

VK Link

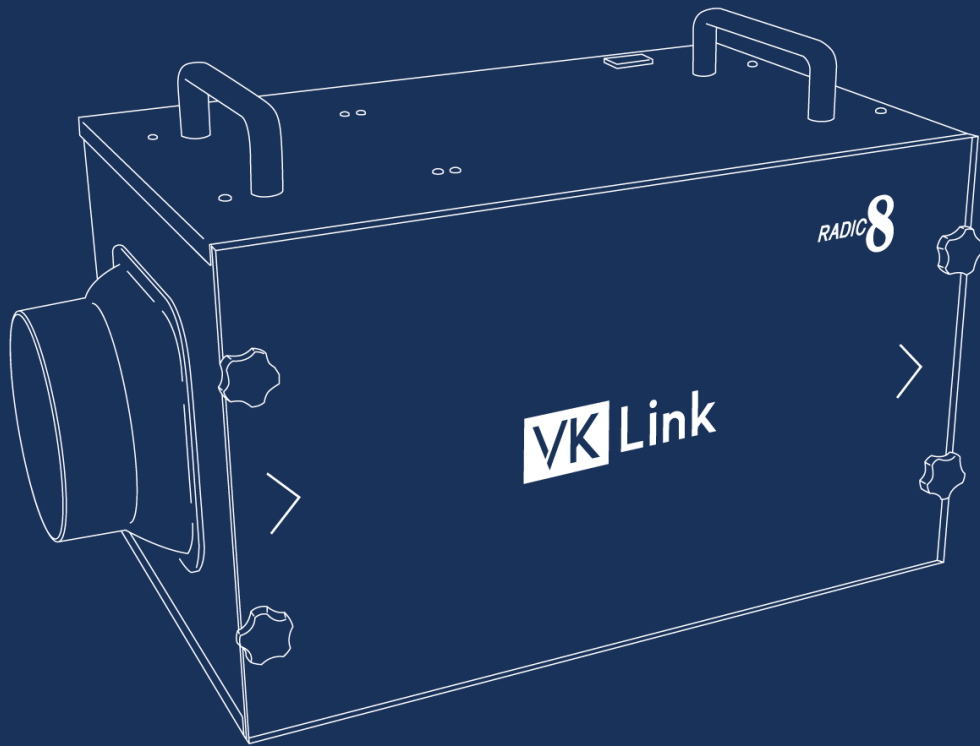


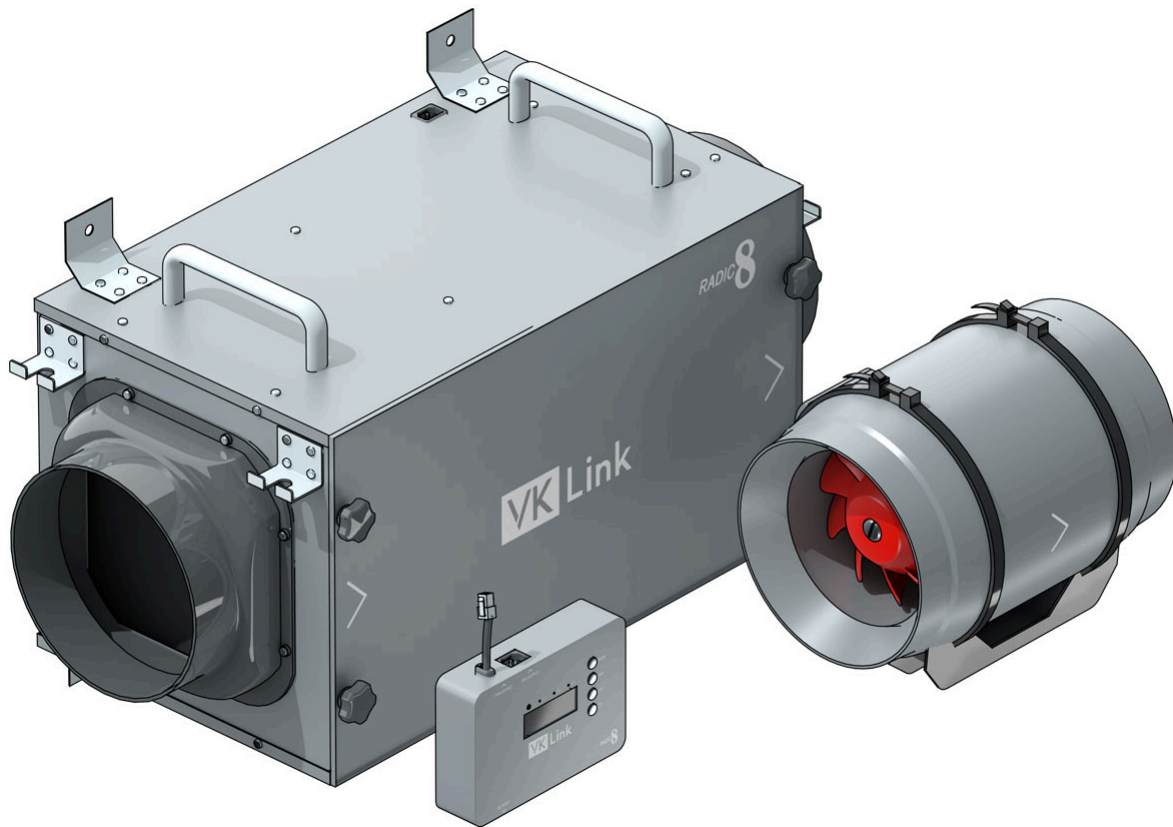
Table of Contents

- 1. VK Link 1**
- 2. Safety and Regulation 2**
 - 2.1. Safety Information 3
 - 2.2. Regulatory Information 4
- 3. Warranty..... 7**
- 4. Product Overview 8**
 - 4.1. Package Contents 9
 - 4.2. VK Link 10
 - 4.3. Control Panel 12
- 5. Installation 14**
 - 5.1. Installation Notes 15
 - 5.2. Wiring 18
- 6. Operation 19**
- 7. Maintenance..... 22**
 - 7.1. Cleaning the Pre-Filter 23
 - 7.2. Replacing the Carbon and HEPA Filters 24
 - 7.3. Replacing the Reactor Chamber..... 26
 - 7.4. Troubleshooting 29
- 8. Specifications 30**
 - 8.1. Performance Data 32
 - 8.2. Dimensions 34
- 9. Support 36**

1. VK Link

Product Manual

V1.0



2. Safety and Regulation



Read the product manual before operating or installing this unit.

Your safety is of the utmost importance to us. This product manual contains information that is vital to the safe operation and maintenance of the VK Link. This manual also contains the performance data required to design appropriate, efficient airflow systems.

This device should only be used for its intended purpose.

2.1. Safety Information



WARNINGS

- Before installation or use, ensure the correct mains AC voltage.
- Do not obstruct the device's airflow intakes or outlets.
- This device contains a UV-C emitter:
 - Unintended use of the device or damage to the housing may result in the escape of dangerous UV-C radiation. UV-C radiation may, even in small doses, cause harm to the eyes and skin.
 - Devices that are obviously damaged must not be operated.
 - Do not attempt to replace the UV-C emitter. This must be performed by a trained technician. Please contact your local distributor to perform maintenance.
- Ensure the device is switched off during cleaning or maintenance.
- Do not immerse any part of the device in liquid or allow liquid or spray aerosols to enter the device.
- In the event of smoke, unusual odors, or strange noises, switch off the device immediately and disconnect from power. Contact your local distributor for support.
- Do not operate the unit with a damaged power cord or plug.
- Do not attempt to alter or modify the power cord or plug.
- To avoid the risk of electric shock, this equipment must only be connected to supply mains equipped with a protective earth.
- Wear personal protective equipment (PPE) such as a disposable face mask and gloves when handling serviceable parts.
- Remove the remote control batteries if not in use for an extended period.

