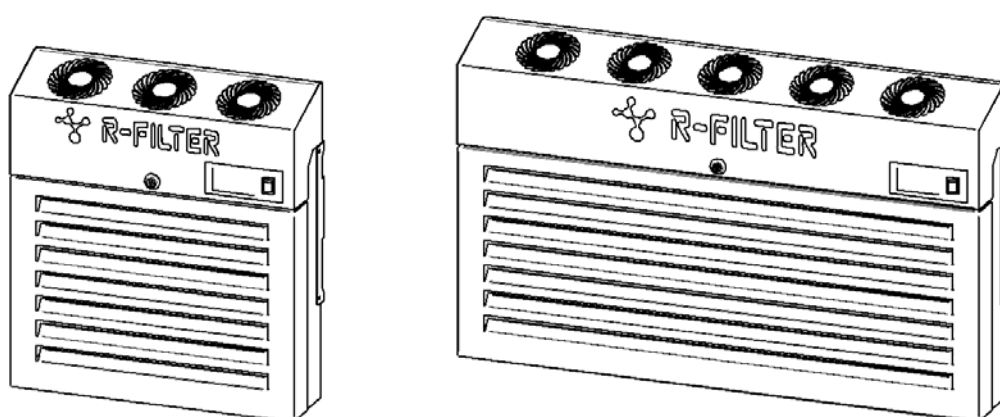


UV PHOTOCATALYTIC DISINFECTING AND DEODORIZING AIR PURIFIER DEVICES

TRANSLATION OF THE ORIGINAL USER MANUAL



UVE 110, UVE 220

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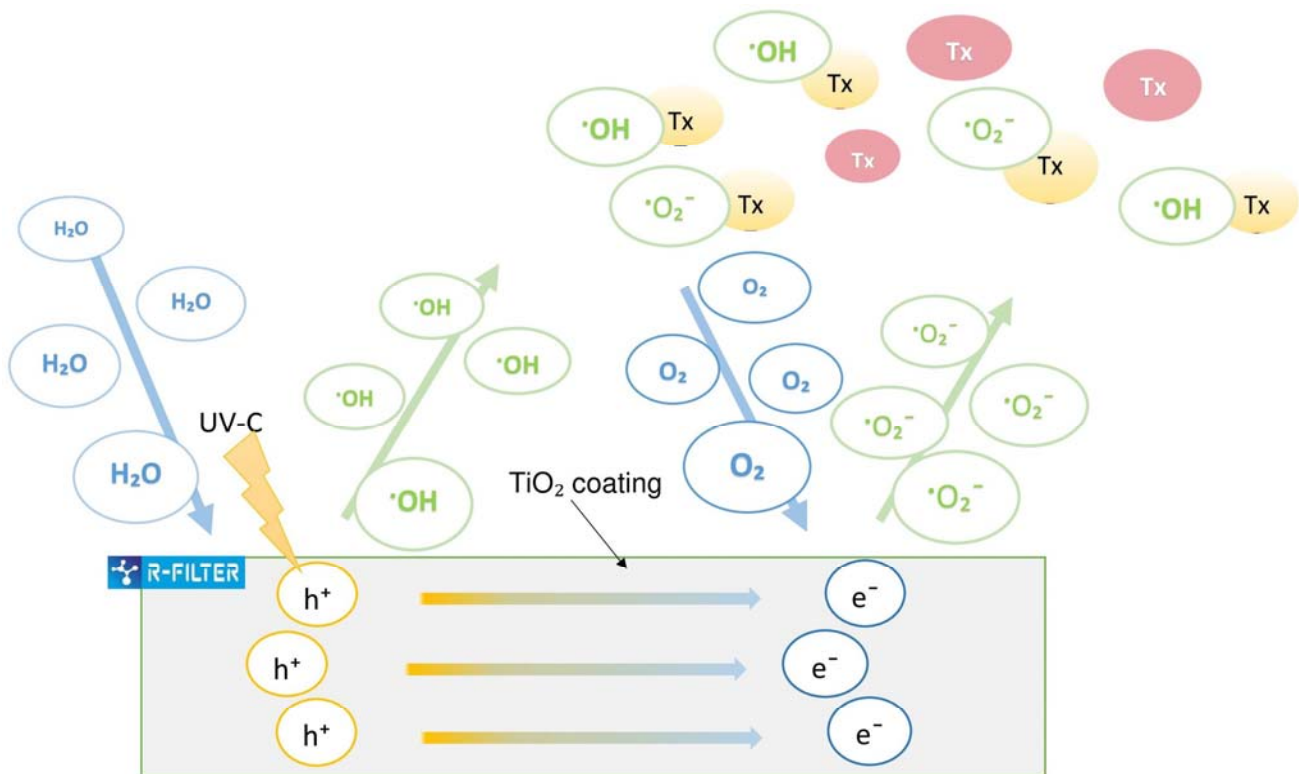
I. Why do you need an UV photocatalytic R-Filter air purifier device?

