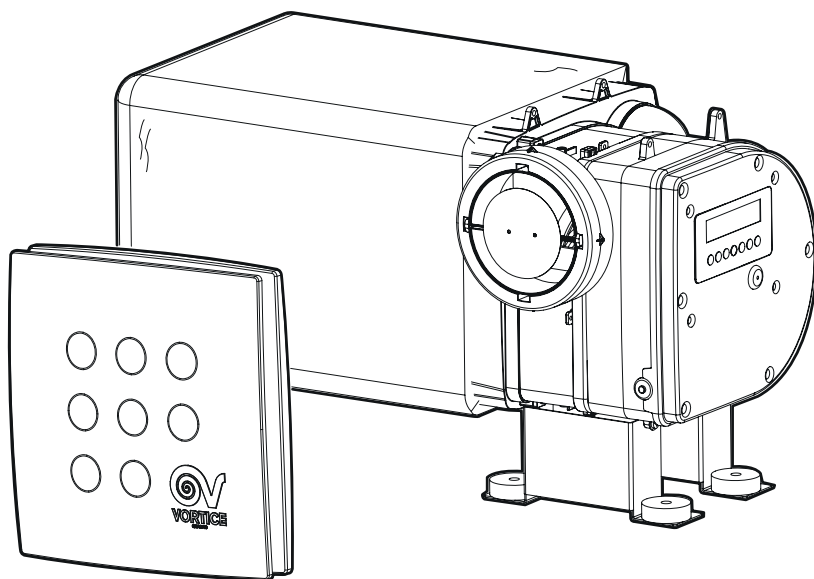

VORT PIV QUADRO **VORT PIV QUADRO RF**

**UK
CA** **CE**



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

Prima di usare il prodotto leggere attentamente le istruzioni contenute nel presente libretto. VORTICE non potrà essere ritenuta responsabile per eventuali danni a persone o cose causati dal mancato rispetto delle indicazioni di seguito elencate, la cui osservanza assicurerà invece la durata e l'affidabilità, elettrica e meccanica, dell'apparecchio. Conservare sempre questo libretto istruzioni.

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General Informations

Description of the symbols

Obligation



Generic obligation



Reading the instructions is mandatory



Turn off the power is mandatory



Contact a professionally qualified electrician

Prohibition



Generic prohibition

Danger



Generic danger

Purpose of the manual

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



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

VORTICE cannot assume any responsibility for damage to property or personal injury resulting from failure to abide by the instructions given in this booklet.

Following these instructions will ensure a long service life and overall electrical and mechanical reliability.

Keep this instruction booklet in a safe place. Do not make modifications to this manual.

Product description

VORT PIV QUADRO is a positive input ventilation unit (PIV) that improves the quality of the air inside a home and helps to resolve problems caused by condensation and mould. It can also be used to control Radon Gas up to certain levels. The system draws in air from the loft space and supplies filtered air into the building through a ceiling diffuser.

The unit hose is 160 mm diameter, but the product is compatible for PIV units with a 200 mm diameter of the diffuser hole.

By means of the built-in display it is possible to select one from the 7 available speed settings. For each setting a value is set for the normal speed (default) and for the corresponding boost speed.

Normal and boost speeds can also be modified, within a certain range, to meet the needs of each home.

It is also possible to combine the unit to an electric heater (500 W) which tempers the inlet air when the loft temperature drops below a pre-set value.

In addition to the basic model VORT PIV QUADRO, it is also available the VORT PIV QUADRO RF, comes with a wireless switch for the selection of normal or boost speed.

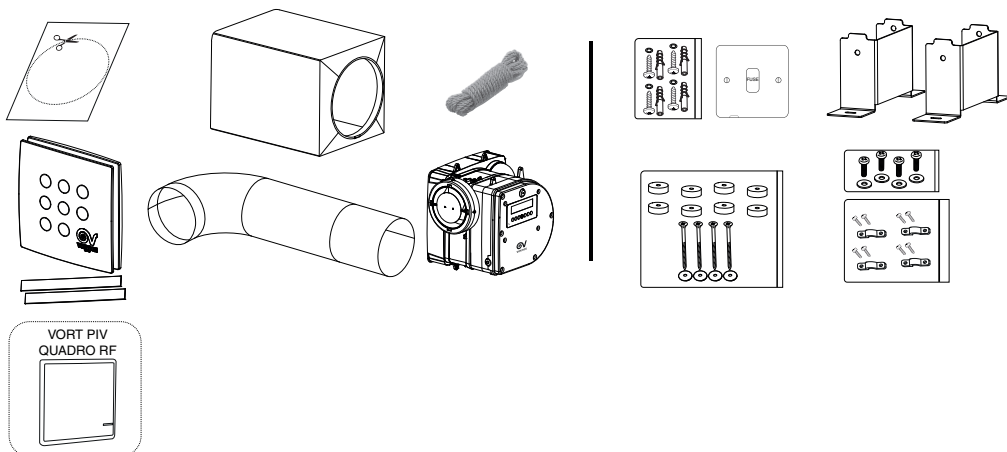
Additional features

- QUIET silent function that prevents the unit from activating the boost mode, in a specified time interval (at night).
- RADON function that allows for continuous operation, with the aim of mitigating traces of radon.
- Recording of the unit operating time from the first installation (Data Logger).
- Additional connection options to external sensors (for example C-TEMP, C-SMOKE, C-HCS sensors in the VORTICE catalogue) which allow the switch from normal to boost speed when the set threshold values are exceeded.
- Ability to link to a smoke detector that disconnects the power to the unit in the event of fire (refer to the wiring diagrams within this manual).
- For the standard version without radio frequency remote control: Hard wired switches (not supplied) can be used to select normal or boost speed, and switch optional heater on / off.

See the 'operation' section for a more detailed description of the functions offered by the unit.

Ventilation unit and equipment

- Ventilation unit.
- G4 Iso Coarse 65% bag filter + self-adhesive tear tape.
- 3 m PVC flexible hose (Ø 160 mm).
- Diffuser for ceiling installation + 2 x blanking plates.
- 2 x fixing floor brackets including the screws and washers to secure the brackets, 8 x anti-vibration mounts.
- Cord for suspended installation.
- 3A fused spur.
- Paper template.
- 4 x cable clips.
- RF switch (only for VORT PIV QUADRO RF model).



Compliance

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- These appliances are designed for use in residential and commercial properties.
- The appliance must be installed by a professionally qualified electrician.
- 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) motors 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.
- In the event of a power failure, when the mains is restored the appliance will restart at the normal mode speed ('Normal') corresponding to the speed setting previously selected.

Safety/Warnings



- After removing the appliance from its packaging, ensure that it is complete and undamaged. If in doubt contact an authorised Vortice service centre. Do not leave packaging within the reach of children or persons with reduced physical, sensory or mental capabilities.
- If you decide to disconnect the appliance from the power supply and use it no more, store the appliance out of the reach of children and persons with reduced physical, sensory or mental capabilities
- If the appliance malfunctions and/or develops a fault, contact VORTICE immediately. Ensure that only genuine original VORTICE spares are used for any repairs.
- The electrical power supply/socket to which the appliance is to be connected must be able to provide the maximum electrical power required by the appliance. If it cannot do so, arrange for a qualified electrician to make the necessary modifications.
- Electrical connections must comply with "The Building Regulations" and the most current version of IET regulation BS7671 in the UK (or equivalent regulations in other countries).
- The electrical specifications correspond to the ones on the rating label.



- Do not use this appliance for functions other than those described in this booklet.
- Do not make modifications of any kind to this appliance.



- Fundamental rules must be observed when using any electrical appliance:
 - never touch appliances with wet or damp hands;
 - never touch appliances while barefoot;
 - do not allow the unit to be operated by unsupervised children or persons with reduced physical, sensory or mental capabilities.
- Should the appliance be dropped or suffer a heavy blow, have it checked immediately by VORTICE.
- If the power cord becomes damaged, it must be replaced by the manufacturer or its technical assistance service, or in any case by a person with similar qualifications, in order to prevent any risk.
- Caution - some parts of this product can become very hot and cause burns. Particular attention has to be given where children and vulnerable people are present.

General warnings for the installer

NOTE: the official document to refer to is: “The Building Regulations: Approved Document F: Volume 1 applies to dwellings”.



- Disconnect the power supply before carrying out any maintenance or intervention on the adjustable bulb thermostat on the heater.
- The ducting must be securely attached to the unit and to the diffuser flange.
- Before installation make sure that the loft is adequately ventilated. Ensure that the air vents (eg: ridge vents, tile vents or felt separators) are not blocked.
- There may be a need to provide additional ventilation to the loft if this is so sealed from the outside that it is not sufficiently ventilated.
- Make sure that any water tanks in the loft are covered and sealed.
- Make sure the attic hatch is tightly sealed.
- Checks are needed to ensure there are no leaks from the ceiling. For example, a poorly sealed loft hatch can cause moisture to transfer into the loft. Make sure that all holes in the ceiling are sealed, eg. the lamp fixings.
- The installer must check that there are no leaks from the flues or gas pipes in the loft.
- Always take protective measures (mask, gloves, protective suit) when working with any type of insulation present in the loft area.
- Partition walls between buildings must be complete with any breaks filled. Check that all partition walls are intact.
- The diffuser should not be installed within 1m of a smoke detector. If it is necessary to install the diffuser at a distance less than 1 m from the fire detector it is possible to apply to the diffuser one or two plastic blanking plates which block the passage of the air in one or two directions. In this configuration, the sides without the plastic blanking plates must have a distance of at least 1.5 m from any smoke detector (fig. 4).
- In homes with a height of the living floor greater than 4.5 m or with 3 or more floors, the unit must be wired into a smoke detector in order to disconnect the unit from the mains upon the detection of smoke.
- In homes with a height of the living area greater than 4.5 m, the diffuser must always be installed at a minimum distance of 1 meter from the smoke detector. In this case, do not use the blanking plates provided.
- When wiring the unit, the fused spur must be an integral component of the wiring.
- The flexible hose, once installed, must maintain a length of at least one meter.
- The unit must not interfere with the operation of flue appliances. Consult local regulations or a qualified gas technician.
- DO NOT install this product in areas where there may be:
 - Too much oil or greasy atmosphere.
 - Corrosive or flammable gases, liquids or vapors.
 - Any obstructions that would hinder access or removal of the unit.
 - Relative humidity above 90%.
- The hose must not be compressed as it may affect the performance of the unit.
- In RF models it is not advisable to install the radio frequency switch on a metal surface since metal will shield wireless signal.
- The appliance is equipped with a battery which maintains the current time in the event of a power failure. Only in the event of a prolonged interruption (therefore with the battery flat) it is necessary to reset the time (see 'SET TIME' under 'Configuration Menu'). In any case, the appliance maintains the previously set configurations (for example: speed settings).