- The VK Link may only be installed by a qualified HVAC designer or specialist. The VK Link is not intended to be installed by end users.
- The VK Link must not be installed outdoors or anywhere else it may be exposed to the elements.
- When integrating the VK Link with conditioning systems, ensure the VK Link is installed upstream of ("before") any cooling or heating coils.
- Maintenance of the VK Link should only be performed by a qualified HVAC specialist, installer, or facility maintenance contractor.

2.2. Regulatory Information










Use environment:

The Radic8 VK Link is intended for indoor use only. The unit must not be installed outdoors or anywhere that it will be exposed to water, rain, or the elements.







Principle method:

Air is purified through mechanical filtration and active decontamination utilizing PCO (photocatalytic oxidation) technology.

Labelling Symbols

	Follow instructions for use
	Caution
	Manufacturer identification
	Date of manufacture
	Catalog number
	Serial number
	UV light warning
	Maximum and minimum temperature limits in which the item shall be stored, transported, or used.
	Waste electrical and electronic equipment (WEEE). It is the responsibility of the end user to dispose of this equipment at a designated collection point.

Transport and Storage Symbols

	Acceptable upper and lower limits of atmospheric pressure for transport and storage.
	Acceptable upper and lower limits of relative humidity for transport and storage.
	To indicate correct upright position of the transport package.
	To indicate that the transport package shall be kept away from rain and in dry conditions.
	To indicate that the contents of the transport package are fragile and that the package shall be handled with care.
	To indicate that the package shall be handled with care.

Certification Marks

	European Conformity assessment mark. This indicates that a product has been assessed by the manufacturer and deemed to meet European Union (EU) safety, health, and environmental protection requirements. This certification is required for products manufactured anywhere in the world that are marketed in the EU.
	Federal Communications Commission mark. This is a voluntary mark employed on electronic products manufactured or sold in the United States, indicating that the electromagnetic radiation from the device is below the limits specified by the Federal Communications Commission and the manufacturer has followed the requirements of the Supplier's Declaration of Conformity authorization procedures.
	KC certification (or Korea Certification) mark. This is a product certification ensuring the conformity of products to Korean safety standards — called K Standards. This test mark confirms that the product meets the relevant Korean Safety Standard.
	Restriction of Hazardous Substances mark. The RoHS directive restricts the use of ten hazardous materials in the manufacture of various types of electronic and electrical equipment.

FCC Notice

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Disposal

Consisting of steel, plastic, and rubber, the VK Link is 95% recyclable and should be disposed of in an environmentally friendly manner by a third-party recycling company.

3. Warranty

The warranty period for this unit is the standard manufacturer's warranty of 12 months. This warranty may be extended by prior agreement with authorized distribution partners. Please refer to your local distributor for queries related to warranty or claims.

4. Product Overview

The VK Link is a versatile clean air component for use in any number of ventilation or air delivery applications. It can form the heart of a modern ventilation design or be integrated into existing ducting or HVAC configurations. Application possibilities include:

Fresh air delivery

Filter outdoor air and neutralize gases and VOCs before delivering the air indoors.

Recirculation

Circulate filtered and decontaminated indoor air within or between rooms.

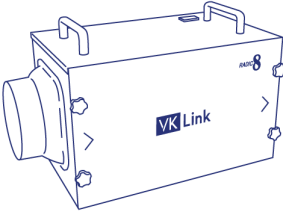
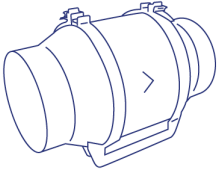
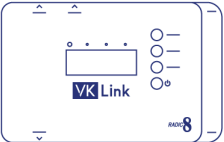


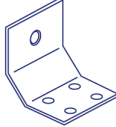

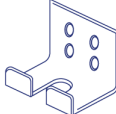
Integration

Add air purification and decontamination to existing ventilation or HVAC systems.

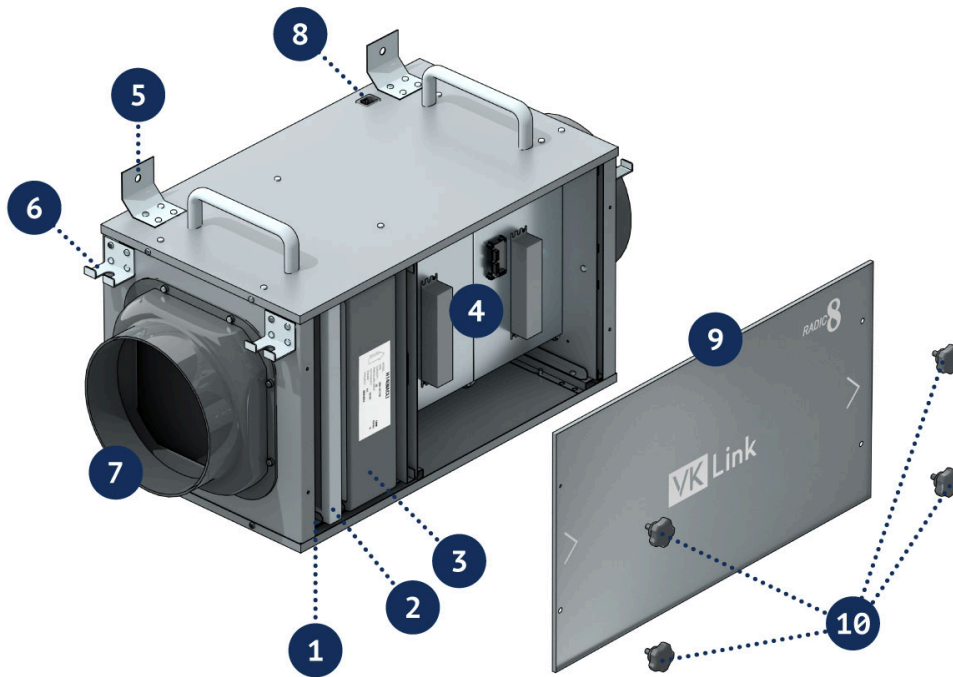
Positive/negative pressure applications

Create air pressure differentials and transfer systems.

4.1. Package Contents

	<p>VK Link</p>		<p>200mm inline fan</p>
	<p>Control panel</p>		<p>Remote control (batteries not included)</p>
	<p>2 x C13 power cables</p>		<p>4 x Wall-mount brackets</p>
	<p>Product brief</p>		<p>4 x Ceiling-mount brackets</p>

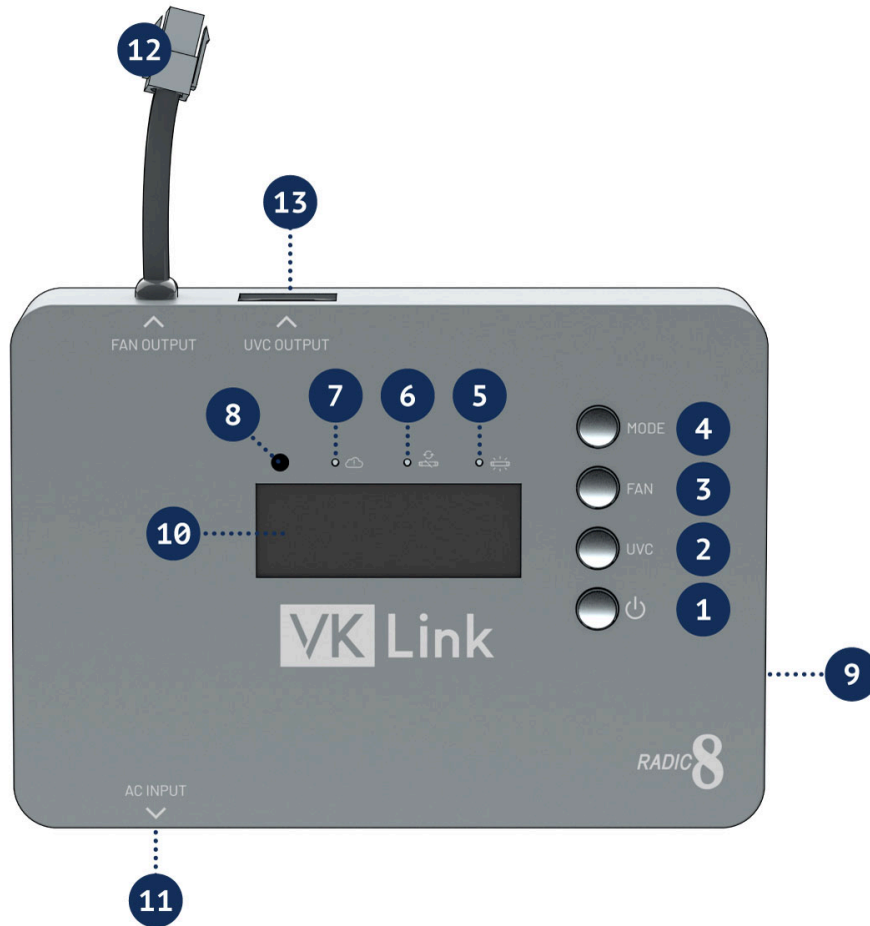
4.2. VK Link



1	Pre-filter
2	Carbon filter
3	HEPA filter
4	Reactor Chamber
5	Wall-mount brackets
6	Ceiling-mount brackets
7	200mm PVC reducers

