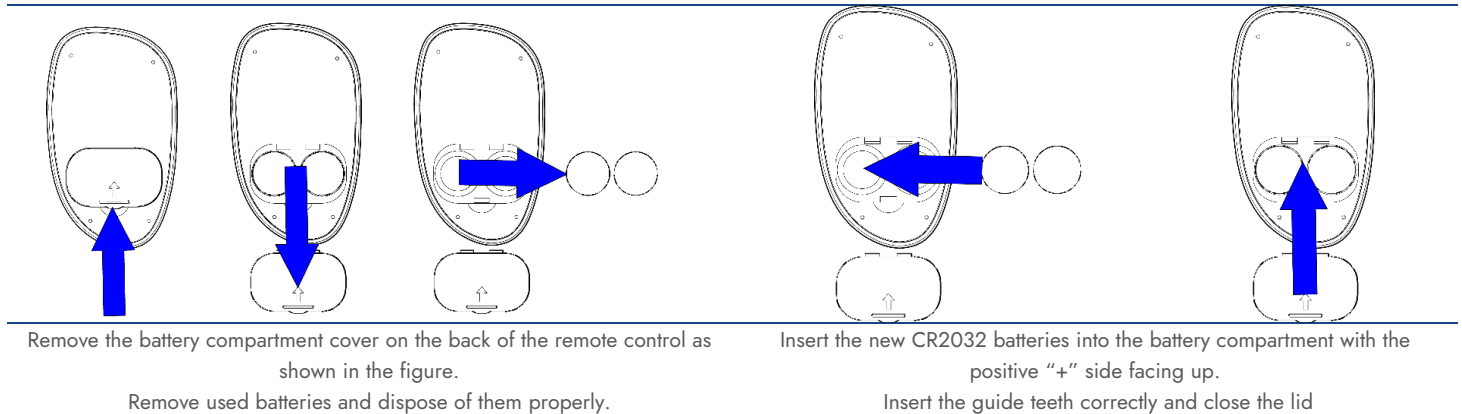


## REPLACING THE REMOTE CONTROL BATTERY (IF NECESSARY)

If your device no longer responds to the remote control, the battery may be flat: gently slide out the battery compartment on the back of the remote control, using a screwdriver or similar. The battery is of the **CR2032** type.

### Removing batteries

### Inserting new batteries



## CHECKING AND CLEANING THE EXTERNAL GRILL

The external grilles could become clogged over time with leaves or other objects which would reduce the air flow and therefore the performance of the device. Check that the external grates are free from blockages at least twice a year and clean them as needed. The flexible grille, if inaccessible from the outside, must be dismantled from the inside and cleaned from the inside using a vacuum cleaner.

## 8. DECOMMISSIONING OF THE UNIT

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When Kers+ is removed, the structure and the various components, if unusable, must be demolished and divided according to their product type.



## 9. INSTALLATION

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### 9.1 PREMISES

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#### INSPECTION

Upon receipt of the unit, check its integrity: the machine left the factory in perfect condition; any damage must be immediately reported to the carrier and noted on the Delivery Note before countersigning it.

#### LIFTING AND TRANSPORT

When unloading and positioning the unit, maximum care must be taken to avoid sudden or violent maneuvers. Internal transport must be carried out with care and delicately, without using the machine components as strengths.



During all lifting operations, make sure the unit is securely anchored to prevent accidental tipping or falling.

#### UNPACKING

The unit's packaging must be removed carefully without damaging the machine; the packaging materials are of a different nature, such as wood. It is good practice to store them separately and hand them over for disposal or possible recycling to the companies responsible for this purpose.

