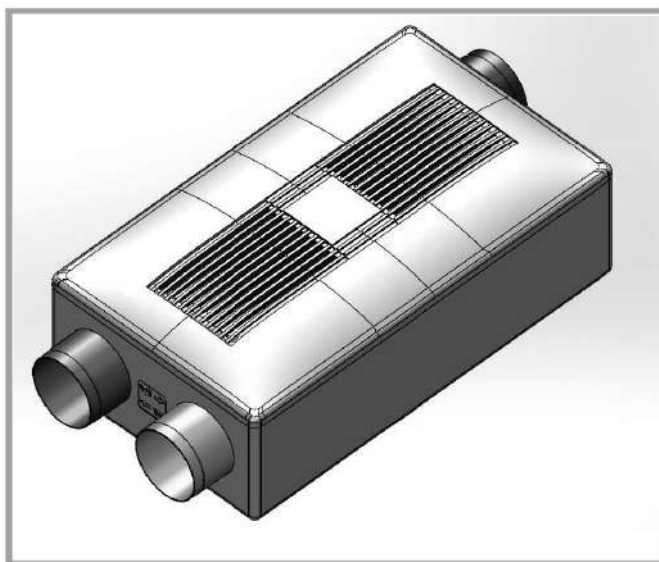


Lo-Carbon Calido MVHR Unit

Installation & Operation Instructions



Stock Ref. N°
411133

Vent-Axia®

UK
CA
CE

Important information:

- According to the standard EN 60335, the following shall be considered.
This appliance can be used by children aged from 8 years, and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safety way and understand the hazards involved.
Children shall not play with the appliance.
Cleaning and user maintenance shall not be made by children without supervision.
- Prohibit to install this product where it could be directly exposed to water.
- Prohibit to install this fan near cooking equipment.
- Do not install this product in places with excessive oil fume.
- The ventilation fan must be installed in such a manner that it will not fall down from the ceiling/wall the unit are screwed in.
- The product must be installed on a wall or ceiling that is strong enough to keep the unit, otherwise the wall or ceiling reinforced.
- Be sure to provide an appropriate opening for air intake and exhaust.
- Consider the location of the intake air so do not risk that gas or other fuel gases can follow the supply air into the home.
- Use this product at the rated voltage and frequency indicated on plate.
- The appliance is equipped with an isolator switch for disconnecting from the mains. With this switch separates all poles that provide full disconnection under overvoltage category III.
This switch must be included in the fixed wiring in accordance with the cabling rules.

Environment

Packaging waste

- Please recycle packaging waste in the nearest recycling center.
Contact your local recycling center for local guidelines and more information.
Keep waste out of reach of infants and children to avoid injury or suffocation.



Contents

Thank you for purchasing the Vent-Axia Lo-Carbon Calido. Please read this manual carefully to understand how to use this product correctly to achieve the best possible effect.

Keep this manual in a safe place for future reference.

For more information, see www.vent-axia.com

- Important information	Page 2
- Environment	3
- Safety instructions for users	4
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- How to use	7
- Maintenance	12
- Safety instructions for the installer	13
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Feature:

- Warm air from the home is drawn into the Calido and is used to heat the incoming fresh air.
- As the temperature and humidity can be recovered with Calido in-built heat exchanger, it is also possible to save air conditioning costs.
- Calido is designed to be installed indoors, temperature range from 5 to 35°C.
- Recommended ambient temperature in operation is around 20°C.
- Calido automatically turns off when the outside temperature is below -30°C.

Environment:



Information about electronic waste and equipment for households

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.

Information on waste electrical and equipment outside the European Union

This symbol is only valid in the European Union. If you wish to discard this product, please contact your local distributor for proper disposal.

Before disposing of your old Calido unit

Please follow the instructions from the manufacturer of your old device or local regulations from local authorities.

If none of these options is available, please follow two-step instructions below:

1. Disconnect main power and discard the waste carefully, let the wall socket remain in the unit.
2. Keep the device out of reach of children before it is discarded.

Safety instructions for the installer.

The symbols mean:



Do not



Make sure that you do this



Do not disassemble



WARNING

Indicates fatal risks or risks of serious injury.



- According to the standard EN 60335, the following shall be considered. This appliance can be used by children aged from 8 years, and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safety way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

- Use this product at the rated voltage and frequency indicated on the name plate.



- Do not disassemble the unit, it may cause fire or electric shock.



- Do not turn this product on or off as it may in cause gas leakage, there is a risk of electric spark occurs in the switch, which can result in an explosion.
- When cleaning, do not spray water or other cleaning liquids directly on the product, short circuit and electric shock may occur.



CAUTION

Indicates a risk of personal injury or property damage.



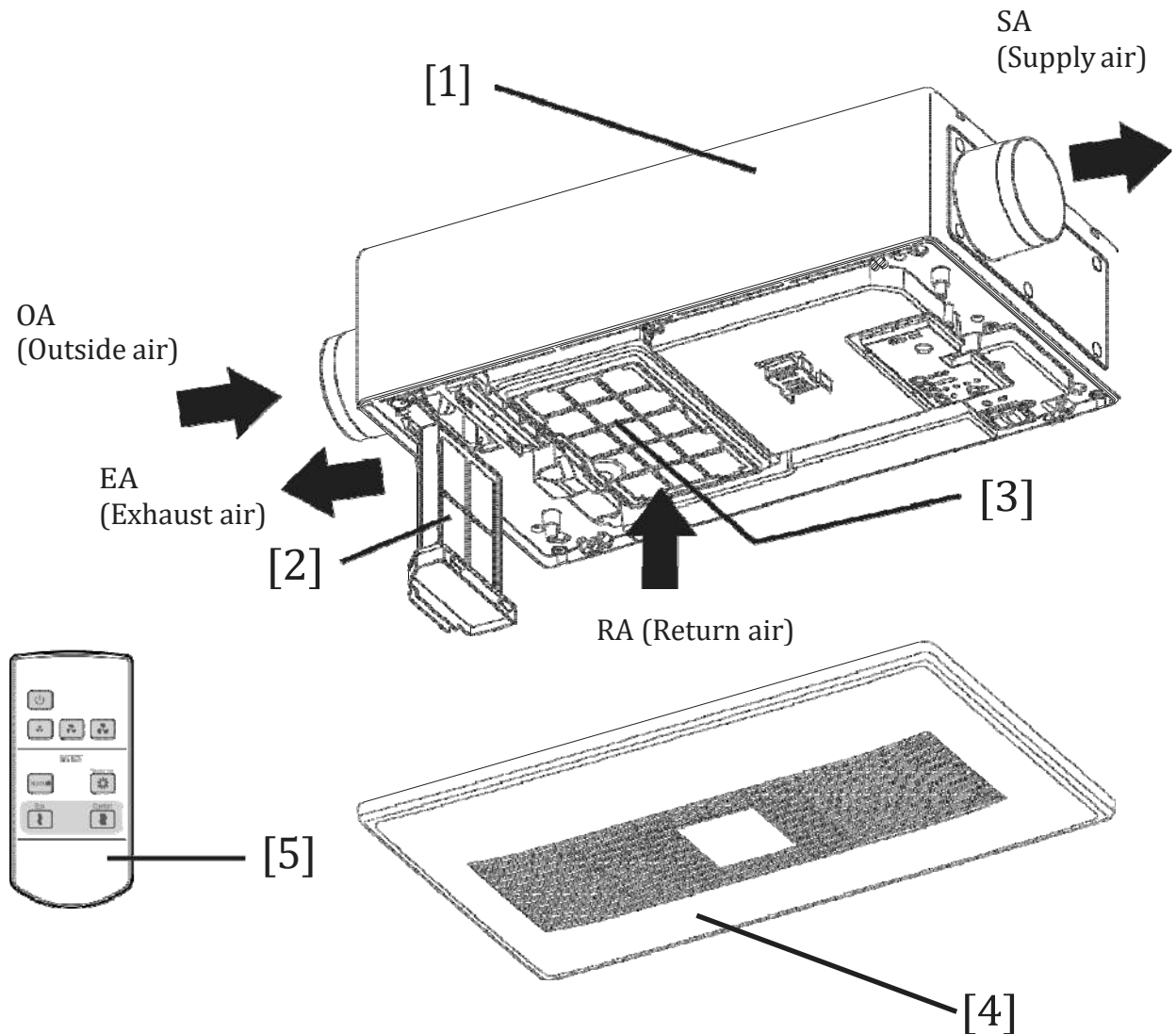
- Routine maintenance is required every year. Disconnect the power source before you conduct any maintenance.