8	AC input (via control panel)
9	Front panel
10	Hand screws

4.3. Control Panel



1	Power button
2	UV-C button
3	Fan button
4	Mode button
5	UV-C indicator

6	UV-C replacement indicator
7	CO ₂ indicator
8	Infrared receiver
9	CO ₂ sensor
10	Display panel
11	AC input (via mains supply)
12	Fan output (to 200mm inline fan)
13	UV-C output (to VK Link)

5. Installation

! The VK Link may only be installed by a qualified HVAC designer or specialist. The VK Link is not intended to be installed by end users.

It is important that the VK Link only be installed into a design created by a relevant specialist or retrofitted into an existing system by a qualified professional, taking into account all application variables, airflow dynamics, access, and safety considerations.

Please refer to the [performance data](#) for both the VK Link and the supplied 200mm inline fan at the end of this Product Manual when designing appropriate applications for the VK Link.

5.1. Installation Notes

! The VK Link must not be installed outdoors or anywhere else it may be exposed to the elements.

! When integrating the VK Link with conditioning systems, ensure the VK Link is installed upstream of (“before”) any cooling or heating coils.

Airflow Direction

The arrows on the front panel of the VK Link indicate the direction of airflow. Ensure the VK Link is oriented to match the airflow direction:



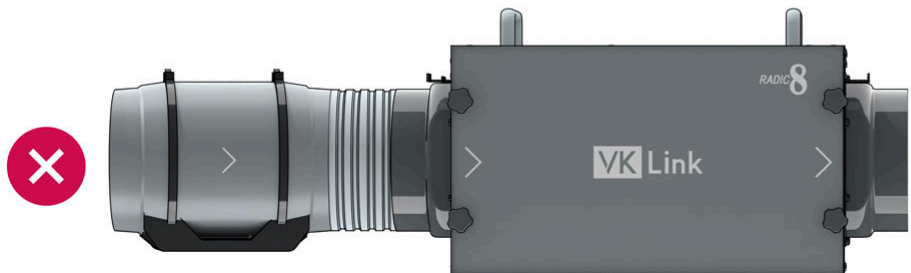
Fan Direction

Ensure the 200mm inline fan drives air in the direction of the airflow:



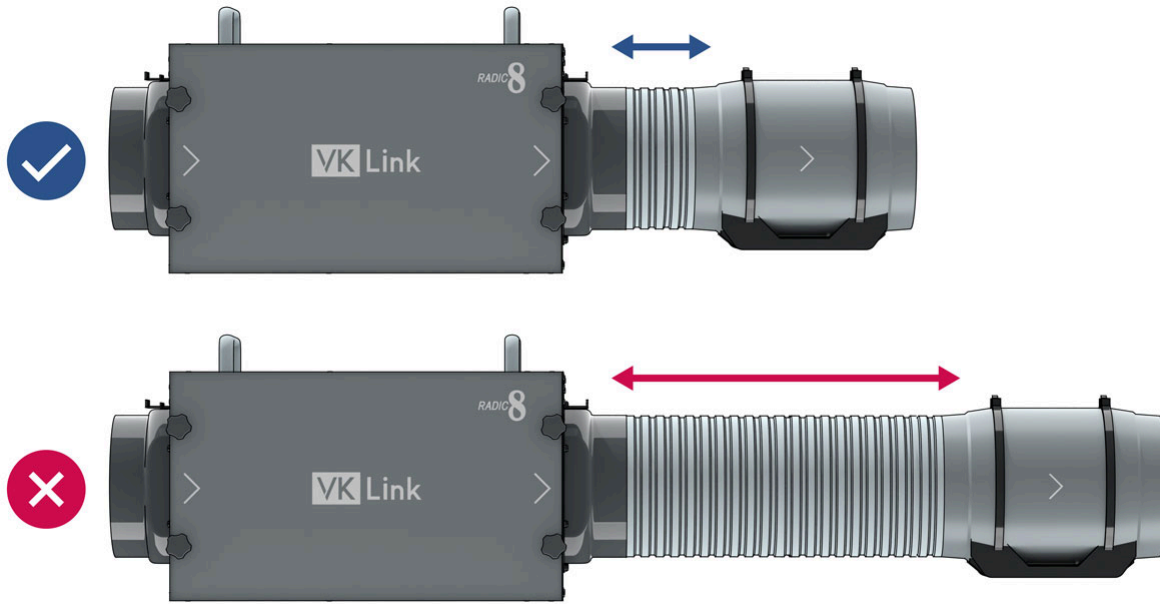
Fan Position

For optimum performance, install the fan downstream of (“after”) the VK Link:



Fan Distance

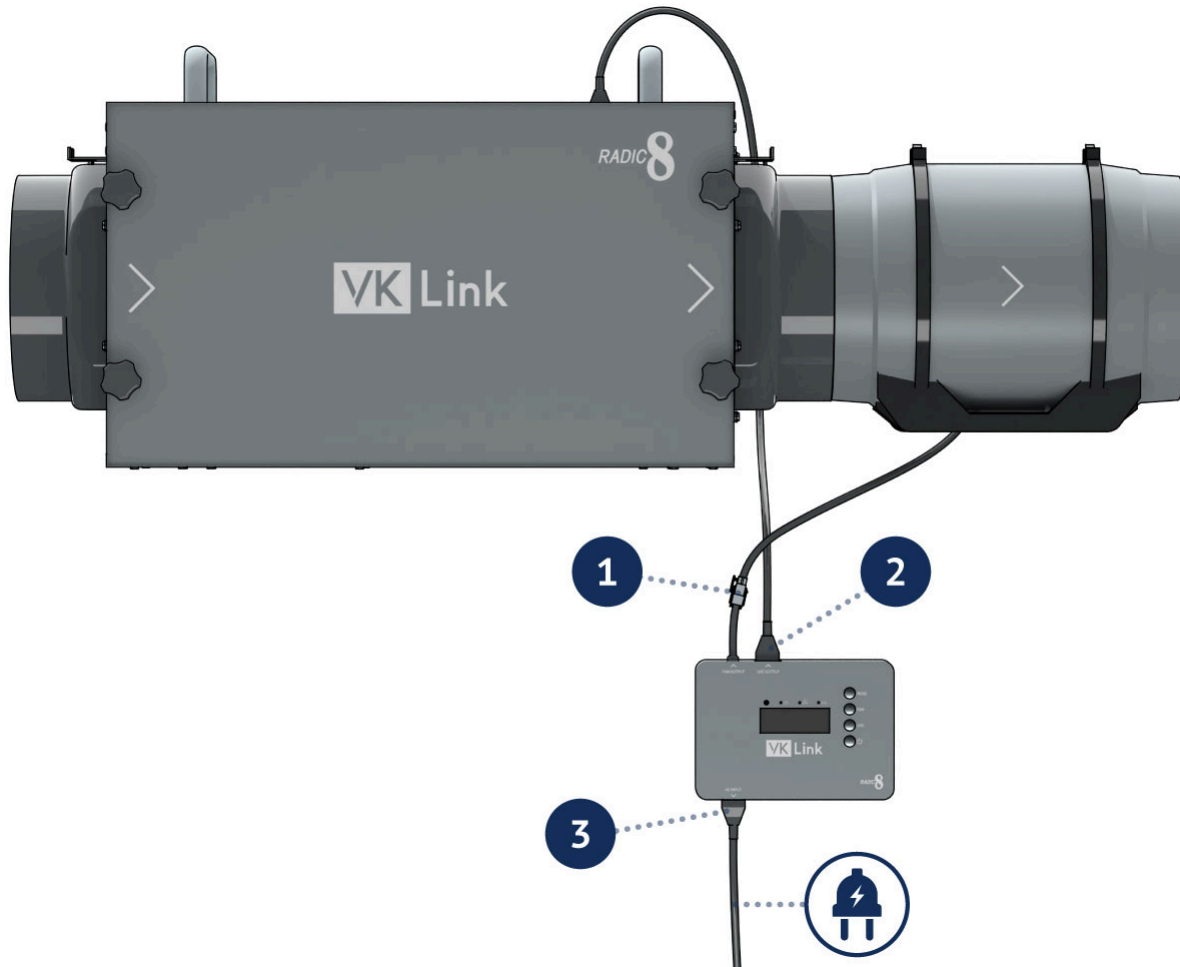
Ensure the 200mm inline fan is installed as close to the VK Link as possible:



5.2. Wiring

! Before installation or use, ensure the correct mains AC voltage.

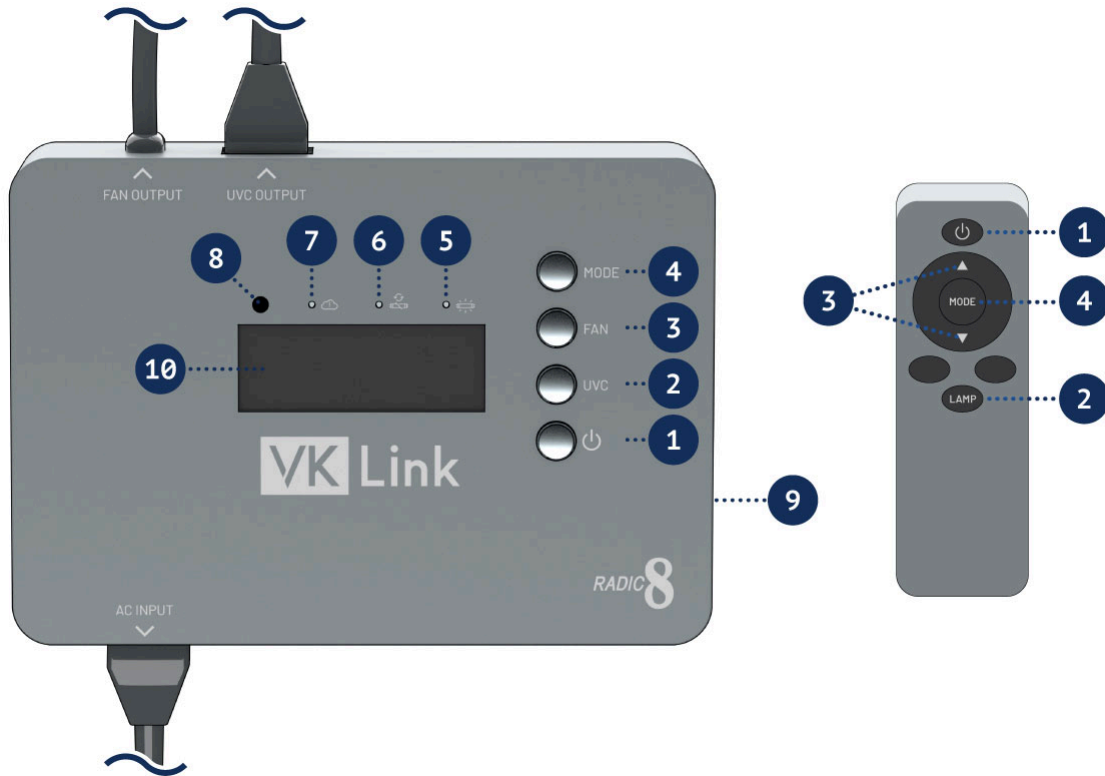
The VK Link, control panel, and 200mm inline fan are connected as follows:



<p>1</p>	<p>Connect the 200mm inline fan to the control panel via the mated 4-pin communication and power cable.</p>
<p>2</p>	<p>Connect the VK Link to the control panel using a C13/IEC power cable.</p>
<p>3</p>	<p>Connect the control panel to the mains AC supply using a C13/IEC power cable.</p>

6. Operation

The control panel is used to configure and view all settings, indicators, and maintenance alerts. In addition, the remote control can be used to quickly access several functions.



Powering on or off

Press the power button (1) to turn the entire device on or off, including the VK Link and the attached inline fan. When the device is turned on, the display panel (10) will illuminate.

Switching the Reactor Chamber on or off

The VK Link's Reactor Chamber can be switched on or off independently by pressing the UV-C button (2).

When the Reactor Chamber is on, the UV-C indicator (5) is illuminated.

When the Reactor chamber is off, the UV-C indicator (5) is dark. In this mode, the inline fan continues to drive air through the pre-filter, carbon filter, and HEPA filter as normal.

Adjusting fan speed

The speed of the inline fan can be adjusted by pressing the fan button (**3**). This will cycle between four fan speed settings:

AUTO	Automatic fan speed
FAN 1	Low fan speed
FAN 2	Medium fan speed
FAN 3	High fan speed

CO₂ sensor

The control panel features a built-in carbon dioxide (CO₂) sensor (**9**). While in AUTO fan speed, the VK Link will automatically increase the speed of the inline fan when CO₂ levels greater than 800ppm are detected, and the CO₂ indicator (**7**) will illuminate.

When CO₂ levels drop below 800ppm, the CO₂ indicator (**7**) will go dark, and the fan speed will decrease.

Display modes

Press the mode button (**4**) to cycle between the display modes. Each mode shows different information on the display panel (**10**):

Display mode	Description
Fan speed	The selected fan speed — either AUTO , FAN 1 , FAN 2 , or FAN 3
Time	The current time (24-hour clock)
Reactor Chamber runtime	The number of hours the Reactor Chamber has run since last replacement. See Replacing the Reactor Chamber
CO ₂ count	The detected CO ₂ level in ppm

Setting the time



On the control panel:

1. Press and hold the mode button (4) for 3 seconds to enter time adjustment mode.
2. The time will appear on the display panel and the last digit will flash.
3. Press the fan button (3) to increase a flashing digit and the UV-C button (2) to decrease a flashing digit.
4. To move between digits, press the mode button (4).
5. Repeat until the correct time is set.
6. Press and hold the mode button (4) for 3 seconds to exit time adjustment mode.

7. Maintenance

! Always wear personal protective equipment (PPE) such as a disposable face mask and gloves when opening a VK Link or handling a VK Link that has previously been installed.