#### POSITIONING



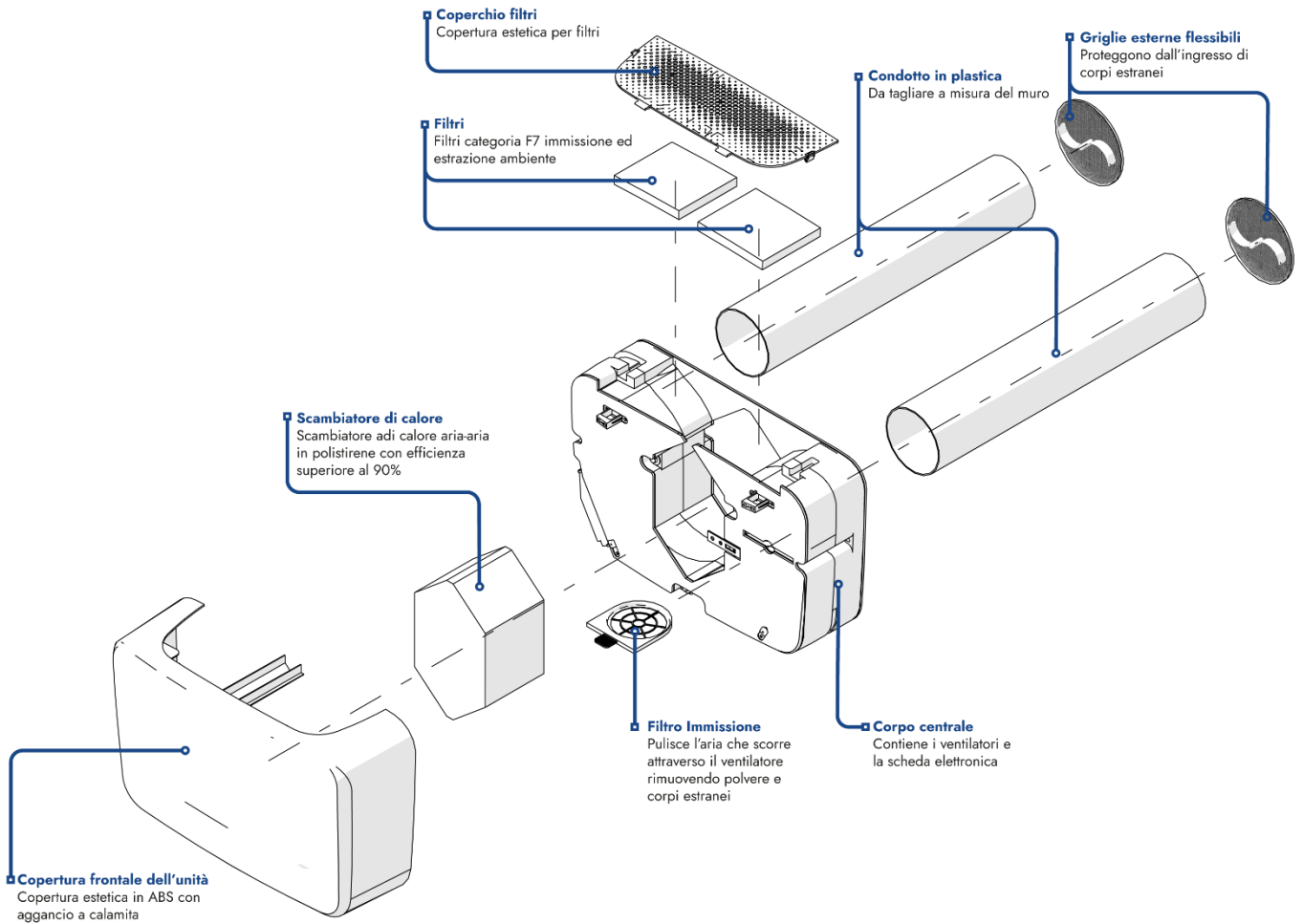
All models are designed and built for installation in perimeter walls at a minimum distance of 16 cm from the ceiling.

It must not be exposed to aggressive atmospheric agents and excessive temperatures (-20°C to +50°C).

