



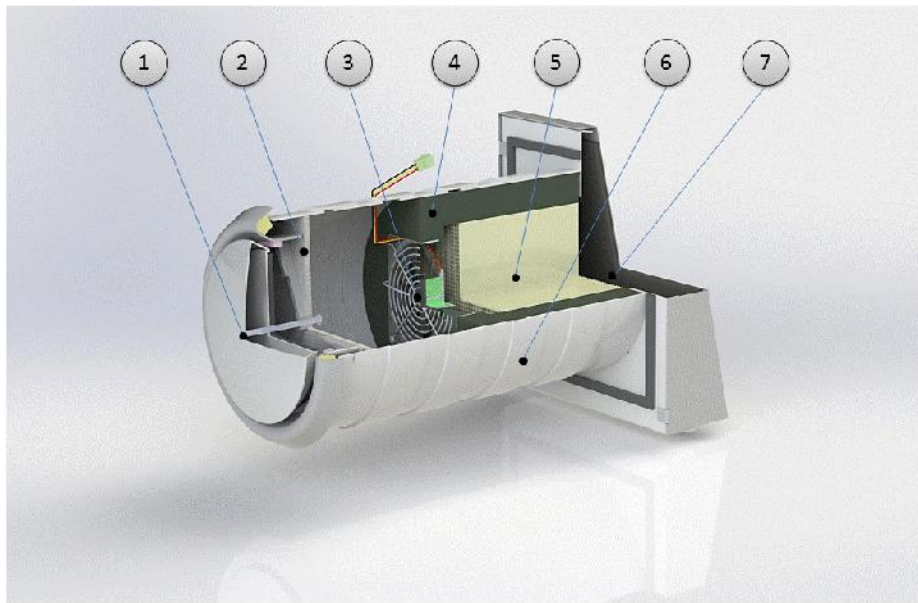
# Installation and Operating Instructions for the Ventilation Systems RV by Ventoxx



# Manual for installation and use of Ventoxx RV ventilation systems with heat recovery and the associated Ventoxx Twist Control

## Ventoxx RV30:

Scope of Delivery:



1. Inner Cover
2. G3 Class Filter
3. Reversible Fan
4. Insulation
5. Heat Exchangers Made of Cordierite Ceramics
6. HIPS-plastic telescopic pipe with stacked rings to adjust to different wall thickness
7. Outer Cover

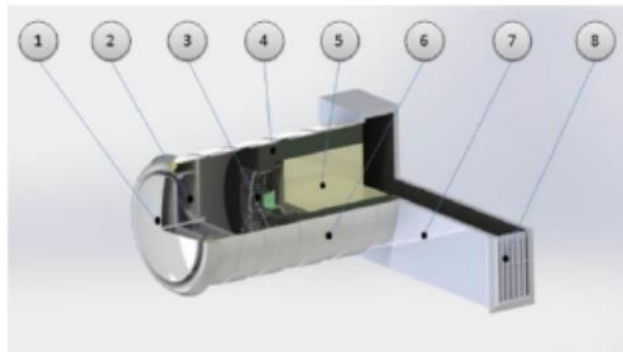
## Ventoxx RV 30s:



### Scope of Delivery:

1. Inner Cover
2. G3 Class Filter
3. Reversible Fan
4. Insulation
5. Heat Exchangers Made of Cordierite Ceramics
6. HIPS-plastic telescopic pipe with stacked rings to adjust to different wall thickness
7. Warmer Ring
8. Compensation Box
9. Outer Cover

## Ventoxx RV 25:



### Scope of Delivery:

1. Inner Cover
2. G3 Class Filter
3. Reversible Fan
4. Insulation
5. Heat Exchangers Made of Cordierite Ceramics
6. HIPS-plastic telescopic pipe with stacked rings to adjust to different wall thickness
7. Air Duct
8. Ventilation Grille for Window Opening

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## **1. This is the Product You Purchased:**

... Thank you for purchasing Ventoxx GmbH product that means energy-saving ventilation of your building! We are constantly working on improvement of our Ventoxx devices; therefore, we welcome our customers to give their feedback on daily use experiences. Please contact us with suggestions at: [info@ventoxx.eu](mailto:info@ventoxx.eu) or visit our website at [www.ventoxx.eu](http://www.ventoxx.eu).

Ventilation units of RV range produced by Ventoxx Company have been developed to provide your rooms with fresh air and remove exhaust air with minimal thermal heat losses.

The ventilation unit absorbs heat and some of the moisture from the used exhaust air and thus enriches fresh incoming air which is supplied to the living rooms.

Whatever the season is you will get comfortable climate in your rooms, with clean and fresh air. Ventoxx has achieved these highest heat recovery rates and thus helps you to save heating energy. In addition, the ventilation unit partially regulates the moisture balance of the air throughout the year and helps preventing mold growth in living areas. For best results, RV ventilation units operate in pairs.

### **1.1. Features and Benefits**

- ) High heat recovery and pleasant indoor climate in your bedrooms and living rooms
- ) Low power consumption
- ) Various possible application in new or renovated buildings
- ) Easy installation and operating
- ) Installation within the outer wall, and thereby no annoying superstructures inside the room
- ) Does not need installation of ventilation ducts, therefore is suitable for installation in renovated buildings
- ) Electrically safe due to low power consumption
- ) Easy to clean, some components are partially washable
- ) Can be controlled via Bluetooth or Smartphone (from 2017)

## 1.2. Technical Data

<b>Characteristic Data/Operation Modes</b>	
Number of Operation Modes	17
Number of Speed Levels in Reverse	5
Ventilation Volume, m <sup>3</sup> /h	15 -55 (Level 1-5)
Ventilation volume in “Maximum Ventilation” operation mode, m <sup>3</sup> /h	up to 110 (2 fans)
Heat Recovery Rate, %	70 – up to 83%
Noise Level, dB(A)	17 – 45
Voltage, V	230 VAC or 12 VDC
Operating Voltage, VDC	7-15
Power Consumption, q <sub>vn</sub> <sup>1</sup> , W	4,4
Power Consumption at Maximum Ventilation q <sub>vmax</sub> <sup>2</sup> , W	7,4
Type of Heat Exchanger	Ceramic Heat Accumulator (Germany)
Diameter of the Mounting Hole, mm	not less than 235
Operating Temperature, °C	-20 up to +50
Size	Minimum length of telescopic pipe – 300mm Diameter– 226mm Inner cover: diameter – 240 mm Outer cover: height – 290 mm Width – 280 mm
Type of Positioning	Horizontal placement in the outer wall
Maintenance	Filter needs to be replaced when requires. The installed ventilation unit with heat accumulator and filter should be checked every 3 months and cleaned if necessary.
Protection Class: Fan Control	IP 33 IP 20
Filter	G3
Energy Efficiency Class <sup>3</sup>	A