- Do not use gasoline, benzene, thinner or similar chemicals for cleaning of the unit.
- Do not wash in hot water over 60°C.

Name of each parts

The figure below shows Calido, for example.

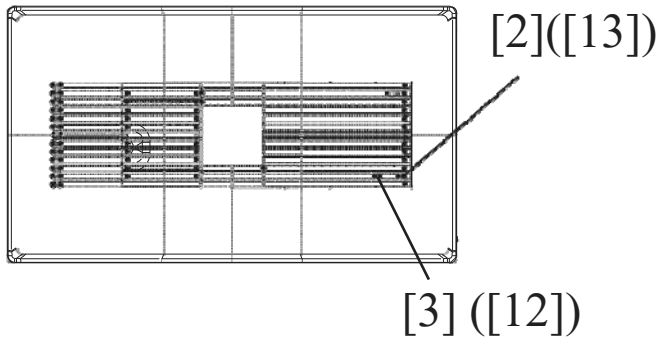
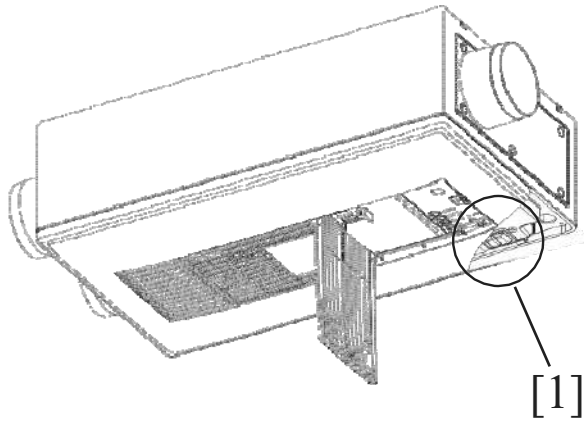


Important parts:

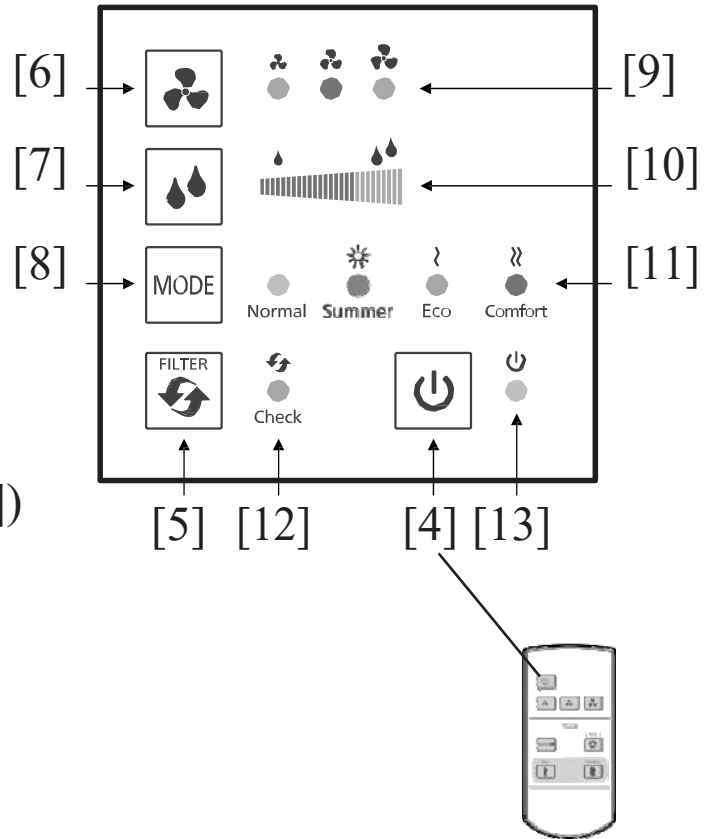
- 1: Heat recovery ventilation unit
- 2: Outdoor air Filter (OA filter)
- 3: Return air Filter (RA filter)
- 4: Front panel
- 5: Remote Control (optional on request)

Name of each parts

Control panel &
Remote Control (optional on request)



Calido



- When the unit is in standby, you cannot use settings.
- Settings with remote control (optional on request) and control panel can be used after the unit is started with button 4.
- If no settings are used, the light indicator disappears after 10 seconds.
- The display lights up only when settings applied on the control panel.

- [1] Main power switch (on/off)
- [2] Indication, start and standby (green)
- [3] Indication, filter maintenance (orange)
- [4] Start and Stand by button
- [5] Filter Maintenance (reset button)
- [6] Button, setting air flow (3 step)
- [7] Button, setting moisture sensitivity (9 step)
- [8] Button, choice of Mode location
- [9] Indication, preset airflow
- [10] Indication, selected moisture sensitivity
- [11] Indication, selected mode
- [12] Indication, filter cleaning (orange light)
- [13] Indication, operation (green light)

How to use

How to use Calido.

Turn on/off the main power switch.

- [1] Press the edge of the grille to open.
- [2] Pull the lever sideways to unlock the front panel
- [3] Remove the front panel down to release it.
- [4] Turn on the main switch.
- [5] Replace the front panel by pressing the lid back to the unit.
- [6] Flip the lever back into its locked position [2].

Note: Turn on/ off the main power switch [4].
Use this button when doing maintenance or leaving home for a long time.

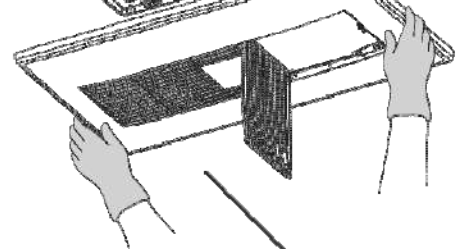
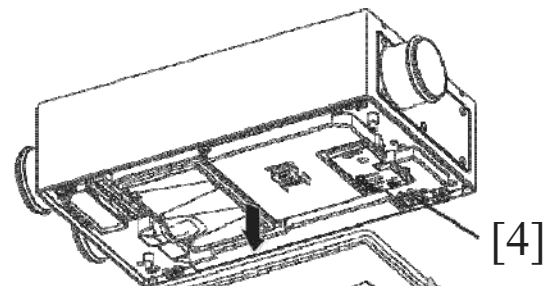
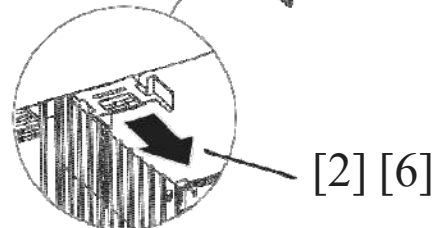
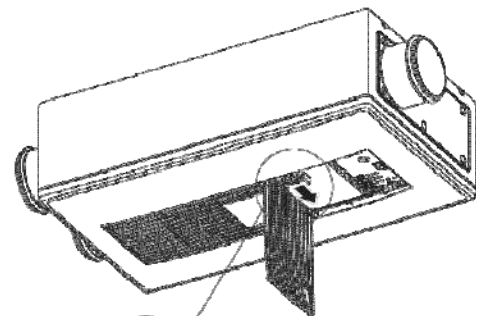
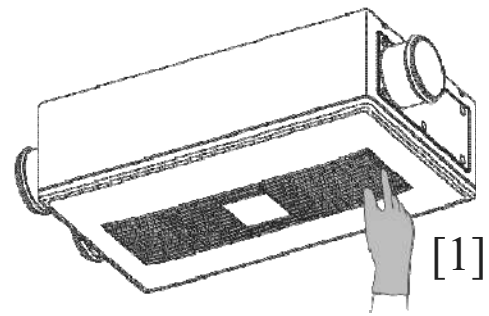
Turn on/off the aggregate.