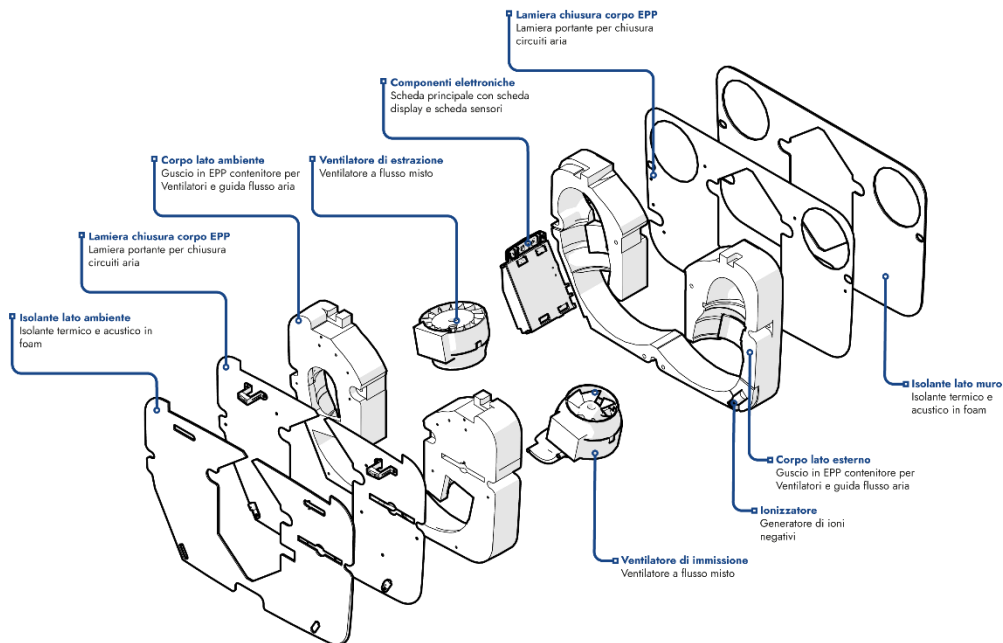
If installed in the shade, the night function may not be activated.