<sup>1</sup>Nominal Volume Flow: 70% of maximum volume flow

<sup>2</sup>Maximum Volume Flow

<sup>3</sup>gem. VO1254/2014 EU

### 1.3. Quality and Warranty

For production of Ventoxx ventilation systems we use materials of very high quality and durability, which mostly come from the EU. For the complete range of our products we provide a 24 month warranty.

The warranty period begins on the day of the invoice.

Warranty is not guaranteed if:

- the device is operated without a filter
- recommended cleaning of the filter and the heat exchanger is not performed regularly
- when the device was technically altered and/or supplemented with unauthorized by Ventoxx components or connected differently from the installation instructions
- the device was used during site work
- the device was used for drying the rooms (e.g after plastering)
- the transformer isn't connected properly or installed not according to the installation instructions

If necessary, and after the warranty has expired, please contact our sales outlets. Our specialists will check your unit and give recommendations regarding its maintenance.

### 1.4. Disclaimer

The contents of the present installation instructions are constantly updated and the latest version is always available to be downloaded from the website [www.ventoxx.eu](http://www.ventoxx.eu).

These instructions are in compliance with the latest version of the tested Ventoxx device of RV series. However, minor variations cannot be excluded so we cannot provide any guarantee that it agrees completely.

After the completion of the installation work, these installation instructions are to be passed to the respective user or owner. To download this document, please, go to Downloads on our homepage [www.ventoxx.eu](http://www.ventoxx.eu).

The Ventoxx ventilation unit is designed for ventilation of living spaces. Improper use of the appliance may result in damage of the device and/or cause personal injury. In this case, the manufacturer assumes no liability.

The manufacturer is not liable for damages and losses that come from following reasons concluded:

- ) Non-compliance with safety rules and installation guide described in this manual or required by law;
- ) Lack of care for the device;
- ) Use of materials, components and spare parts which are not authorized by the manufacturer;
- ) Installation onto drywall.

## 1.5. Safety Instructions



**Please read the manual carefully. Here you will find important information for installation, connection, danger prevention and proper handling of Ventoxx devices.**



This **exclamation mark** identifies installation and assembly situations in which there is a **high risk** of personal injury or property damage, and/or calls for increased caution to avoid personal injury or property damage.



**Here** notes are displayed to identify situations, which can **possibly** cause **problems** and **damage** during installation and/or subsequent operation.



In these instructions you can find this sign identifying situations in which there is a risk of electrocution. We, Ventoxx Company, encourage such operations to be carried out by a specialized company.

## 2. Installation

### 2.1. Installation Documentation

### 2.2. Legal Installation Regulations



*Please, ensure disposal of the device complies with the current building regulations and lawful accident prevention rules in your country (get more information with the relevant professional associations).*

### 2.3. Legal Installation Authorization



*Please, ensure strict compliance with the legal local requirements for installation of ventilation and electrical systems in your country. Check your legal permission for installation.*

*The ventilation system with heat recovery is a 'SELV'-equipment (Safe Extra Low Voltage) which operates only by DC power of 7-15V, however, the Twist Control is connected to 230V AC according to legal installation authorization required in Germany.*

### 2.4. Installation in Rooms with Open Fireplaces



*In case of use of RV 30 equipment produced by Ventox Company in rooms with open fireplaces or stoves, it is necessary to ensure installation complies with the applicable rules and standards in respective country. Apart from fireplaces with balanced flue air supply air may be needed for operation of all other operating units with an open flame. When stoves or other built-in components and Ventox devices of RV product line are used at the same time, a prior consult from a competent regional chimneysweep is essential because of the risk of serious personal injury and property damage. **There is suffocation threat!***

## 2.5. Installation Instructions for ventilation units Ventoxx RV 30, Ventoxx RV 30s, Ventoxx RV 25

### 2.5.1. Tools Needed for Installation

For Installation you will need the following listed tools and protective equipment.

Tools:

- )] Level
- )] Utility knife
- )] Core drilling unit with 235 -240 mm drill bits for retrofitting
- )] Phase tester (electrical fitting)
- )] Screwdriver cross medium size (cover installation)
- )] Wrench Size 10 (mounting outer cover)
- )] Wire stripper (for cable mounting)
- )] Spatula (inserting the control installation box)
- )] Hammer and chisel or drill with drilling crown (inserting the receiving box)

Please, use the following protective equipment for installation:

- )] Wear work gloves
- )] Wear protective goggles
- )] Use hearing protection
- )] Wear head protection
- )] Wear safety shoes



### 2.5.2. Additional Accessories Needed for Installation

The following additional accessories are required for installation, which are not included in the package:

- )] PU installation foam (please, follow the current safety regulations of your country for using PU installation foam)
- )] Mounting plaster
- )] Various cables (see section 2.5.8 Cabling on page 12 for details)

### 2.5.3. Placement of the Ventilation Unit

Ventilation units of Ventox Company product line can be used almost in any room with exterior wall. Due to the pendulum fan principle, the devices must be operated in pairs. The respective mounting area should be here determined by a licensed professional planner.