Start the unit by pressing the button on the control panel or remote control (optional on request)



After about one minute, the unit opens the dampers for outdoor air and exhaust air.

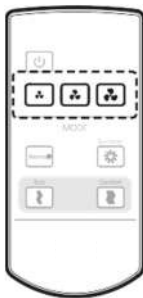
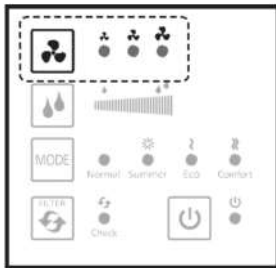
After around one minute, the moisture adjustment, operating mode and fan speed can be selected.




[3] [5]

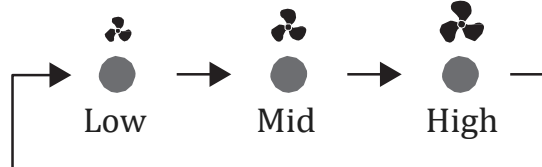
How to use

Speed control



- Main unit

Push  to change the flow into 20, 40 or 60m³/h

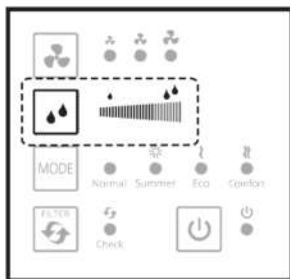


- Remote Control (optional on request)




Select, Low Mid High

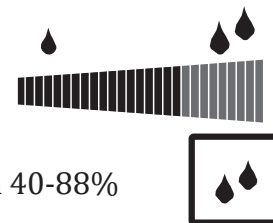
Humidity control



- Main unit

Push  to change the moisture sensitivity (9 steps, 40-88%)

Settings



NOTE:

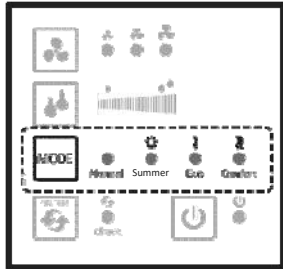
- Calido is factory set to start at a moisture level of 88%. The moisture level starting point can be adjusted between 40-88% using nine levels.
- Moisture level is indicated by three LEDs, each LED indicates where the third level (3, 6 and 9th level, each step change sensitivity by 6%)
- When the set humidity level is reached Calido works in forced extraction mode. When the humidity later falls below the set level, the unit will continue at forced for 20 minutes to stabilize the moisture level. Then returns to its normal Calido heat exchange operation.

(Please carefully consider the humidity level when changing it from 88%. During summer, when the relative humidity can be high, it may be necessary to adjust the starting point to a higher level to prevent Calido from being forced into exhaust air mode only.)

How to use

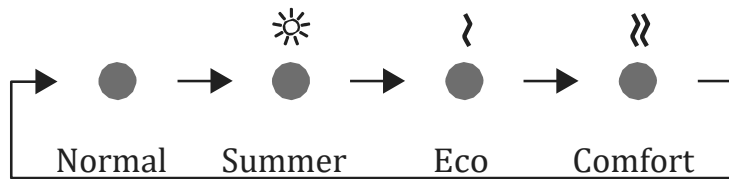
Modecontrol

Calido

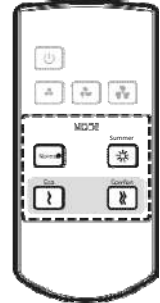


- Main unit

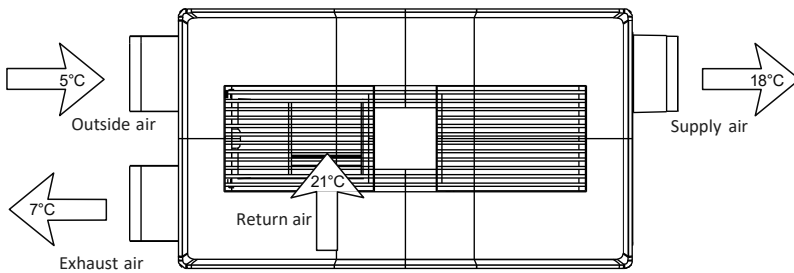
Press MODE choice of Mode location.



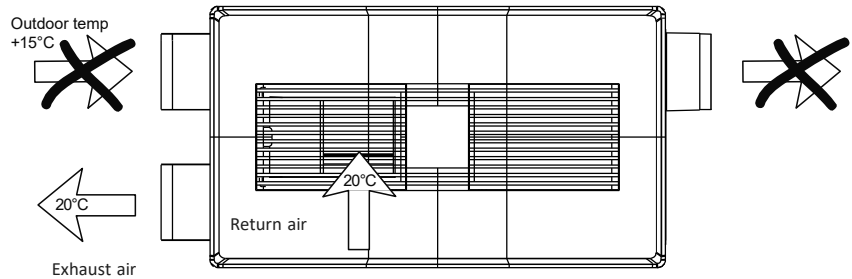
- Remote control (optional on request)



Function: Normal, Eco or Comfort



Function: Summer



The following descriptions apply, provided that the extract air is taken from a space where the temperature is not below about 21 °C.

Mode	Outside temperature [°C]	Functionality
Normal	35 to -15	Continuous operation with heat exchange.
	-15 to -20	Extract air mode.
	-20 to -30	Extract air mode with air flow rate of 30 m ³ /h.
	below -30	Standby. Exhaust air outlet and outdoor air inlet closed.
Summer	≥ 10	Increased comfort in summer-time. If Mode Summer is on and the outdoor air is 4°C colder than the exhaust air, the supply air stops and the unit only works with exhaust air. If the outdoor temperature falls below 10°C Mode summer is deactivated automatically and the ventilation unit works in Mode Normal.
Eco	35 to -20	Continuous operation with heat exchange and minimal supplementary heating to prevent icing/condensation.
	-20 to -30	Extract air mode with airflow rate of 30 m ³ /h.
	below -30	Standby. Exhaust air outlet and outdoor air inlet closed.
Comfort	18 to -20	Continuous operation with heat exchange and supplementary heating to keep the supply air temperature above 18 °C.
	-20 to -30	Extract air mode with airflow rate of 30 m ³ /h.
	below -30	Standby. Exhaust air outlet and outdoor air inlet closed.

Filter Maintenance



The light for filter maintenance lights up when selected period listed, (default 180 days).

Change the air filter according to the instructions, see page 12. **Replacement Filters Ref:- 411158**

Once changed, reset signal for filter control by pressing the filter button.

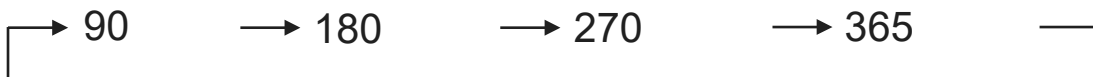


Depending on how quickly the filters become clogged there are four different service intervals to choose from. The intervals are set as follows.

Put the unit in standby mode by pressing the button

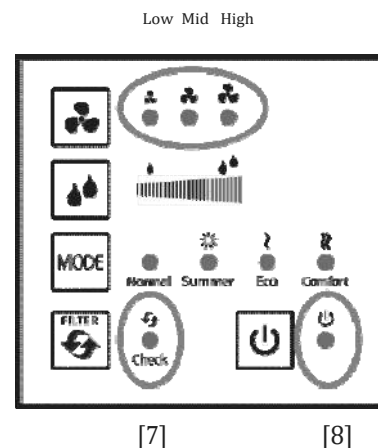


- Simultaneously press buttons and for three seconds to access interval selection.
- When you hear two short buzzing sounds, you are ready to choose desired interval.
- Step forward with the button to select the appropriate interval.
- Short buzzer sounds at each step as below.