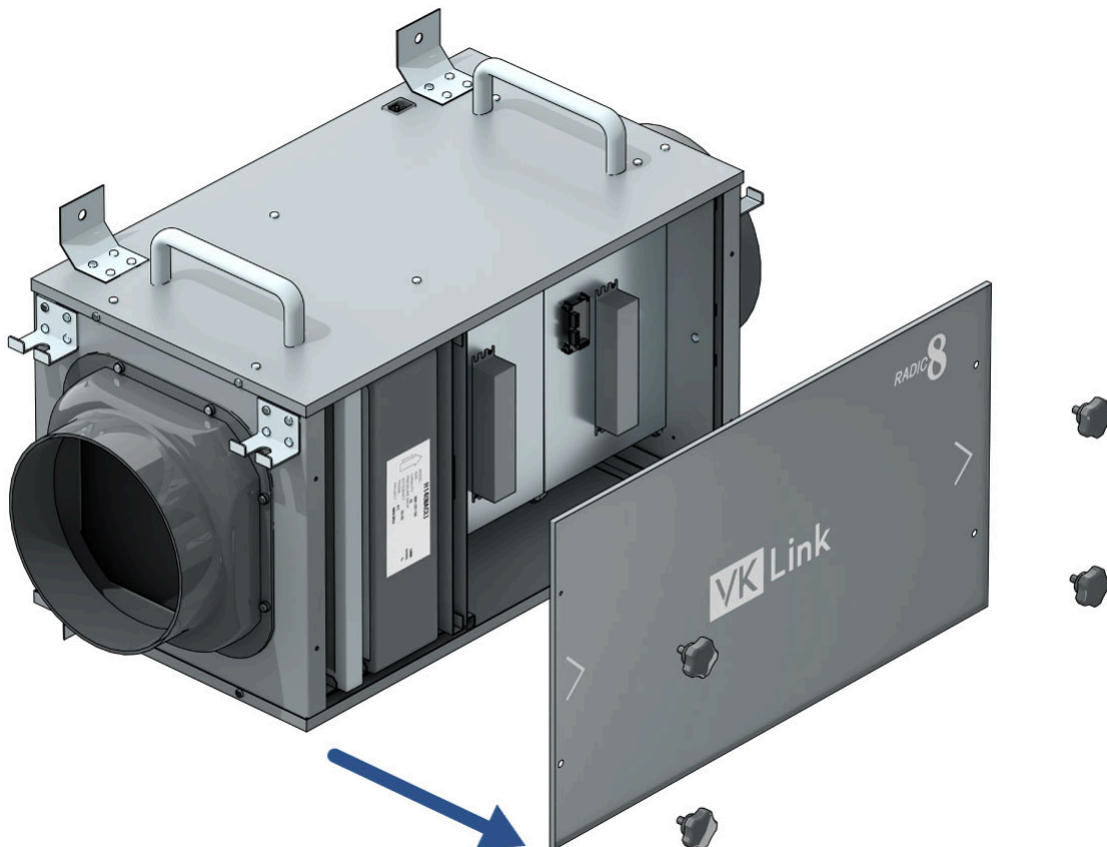
! Maintenance should only be performed by a qualified HVAC specialist, installer, or facility maintenance contractor.

Maintenance of the VK Link and replacement of consumables is essential to ensure the longevity of the device.

Ensure the unit is switched off before conducting any maintenance.

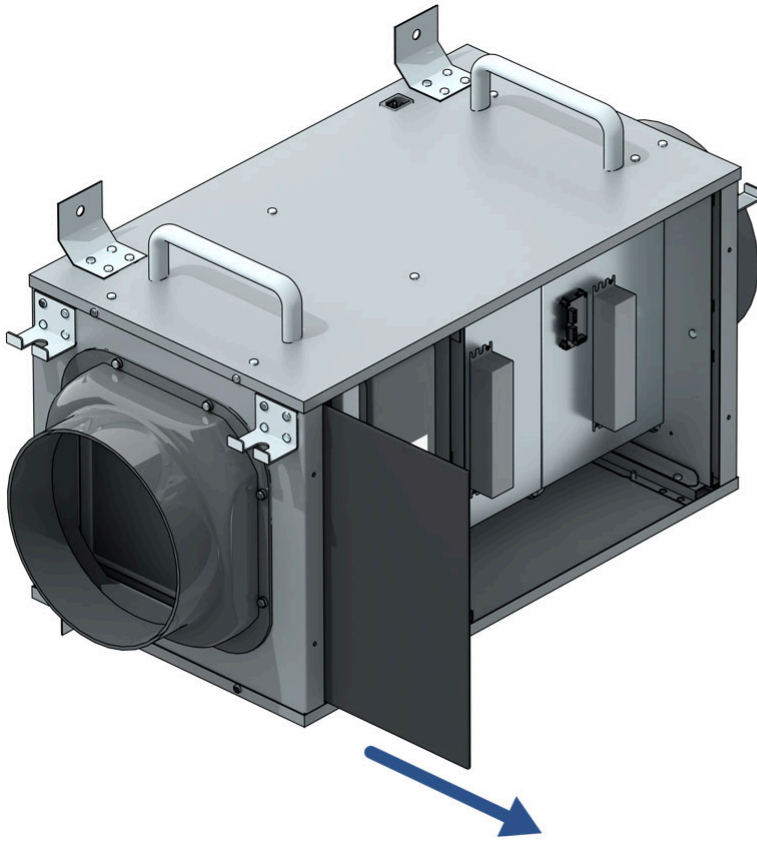
Before handling the units, filter trays, or covers, lightly mist the chassis with an 85% alcohol-based (or equivalent) sanitizer. Once the new filters are installed and the covers replaced, wipe any excess sanitizer off the chassis and ensure it is completely dry before switching the device back on.

To access the filters or Reactor Chamber, undo the 4 hand screws and remove the front panel:



7.1. Cleaning the Pre-Filter

The pre-filter should be cleaned regularly to remove buildup of trapped material and ensure optimal airflow.

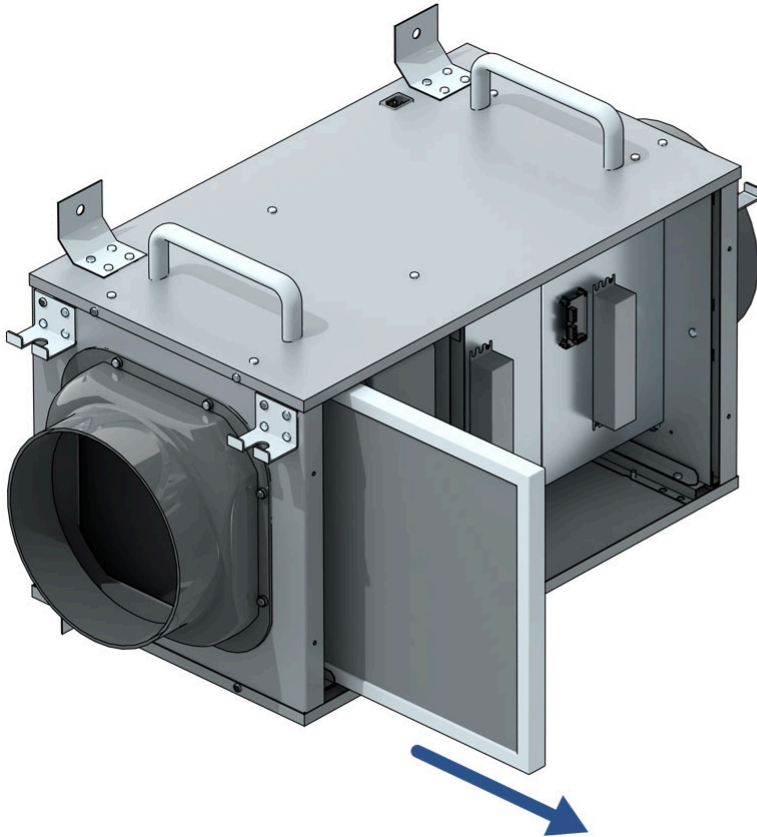


1. Slide out the pre-filter.
2. Clean the pre-filter by wiping it with a dust or microfiber cloth.
3. If required, the pre-filter can be cleaned using warm water. However, ensure the pre-filter is completely dry before reinstallation.
4. Reinsert the pre-filter.