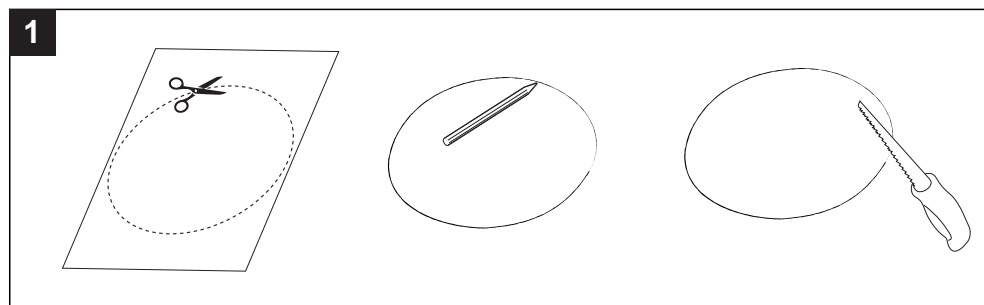


Installation

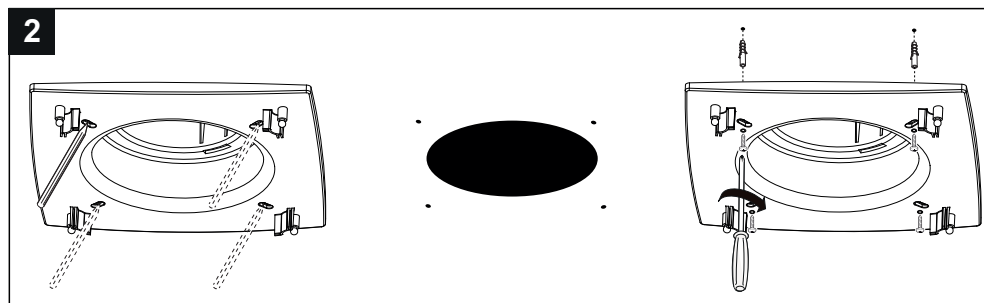
• Ceiling diffuser fixing

Cut a 200 mm diameter hole in the ceiling in the chosen installation position. Use the template provided if necessary.

1) Mark a circle on the ceiling and cut out the hole using the most suitable tool for each type of ceiling.



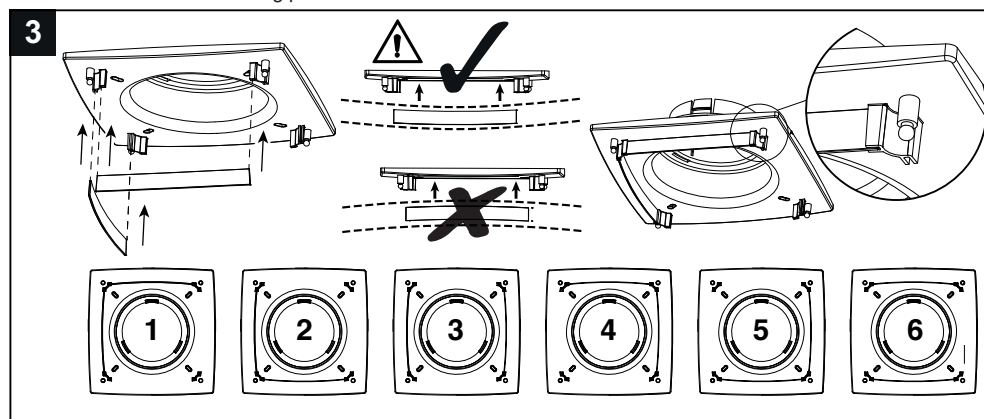
2) Mark the holes on the ceiling with a pencil and fix the diffuser group with the plugs, screws and washers supplied.



3) It is possible to apply one or two blanking plates to the diffuser in order to divert the passage of air in one or two directions to guide airflow away from the smoke detector. According to the installation needs, six different configurations are available.

The application of the blanking plates allows to have less than 1 m distance between the side of the diffuser where the blanking plates are installed and a smoke detector. On the sides without the blanking plates the distance between the smoke detector and the diffuser must be equal to or greater than 1.5 m.

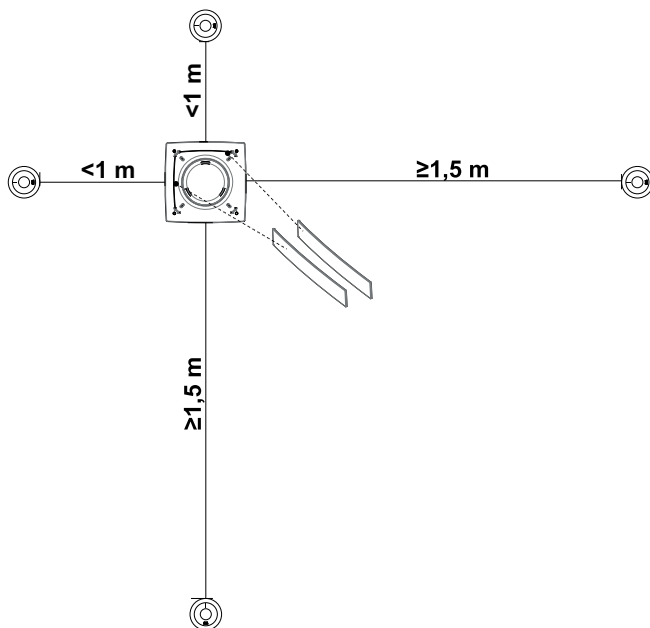
Note: No more than 2 blanking plates to be used on a diffuser.



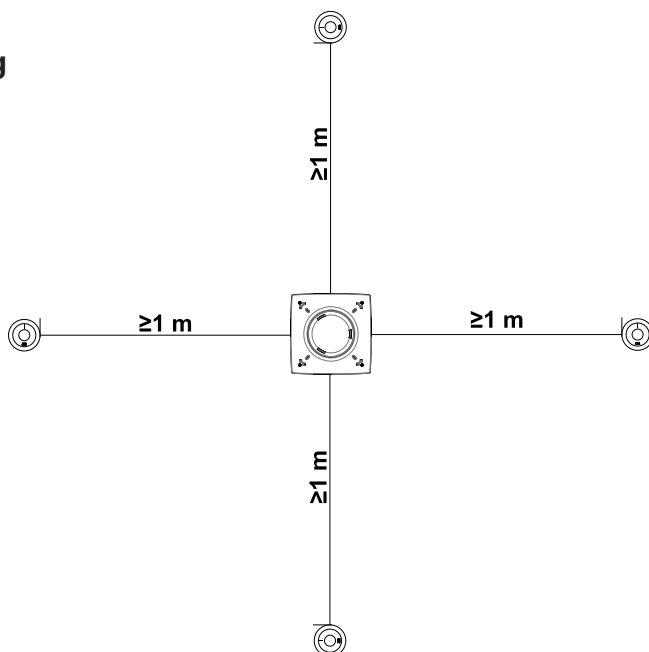
Example of installation of the diffuser (with and without blanking plates) with the relative distances from the fire detector.

4

**With
blanking
plates**



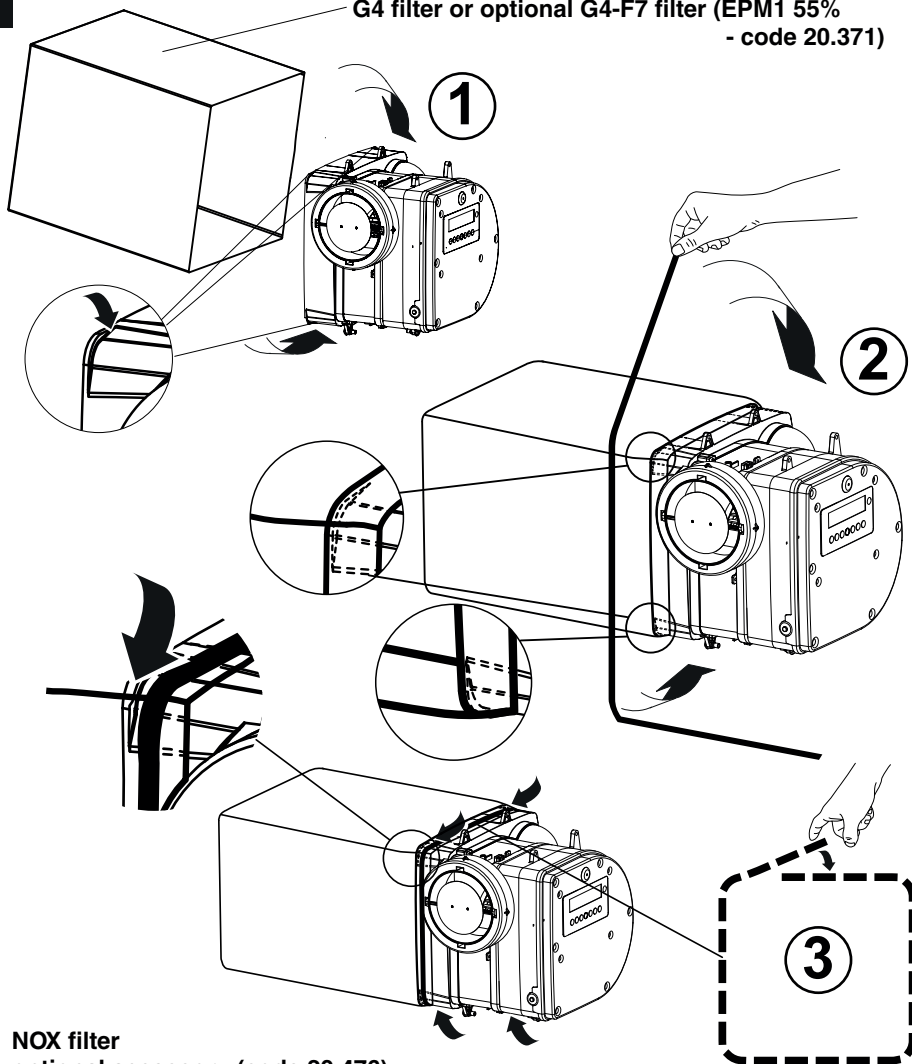
**Without
blanking
plates**



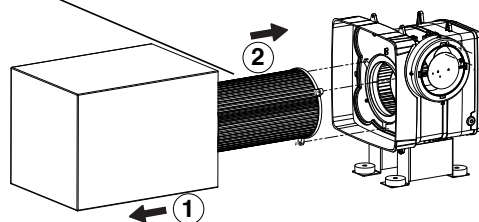
• Fixing of the filter onto the ventilation unit

5

G4 filter or optional G4-F7 filter (EPM1 55%
- code 20.371)



NOX filter
optional accessory (code 20.476)

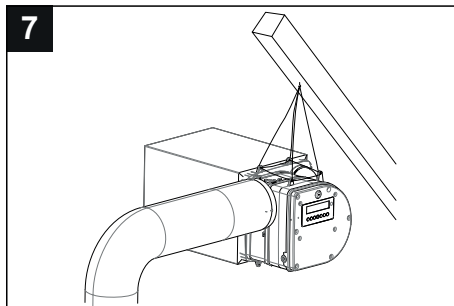
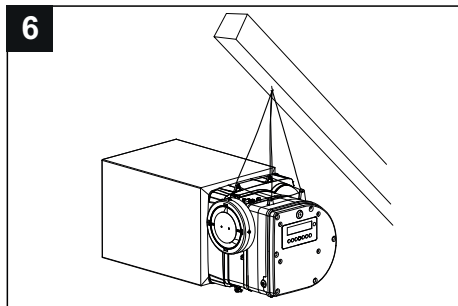


• Fixing of the ventilation unit

The installation can be carried out with the unit suspended (e.g. from a convenient roof beam) via the cord supplied, or fixed directly to a suitable surface within the loft by means of the brackets and anti-vibration mounts provided.