The four service intervals shown with flashing lights according to the following combinations.

Period	Lamp Indication				
	Low	Mid	High	[8]	[7]
90 days					
180 days					
270 days					
365 days					



[3] After changing the period, press buttons and for three seconds again.

Balancing the airflow.

Auto-Balancing is performed after the installation of Calido is complete.

Starting the auto-balancing:

- Balanced control of the air flow rates (low, moderate, high) is achieved by auto balancing the unit. The fan runs at maximum speed for 60 min. to stabilise the temperature. Once calibration is complete, the settings are stored and the ventilation unit returns to the previous operating mode. Make sure that windows and doors are closed while auto balancing the airflow.

- Press  for three seconds to start automatic balancing.

- When the automatic balancing begins, pre-heater and blower motor runs on high flow for 1 hour to stabilize the temperature.



- During balancing a small light will flash 
Do not disconnect the power or touch any buttons on the unit/remote control (optional on request) while automatic balancing is going on.

- When auto-balancing is complete the settings are saved automatically, and the unit returns to the previous operating mode.

- During auto-balancing the only button available is the start  accessible.

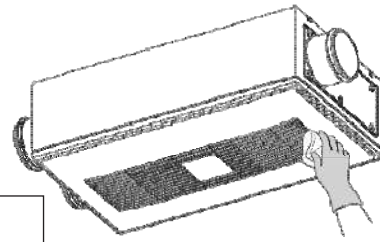
- The auto-balance takes approximately 75 minutes to complete.

Resetting to factory defaults:

- Press  and  at the same time for 10 seconds. This will delete the saved values from auto-balancing and restores to factory settings.
One short buzzing sound confirms the setting.

Cleaning front panel

Wipe the front panel and the frame with a damp cloth. NOTE: Do not use solvents.

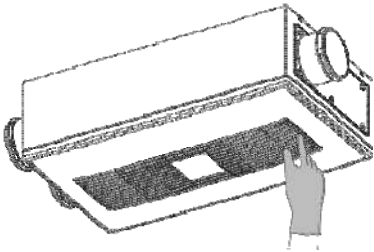


Replacement air filter Ref:-411158

Proceed as follows to replace the two air filters: Outside air filter OA and Return air filter RA.

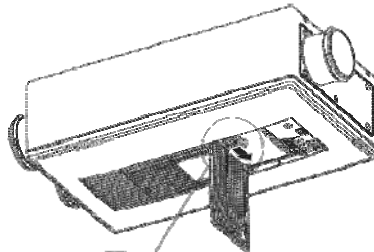
Start by turning off the main switch.

[1] Press up on the edge of the grille to open.

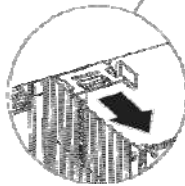


[1]

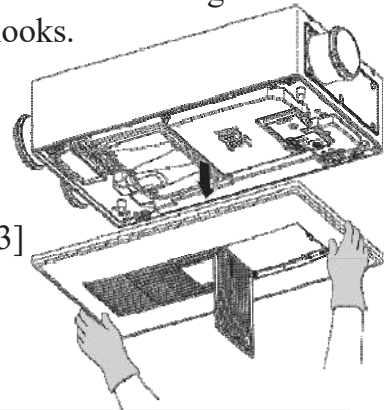
[2] Pull the lever sideways to unlock the front panel.



[2]

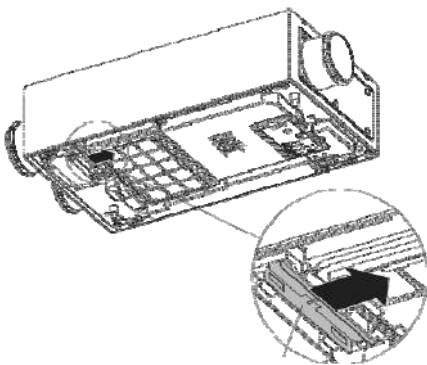


[3] Remove the front by pulling it down. The front panel is secured with six resilient securing hooks.



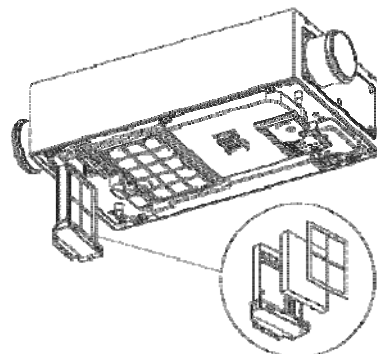
[3]

[4] Pull the locking plate for OA aside.



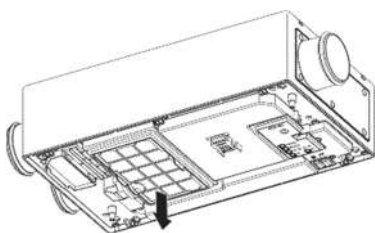
[4]

[5] Pull out the OA filter from the unit and replace with a new one.



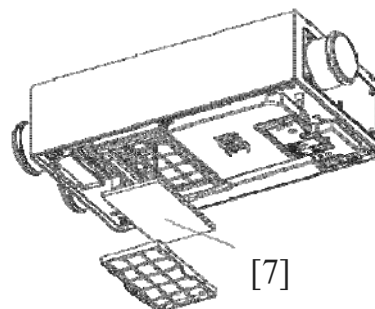
[5]

[6] Pull extraction cartridge down to release it.



[6]

[7] Open cartridge and replace the Return filter (RA) with a new filter.



[7]

Safety instructions for the installer

Safety instructions for the installer

The following instructions should be strictly observed in order to prevent injury to the users and other people, or damage to property.

The symbols mean:



Do not



Make sure that you do this



Do not disassemble



WARNING

Indicates fatal risks or risks of serious injury



- Use this product at the rated voltage and frequency indicated on plate.



CAUTION

Indicates a risk of personal injury or property damage.



- Do not install this product where it could be directly exposed to water.

- Do not install this fan near cooking equipment.

- Do not install this product in places with excessive oil fume.

- The unit must be installed in such a manner that it will not fall from the ceiling or wall and that the unit is screwed in.



- The product must be installed on a wall or ceiling that is strong enough to hold the unit, otherwise the wall or ceiling must be reinforced.

- Be sure to provide an appropriate opening for air intake and exhaust.

- Consider the location of the intake air so do not risk that gas or other fuel gases can follow the supply air into the home.

- The appliance is equipped with an isolator switch for disconnecting from the mains.