Ventox Company will be pleased to provide a preliminary design (under Disclaimer) upon customer's request. When placing in the room complies with the relevant legal regulations and norms, the following planning principles should be taken into account:



- ) **Mounting height:** Ventox devices should be mounted in normal living rooms near the ceiling if possible, as our experience shows that it simplifies embarrassing cable feed and ensures a better flow of air in the room.
- ) **Distance between units** should not be less than 2 m.
- ) **Distance from the door:** to ensure optimum room air flow, locate the device in the furthest possible distance from the door provided that the second unit is located in another room and possibly an intermediate room is used as an overflow chamber.
- ) **Removal of the inner panel:** make sure that the selected installation site allows unproblematic removal of the inner cover. For this, the opening must be at least 15 cm from the wall and the ceiling.
- ) **Pairwise operation:** Ventox ventilation units should work in pairs in order to achieve the most optimal air circulation. For proper operation of the ventilation system, free air passage through the rooms from one device to the other must be enabled. For all room doors either ventilation grille or a bypass (at least 5 mm) must be provided. The room doors may not be closed airtight; otherwise the ventilation system will not work properly as a flow between the devices cannot be guaranteed.
- ) **Mounting above the beds:** we recommend refraining from installation of units directly above the beds because a slight breeze can be felt while sleeping.

#### 2.5.4. Allocation of the Fan

Ventoxx RV units work on a pendulum fan principle. In “Ventilation with Heat Recovery” operation mode two units always work together (one as an air supply and the other as an air outlet). The running direction will change every 68 seconds. Therefore, the factory sets Ventoxx RV units working in opposite direction in one delivery. For this purpose the units are marked with blue and red circles on the fan.



When installing the fans please note that the associated fans always have different colour markers (blue and red).

#### 2.5.5. Installation in a New Building – Creating an Installation Opening

When constructing new buildings, we recommend providing the necessary openings in the shell of the house. By making openings, e.g., in the brickwork, with the dimensions 232 mm x 232 mm, a subsequent core drilling can be avoided.



*Depending on the company and tool inventory, core drilling can be more economical, particularly in Germany.*

### 2.5.6. Installation in an Old Building—Creating an Installation Opening

To minimize additional filthy and unnecessary work during installation, we recommend core drilling to create an opening for Ventoxx RV unit. It will also make the further steps easier. Ensure the drill bit can provide an opening of 230-240 mm. The opening should also have a slight slope to the outside (2 degrees).



*When drilling a wall opening, make sure:*

- ) That no people can be injured and/or object can be damaged by the fall out of wall fractions;*
- ) No wires or pipes are available in the drilled wall;*
- ) That the hole does not influence the bearing capacity of the wall;*
- ) That creation of an opening has no effect on the physics of the building, e.g., penetration of vapour control or rain protection path;*
- ) That all necessary protective equipment is applied.*



## 2.5.7. Preparing for Installation

The following steps should be taken before the professional installation:

- ) Unpack the unit.
- ) Check the completeness of the contents. Your delivery has the following components:
  - ✓ 1 x Ventilator with Heat Exchanger Installation Unit
  - ✓ 1 x Piping Segment Consisting of 3 Elements Assembled
  - ✓ 2 x Round-head Screws with Square Neck
  - ✓ 2 x Screw Nuts
  - ✓ 1 x Inner Cover
  - ✓ 1 x Outer Cover
  - ✓ 1 x Sealing Ring (Self-Adhesive )
- ) Remove the installation unit (ventilator with heat exchanger) from the piping and secure it against damage such as knocks or contamination.



*The heat exchanger is made of ceramics and can be easily damaged by knocks or falling!*

## 2.5.8. Cabling

### Cable Connecting

To connect the control in the provided location, the room must have 230 V cabling. In the new building, in particular, at least one empty wiring conduit leading to the place of future control is recommended to be provided before plastering.



*Please, note that this service can only be provided by an authorized supplier representative (e.g., electrician) in Germany.*

### Cabling Ventoxx RV ventilation units

Low-voltage cables must lead from the control to the relevant associated fans. For this a wiring with a cable cross-section  $3 \times 0.75\text{mm}^2$  is sufficient. As a power feed cable (connection between electrical power network and transformer) a wiring with a cable cross-section not less than  $3 \times 1.5\text{mm}^2$  is sufficient. Please, note that there should be enough overhang at both ends to connect the control and the fan. An overhang of 40 cm should be provided.



*In an old building, laying low voltage cabling in corners and under wallpaper is recommended to ensure minimum intervention to the existing inventory.*

### 2.5.9. Fitting of the Telescopic Pipe: Steps 1–5



*When assembling and installing the telescopic pipe, deformations must be avoided! The form of the ventilator with heat exchanger installation unit is accurately adapted to the pipe!*



*It is necessary to leave the space between the wall and the pipe. The inner-side vapour barrier must be connected to the unit, if available. The same applies to an external rain protection path, if available. There is a threat of penetration of condensate due to an improperly attached vapour barrier or penetration of driving rain by improperly connected rain protection path!*



*The standard telescopic pipe can be built into the wall of maximum thickness of 310 mm. If your building has thicker walls, you need additional pipe elements for piping system (please, specify the wall thickness when ordering, the required additional elements are included in a separate packaging).*

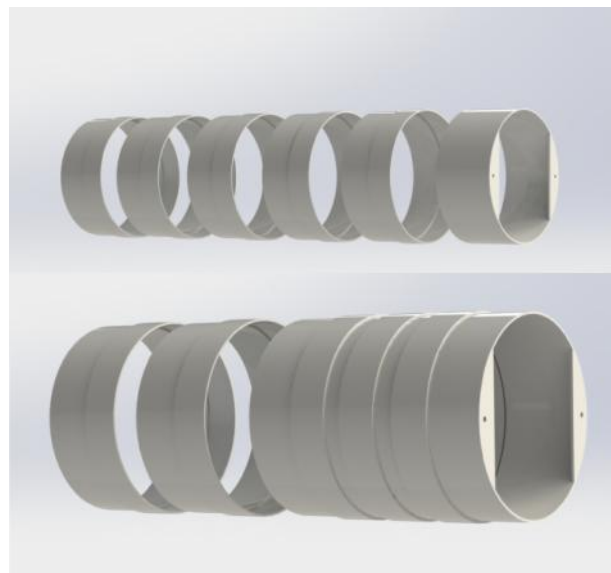
#### Step 1

Accurately measure the total outer wall thickness (including plaster layer). Add extra 10 mm.

#### Step 2

The piping is pre-assembled. You can supplement the piping inside, as appropriate, by the necessary elements to the pipe length determined in Step 1:

Inner



Outer

### Step 3

If necessary, correct the insertion depth of the pipe segments in order to obtain the necessary pipe length depending on the wall thickness.