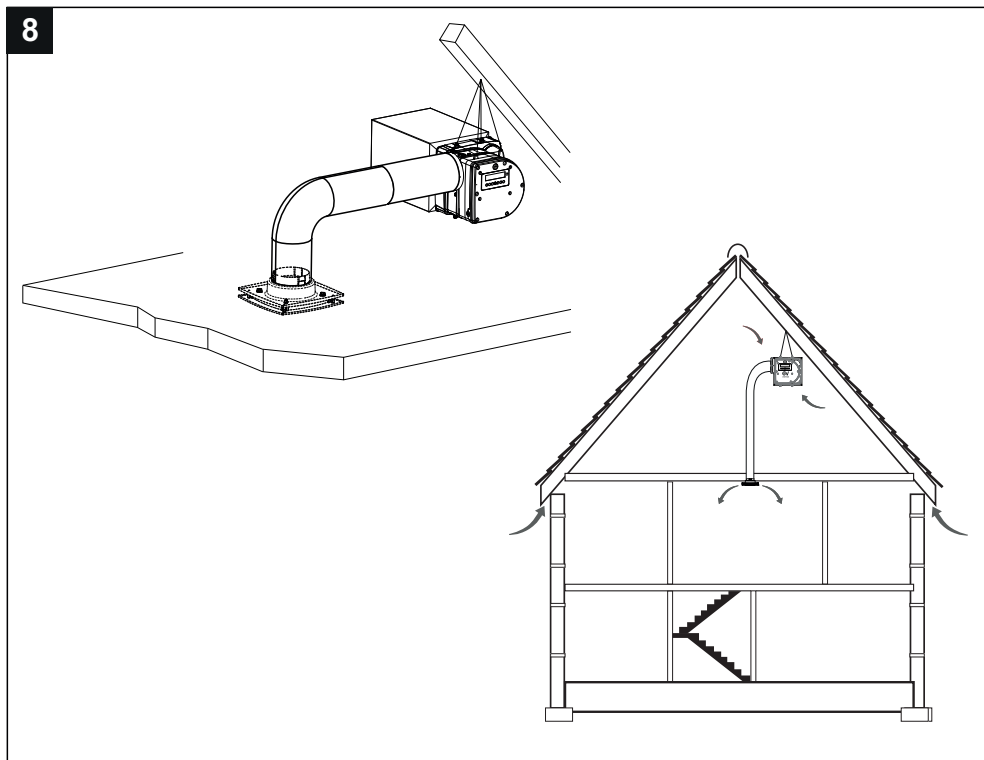
1) Suspended mode

- a) Use the cord provided to suspend the unit from a hook on a joist of the loft (fig. 6).
- b) Firmly secure the hose to the unit (fig. 7).



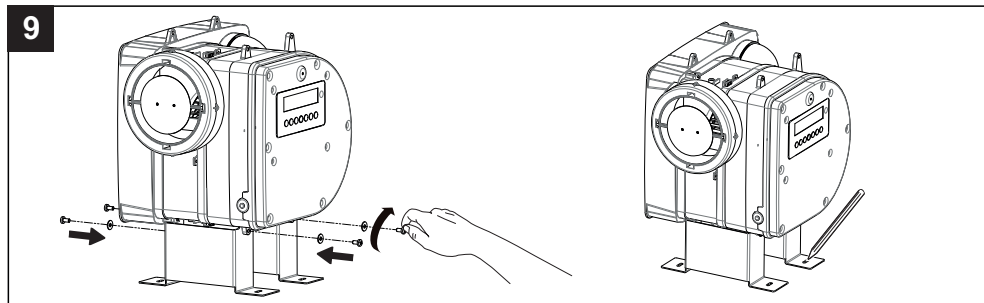
- c) Firmly secure the hose to the diffuser end (fig. 8).

Note: Pipe connections can be sealed using two fixings (not supplied).

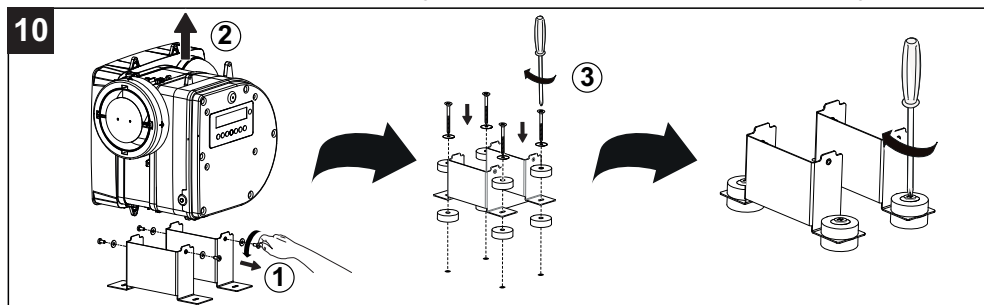


2) Fixing mode with the provided brackets

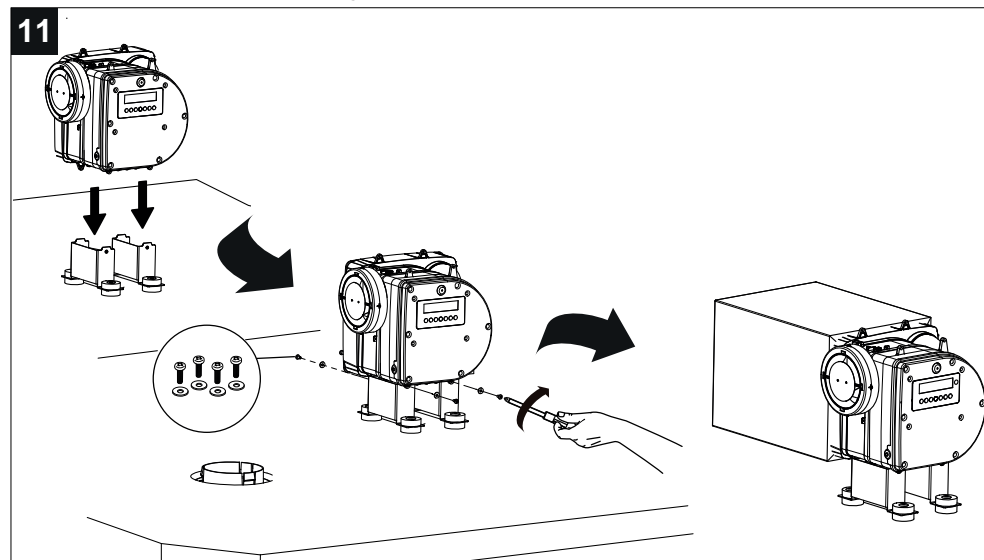
- a) Use the 4 triangular fixing points on the bottom of the unit for the installation on the loft floor.
(for the installation on the loft ceiling joists please refer to note 3 - fig. 13B).
- b) Place the fan unit over the brackets. Use the screws and washers provided to secure the assembly.
- c) Mark the holes on the loft floor with a pencil (fig. 9).



- d) Disassemble the unit from the brackets and attach the brackets to the loft floor by placing the anti-vibration mounts above and below each bracket fixing point. Use the screws and washers provided (fig. 10).

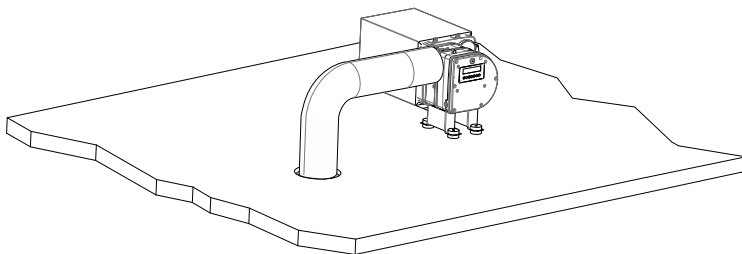


- e) Secure the fan unit to the brackets using the screws and washers provided (fig. 11).
- f) Attach the filter to the unit (refer to fig. 5).



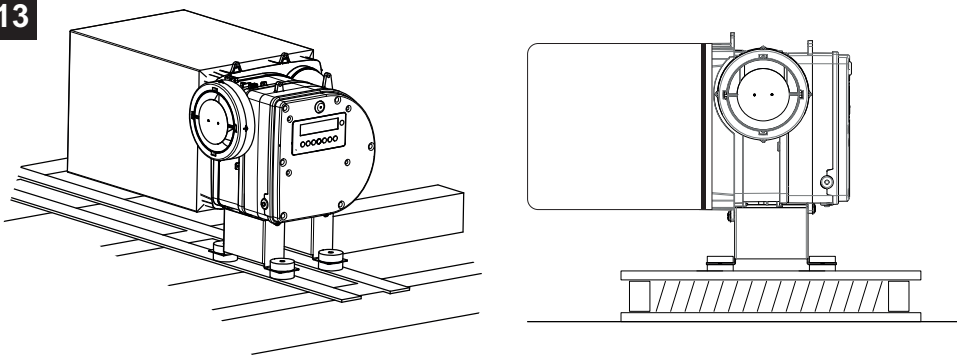
- g) Fix the flexible hose to the unit and to the diffuser. Hose connections can be sealed using proper fixings (not supplied) (fig. 12).

12



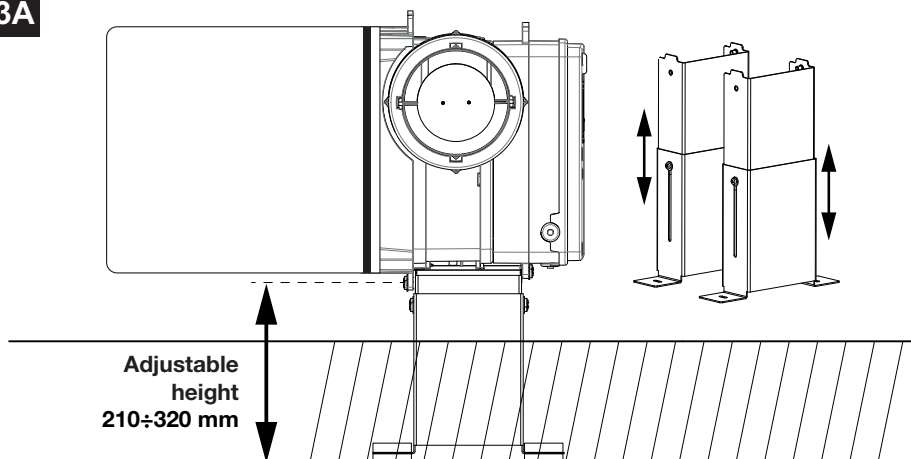
Note 1: If the insulation on the loft prevents you from mounting the brackets directly on the floor, you can use battens (not provided) on which to fix the brackets (fig.13).

13

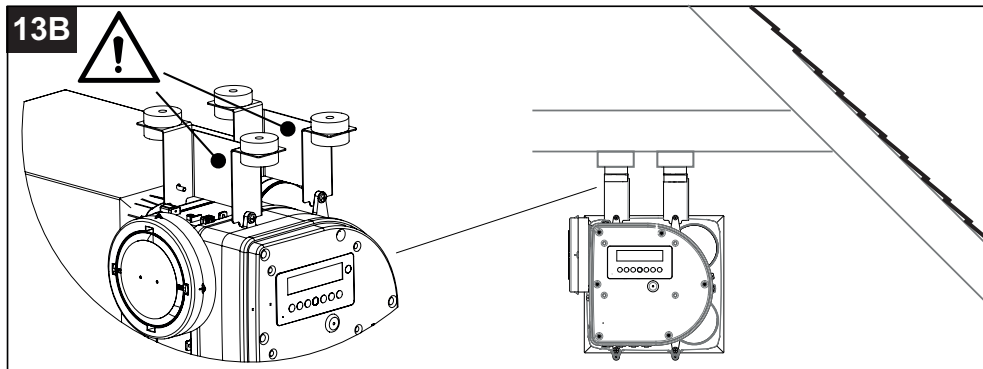


Note 2: VORTICE provides as optional accessory an adjustable brackets kit (code 20.460) which allows to install the unit above the loft insulation.