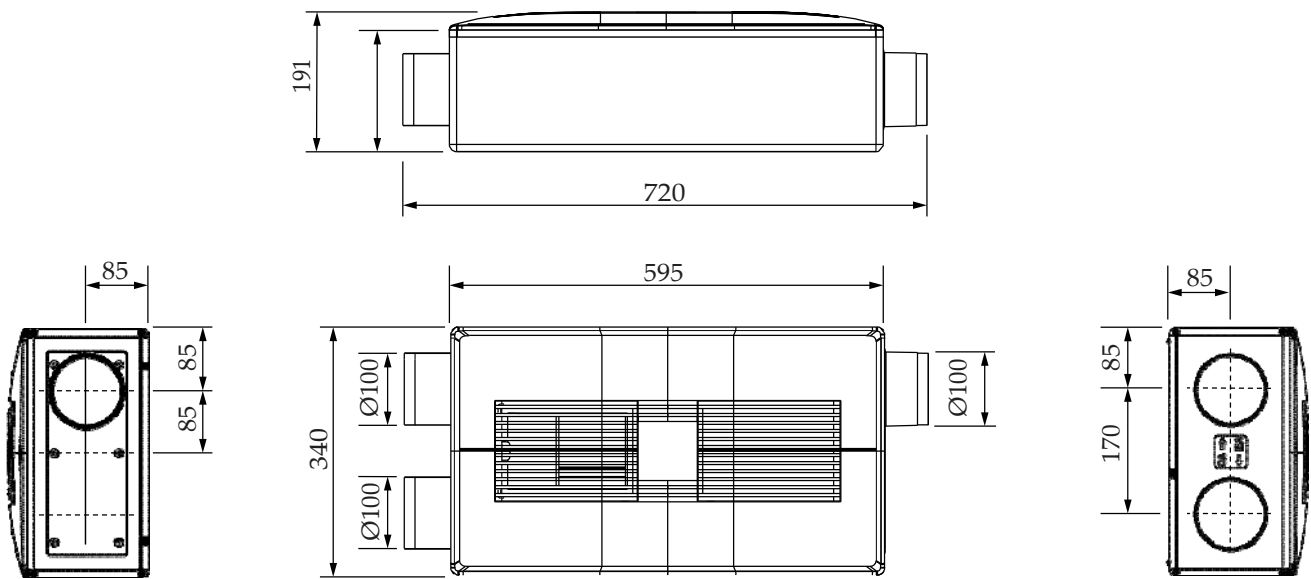
The switch separates all poles that provide full disconnection under overvoltage category III.

This switch must be included in the fixed wiring in accordance with the cabling rules.

- Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.

Dimension / Installation

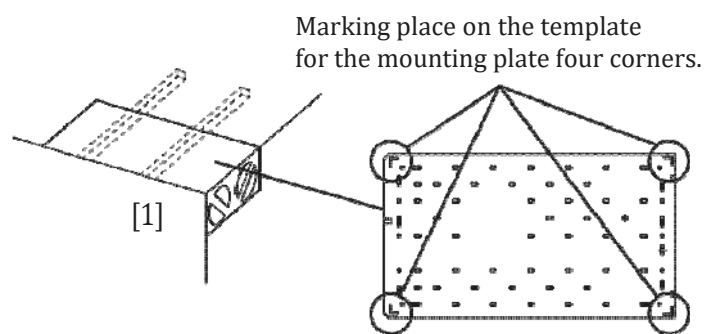
Dimension: Calido



Parts included in delivery:

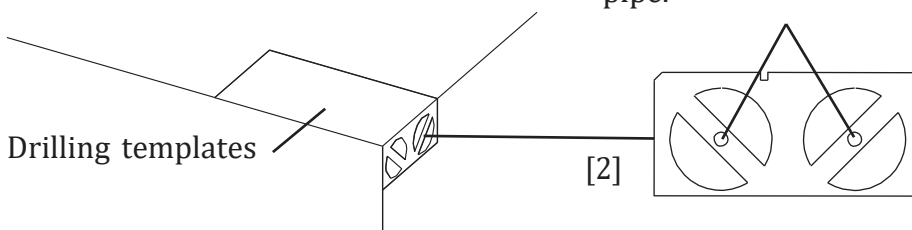
Screws for mounting the main unit	4pcs
Screws for mounting plate	6
Screws for the SA adapters	6
Screw cap, SA adapters	6
Screw SA duct	2
Mounting plate	1
Wall Seal A	1
Wall Seal B	1
Drilling Template	1
Long bit 200mm PH2	1

- [1] Fix the drill template to the ceiling or wall with adhesive tape and mark the position of the mounting plates four corners with a pen. Ensure the screws are in a solid surface, wood stud or similar.



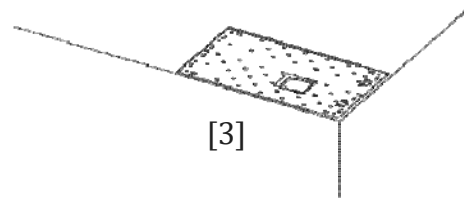
- [2] Mark the center position for pipes.

These holes show center of pipe.

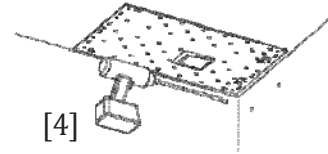


Installation

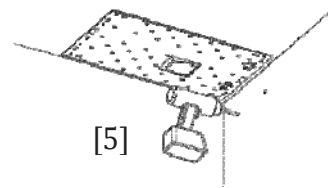
[3] Fix the mounting plate on the ceiling with six screws.



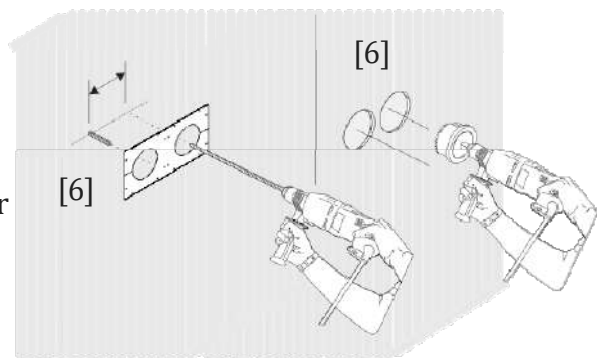
[4] Drill two small holes in the inner wall marked on the drilling template.



[5] Drill a hole through the wall with a long narrow drill. (be sure to drill straight)

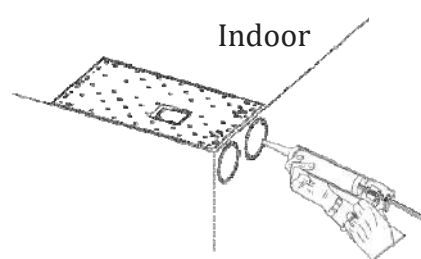
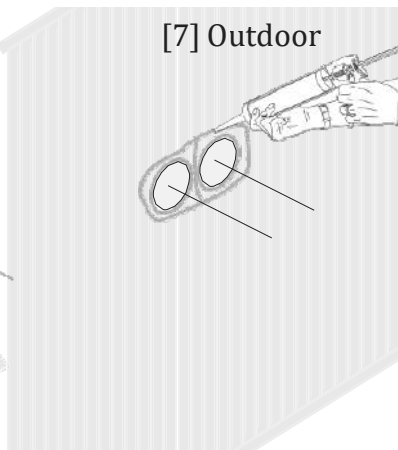
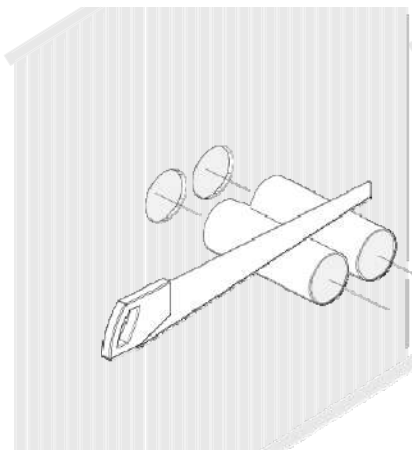


[6] Then use the template holes on the outside of the wall to mark the second hole position. Use a spirit level to get the holes level. This will help when using the core drill. Next drill the larger holes 110mm \varnothing (adapted for channels 100mm \varnothing) by drilling through the wall from both inside and outside.



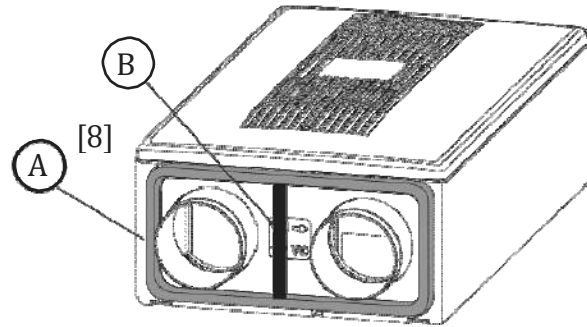
The plastic wall sleeves described below are an optional accessory for the Calido.