7.2. Replacing the Carbon and HEPA Filters

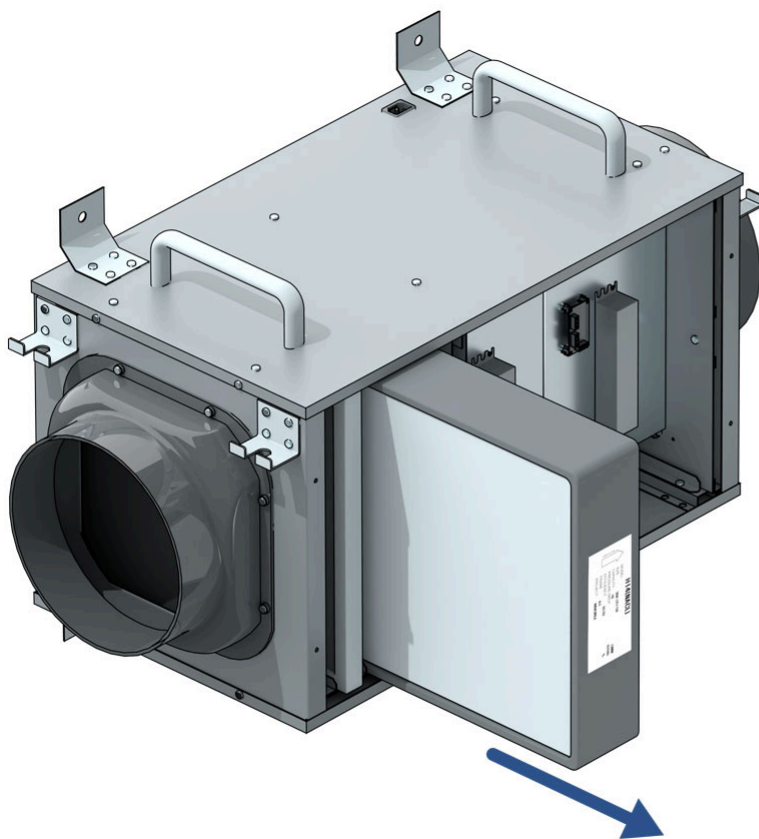
The carbon and HEPA filters are not reusable and should be replaced every 6 months.

Carbon filter



1. Slide out the used carbon filter.
2. Safely dispose of the used carbon filter (see below).
3. Slide in a new carbon filter.

HEPA filter



1. Slide out the used HEPA filter.
2. Safely dispose of the used HEPA filter (see below).
3. Slide in a new HEPA filter.

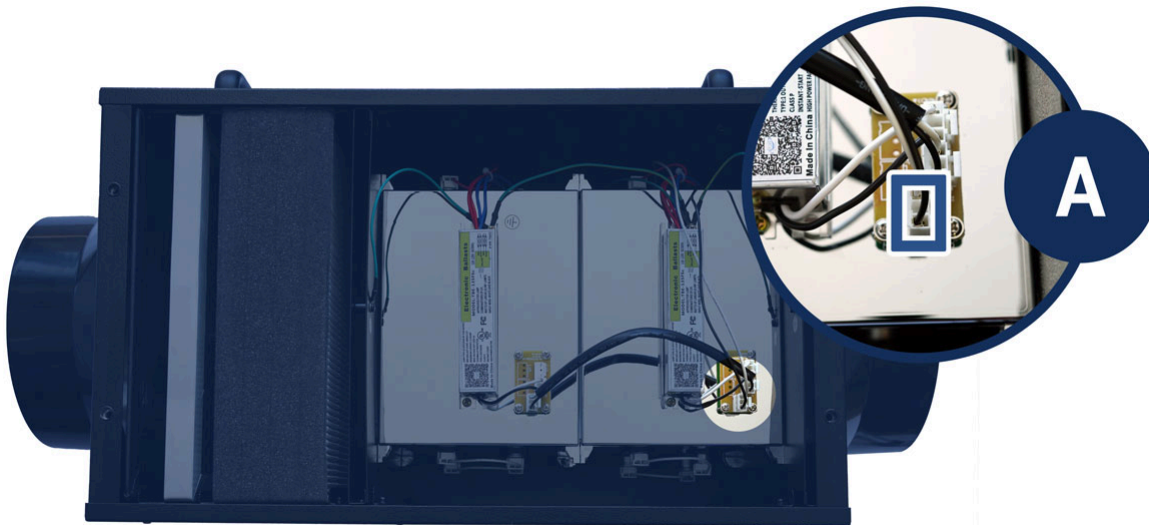
Safe disposal of filters

- After used filters have been removed, we recommend lightly misting the used filter material with an alcohol-based sanitizer.
- Used filters should be placed in a large plastic bag, tied or sealed, and disposed of.
- Filters bordered by an aluminum frame can be disassembled before disposal. In this case, the aluminum frame can be disposed of or recycled separately to the filter material itself.

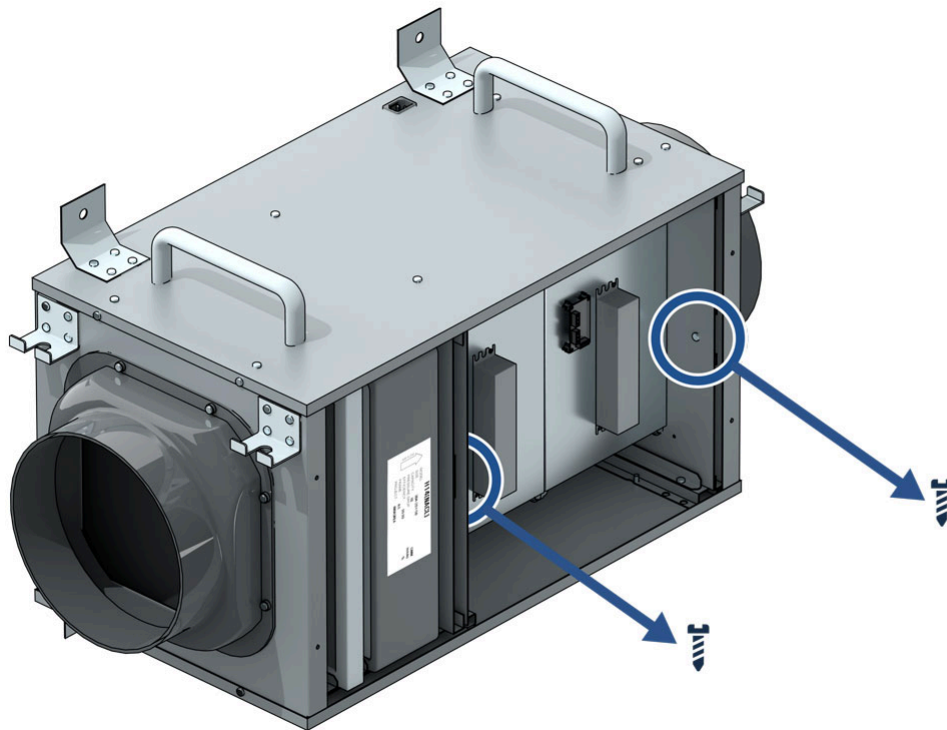
7.3. Replacing the Reactor Chamber

! If the VK Link is integrated into a larger HVAC system, ensure the entire HVAC system is switched off before replacing the Reactor Chamber.