13A

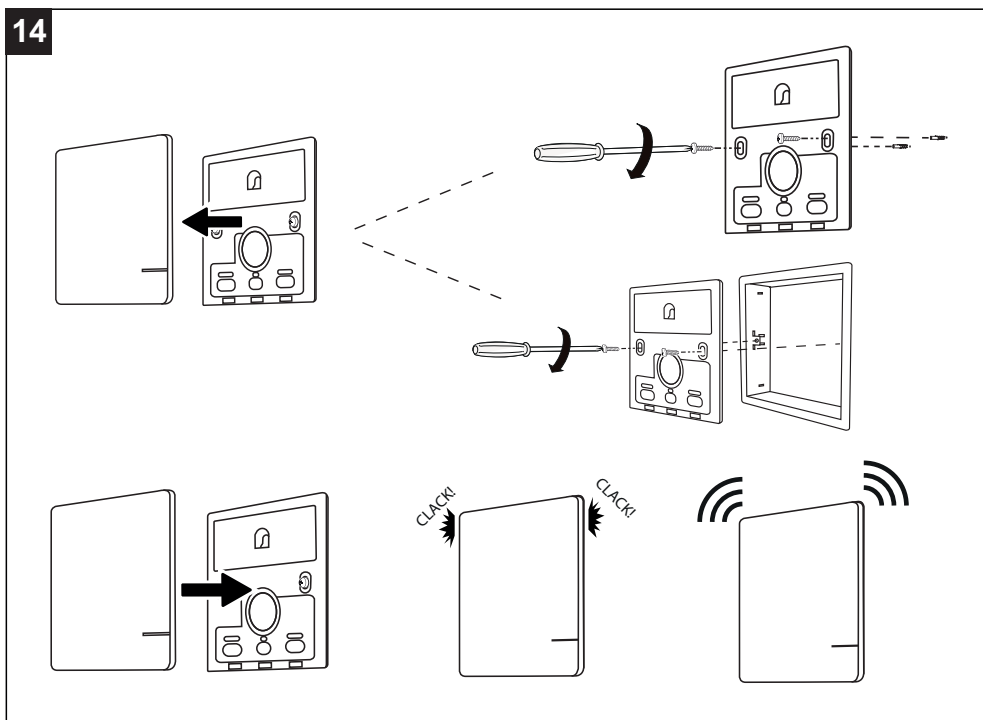


Note 3: The unit can be installed with the brackets fixed to the 4 triangular fixing points on the top of the product and to joists or special battens installed in the loft (fig.13B). Please follow the assembly sequence shown for fixing the brackets to the loft floor (figs. 9-11), making sure to install the brackets in the orientation shown in the figure.



• RF switch installation

The switch can be mounted on a wall or fixed to a standard recessed wall box by using two screws (not supplied) (fig. 14).



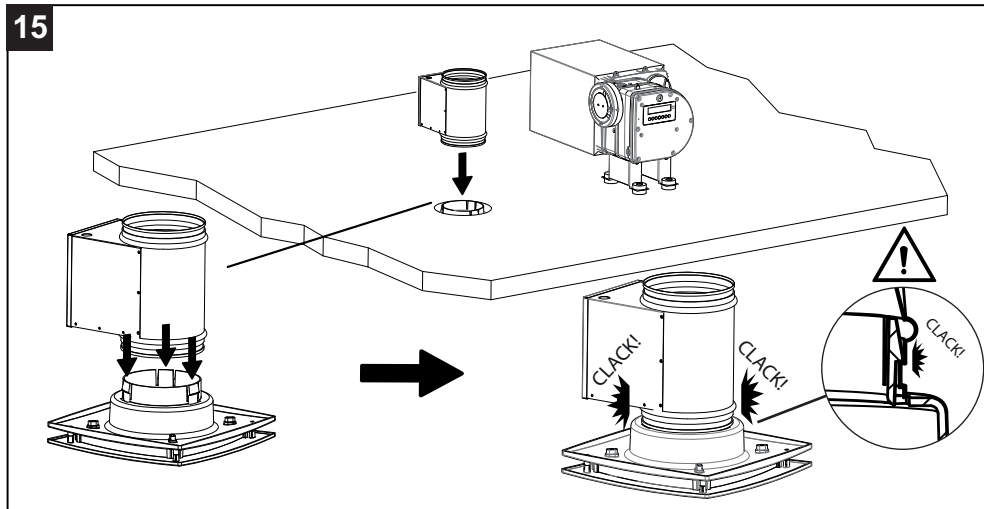
The wireless switch and the receiver on the unit have already been paired at the factory.

ENGLISH

• Installation of the 500 W electric heater (optional - VORTICE code 20.359)

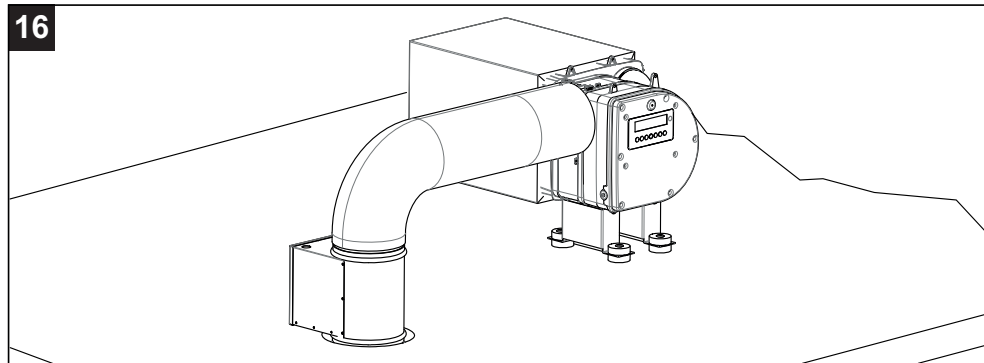
a) Fix the electric heater to the diffuser end (fig.15) .

15



b) Fix the flexible hose to the unit and the electric heater. Hose connections can be sealed using proper fixings (not supplied) (fig. 16).

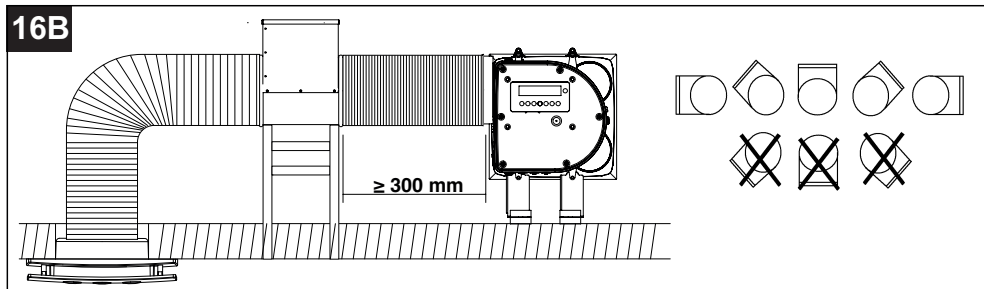
16



Note 1: The configuration illustrated in figure 15-16 is the optimal one since it is the most thermal efficient solution (a thermal insulated pipe is not needed).

Note 2: For the installation with the electric heater in between the diffuser and the ventilation unit, please refer to fig. 16B. Never mount the electric heater with the electric box facing downwards.

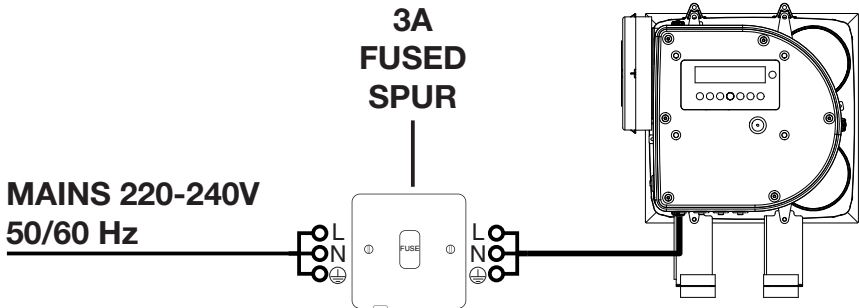
16B



Wiring

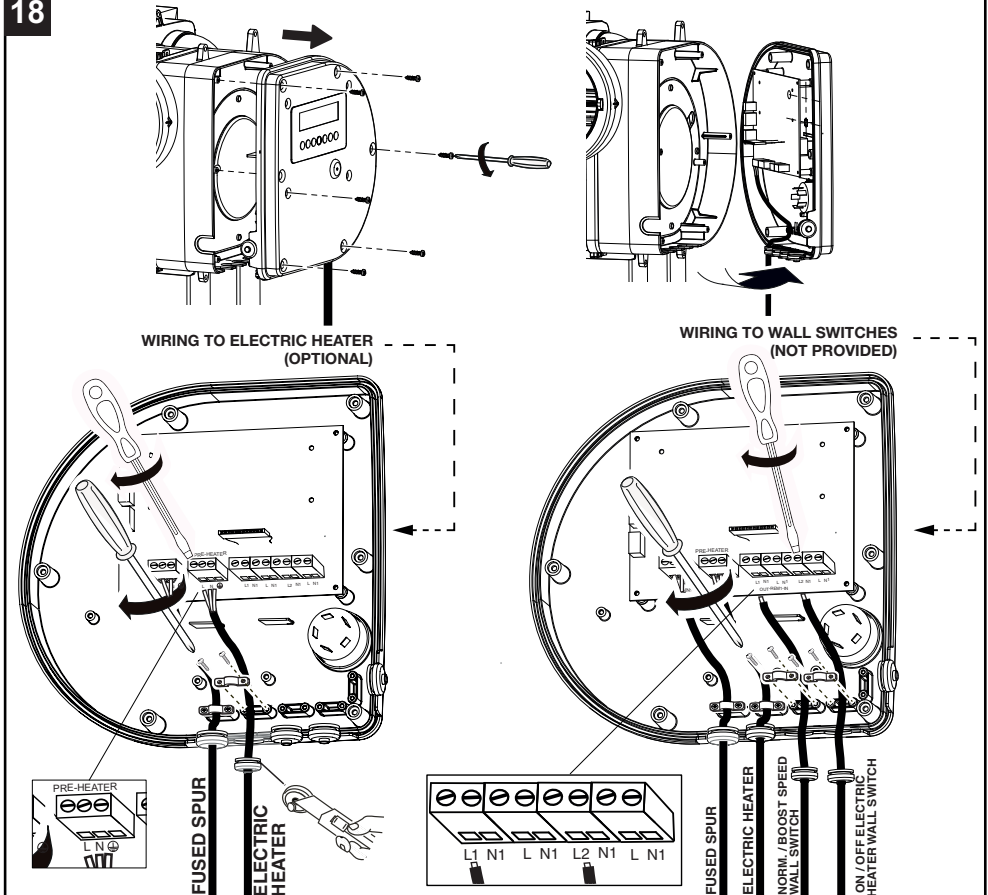
When wiring, the fused spur must always be an integrated component in the system (fig. 17).