[7] Cut the plastic wall sleeves according to the wall thickness of the housing, place the sleeves in the holes. Seal the space between wall and channel.



Installation

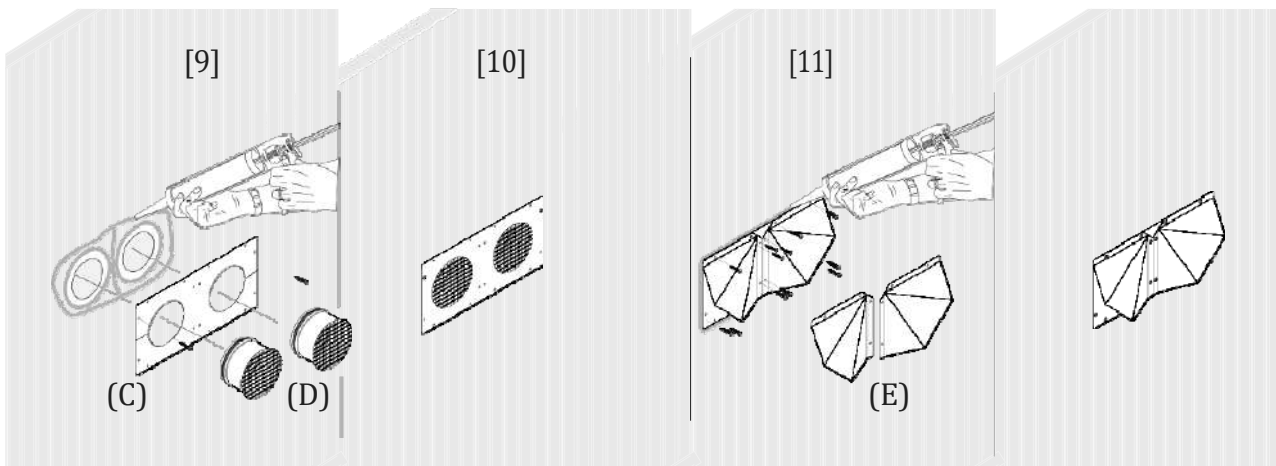
- [8] Insert included wall seal A and wall seal B on OA/EA side of the fan to prevent air leakage.



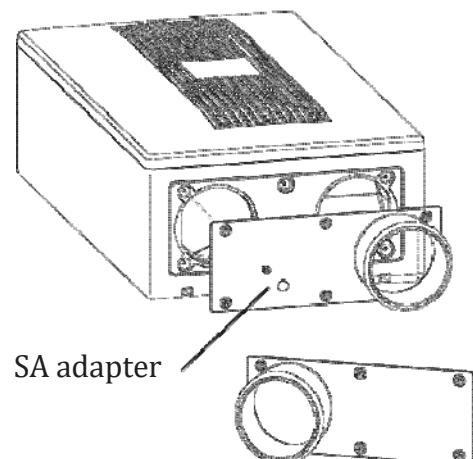
The external wall grille described below is an optional accessory for Calido.

Stock Ref 411163

- [9] Seal between the frame (C) and the outside of the wall so no ventilation air can enter between the wall and the frame.
- [10] Put frame (C) and connectors (D) in place, align frame horizontally and fasten with two screws. (Take advantage of holes in the frame that will not be used later.)
- [11] Screw the louvers (E) so they will always be facing away from each other and that they also protect against rain. When the entire external wall grille is bolted, seal around the frame edges so no rainwater can penetrate between the frame and outer wall.



- [12] Select the direction of SA adapter to correspond to the position of the duct.
Fix SA adapter with supplied screws. Following that, cover the screws with supplied screw caps.



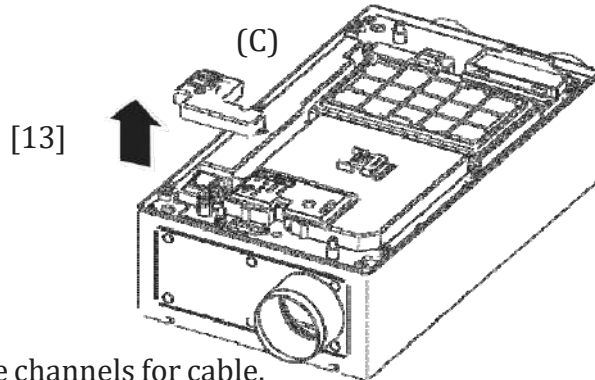
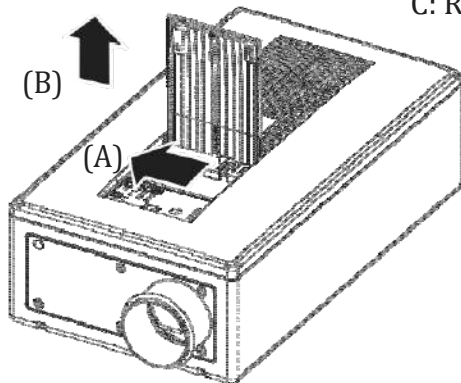
Installation

[13] The supply connection cable must be pre-installed before the Calido is put into place.

A: Pull the lever sideways to unlock the front panel

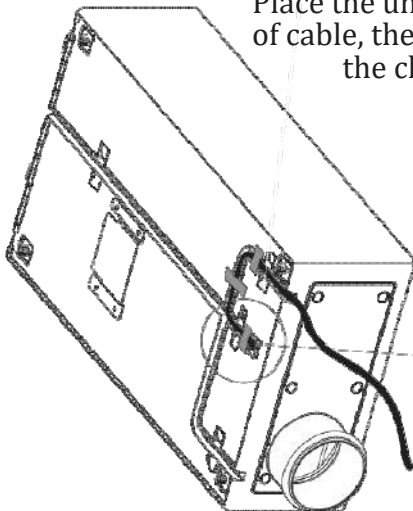
B: Remove the front panel to release it.

C: Remove the two screws holding the terminal box cover.



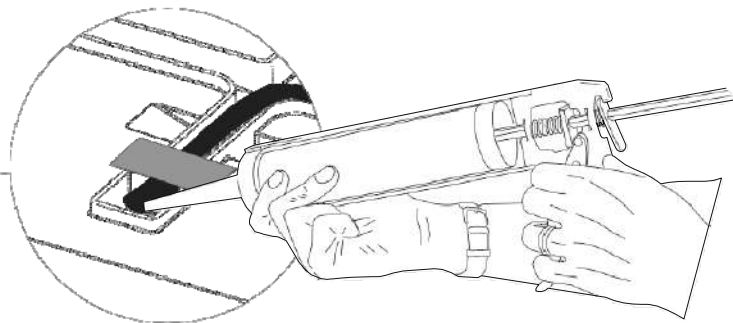
[14] The back of the unit is prepared with cable channels for cable. There are three possible ways to assemble the connecting cable.

Place the unit on the side and feed through a sufficient length of cable, then fix the cable with tape pieces so it stays in place in the channel when the unit is mounted.



[14]

Seal the entrance with sealant.