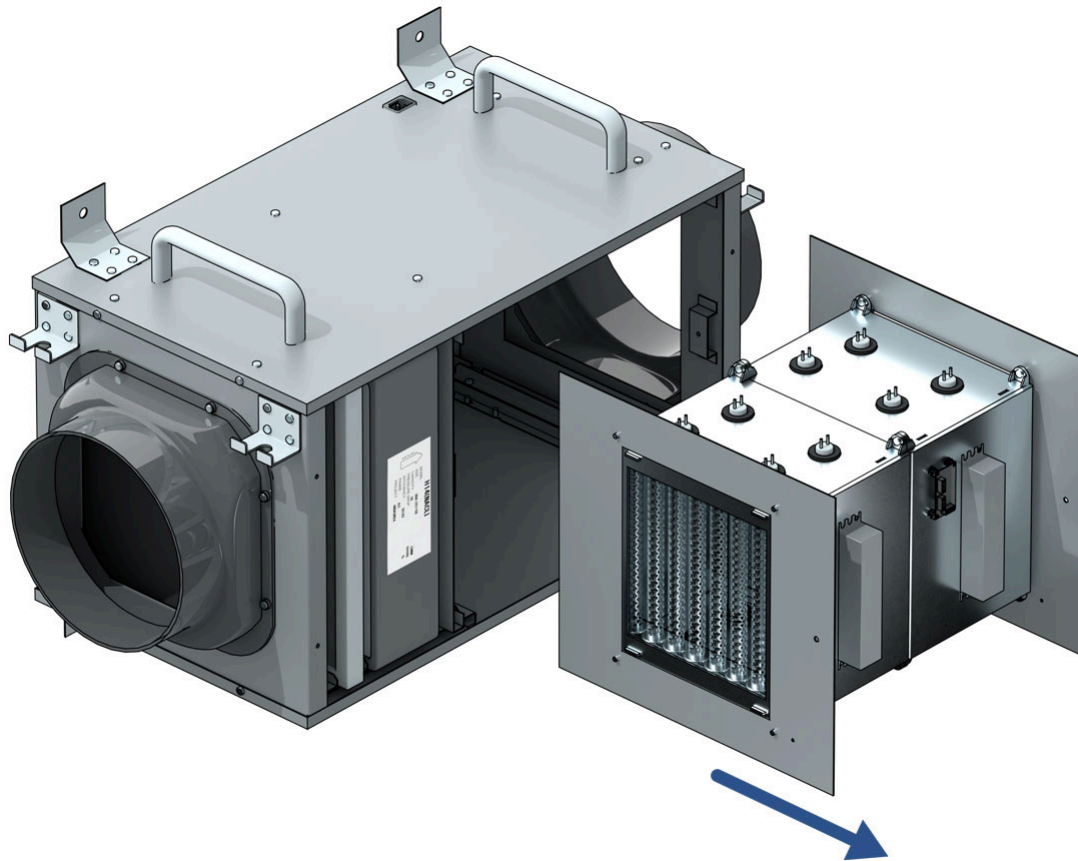
The Reactor Chamber must be replaced every 8,000 hours of runtime. The control panel UV-C replacement indicator will illuminate when this time has elapsed.



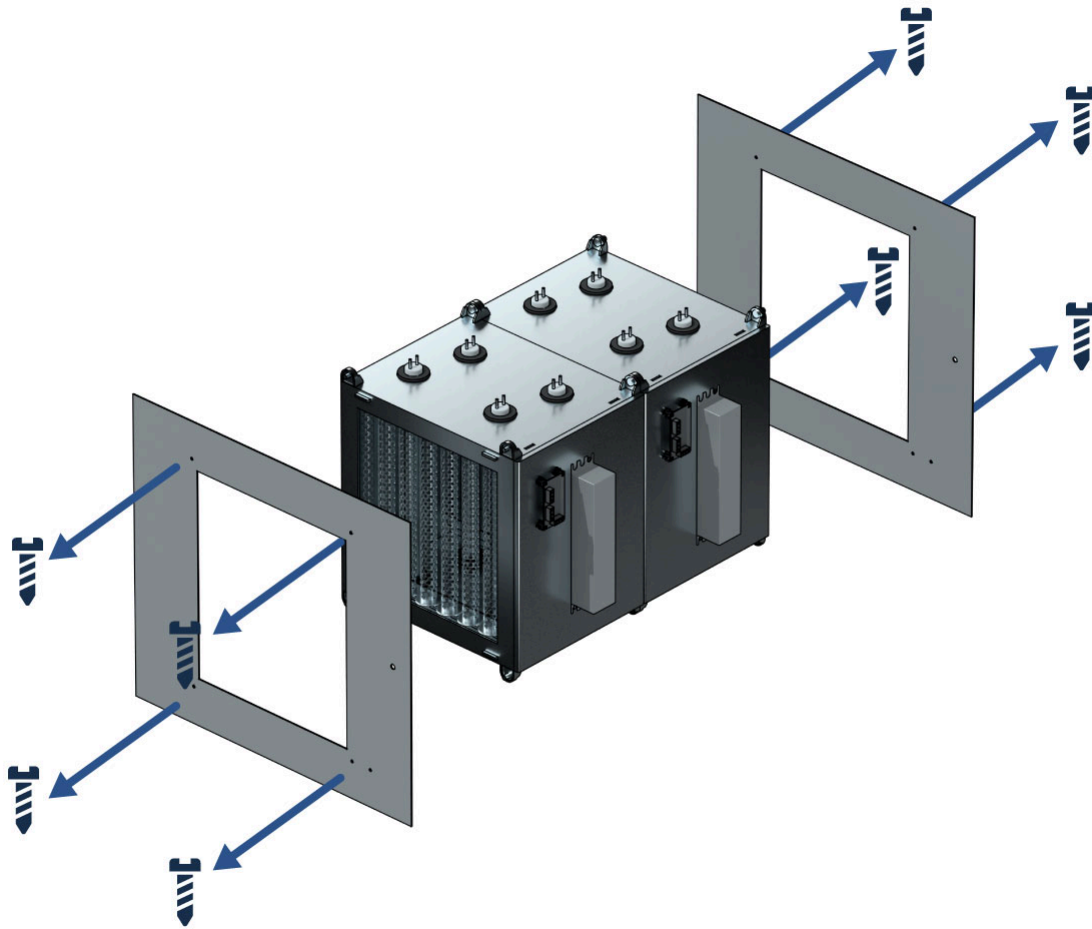
1. Disconnect the Reactor Chamber power connector (A).
2. Remove the 2 screws holding the Reactor Chamber brackets and earth wires to the VK Link chassis:



3. Slide out the brackets and Reactor Chamber from the body of the unit:



4. Remove the 4 screws from each bracket and remove the brackets:



5. Safely dispose of the expired Reactor Chamber (see below).
6. Mount the new Reactor Chamber between the brackets and secure with 4 screws per side.
7. Slide the brackets and new Reactor Chamber back into the VK Link chassis.
8. Insert the 2 screws securing the brackets and earth wires to the VK Link chassis.
9. Reconnect the Reactor Chamber power connector (**A**).
10. When safe to do so, switch on the VK Link and hold the fan button on the control panel for 10 seconds to reset the Reactor Chamber runtime to zero. This will also turn off the control panel UV-C replacement indicator.



Safe disposal of the Reactor Chamber

The UV-C Reactor Chamber consists of plastic, steel, electrical components, UV lamps containing a small amount of mercury, and hexagonal tube filters coated in a thin layer of titanium dioxide. As such, expired Reactor Chambers should be disposed of in a responsible manner.

Please acquire the services of a third-party environmental waste disposal company to dispose of the entire Reactor Chamber responsibly.


7.4. Troubleshooting

Control panel display errors:

	The temperature of the internal PCB has exceeded 80°C. Switch the unit off.
	The fan motor is not functioning correctly. Switch the unit off.

Please contact your local distributor if any of the above errors are displayed.

8. Specifications

 Radic8 reserves the right to make changes to the design and specifications of the VK Link without prior notice.

Firmware version 1.1

Model	VK Link
Coverage*	95m ²
Net weight	14.1kg (31lbs)
Dimensions (mm)	365 × 330 × 528
Dimensions (in)	14.37 × 13 × 20.1
Noise	52–58 dB
Airflow	220–270 CFM
UV-C Lamps	8
Reactor Chamber lifespan	8,000 running hours
HEPA filter lifespan**	6 months
Activated carbon filter lifespan**	6 months
Pre-filter**	Clean every two weeks
Electrical input***	110–120V AC, 50–60Hz 220–240V AC, 50–60Hz
Maximum power (110–120V AC)	210W
Maximum power (220–240V AC)	180W
Maximum current (110–120V AC)	1.95A
Maximum current (220–240V AC)	0.85A
Warranty	12 months
Protection rating	IP20

* Based on two air changes per hour and a ceiling height of 2.4m.