### Step 4

Insert the carriage bolts into the provided openings of the future front side of the pipe. The screw head must point to the room (the necessary screws are included).



### Step 5

Then glue one self-adhesive sealing ring in the inside of the pipe, as shown below.



### 2.5.10. Installing the Piping into the Wall: Steps 6–10

During installation of the piping system into the wall, note the following things:

- ) The pipe must be pre-assembled as described in 2.5.9, completely and tightly
- ) The ventilator with heat exchanger installation unit is not used in the piping
- ) The opening in the wall is free of dust and debris

#### Step 6

Slide the pre-assembled pipe into the opening. There should be a little slope of the piping **to the outside** (about 2%) to ensure the further condensation drainage.



Observe the mounting direction. The screws must face the front side.



*Ensure the placement of the outside carriage bolts (fastening the outer cover) is horizontal. Vertical and horizontal mounting of the outer cover is dependent thereon.*



Inside out view from the pipe

### Step 7



Turn the pipe into the correct position. Fix the pipe so that the sealing ring on the pipe top comes to rest. Insert the enclosed wedges to secure the position of the tube. Wedge the pipe on four sides.

### Step 8

Check there is sufficient slope of piping to the outside (about 2%), and the position of the screws on the front side is horizontal.

### Step 9



*Wear work gloves and protective goggles to protect your eyes from contamination and damage with PU mounting foam! Please follow safety instructions for installing the product you are using.*



Seal the pipe with PU mounting foam. It is necessary to leave the space between the wall and the pipe to ensure a stable position of the piping.



*Please keep in mind connecting a vapour barrier and rain protection path to avoid structural damage!*

*Further installation steps may be taken only after hardening of PU-foam. Please follow the manufacturer's instructions for hardening time for polyurethane foam.*

## Step 10



*Insert the unit control connection cable into the pipe. The cabling between the control and the unit is provided. The actual connection of the control is described hereinafter (see how to do this in chapter 3 of these instructions).*

## 2.5.11. Installation of the Outer Cover: Steps 11–13



*When installing the cover, please, ensure there is sufficient stability of your footprint. Secure yourself against falling hazard. If necessary, please, check the current statutory safety regulations.*

## Step 11

Attach the mounting panel of the outer cover to the outer wall using the screws and nuts supplied.



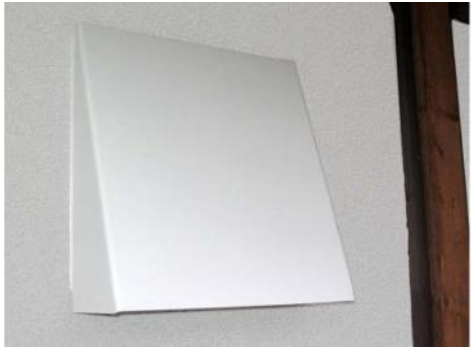
*Due to the outer wall flatness tolerances, installation of the outer cover can be difficult. Therefore, we recommend the mounting screws not to be over tightened.*

## Step 12



Insert the outer cover to the mounting panel.

### Step 13

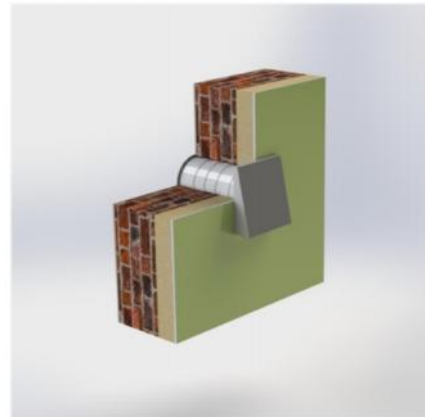


UV-resistant silicone can be used to close the top and side gaps between the outer cover and the wall.

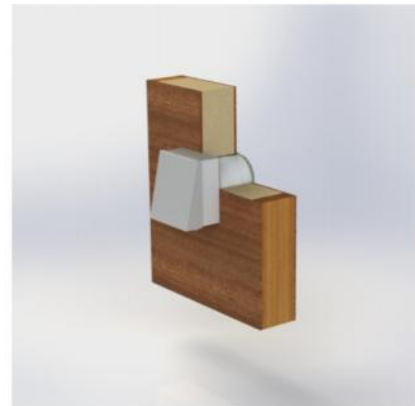


*Please note: silicone joints are maintenance joints.*

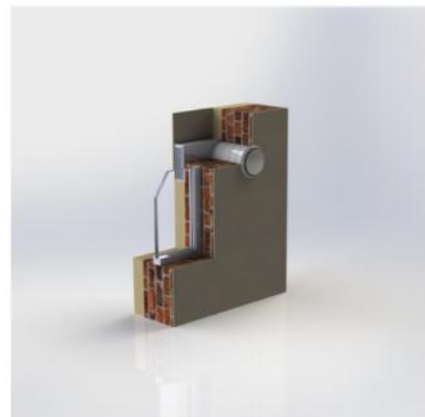
After installation of the pipe and the outer cover, the ventilation system **RV 30** should be installed as follows:



After installation of the pipe and the additional compensation box, as well as the attachment of the outer cover on the compensation box, the ventilation system **RV 30s** should be installed as follows:



After installation of the pipe and the additional air duct on the piping, as well as the attachment of the ventilation grille to the air duct, the ventilation system **RV 25** should be installed as follows:



the ventilation grille sits in the window reveal,  
the ventilation duct sits hidden in the facade insulation.

## 2.5.12. Installation of the Ventilator with Heat Exchanger Unit: Steps 14 and 15

### Step 14

Insert the ventilator with heat exchanger installation unit into the pipe. (The fan should point in the direction of the interior). The unit is set horizontally and then pushed with light pressure into the pipe.

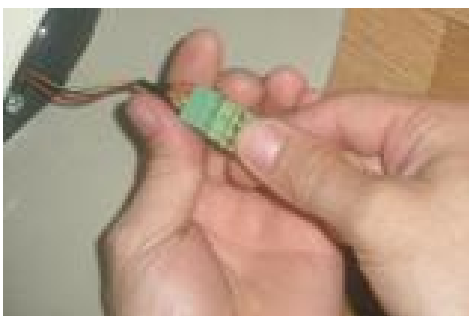
For the drainage of the possibly accumulating condensation water in the heat exchanger, the ventilator with heat exchanger installation unit must be pushed to the end of the telescopic pipe. Thus the noise in the living room caused by the unit will be reduced, too.