17



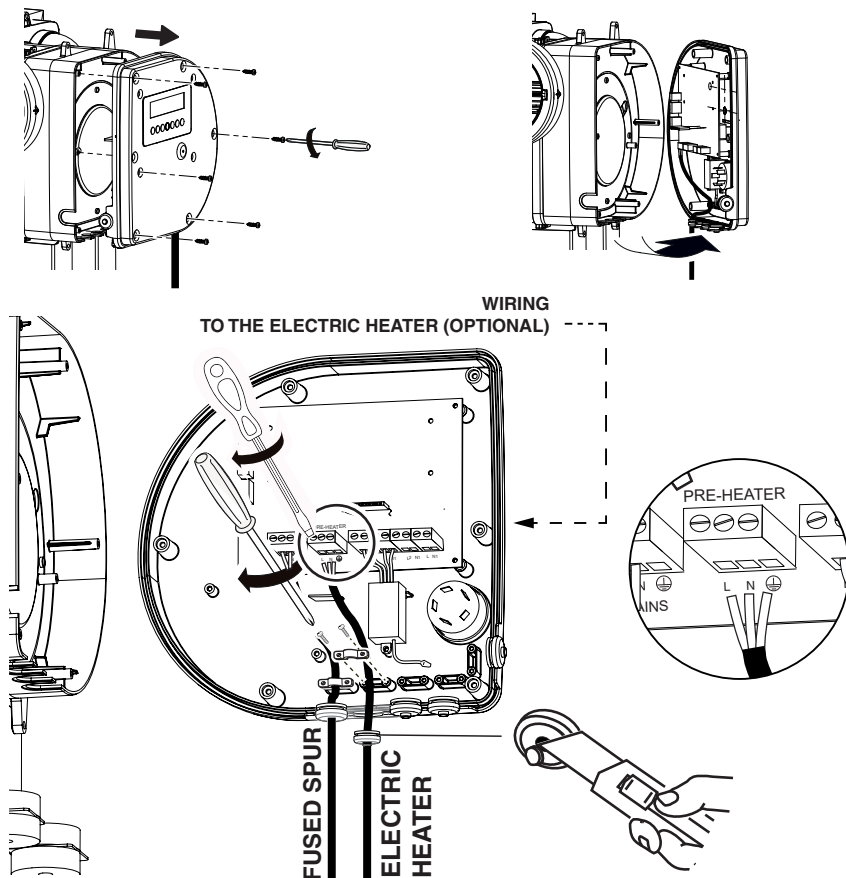
• VORT PIV QUADRO (refer to wiring diagram in fig. 21)

18

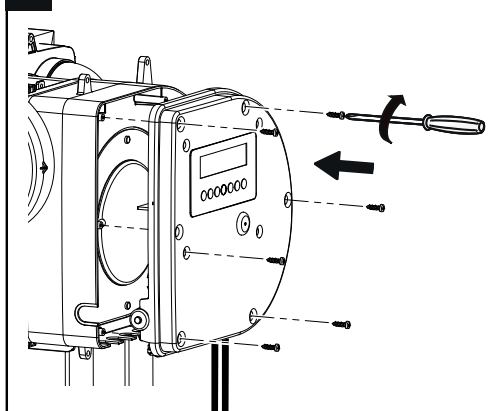


• VORT PIV QUADRO RF (refer to wiring diagrams in fig. 22)

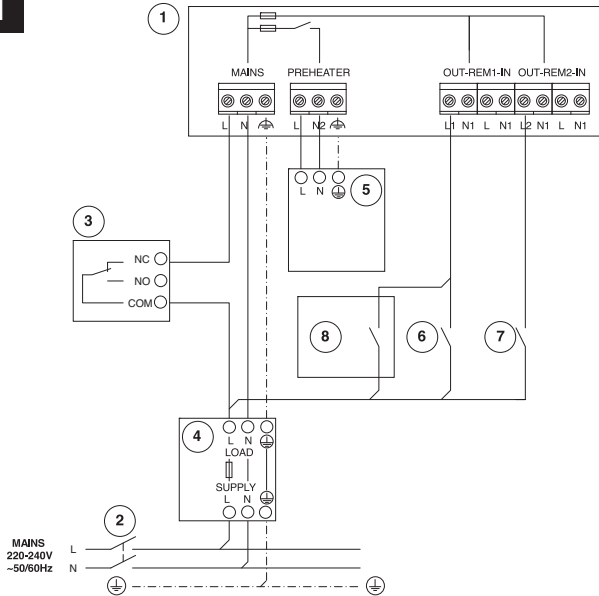
19



20



21

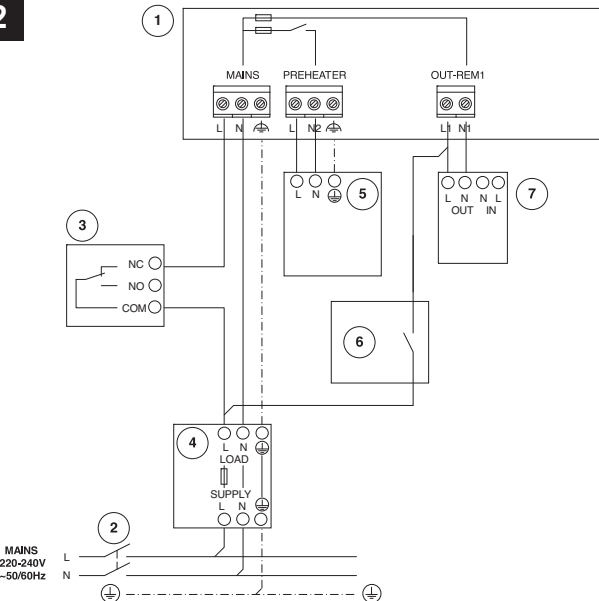


- 1 PIV unit
- 2 Main bipolar switch
- 3 SMOKE / CO detector with NO/NC contact (for reference only)
- 4 Fused spur
- 5 Preheater
- 6 Boost Remote Switch
- 7 Preheater Remote Switch
- 8 External sensors C Temp, C Smoke, C HCS (for reference only)



The fused spur (4) must always be used.

22


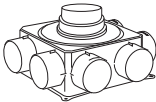
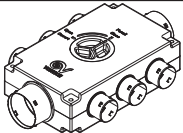

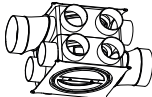
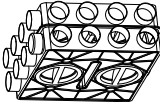
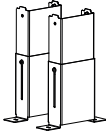

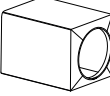
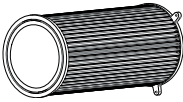


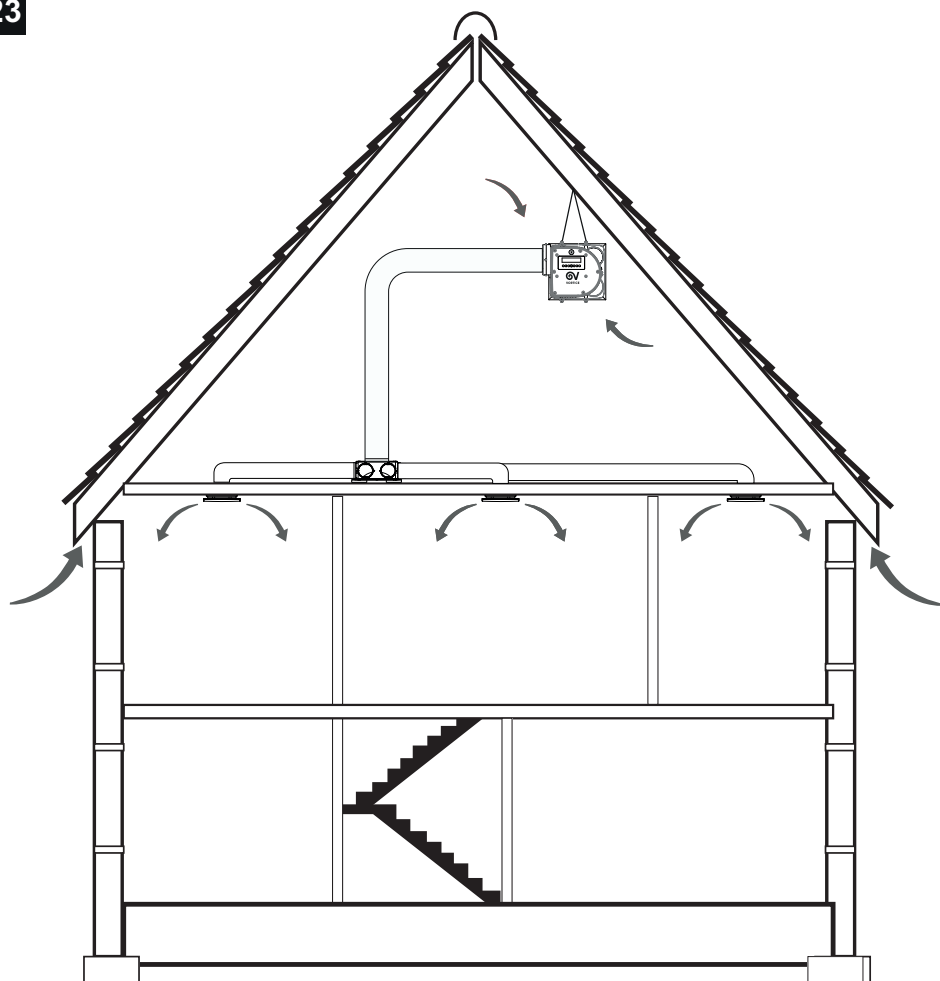
- 1 PIV unit
- 2 Main bipolar switch
- 3 SMOKE / CO detector with NO/NC contact (for reference only)
- 4 Fused spur
- 5 Preheater
- 6 External sensors C Temp, C Smoke, C HCS (for reference only)
- 7 RF internal module



The fused spur (4) must always be used.

Available accessories

Code	Picture	Accessory name and description	Notes
21.323		WDG-PH PLUS-C 6X63: plenum with 6x standard outlet nozzles (Ø 85 mm)+ 1x 125Ø outlet nozzle.	With each of these plenum it is needed to use an adapter (code 20.485) to fix the hose.
21.324		WDG-P PLUS-C 8X63: : plenum with eight standard outlet nozzles (Ø 85 mm).	
22.343		VORT PLENUM 6+1: with 6x standard outlet nozzles (Ø 85 mm) + 1x 125Ø outlet nozzle.	
20.485		WDG-4CO: adapter to fix the hose to the plenum.	
25.095		VORT SANIKIT 250: sanitizing device.	Adapter 20.485 needed.
25.096		VORT SANIKIT 400: sanitizing device.	Already supplied with the adapter (20.485).
20.460		ADJUSTABLE BRACKETS KIT VORT PIV QUADRO	Refer to fig. 13B
20.359		ELECTRIC HEATER 500 PIV	See "Electric heater" section under "Operation" menu and specific user manual
20.371		FTR EPM1 55% G4-F7 PIV QUADRO	Refer to fig. 5 for filter installation
20.476		NOX FILTER PIV	Refer to fig. 5 and specific user manual



The electric heater should never be mounted directly on the plenum.

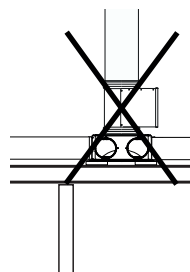


Fig. 23: example of installation of a PIV unit together with a plenum (in the illustration code 21.324)

Operation

• VORT PIV QUADRO

Automatic functioning

VORT PIV QUADRO is designed for continuous operation and it allows the installer to set one of the seven available speed settings. Each setting includes two values: one referred to normal speed and one referred to boost speed. Once powered up, the appliance works at normal speed. The boost speed can be selected via the display or by means of a wall switch, if any (refer to "Use" section).

A temperature sensor in the appliance detects the air temperature in the loft (intake air temperature). This detected temperature determines the operating strategy of the appliance, which is based on three configurable variables:

T thresh.: inlet temperature threshold (default value: 21°C, modifiable by the installer).

T summer: input summer temperature threshold: maximum operating temperature, when the threshold is exceeded, the unit will switch itself automatically to "Standby Mode" (unless it's in Radon mode) (default value: 26°C, editable by the installer).

T winter: input winter temperature threshold: when the temperature drops below the set threshold, the heater automatically turns on (default value 10°C, modifiable by the installer).