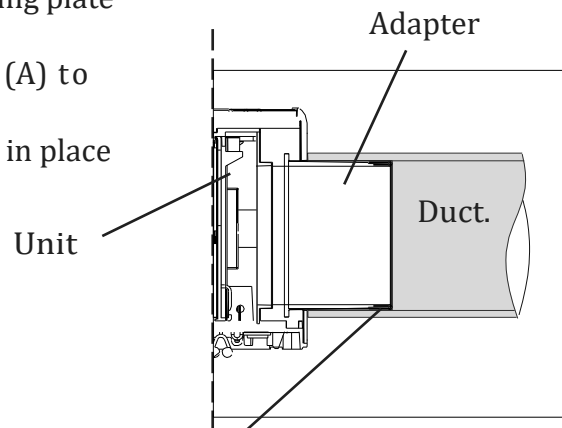
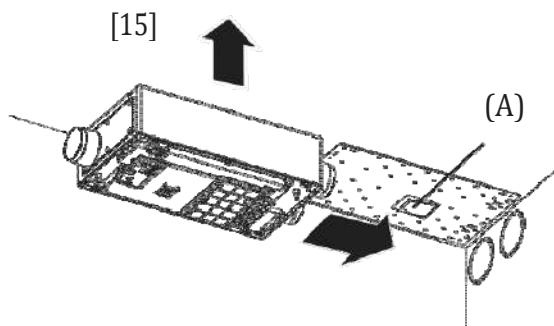


[15] When the unit is lifted into place:

Press the assembly against the ceiling mounting plate against SA / EA air ducts.

The mounting plate has a hook arrangement (A) to match the corresponding part of the unit.

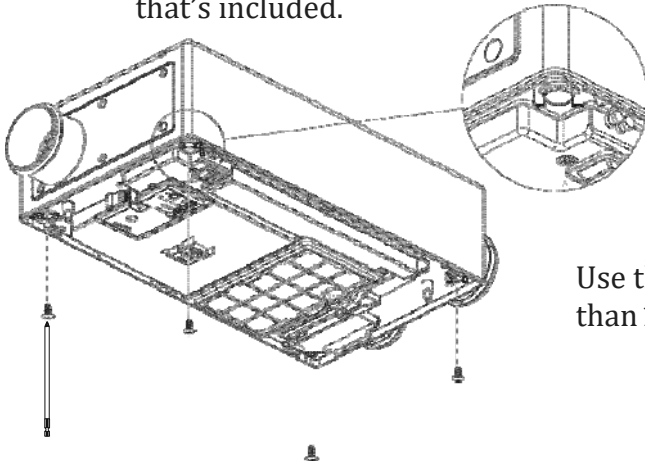
The hook will help keep the unit temporarily in place while you tighten the screws, see Figure [16].



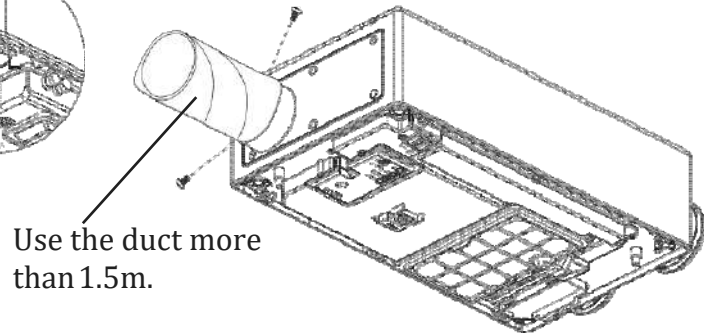
Sealing rings are pre-installed around the adapter to seal the gap between adapter and duct.

Installation

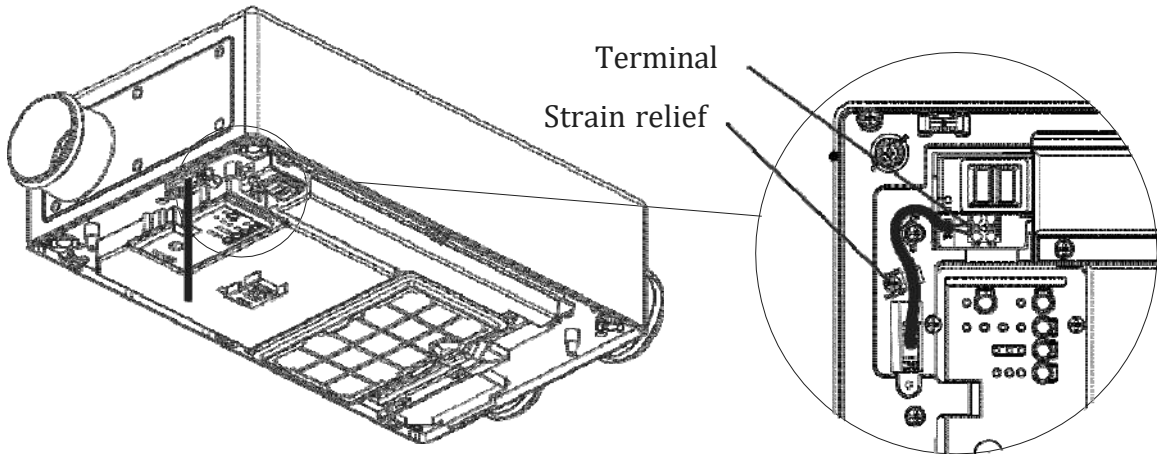
[16] Fix the unit with four screws in the mounting plate. Use the long bit 200mm PH2 that's included.



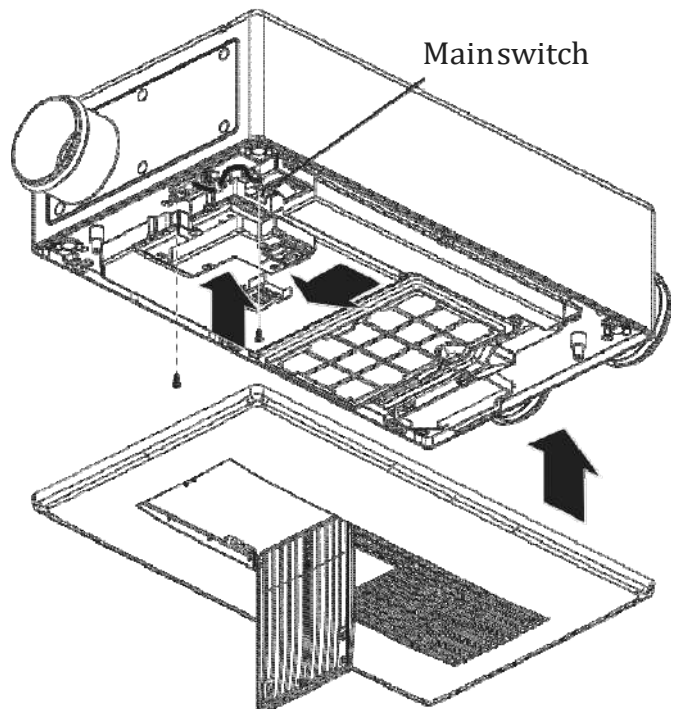
[17] Install the duct to the SA adapter and fix the duct and adapter with supplied screw.



[18] Cut and strip the cable to length, connect the cable to the N and L in the terminal and fit the strain relief.