## 9.2 EXPLOSION

### TOTAL



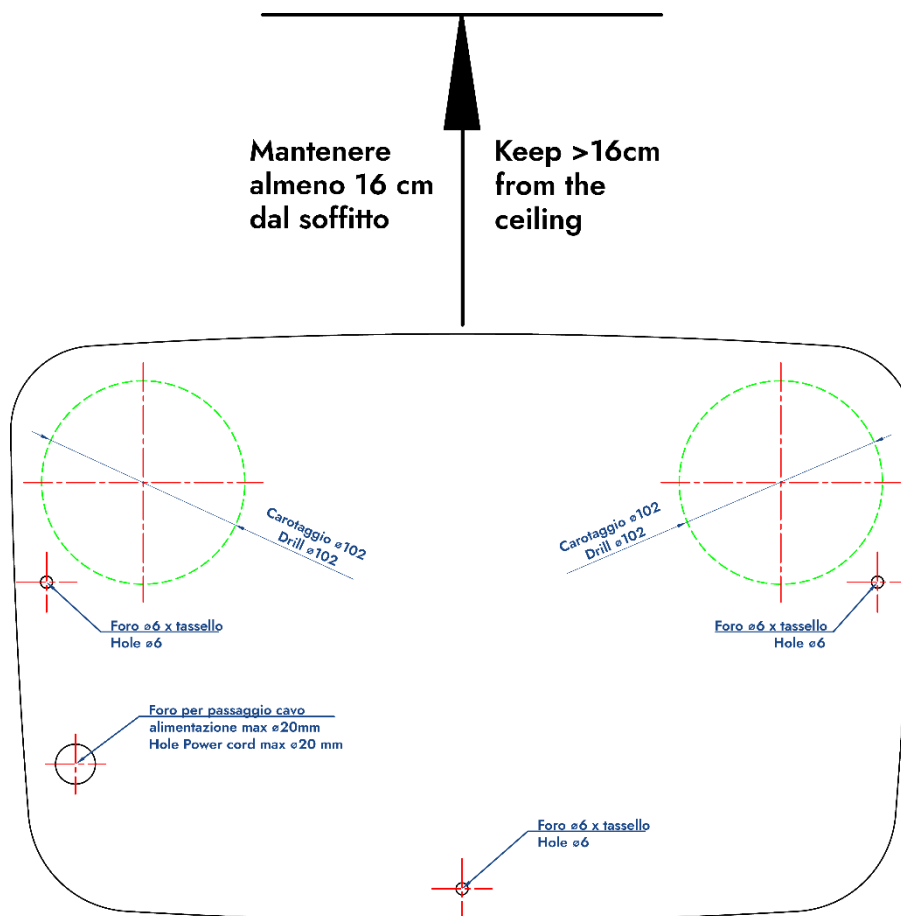
### CENTRAL BODY



### 9.3 WALL MOUNTING

#### POSITIONING THE ASSEMBLY TEMPLATE

On an internal cardboard box, part of the packaging, the template used for assembling the front panel is printed.

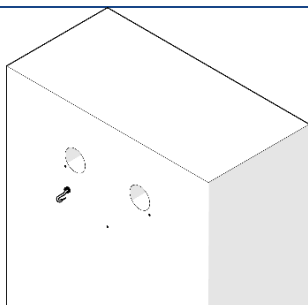


The minimum recommended distance from the ceiling is shown on the template (at least 16 cm).

Place the cardboard template against the inside wall and fix it temporarily (for example, with adhesive tape).

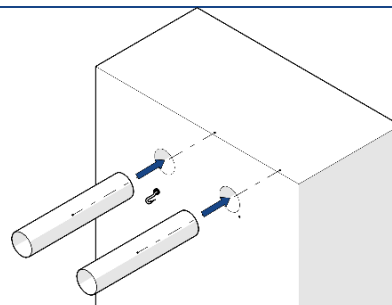
#### INTERNAL UNIT INSTALLATION

Internal unit installation – 1



Once the holes in the wall at the installation point have been prepared.

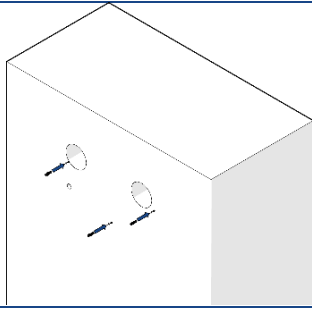
Internal unit installation – 2



Check the exact depth of the wall and adjust the length of the DN100 ducts, then insert the ducts and seal any gaps.

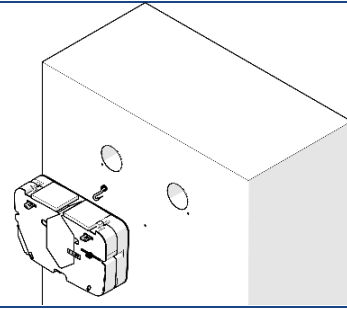
At this stage, if the external side is not reachable, insert the flexible external grilles, see chapter 10

**Internal unit installation – 3**



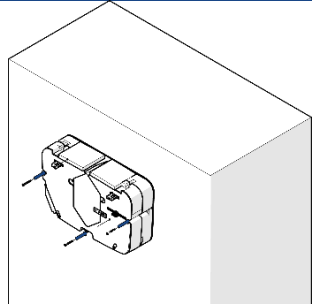
Insert the 3 supplied dowels

**Internal unit installation – 4**



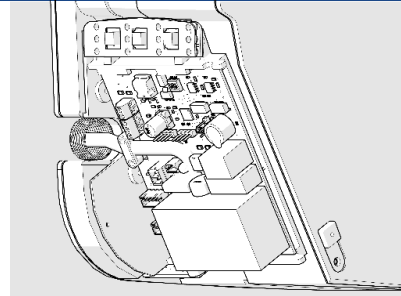
Then place the Central Body

**Internal unit installation – 5**



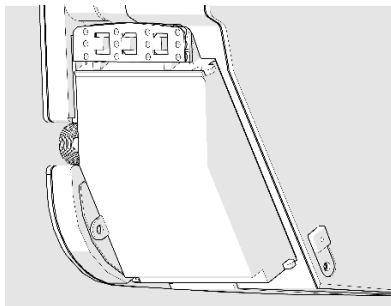
And fix it with the appropriate screws.