*Be careful when inserting the ventilator with heat exchanger installation unit to avoid pressure on the fan! Only the edges of the installation unit (foam) can be pressed.*



### Step 15



Connect the connection cable to the fan according to the connection scheme (see chapter 3.2. of these instructions).

## 2.5.13. Installation of the Inner Cover: Step 16

### Step 16

Insert the inner cover. Turn the inner cover clockwise to close. To open, turn it anti-clockwise.

Close the inner cover when Ventoxx ventilation unit is off (for example, in strong winds, to avoid noise and drafts).

## 3. Connecting Twist Control

### 3.1. General Information

#### 3.1.1. Intended Use

Ventoxx Twist Control is used to operate Ventoxx RV ventilation units. When installed and used as intended, connection and operation of the controller constitutes no danger to people or property.



***If the controller is used for other purposes than stated herein, there can be threats of injury or damage. The manufacturer or supplier is not liable for any damages arising from improper use. The risk is borne by the user only.***

#### 3.1.2. Safety Instructions



***Risk of injury!*** *Improper installation and connection to the power supply system can cause personal injury or property damage. Please, carefully follow all the relevant regulations for connection of electrical equipment and accident prevention applicable in your country.*

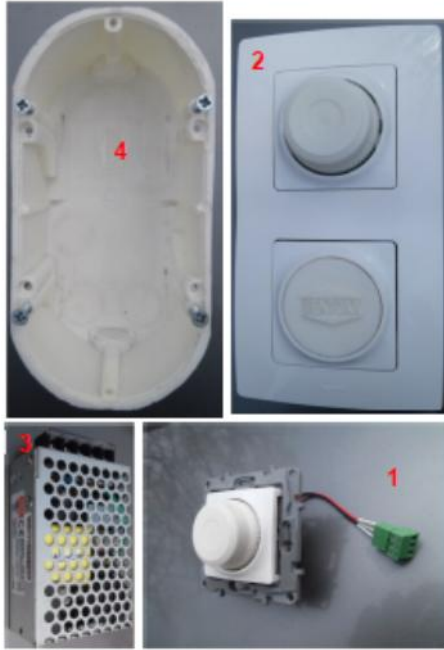


*Connection of control and/or fan to 230V voltage leads to certain damage and loss of equipment. There is a risk of serious personal injury due to electrocution!*

#### 3.1.3. Scope of Delivery



*The necessary control for the operation of the device is not normally included in the standard packaging of Ventoxx ventilation unit but is delivered separately packed.*



- 1) Control: Input Voltage  
12V DC
- 2) Front Panel
- 3) Transformer (for connection of up  
to 4 units)
- 4) Flush-Mounted Box

### 3.2. Connection and Installation of the Control

#### 3.2.1. Red Fan-Blue Fan

The centre of the front of each our reversible fans is marked with a blue or red circle. As our system works in pendulum fan method, ensure that each system has the same number of blue and red fans.

Please also note this when connecting the units.



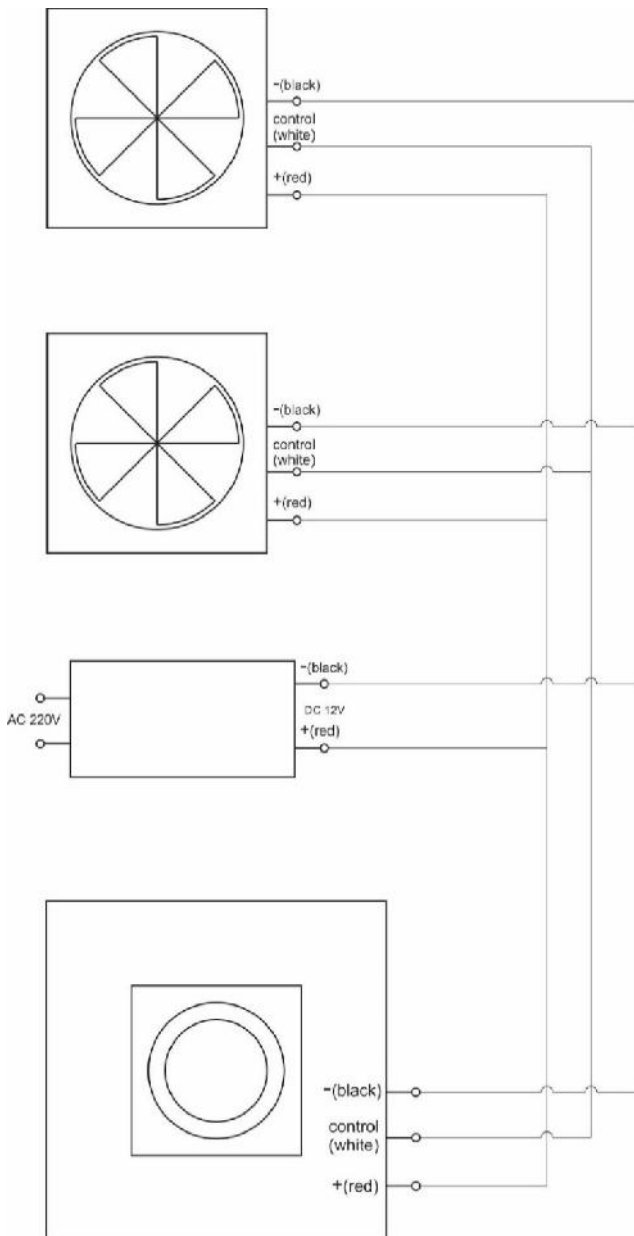


When a system has two fans of the same colour marking installed, they operate in the same direction and not as a pendulum version. Accordingly, there can be no heat recovery.

### 3.2.2. Connection Scheme



Since Ventox ventilation units and Ventox Twist Control will be built-in, you should ask the representatives of the manufacturer or a specialist for an advice about the choice of installation locations.



When choosing the installation location for the control, it should be noted that certain operating modes of the ventilation units provide **the supply of fresh air of the outside temperature**. In case of work in lower temperatures for long hours (for example, in winter) this can lead to negative results.