Configurable Variable	Factory threshold value	Editable by installer	Variable range
T thresh (T soglia)	21°C	YES	19°C÷24°C
T summer (T estate)	26°C	YES	24°C÷28°C
T winter (T inverno)	10°C	YES	5°C÷15°C

Depending upon the temperature of the drawn in air, the product will work in the three ways described hereafter:

Intake air temperature	Behaviour	
> T thresh **	1. Normal speed increases by 10%	
> T summer **	2. The unit will switch itself automatically to "Standby Mode" ('FAN STOPPED' signal appears on the display) to avoid introducing too hot air into the building.	
< T winter	Without electric heater (or with electric heater turned OFF)	3. The unit will switch itself automatically to "Standby Mode" ('FAN STOPPED' signal appears on the display)
	With the electric heater in AUTO mode	4. The heater turns on

**** In case the installer has set a temperature value of '24°C' both for "T thresh" and "T summer" variables, the unit will follow the behaviour (2) when intake air temperature has exceed '24°C'.**

Other functions

- **QUIET:** Although the product is very quiet, the user can set an hourly interval within which the unit's operation in boost mode is disabled in order not to disturb the occupants. The user selects a time interval (from xx: xx to yy: yy) within which the unit is inhibited from operating at the Boost speed, both for manual and automatic selection (i.e. C-TEMP sensor intervention).
- **RADON:** If this mode is activated, the unit will never switch to "Standby Mode", with the aim of mitigating traces of radon.
- Recording of the unit operating time from first installation (Data-logger).
- One or two wall switches can be wired (refer to fig. 21 / not for RF models): one to select normal or boost speed and one to switch the 500 W heater to AUTO or OFF mode if connected.



Wiring with smoke detectors

Smoke detectors already installed in the home can be indirectly connected to the appliance (refer to the wiring diagrams in fig. 21-22). Following the electrical schematics for connections, in the event of a fire, the unit will turn off automatically.

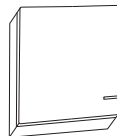


Note: In dwellings with a floor height of more than 4.5 m or with 3 or more floors, the unit must be wired to a smoke detector to allow the unit to be disconnected in the event of fire (refer to the diagrams of figs. 21-22).



• VORT PIV QUADRO RF

In addition to all the functions of the basic version this model is supplied with a radio frequency switch to select the two available speeds (Normal / Boost) of the unit.



• Electric heater (500W) - Optional accessory (code 20.359)

Important note: The heater is not to be considered as a primary or secondary heating system of the house. When installed and switched to AUTO mode (see "Edit parameters" under "Use" section), in a "standard" winter, the heater should operate on average between 9% and 15% of the total unit operating time.

The on-board electronics does not regulate the air outlet temperature but only switches the heater on/off within the set parameters. The heater tempers the inlet air in the event that the loft air temperature is below the set value. An adjustable bulb thermostat stops the operation of the heater when the temperature has risen beyond the factory preset value ($\approx 10^{\circ}\text{C}$). To access the temperature adjustment knob and modify the threshold preset temperature, remove the heater cover (fig. 24)



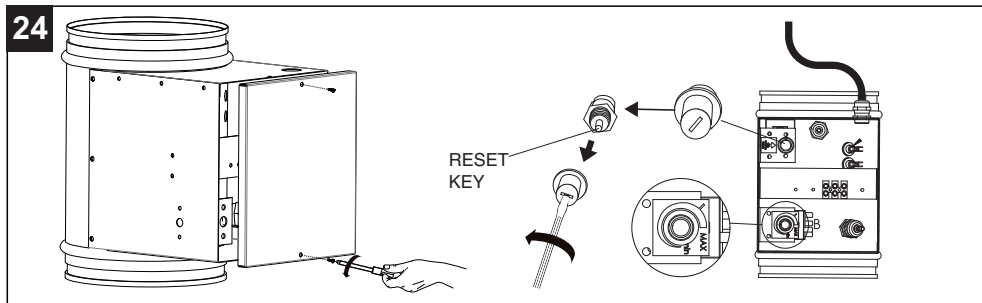
Disconnect the unit from the mains before opening the electric heater cover.

It is possible to turn the heater on (AUTO mode) or OFF from the display or from an optional switch (not supplied) when installed.

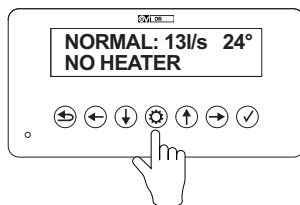
In case of overheating of the heater (for example in case of absence of air flow due to breakage or blockage of the motor fan) an additional manual reset safety thermostat intervenes to stop the heater operation after the detected temperature has risen beyond a preset value. Once a VORTICE Authorized Service Center has been contacted and the causes of this abnormal overheating have been resolved, the safety thermostat can be manually reset by pressing the key shown in fig. 24.

NOTE: Refer to the specific product manual for a more detailed description of all the functions that the heater offers.

24



Commissioning



First start-up (refer to "Set Speed" under the "Configuration menu" section)

When the unit is powered up, the display of the control panel is activated (after 30s of inactivity the display turns off saving the current settings).

The control panel is made up of a two line LCD display and 7 touch pad keys.

From the installer menu with the default access password "0000" it is possible to perform the initial setting which requires one of the 7 Normal + Boost speed sets to be selected, according to the following combinations preset in the factory (compliant with the provisions of the "Building Regulations):

Setting	Number of bedrooms (see note 1 /note 2)	Normal speed airflow [l/s] (note 3)	Boost speed airflow [l/s]	Normal speed airflow [m³/h]	Boost speed airflow [m³/h]	Absorbed power (W) (note 4)
1	one habitable room (Studio)	13	25	46.8	90	2.9
2	1	19	33	68.4	118,8	3.9
3	2	25	42	90	151.2	5.1
4	3	31	50	111.6	180	6.7
5	4	37	58	133.2	208.8	8.8
6	5	43	70	154.8	252	10.5
7	6	49	74	176.4	266.4	12.8

Note 1: If the dwelling only has one habitable room (a studio), a minimum ventilation rate of 13 l/s should be used.

Note 2: For each additional bedroom, 6 l/s are added to normal speed value. E.g. a 2 bedroom dwelling will be 25 l/s.

Note 3: Normal speed values can be modified in 1 l/s intervals. These values are only referred to G4 filter configuration. In case of the replacement of the G4 filter with the G4+F7 filter (code 20.371) or the addition of the NOX filter (code 20.476) to G4 filter, due to pressure drops increases, the installer should fine-adjust the speed (see 'SPEED ADJUST' under "service menu") or choose a different speed setting in order to get the target airflow value.

Note 4: Absorbed power at normal speed with the G4 filter installed. Power values referred to the unit with a new clean just installed filter.

Use

The display allows the following actions: (see below for details)

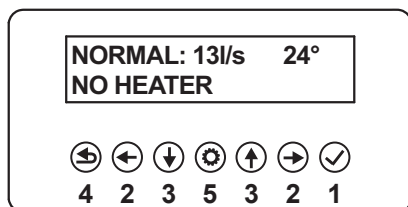
User functions

- Display and update of the current time.
- Display and update of the current fan speed (only the switch from normal to boost mode available)
- Turn on (automatic mode) or off (disable) the heater when installed.
- Display of the total operating time of the appliance from the first installation.
- Display of the total operating time of the heater since the first installation.
- Display of the remaining time before filter replacement and reset filter counter, after filter renewal.

Installer functions (with access by password)

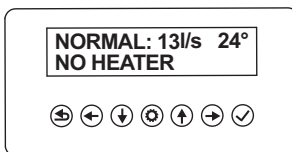
- The installer can select the required speed (dependent on the dwelling size) from 7 factory set speeds see table above.
- The installer can adjust the factory default value by -3l/s to +3l/s.
- Enable / disable of QUIET and RADON modes.
- Set the Tthresh, Tsummer, Twinter values.
- Enable/disable the electric heater when installed.
- Enter and change the password to access the Installation and Parameter Configuration Menu.

Meaning of the keys on the keyboard



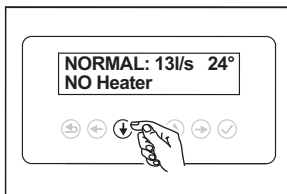
- 1 ENTER:** • enter in the "edit" mode
• save and exit "edit" mode
- 2 ARROW RIGHT / LEFT:** shift selection between the values of a parameter (in "edit parameters" user mode and inside the "service" menu in installer mode.)
- 3 ARROW UP/DOWN:**
It enables to scroll between list of values or list of parameters
- 4 ESC:** exit without saving.
- 5 SET:** setting menu.

Home screen: switching on the appliance



Display parameters

Home screen: ACTUAL SPEED, T°C, HEATER STATE



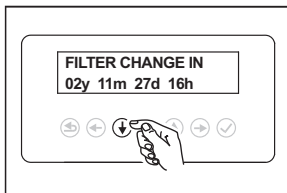
On this screen it is displayed:

On the first line:

- Speed selected normal or boost and corresponding airflow (l/s). Refer to "Set speed" under the "Configuration Menu" for setting the desired speed value.
- actual temperature in the loft.
- 'FAN STOPPED' signal when the unit will switch to "Standby Mode" (refer to "Automatic functioning" under "Operation" section to check the conditions when the unit will switch to "Standby Mode")

On the second line: the Heater State [NO Heater, Heater OFF, Heater AUTO (OFF), Heater AUTO (ON)]. See "Heater" section under "Edit parameters" menu.

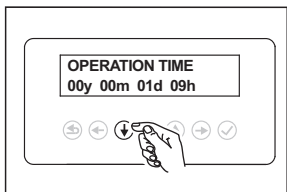
FILTER CHANGE IN



Press the down arrow once to display filter information.

This screen displays the remaining time before filter replacement, expressed in Years/Months/Days/Hours. Refer to the "Maintenance" section for the recommended filter replacement interval. The timer resets automatically when the filter is replaced.

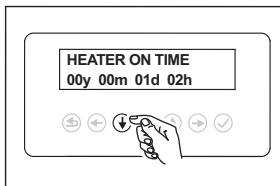
OPERATION TIME



Press the down arrow once to display 'operation time'.

This screen visualizes the total operating time of the appliance from the first installation, expressed in Years/Months/ Days/Hours.

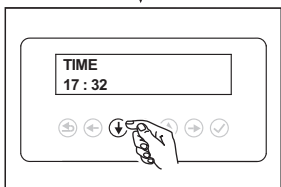
HEATER ON TIME



Press the down arrow once to display 'heater on time'.

This screen displays the total operating time of the heater since the first installation, expressed in Years/Months/Days /Hours.

TIME

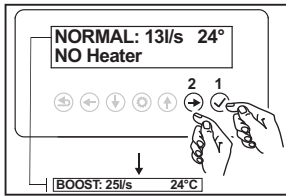


Press the down arrow once to display the current time.

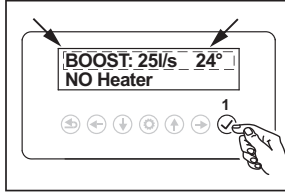
Press the down arrow once will return you to the speed / heater screen. The up arrow can be used to cycle back through the screens.

Edit parameters

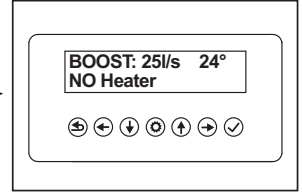
NORMAL TO BOOST SPEED SELECTION



Enter the edit mode by pressing the key (1) and select BOOST speed by pressing the key (2).

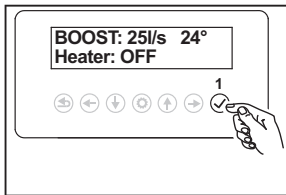


Save and Exit by pressing the key (1).

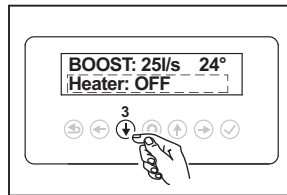


HEATER

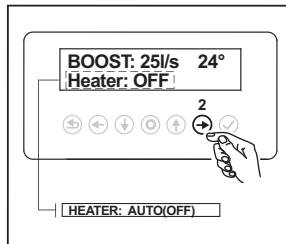
The unit is supplied without an electric heater (on the screen it will display as default “NO HEATER”. A 500W heater is available as an accessory and if installed the heater mode is to be set to ‘YES’ in the service menu (refer to “set heater mode” section under the “service menu”).