**Internal unit installation – 6**



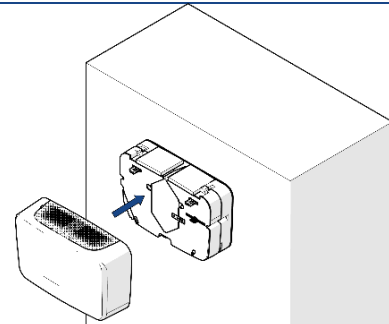
Remove the card cover (bottom left) and connect the power cable. Check the connection options in the next paragraph

**Internal unit installation – 7**



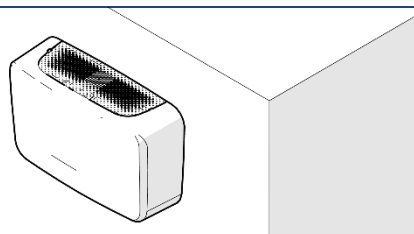
Then close the cover of the electronic board

**Internal unit installation – 8**



Place the front cover of the device. The attachment is via magnets without the need for tools.

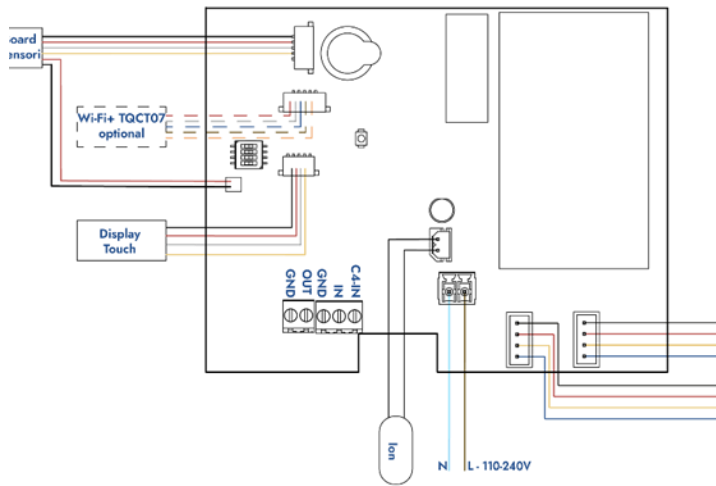
**Internal unit installation – 9**



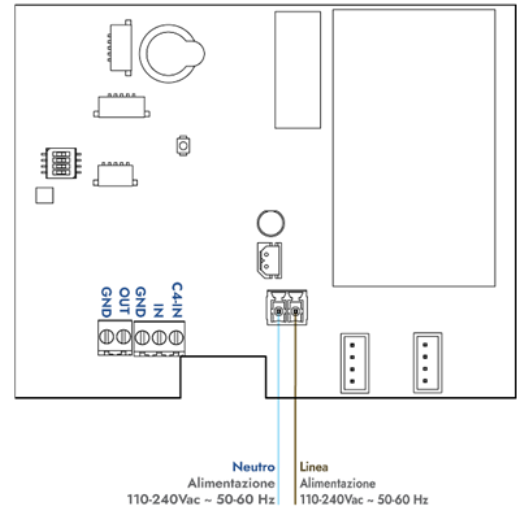
Duo Wall is installed and ready to improve the air quality of the installation environment.