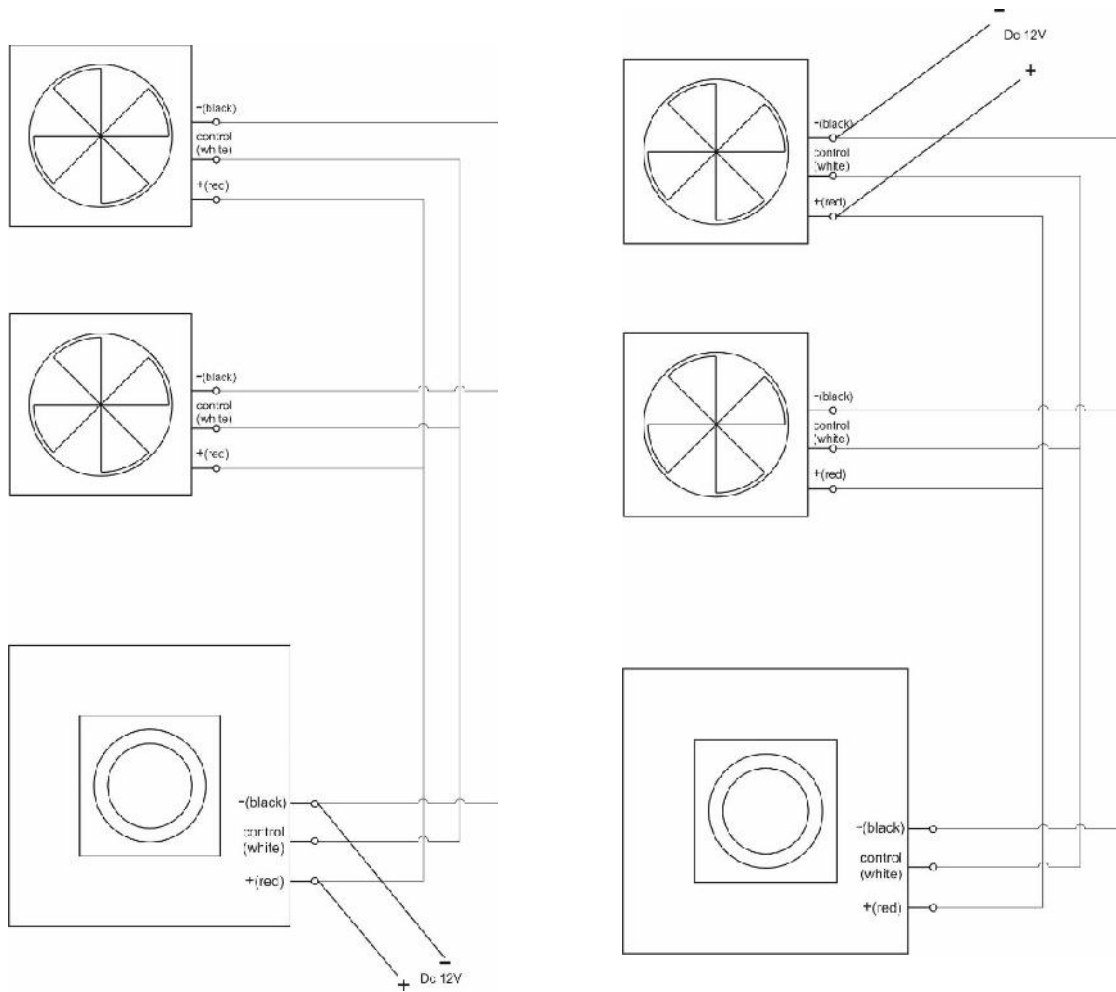
Any number of ventilation units can be connected to the Ventox Twist Control. However, please, make sure that sufficient power is fed into the power grid. The power and control unit are installed in the fans themselves. The control gives the fan only the command for controlling the operation modes.



Note that Twist Control and RV ventilation units are never supplied with 230V AC; only low-voltage current may be applied. 230V electricity will destroy the device and lead to a significant risk of injury due to electrocution.

**This standard connection scheme** shows the optimal choice for the installation location. The power supply can be placed at any point of the electricity circuit.

Please also consider the following connection options. Below, possible variations are shown schematically:



A standard transformer with 25W output is suitable for connection of up to 4 ventilation units. In case of connecting more than four ventilation units, more network capacity is required (5W per unit).



Please also note the maximum cable lengths for star-shaped connection cables of 30m. If the ventilation units are connected in series, the maximum cable length can be 20m. The maximum cable length is the maximum distance from the control to the last connected ventilation unit.

### 3.2.3. Installation of the Control: Steps 1–7

#### Step 1

For installation of the control into the wall, two core holes of 65mm diameter (and breaking the in-between gap) and 70 mm depth are required. The required size of the space for the installation box is approx. 65 x 65 x 140 mm.

#### Step 2

Lay the cables and connect them to the system according to the scheme above. The recommended cable cross section size is 3 x 0.75 mm<sup>2</sup>.

#### Step 3

Attach the installation box of the control into the wall.

#### Step 4

Connect the 220V power supply to the power connecting part using the cable connector (4).

#### Step 5

Connect the 12V lead wire as shown on the picture:



## Step 6



Install the control into the installation box.

Install the control so that the manufacturer's name could be read (i.e. the name is written horizontally).

## Step 7

Cover the control with the front panel (2) and fasten it with a little pressure.



## 3.3. Commissioning and Operating

### 3.3.1. Commissioning

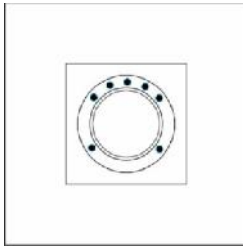


The electrical installation and initial commissioning should be carried out by qualified personnel.

### 3.3.2. Operating

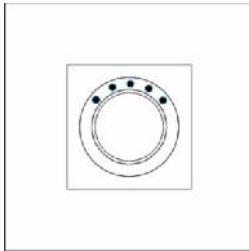
Ventoxx Twist Control provides simple and intuitive control for Ventoxx RV, your new ventilation system. It allows calling all functions with just a central knob (Master Switch).