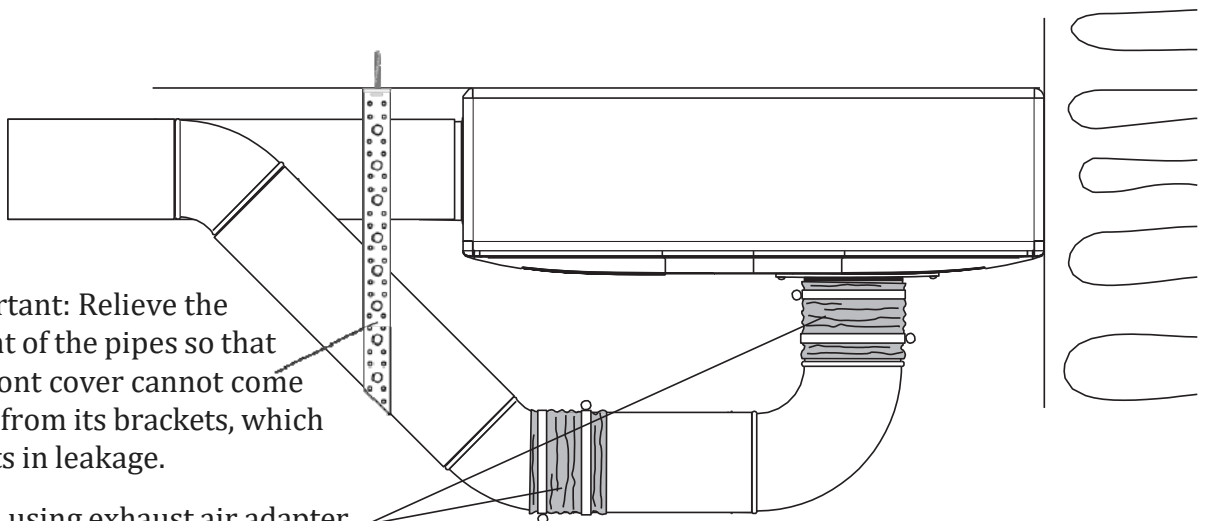
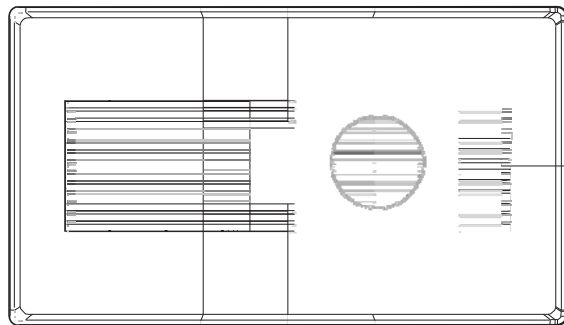
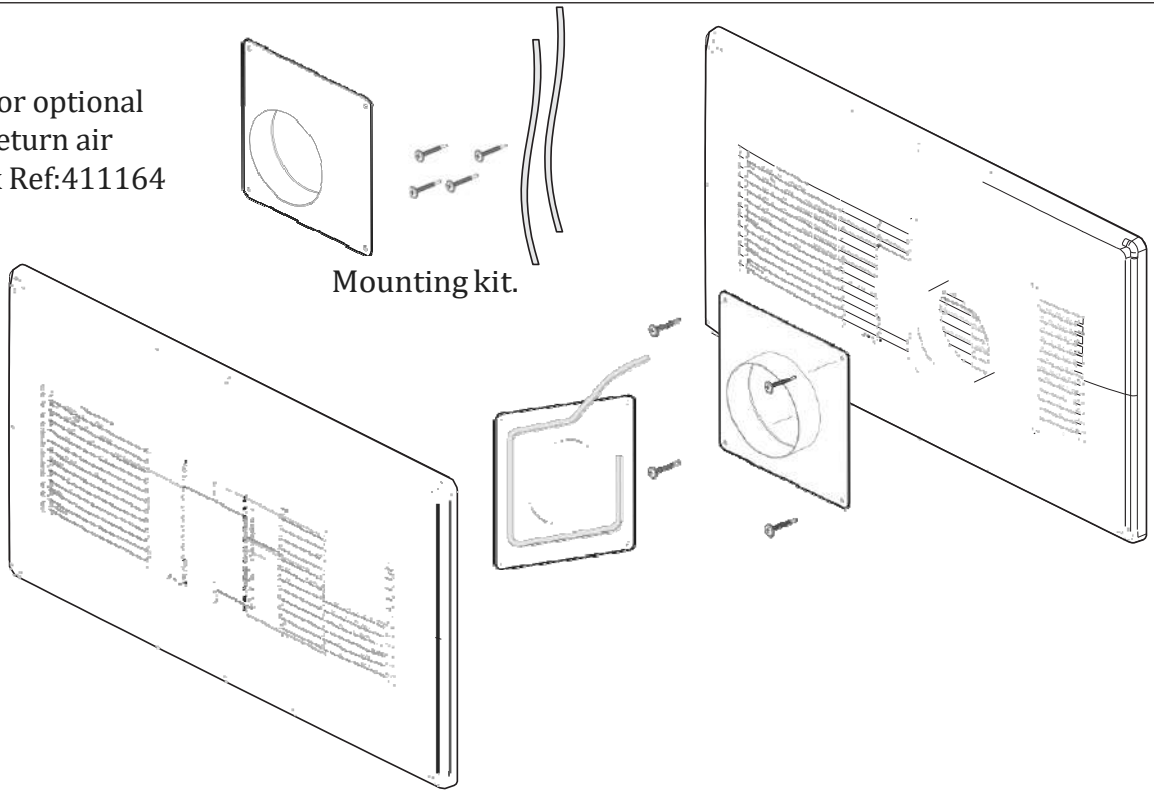


[19] Replace the terminal box cover. Turn on the main switch. Then push the front panel in place and lock the panel with the lever.



Installation

Instructions for optional assembly of return air adapter Stock Ref:411164



[20] Important: Relieve the weight of the pipes so that the front cover cannot come loose from its brackets, which results in leakage.

[22] When using exhaust air adapter, access to service and filter replacement must be provided. Exhaust air duct must be easy to disconnect.

Model Name	Lo-Carbon Calido			
Ref Number	411133			
Model type	Standard with pre heater			
Voltage / Frequency [V] [Hz]	230VAC 50Hz			
Free blowing capacity [m ³ /h]	30	52	78	90 *
Power consumption [W]	8,3	14,4	21,7	25
When the heater is on [W]	< 375	< 375	375	
Sound pressure level [dB(A)] 3m	19	22	29	35
Heat recovery efficiency [%]	80	78	75	
Leakage [%]	5			
Motor type	DC motor			
Encloser class	IP24			
Insulation class	□ (class II)			
Certified	Intertek D			
Other labels	CE UK CA			
Filter	OA: G4 / RA: G4			
Unit wight [kg]	9,5			
Installation	Qualified installer			

* Only exhaust blowing

Troubleshooting and disposal

Troubleshooting

If your Calido unit is not functioning properly, consult the following troubleshooting table. If the fault persists, contact your supplier, distributor or the technical service department

Fault	Possible cause	Remedy
Ventilation unit without supply air operation.	Dehumidification set too low. Calido in exhaust air mode.	Check the dehumidification level and increase it if necessary.
Noises	Main module is not secured correctly.	Check mounting plate. Align the main module correctly.
LEDs on front plate do not illuminate	Unit not switched on.	Switch on the unit
	Power circuit interrupted.	Check power cable. Check circuit breaker.
Orange Maintenance indicator light flashing	End of maintenance interval has been reached.	Replace dust filters. Press filter change button.
Low airflow	Filters contaminated or defective.	Replace dust filters. Decrease the filter change interval.

Vent-Axia

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As part of the policy of continuous product improvement Vent-Axia reserves the right to alter specifications without notice.

EU Authorised Representative: Vent-Axia Bedrijvenweg 17 7442 CX Nijverdal Nederland authorisedrep@vent-axia.nl

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The Vent-Axia Guarantee

Applicable only to products installed and used in the United Kingdom. For details of guarantee outside the United Kingdom contact your local supplier.

Vent-Axia guarantees this Lo-Carbon product for 5 years from date of purchase against faulty material or workmanship. In the event of any part being found to be defective, the product will be repaired, or at the Company's option replaced, without charge, provided that the product:-

- Has been installed and used in accordance with the instructions given with each unit.
- Has not been connected to an unsuitable electricity supply. (The correct electricity supply voltage is shown on the product rating label attached to the unit).
- Has not been subjected to misuse, neglect or damage.
- Has not been modified or repaired by any person not authorised by the company.

IF CLAIMING UNDER TERMS OF GUARANTEE

Please return the complete product, carriage paid to your original supplier or nearest Vent-Axia Centre, by post or personal visit. Please ensure that it is adequately packed and accompanied by a letter clearly marked "Guarantee Claim" stating the nature of the fault and providing evidence of date and source of purchase.

The guarantee is offered to you as an extra benefit, and does not effect your legal rights