## SINGLE UNIT WIRING DIAGRAM

### Link Legend



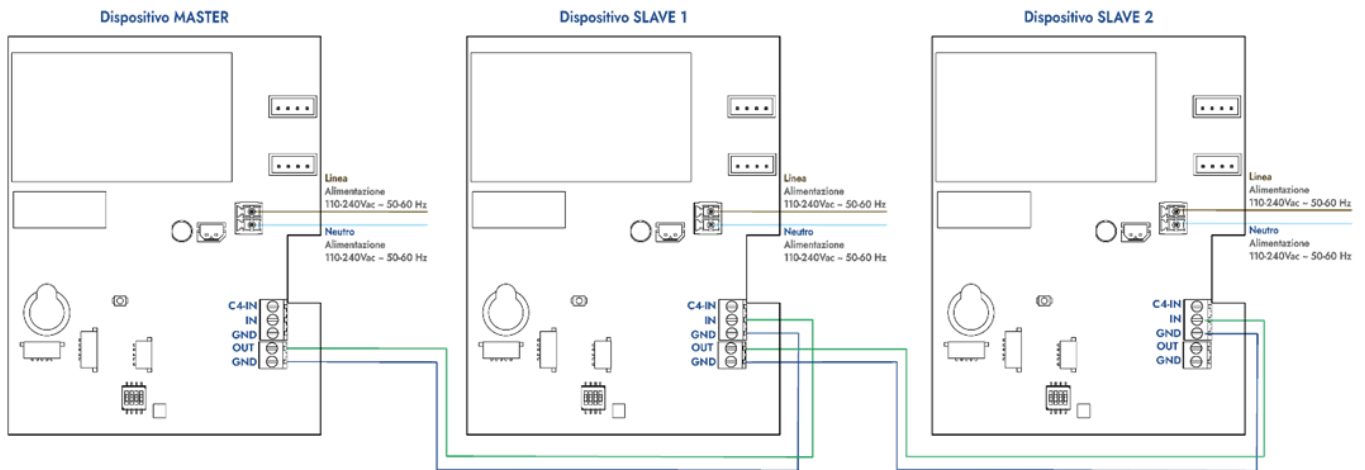
### Single unit connection



Connect the 110-240 Vac power supply respecting the Line-Neutral polarity as indicated.  
Use 2x1.5 mm<sup>2</sup> cables

## ELECTRIC CONNECTION DIAGRAM IN SERIE (CASACADE) OF SEVERAL RECOVERERS (MAX.N°10)

### Connecting multiple units in series



Multiple units can be connected in series.

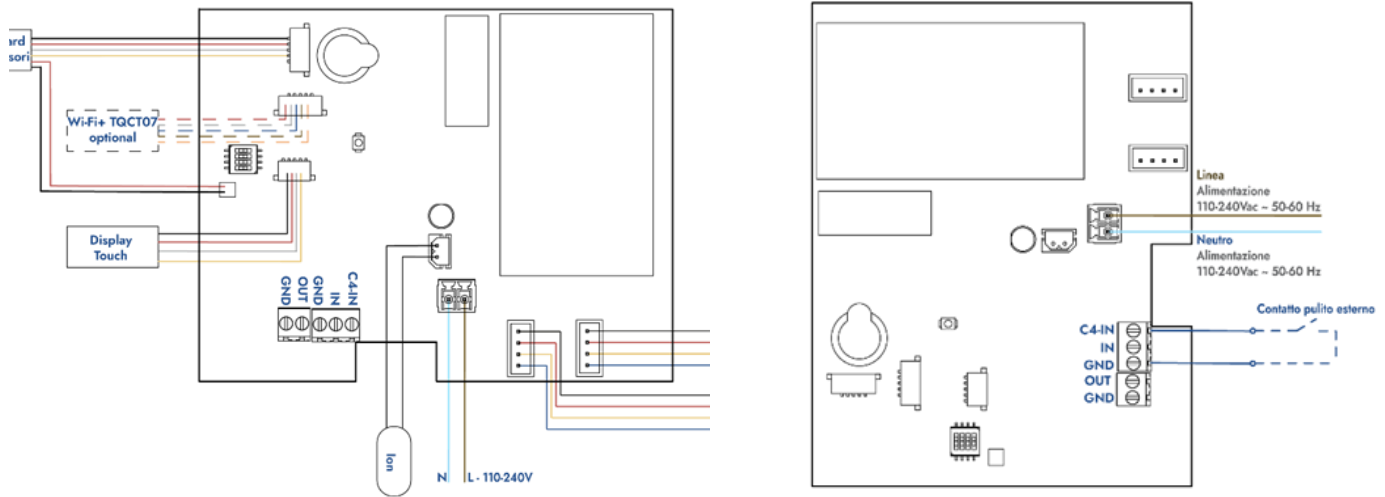
The series connection of multiple units must be carried out as indicated above respecting the connection GND (Master)/GND (Slave) and Out (Master)/IN (Slave). Use 2x1.5 mm<sup>2</sup> cables

When multiple KERS+ are cascaded together, all are managed by the first (master) and its user control.