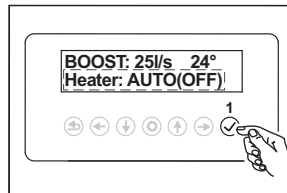
Press the key (1) to enter edit mode.



Press the key (3) select heater.



Press the key (2) to select Heater: Auto(off)



Press the key (1) to save and exit edit mode..

Selecting desired setting:

Heater: OFF the heater is switched off.

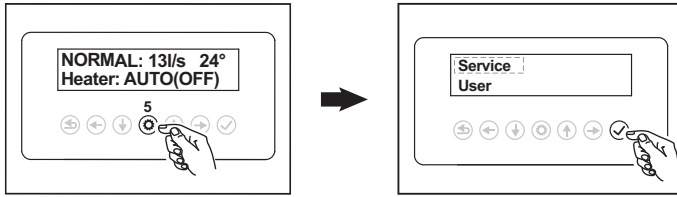
Heater: AUTO(OFF) / AUTO(ON), the heater is switched on or off automatically dependent on the set temperature parameters.

SERVICE MENU

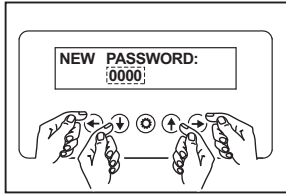
To commission (set up) the unit you need to enter the service functions menu. This is password protected so you will require the unit's password. If this is a new installation the default password is 0000.

Service menu accessible functions:

- Set speed
- Speed adjust (adjustment)
- Set Quiet mode
- Set Radon mode
- Set heater mode
- Heater Test
- Set thresh temp (temperature)
- Set winter temp (temperature)
- Set summer temp (temperature)
- Reset filter
- Change password
- Set Time

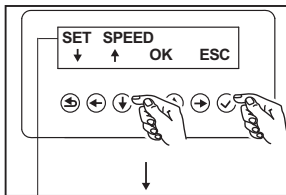


To access the service functions, press the key (5). Then press .



Use the & keys to select the numbers of the password. Once the required number is reached press to move to the next slot and use & keys to select the next number. Repeat this process until all four slots are full. Press the to confirm selection and enter the service menu screen.

If this is a new installation the default password is 0000

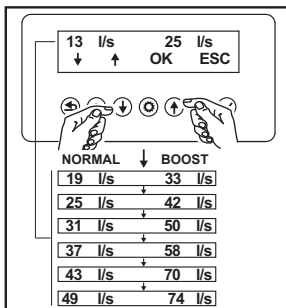


Service menu

Use the & keys to scroll the functions list, press the key to access function required.

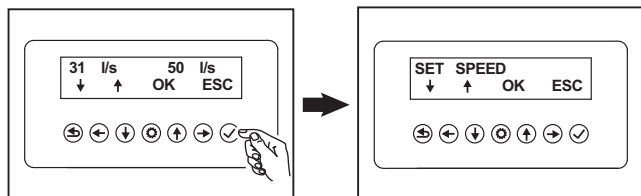
- SPEED ADJUST
- SET QUIET MODE
- SET RADON MODE
- SET HEATER MODE
- SET THRESH. TEMP.
- SET WINTER TEMP.
- SET SUMMER TEMP.
- RESET FILTER
- CHANGE PASSWORD
- SET TIME

SET SPEED



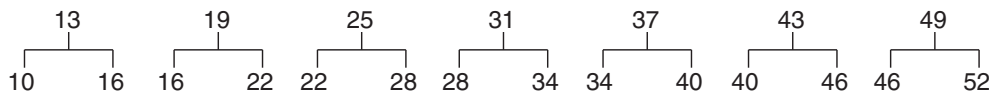
Use the & keys to scroll through speed settings, press the key to confirm selection. And return to service menu screen.

Press the Key twice (4) to return to main screen.

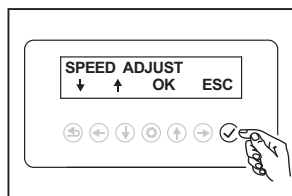


SPEED ADJUST (MENT)

The normal (set) speed can be refined by +3l/s to -3 l/s.

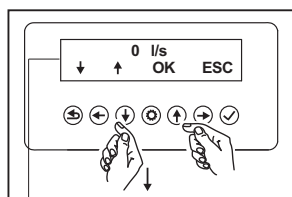


Note: The normal speed adjustment also affects the corresponding boost speed value with the same increment / decrement.



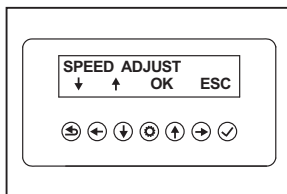
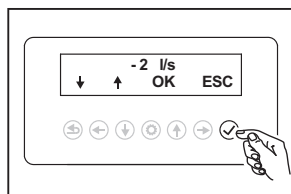
Service menu

Use the \downarrow & \uparrow keys to scroll the functions list, press the \checkmark key to access function required (SPEED ADJUST).

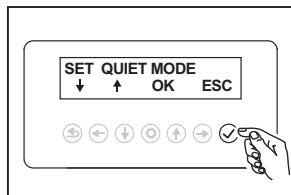


Use the \downarrow & \uparrow keys to scroll through speed adjustment settings, press the \checkmark key to confirm selection. And return to service menu screen. Press the \leftarrow Key twice (4) to return to main screen.

- \uparrow 3 l/s
- 2 l/s
- 1 l/s
- 0 l/s
- 1 l/s
- 2 l/s
- \downarrow -3 l/s

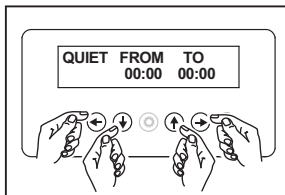


SET QUIET MODE

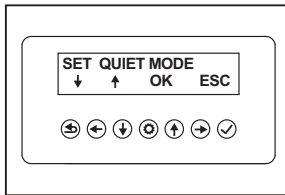
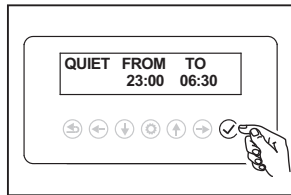


Service menu

Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET QUIET MODE).

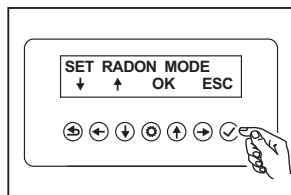


Use the ↓ & ↑ keys to select the start hour of the quiet mode. Then press → to move to the minutes and use the ↓ & ↑ keys to select the minutes. Press → to move to the hour on the end quiet mode, use the ↓ & ↑ keys to select the end hour. Then press → to move to the minutes and use the ↓ & ↑ keys to select the minutes.



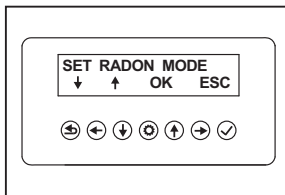
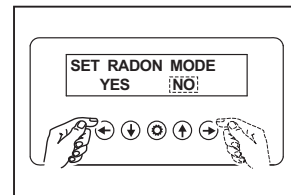
Press the ✓ key to confirm selection. And return to service menu screen. Press the ⏮ Key twice (4) to return to main screen.

SET RADON MODE



Service menu

Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET RADON MODE).



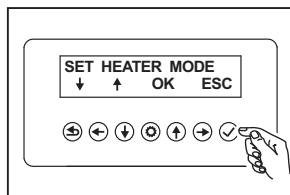
Use the ← & → keys to select YES (on) or NO (off). No (off) is the default setting.

Press the ✓ key to confirm selection. And return to service menu screen.

Press the ⏮ Key twice (4) to return to main screen.

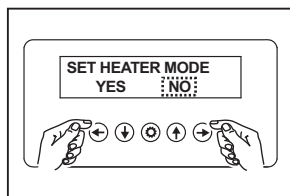
SET HEATER MODE

When the electric heater is installed the SET HEATER MODE function requires setting to YES to enable the heater function.



Service menu

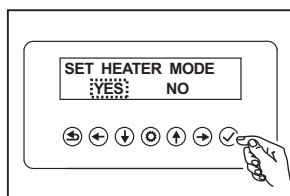
Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET HEATER MODE).



Use the ← & → keys to select YES (on) or NO (off). 'NO' is the default setting.

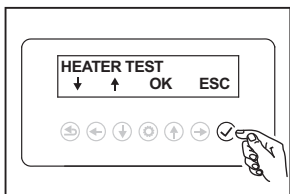
Press the ✓ key to confirm selection. And return to service menu screen.

Press the ⏮ Key twice (4) to return to main screen.

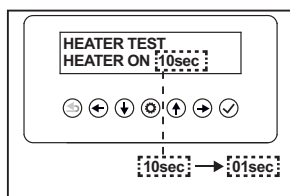


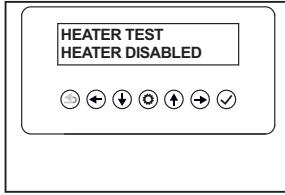
HEATER TEST

The SET HEATER TEST function checks and tests the heater operation. The heater will run for 10 seconds and will then return to the set function parameter.



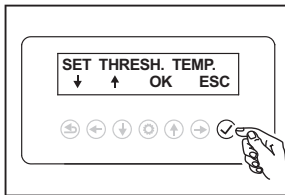
Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET HEATER TEST).



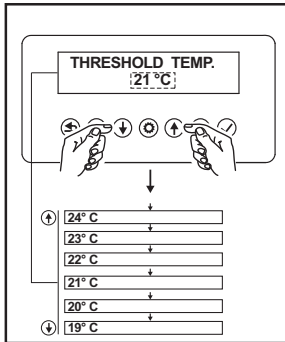


If the SET HEATER MODE is set to NO (Off) the screen will display "HEATER DISABLED" and then return to the HEATER TEST screen.
If the heater is connected go to the "SET HEATER MODE" section.

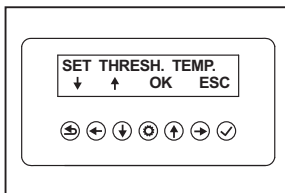
SET THRESH. TEMP



Service menu
Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET THRESH TEMP).



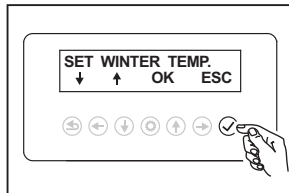
Use the ↓ & ↑ keys to scroll through temperature range 19°C to 24°C, press the ✓ key to confirm selection.
And return to service menu screen.
Press the ⏮ Key twice (4) to return to main screen.
21°C is the factory default setting.



SET WINTER TEMP

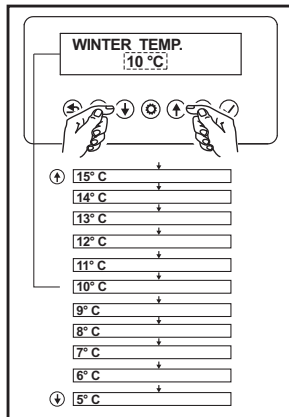
The winter temp(erature) setting is the ambient temperature of the air within the loft space that will switch the post heater ON and OFF . When the loft air temperature falls to or below the set point the post heater switches ON. When the air temperature in the loft climbs above the set point the post heater switches OFF. The selectable temperature range is 0° to 15°c with 10° being the factory default setting.

IMPORTANT: The post heater needs to be installed, the SET HEATER MODE above must be enabled by setting to YES and the heater must be set to AUTO mode (refer to "HEATER" section under 'Edit parameters').



Service menu

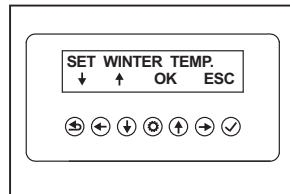
Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET WINTER TEMP).



Use the ↓ & ↑ keys to scroll through temperature range 5°C to 15°C , press the ✓ key to confirm selection. And return to service menu screen.