### 3.3.3. Explanation for Indication



The optical display is located around the knob and is only visible when switched on. In the pictures, the visual illumination in each specific case is shown.

#### Green LEDs above (On/Speed):



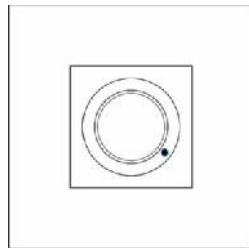
The top row of LEDs in green shows the speed at which the ventilation units are currently working. Here one LED lit up means the lowest fan speed and five LEDs mean the highest fan speed. Thus, 5 different speed levels can be set for your ventilation units. Turning the knob clockwise will increase the fan speed. Rotating anti-clockwise, you will reduce the fan speed.

#### Red LED down left (Off):



The red LED on the bottom left side means that the ventilation units are turned off but the power is supplied to the control.

#### Blue LED downright (Ventilation):



The blue LED on the bottom right side shows that the unit is currently working in the "Ventilation" operating mode.

This means that the devices connected to this control work without heat recovery (fans operate without changing direction/reversing) and the air led into the rooms has outside temperature.

#### Different LEDs are lit up simultaneously:





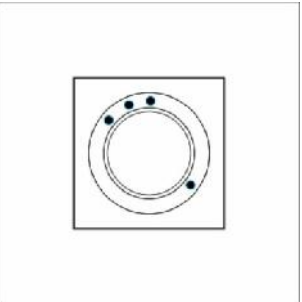
Simultaneously lit up LEDs for **speed (green)** and **ventilation (blue)** mean that the ventilation units are in the "Ventilation" operating mode and work at the specified speed.

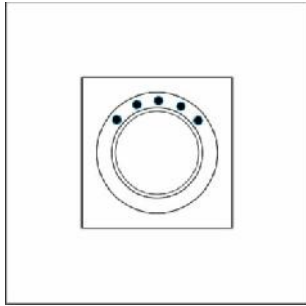
### 3.3.4. Enabling/Disabling the Illumination for Operation Modes

If necessary, you can turn off LED illumination. In order to do that press and hold the knob for about 3 seconds. The ventilation system is now working in the operating mode selected previously. When the set operation mode is changed, the corresponding LED lights up briefly (approx. for 1 sec).

To switch on the illumination of the control press it and hold the knob pressed for about 3 seconds.

### 3.3.5. Operation Modes of Twist Control

<b>3.3.5.1. Operation Mode "Ventilation with Heat Recovery"</b>	
	<p>When turning the knob of the control clockwise, only one green LED lit up shows the first speed, if two diodes are on – it is the second speed, etc. In this mode the ventilation system most efficiently saves the heat from the consumed air in the heat storage and enriches the incoming fresh outside air with this heat.</p> <p>When the device is reversing, it is indicated by the blinking of the blue LED. The ventilation unit reverses every 68 seconds. This visual illumination only means that the fans have changed the direction of rotation (the function appears only when the illumination is activated).</p> <p> <b>The best results are achieved when the unit is steadily running on low levels 1-2. In addition to high heat gain, the noise level is the lowest!</b></p>
<b>3.3.5.2. Operation Mode "Ventilation at the Selected Speed"</b>	
	<p>By pressing the rotary knob when " Ventilation with Heat Recovery " operation mode is activated, the blue LED lights are on and the ventilation units start working in "Ventilation" operation mode which means that the reversing is switched off and cold air of an outside temperature flows into the rooms.</p>



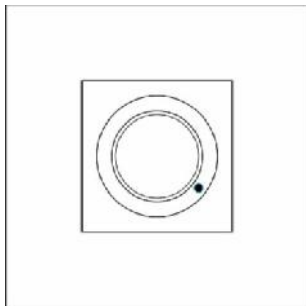
By pressing the knob again, the blue LED begins to flash, which means that the ventilation units work in the "Ventilation" operating mode but have changed the direction of air flow, for example, when in room 1 the ventilation unit has been working to supply air and in room 2 – to let exhaust air out, therefore, air will be removed from room 1 and let inside in room 2.

To switch off the "Ventilation" operation mode, you have to use the control knob only one step to any other speed. To start the "Ventilation" operation mode at different speed, you have to select the required speed and then press the knob.



**This working mode has no automatic shutdown and is only switched off when turning the knob.**

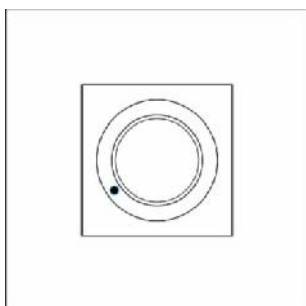
### 3.3.5.3. Operation Mode "High-PerformanceVentilation"



To start this operation mode you have to switch off the ventilation units by turning the knob of the control anti-clockwise until a red LED lights up. Now please press the knob until the blue LED lights up. The ventilation units are now working in the "High-PerformanceVentilation" operation mode. Press the knob again to switch to the other direction. Here the blue LED begins to flash like in the "Ventilation at the Selected Speed" operation mode.

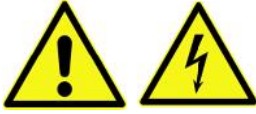
After about 10 minutes this mode will automatically switch off and the system will continue operating as ventilation with heat recovery. By pressing the knob you return to the "Ventilation with Heat Recovery" mode.

### 3.3.5.4. Operation Mode "Power Off"



To turn off the device turn the knob of the control anti-clockwise until the red LED light up.

## 4. Maintenance and Repairs



*Before you start any kind of maintenance, switch Ventoxx RV units off and disconnect them from the power supply. The ceramic heat exchanger is fragile, do handle it carefully and do not let it fall.*

### 4.1. Maintenance of the Unit

#### 4.1.1. Filter

The filter is suitable for long-term use. Cleaning is carried out under running water. If damaged, the filter must be replaced.

Filter requires changing or cleaning every three months. A flashing red LED on the control indicates that.

#### 4.1.2. Fan

The condition of the fan should be checked annually. Even if the filter is cleaned regularly, a small amount of dust can stick to the fan. This may lead to lower efficiency. The fan can be cleaned with airflow or with a soft sponge or brush.