## WIRING DIAGRAM FOR CONNECTION VIA EXTERNAL CONTACT

### Link Legend

### Remote contact connection

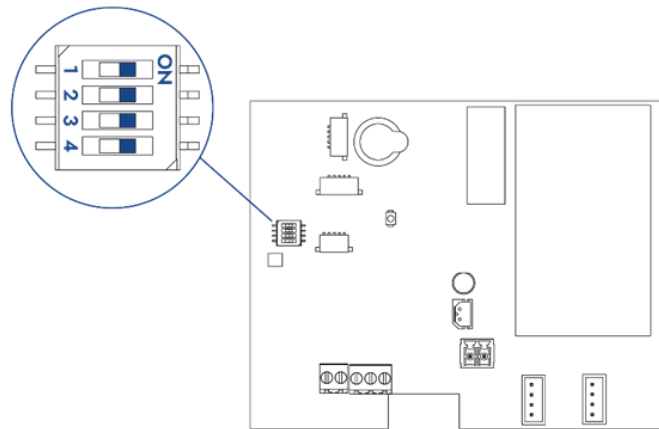


When this contact is used, other functions are deactivated.

When the contact is closed, heat recovery is activated at medium speed and controls from both the on-board machine and the remote control are inhibited.

When the contact is open, the recovery unit is in stand-by and the controls on the machine or the remote control are reactivated.

### Setting the Dip Switches



Identify the Dip Switch Selector



The meaning of each dip switch is as follows:

*Selector 1: fixed for each model (do not change)*

*Selector 2: fixed for each model (do not change)*

*Selector 3: no functions*

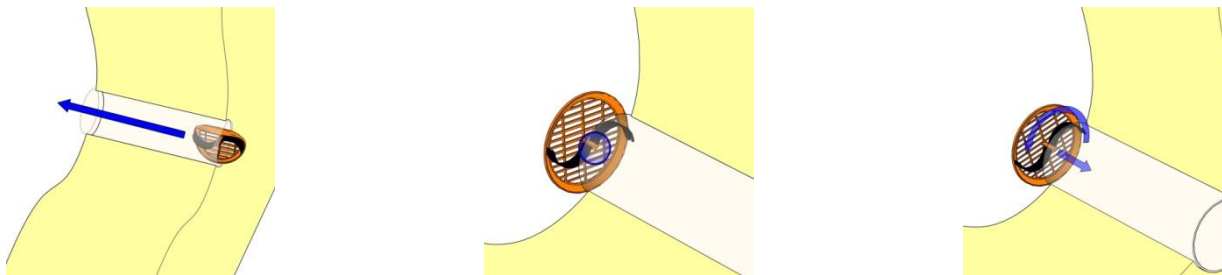
*Selector 4: Master/Slave Selection*

Position	Meaning
 4	<b>MASTER Device</b> In cascade installations only the first "MASTER" must have Dip 4 in the OFF position. This device will be the only one in the cascade capable of receiving commands.
 4	<b>SLAVE Device</b> In cascade installations, the devices, excluding the first, must have Dip 4 in the ON position. These devices will not be able to receive commands as they are dependent on the MASTER.