** Dependent on operating environment.

*** Ensure you are using the correct voltage for your region.

Operation and transport conditions:

Temperature	10–45°C
Relative humidity (non-condensing)	30–80%
Pressure	80–106kPa

8.1. Performance Data

VK Link efficiency

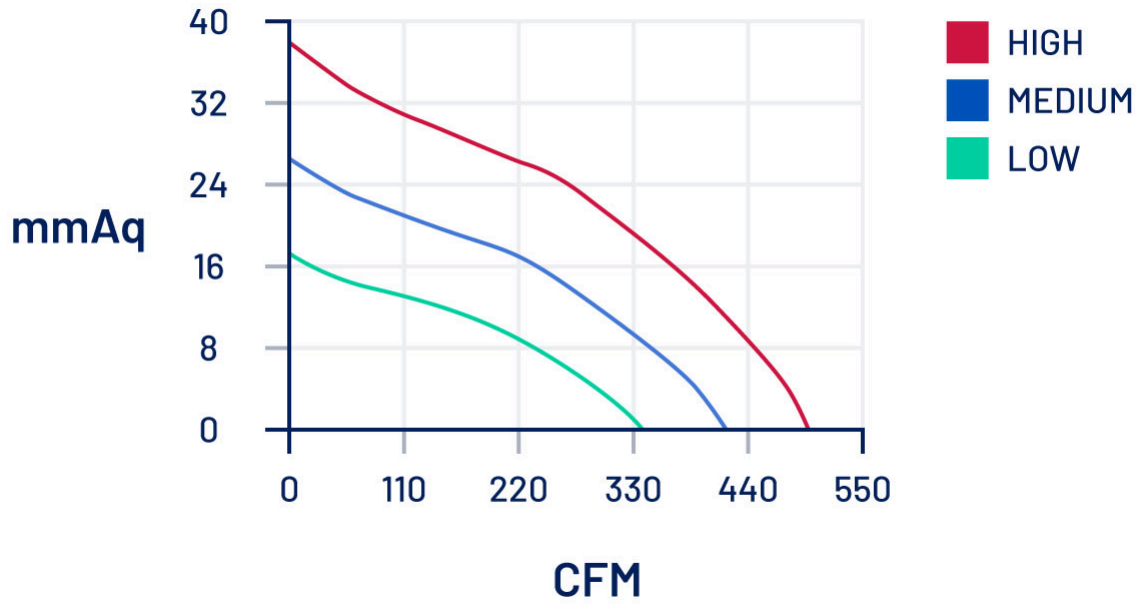
Filter efficiency	99.995%
Airflow	220–270 CFM
Filter face area	0.084 m ²
Static pressure drop (max fan speed)	230Pa

200mm inline fan performance

Model	VTRONIC W200-1
Weight	4.1kg (9lbs)
Dimensions (mm)	350 × ø220
Dimensions (in)	13.8 x ø8.7
Reducer	ø200mm
Noise	52–58 dB
Airflow	336–500 CFM
Electrical input*	110–120V AC, 50–60Hz 220–240V AC, 50–60Hz
Maximum power (220–240V)	131W
Maximum power (110–120V)	160W
Maximum current (220–240V)	0.590A
Maximum current (110–120V)	1.450A
Speed	1650–2450 rpm
Air pressure	167–370 Pa

* Ensure you are using the correct voltage for your region.

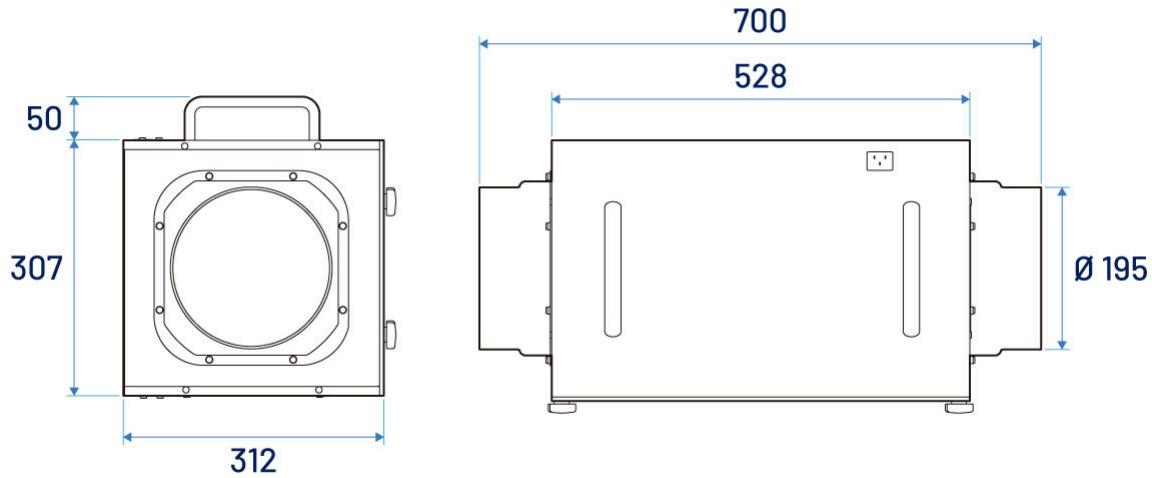
200mm inline fan curves



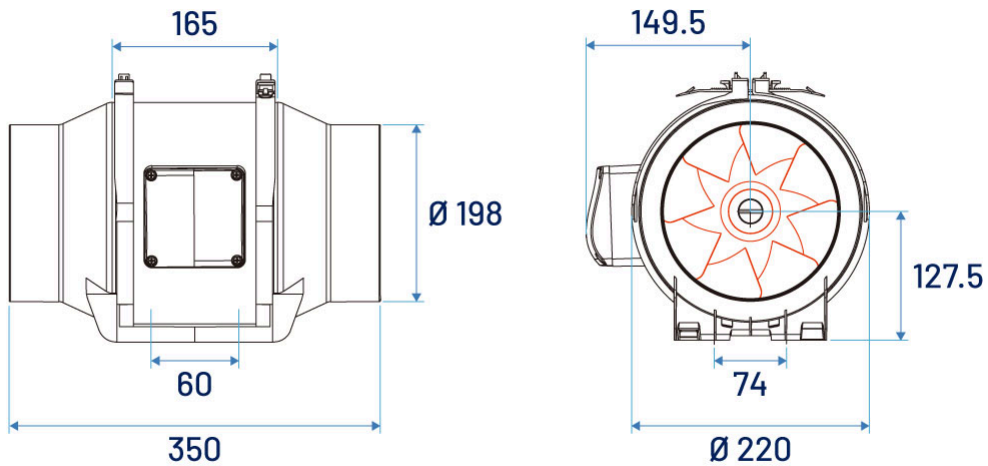
8.2. Dimensions

All dimensions are specified in millimeters:

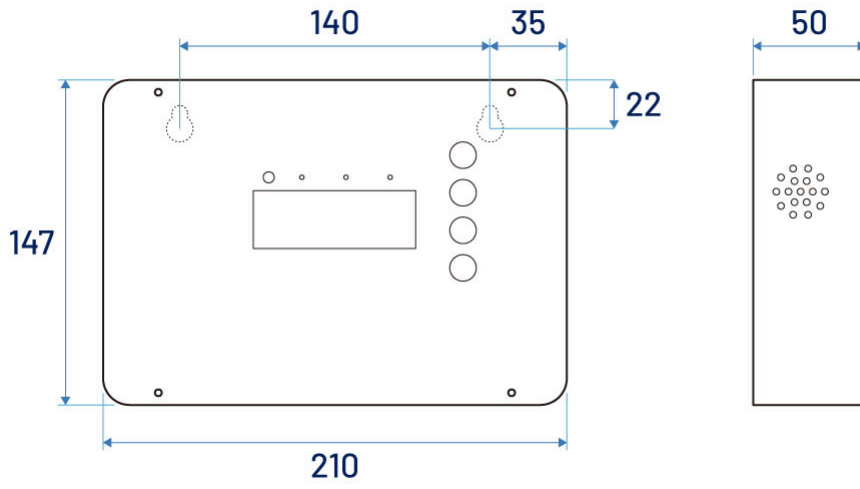
VK Link



200mm inline fan



Control panel



9. Support

For VK Link hardware support, please contact your local VK Link distributor.



Radic8 PTE Ltd

7 Temasek Boulevard
#12-07 Suntec Tower One
Singapore
038987
info@radic8.com

 You can find the model and serial number on the back of your device.