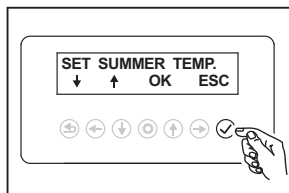
Press the ⏮ Key twice (4) to return to main screen.

10°C is the factory default setting.



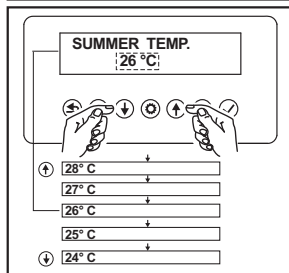
SET SUMMER TEMP

The summer temp(erature) setting is the ambient temperature of the air within the loft space which will when reached or exceeded the PIV unit will go to standby mode / switch off until the air temperature within the loft falls below this point. The selectable temperature range is 24°C to 28°C with 26°c being the factory default.



Service menu

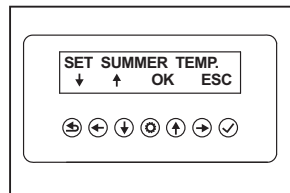
Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET SUMMER TEMP).



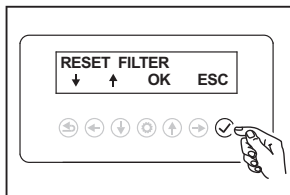
Use the ↓ & ↑ keys to scroll through temperature range 24°C to 28°C , press the ✓ key to confirm selection and return to service menu screen.

Press the ⏮ Key twice (4) to return to main screen.

26°c is the factory default setting.

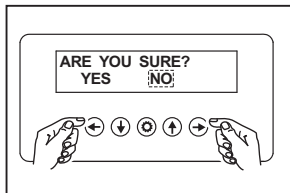


RESET FILTER



Service menu

Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (RESET FILTER).

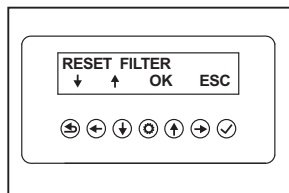


Use the ← & → keys to select YES or NO. NO is the default.

Selecting YES will reset the counter to the start.

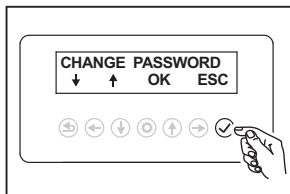
Press the ✓ key to confirm selection. And return to service menu screen.

Press the ⏮ Key twice (4) to return to main screen.



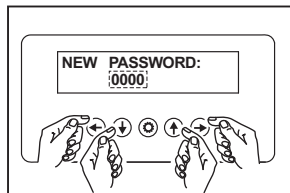
Note: Refer to "Maintenance" section for the recommended filter replacement interval.

CHANGE PASSWORD

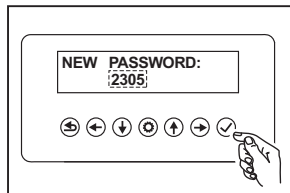


Service menu

Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (CHANGE PASSWORD).

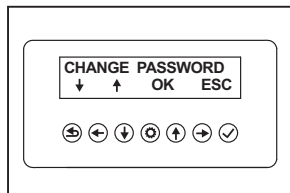


Use the ↓ & ↑ keys to select the numbers of the password. Once the required number is reached press → to move to the next slot and use ↓ & ↑ keys to select the next number. Repeat this process until all four slots are full.



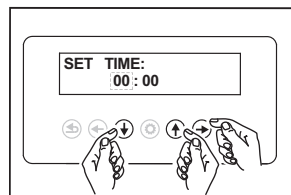
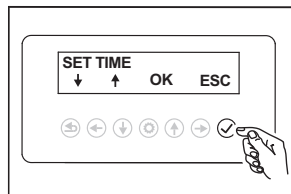
Press the ✓ key to confirm selection. And return to service menu screen.

Press the ⏮ Key twice (4) to return to main screen.



Important Make a note of the password. If the password is lost then contact your VORTICE dealer for the master password.

SET TIME

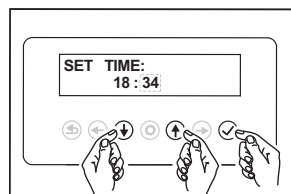


Service menu

Use the ↓ & ↑ keys to scroll the functions list, press the ✓ key to access function required (SET TIME).

Use the ↓ & ↑ keys to select the hour.

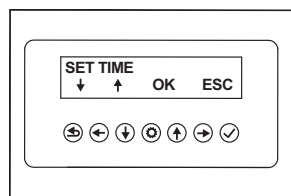
Then press → to move to the minutes and use the ↓ & ↑ keys to select the minutes.



Press the ✓ to confirm selection. And return to service menu screen.

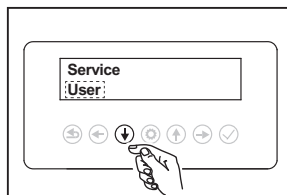
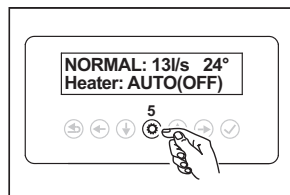
Press the ⏮ Key twice (4) to return to main screen.

Note the clock is in 24 hour format.

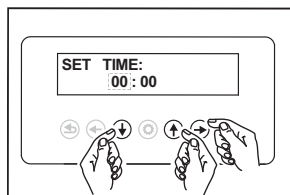


USER MENU

The only user function which is settable is the time. This is not password protected.

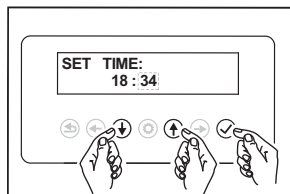


To access the user functions, press the ⚙ key (5), press the ↓ key to select User, then press ✓.



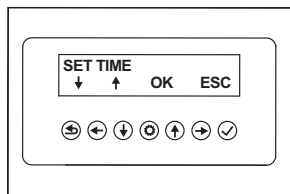
Use the ↓ & ↑ keys to select the hour.
Then press → to move to the minutes and
use the ↓ & ↑ keys to select the minutes.

Press the ✓ to confirm selection. And
return to service menu screen.



Press the ⏮ Key twice (4) to return to
main screen.

Note the clock is in 24 hour format.



Maintenance

The unit does not require any special maintenance other than a periodic general cleaning and the replacement of the filter. Refer to the following table for the recommended filter replacement interval.

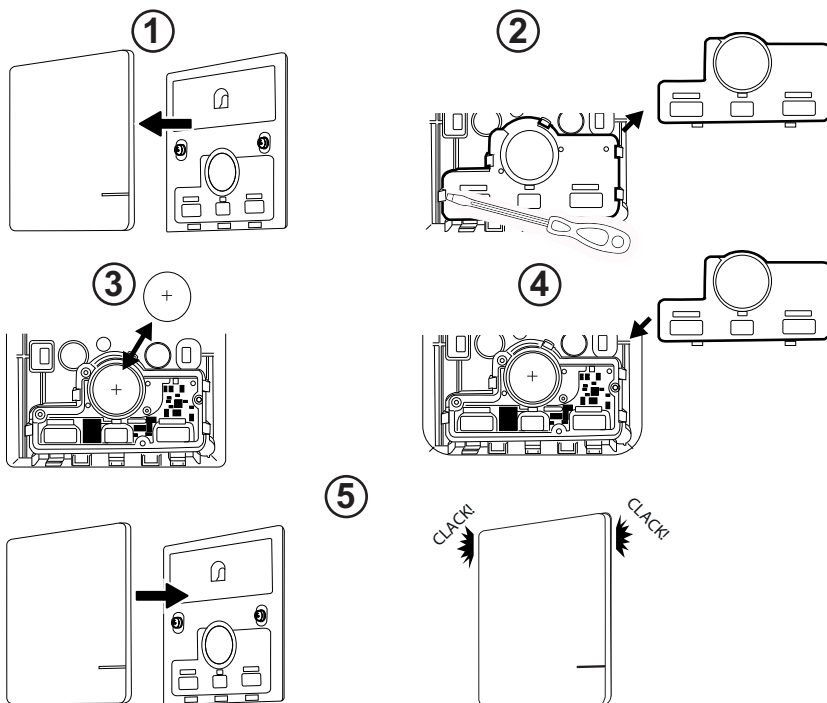
Setting	Max filter (G4) replacement interval (at Normal speed) [Years]**
1	7
2	7
3	6
4	6
5	5
6	5
7	4

**Filter change interval is purely indicative, depending on environmental pollution condition and usage of Boost mode.

Battery removal (RF models only)

- 1) Remove the switch cover panel by hands or by using a screwdriver.
- 2) Remove the battery cover by means of a flathead screwdriver.
- 3) Remove the plastic protection and replace the old battery with the new one.
- 4) Reinstall the battery cover.
- 5) Reinstall the switch cover panel.

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Troubleshooting

Problem	Possible cause	Corrective action
The appliance vibrates during operation	The anti-vibration mounts have not been installed or have been installed without following the instructions in this booklet.	Check that the installation of anti-vibration mounts has been done correctly.

Problem	Possible cause	Corrective action
The external RF switch (VORT PIV QUADRO RF models only) does not work	RF switch battery low (if the switch button is pressed the blue LED does not blink)	1) Proceed to replace the battery.
	No transmission radio frequency signal	2) Check that the RF switch has not been installed too far from the receiver on the unit to impede the signal transmission. 3) Check that there aren't any insulating materials that could prevent signal transmission between the switch and the receiver on the unit. 4) Check that there aren't any electromagnetic disturbances in the environment that interfere with the correct functioning. 5) Verify that the RF switch is not installed on a metal surface. 6) Verify that the unit has not been installed in a metal cage because it would be isolated and the radio frequency signal would not reach the receiver.
	Components damaged (transmitter or receiver on the machine)	7) Contact an Authorized VORTICE Service Center and request the replacement of the component s only after having carried out all the checks from point 1) to 6).
The electric heater is not functioning	The intake air temperature is higher than the set value or T summer or it is not detected / intervention of the thermostat (automatic or security thermostat) on the heater.	1) Check the threshold value set for "T summer" in the "Service" menu. 2) The electric heater adjustable thermostat may have intervened (the temperature in the loft is higher than the preset value - see fig. 24) 3) Check if the electric heater manual reset safety thermostat has tripped. In such a case, contact an Authorized VORTICE Service Center for assistance before resetting the thermostat (fig. 24). 4) Damage to the temperature probe: contact an Authorized VORTICE Service Centre.
Too hot air intake	Overheating of the electric heater resistance but ventilation unit still working	Possible damage to the thermostats on the heater: contact an Authorized VORTICE Service Centre.
Flow of the air interrupted	The motor fan may have broken or blocked.	1) Disconnect the home network and the unit from the mains. 2) Have the wiring diagrams of the unit checked by a specialized technician. 3) Breakage of the fused spur. Contact an Authorized VORTICE Service Centre. 4) Blockage or breakage of the fan motor. Contact an Authorized VORTICE Service Centre.
Reduction of the air flow introduced into the room or excessive noise	Incorrect installation of the diffuser or of the PIV unit components	Check that the installation of the PIV unit has been carried out following the instructions in this booklet.
	Possible clogging due to lack of cleaning the filter or replacing it within the recommended time frame (see "Maintenance" section).	1) Check that the filter is installed correctly and that there are no bulky materials that cover the filtering area. 2) Proceed to check the state of cleanliness of the installed filter and its eventual replacement.
Display is switched off but the ventilation unit is still operating	Broken display on the loft	Contact an Authorized VORTICE Service Centre.

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 useful life, the product must be taken to a specialised company for transport and treatment. This company will take care of the disposal of the various materials making up the product and their subsequent proper recycling.



Alternatively, the manufacturer of the appliance is obliged to take back the product to be disposed of in exchange for the purchase of an equivalent appliance.