## 10. INSTALLATION OF THE FLEXIBLE EXTERNAL GRILLE

### INSTALLING THE FLEXIBLE EXTERNAL GRILLE

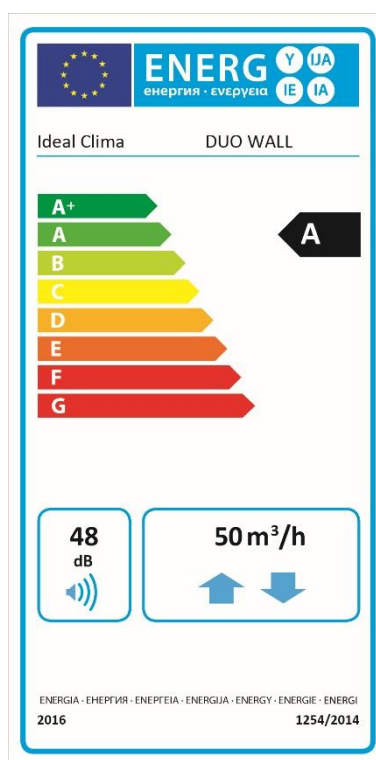
Flex the grille slightly and slide it into the duct. Holding it firmly by the central peg, pull it completely out of the duct, so that it can expand and return to its original shape. Pull towards you and simultaneously rotate the grill counterclockwise. The springs retract into the duct and grip the wall, locking the grille in place.



## 11. DUCT FOR THICK WALLS

If the wall thickness is greater than the length of the normal duct supplied with the appliance (50 cm), a 70 cm duct is available.

## 12. ENERGY LABEL



## 13. WARRANTY CONDITIONS

The warranty for this product is governed by the Ideal Clima general conditions of sale (version 3.0) of which we report the section relating to the warranty:

Ideal Clima guarantees its products against manufacturing defects, with the express exclusion of any defect or fault inherent to the installation, operation and maintenance of the product. - 15.2 Recipients - Ideal Clima supplies products exclusively to professional companies. By placing an order, the Customer declares that the products are intended for use within the scope of his/her professional, commercial or entrepreneurial activity. Therefore, the application of regulation 1999/44/EC and Legislative Decree no. 24 February 2002. The guarantee applies only to the products supplied by Ideal Clima and solely to the Customer. Ideal Clima reserves the right to apply its warranty conditions, directly or indirectly through parties identified by it, to the end user only upon explicit request and authorization of the Client, who in any case remains entitled to fulfill any obligations with the end user pursuant to the legislation in force. - 15.3 Warranty services - Warranty intervention implies, at the sole discretion of Ideal Clima, the repair or replacement of the defective product. In the event of repairs, the Client undertakes to have any repairs that Ideal Clima deems essential carried out at the end customer's premises, allowing access to the system. In the event of replacement, Ideal Clima undertakes to replace its defective products with other products of equal or superior characteristics, excluding any costs for restoring the goods (labor, travel, transport, works, etc.). In any case, manufacturing defects must be recognized by Ideal Clima technicians. Components replaced under warranty remain the property of Ideal Clima, to which they must be returned carriage paid to its premises. - 15.4 Effective date and duration - The warranty begins on the date of purchase of the product and lasts for two years. The date of purchase is proven by the invoice and the delivery note. In the event of a dispute regarding the delivery date, the batch/production date/serial number shown on the product will be valid. The Customer will lose the warranty if he does not report the defect within 8 days of discovery and before the maximum warranty period has expired. The duration of the warranty is not modified by warranty interventions - 15.5 Limitations and exclusions - The warranty does not cover defects attributable to transport, handling of the product, poor storage (e.g. non-dry environments, direct exposure to the sun, etc.), installation and/or maintenance not carried out by qualified and authorised personnel, according to the manufacturer's instructions and current regulations, use not in accordance with the product's characteristics, use of water, gas and electricity not suitable for the product, improper use or maintenance of the product, normal wear and tear -15.6 Right to call out: Ideal Clima reserves the right to request a contribution for the intervention of the authorised technical assistance centre starting from the seventh month of the warranty period. This contribution will be quantified in advance and must be paid directly to the CAT. This contribution will also be due if the product is defective.

## 14. NOTE

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Version 1.0 March 2026

ORIGINAL INSTRUCTIONS

In a process of constant improvement, the company reserves the right to make changes to the product at any time, even if without warning.