#### 4.1.3. Heat Exchanger

We recommend annual check of heat exchange unit. If there is contamination of the heat exchanger, proceed as follows:

- ) Turn the power off
- ) Remove the inner cover and the filter
- ) Disconnect the electrical terminal
- ) Get the ventilator unit removed from the piping
- ) Carefully remove the fan from the ventilator unit
- ) Now the heat exchanger can be cleaned with a vacuum cleaner or a damp cloth.



**We recommend you to avoid cleaning the unit in the dishwasher not to damage the insulation!**

#### 4.1.4. Control

The control itself does not require any special cleaning. Should there be any cleaning of Ventoxx RV unit or its filter change, yet the fans must be turned off via the control (see operating modes).

## 4.2. Troubleshooting

If there is any unexpected malfunction of your Ventoxx RV device, try the following to fix the simplest problems:

Problem	Possible Solution: Please, check...
<p><u>Low airflow</u></p> <p>You notice that airflow is too low</p>	<ul style="list-style-type: none"> <li>) the fan speed set, and, if necessary, set a higher fan speed (see 3.3.5.2)</li> <li>) the inner cover panel - it must be open; if it is not, open it</li> <li>) the dust filter: check it for dirt and clean if necessary (see 4.1.1)</li> <li>) the heat accumulator: it could also be contaminated. If this is the case, please clean it (see 4.1.3)</li> </ul>
<p><u>Cold airflow</u></p> <p>You felt that air flow is too cold</p>	<ul style="list-style-type: none"> <li>) whether the ventilation units are connected in accordance with the installation instructions. A red and a blue fan are always working as a pendulum unit (see 2.5.4)</li> <li>) if the device is working in the "High-Performance Ventilation", and, therefore, there is no heat recovery. Please, adjust to "Ventilation with Heat Recovery" operation mode (see 3.3.5.1)</li> </ul>
<p><u>Strange noise</u></p> <p>My fan is making strange sounds ...?</p>	<ul style="list-style-type: none"> <li>) if the ventilator with heat exchanger installation unit is installed according to the instructions? Perhaps, it is mounted into the pipe too close to the inner wall of the house. Then it should be pushed further into the pipe. Please, install the unit according to the instructions (see 2.5.12)</li> <li>) if the fan is dirty or an alien object is in the fan? – Please, clean it and remove any alien objects (see 4.1.2)</li> <li>) the set fan speed; perhaps, it is too high. Reduce the fan speed (see 3.3.5.2)</li> </ul>
<p><u>Stoppage of the Fans:</u></p> <p>My fan stopped working...?</p>	<ul style="list-style-type: none"> <li>) if the fan has been connected properly?</li> <li>) if there is a power supply to the fan?</li> <li>) if the control has been connected properly?</li> <li>) If the control has been connected according to the instructions?</li> </ul> <p>If your answer to all the above mentioned questions is "yes", there may be a defective control or a defective fan. In this case, please, contact one of our dealers.</p>

Ventoxx GmbH

Dominikus-Zimmermann-Straße 7  
89312 Günzburg  
Germany

Telephone: 08221/2768153

E-Mail: [info@ventoxx.eu](mailto:info@ventoxx.eu)

Managing Directors:

Florian Lammeyer, Philipp Lammeyer

Trade Register: Memmingen District Court, HRB 16731

Tax ID Number: DE 305338563

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# EG-Konformitätserklärung

*Declaration of Conformity*

**Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller.**  
*This declaration of conformity is issued under the sole responsibility of the manufacturer.*

**Name und Adresse des Herstellers: / Name and address of the manufacturer:**

**Ventoxx LLC**  
**Moskowskiy av. 142**  
**UA 61060 Kharkiv City**

**vertreten durch:**  
*represented by:*

**Ventoxx GmbH**  
**Scherisberg 6**  
**DE 89312 Günzburg**

**Produktbezeichnung / Product name:** RV 30, RV 30s, RV 25, RV2, Ventoxx Twist

**Gegenstand der Erklärung / Object of the declaration:**

Dezentrale Lüftungsgeräte mit Wärmerückgewinnung zur Belüftung von Wohnungen und Wohneinheiten.  
*Decentralised mechanical ventilation units with heat recovery for domestic ventilation.*

**Die oben beschriebenen Gegenstände der Erklärung erfüllen die einschlägigen Harmonisierungsvorschriften der Union: / The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:**

- |   |   |
|---|---|
| • EU-Niederspannungsrichtlinie/ <i>EEC Low-voltage directive</i>  | 2014/35/EU                                  |
| • Richtlinie über die elektromagnetische Verträglichkeit/<br><i>EEC directive for electromagnetic compatibility</i>                 | 2014/30/EU                                  |
| • EU-Ökodesign-Richtlinie / <i>ErP directive for energy related products</i>  | 2009/125/EG                                 |
| • Verordnung zur Durchführung der Richtlinie 2009/125/EG /<br><i>Regulation implementing Directive 2009/125/EC</i>                  | Verordnung (EU) Nr.<br>1253/2014            |
| • RoHS-Richtlinie / <i>RoHS directive</i>   | 2011/65/EU                                  |
| • Maschinenrichtlinie / <i>Machinery Directive</i>  | 2006/42/EG                                  |
| • Energieverbrauchskennzeichnung / <i>Energy labeling</i>   | 2010/30/EU                                  |
| • Delegierte Verordnung zur Ergänzung der Richtlinie 2010/30/EU /<br><i>Delegated Regulation supplementing Directive 2010/30/EU</i> | Delegierte Verordnung<br>(EU) Nr. 1254/2014 |

**Angabe der einschlägigen harmonisierten Normen, die zugrunde gelegt wurden, oder Angabe der anderen technischen Spezifikationen, in Bezug auf die die Konformität erklärt wird:**

*References to the relevant harmonised standards used or references to the other technical specifications in relation to which conformity is declared:*

- EN 60335-1:2012
- EN 60335-2-80:2003
- EN 55014-1:2006
- EN 55014-2:1997
- EN 61000-3-2:2014
- EN 61000-3-3:2013
- EN 60204-1/AC:2010
- EN 13141-8:2014

**Unterzeichnet für und im Namen des Herstellers von / Signed for and on behalf of the manufacturer:**

Günzburg, den 18.09.2017

Florian Lammeyer (Geschäftsführer Ventoxx GmbH)