Indoor air quality plays an important role in protecting our health. The UVE photocatalytic disinfecting and deodorizing air purifier device has been developed for the disinfection and deodorization of heavily loaded and occupied public areas.

II. Operating principle

A fan is installed to circulate the air of the room to be disinfected and deodorized through the inside of the unit. The air first is exposed to a disinfectant UV-C light then by touching the UV- light activated TiO_2 photocatalyst plate moves forward. The device utilizes the synergistic effect of UV light and the photocatalyst used to break down the DNA of pathogens and eliminate the unpleasant odor in the air.

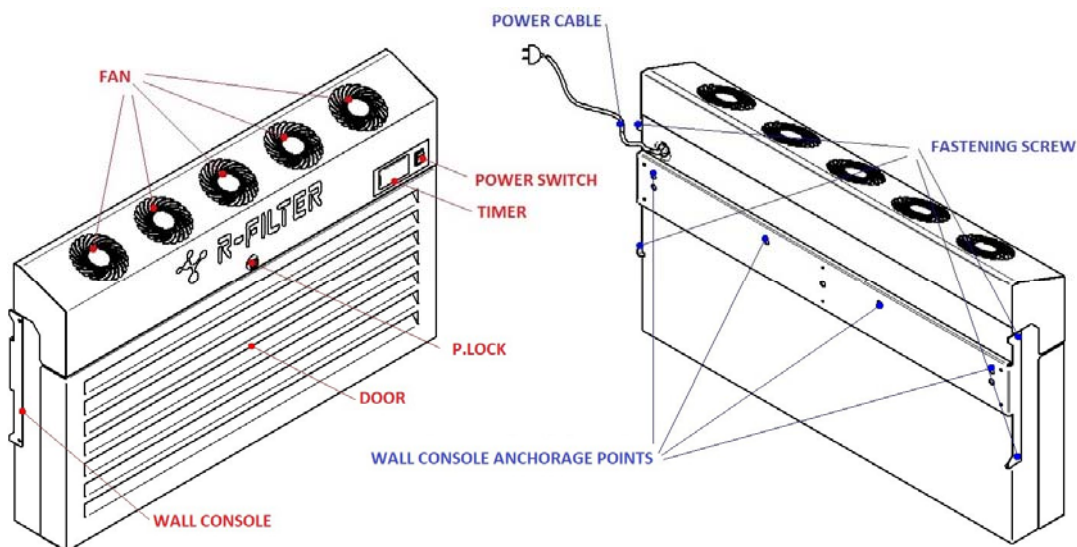
On the surface of the photocatalyst is the following air purification process takes places:



Tx = organic compounds (VOC) inorganic compounds (NOx), odors, viruses, bacteria, mold

The above coating is a semiconductor and when light of a certain wavelength strikes the surface of the titanium dioxide, electrons (e^-) are transferred from the valence band to the conduction band. At the same time, electron holes (h^+) are formed in the valence band. The holes oxidize strongly, while the electrons have a strong reducing effect. From the water arise highly reactive hydroxyl radicals ($\cdot\text{OH}$) and from the atmospheric oxygen reactive superoxide radicals ($\cdot\text{O}_2^-$). As a result, the pollutants are decomposed. The ultraviolet rays change the DNA structure of microorganisms and cause their destruction. Microbes and organics will be mineralized to water and carbon dioxide which is removed with the purified air. The TiO_2 coating does not wear out and remains permanently functional.

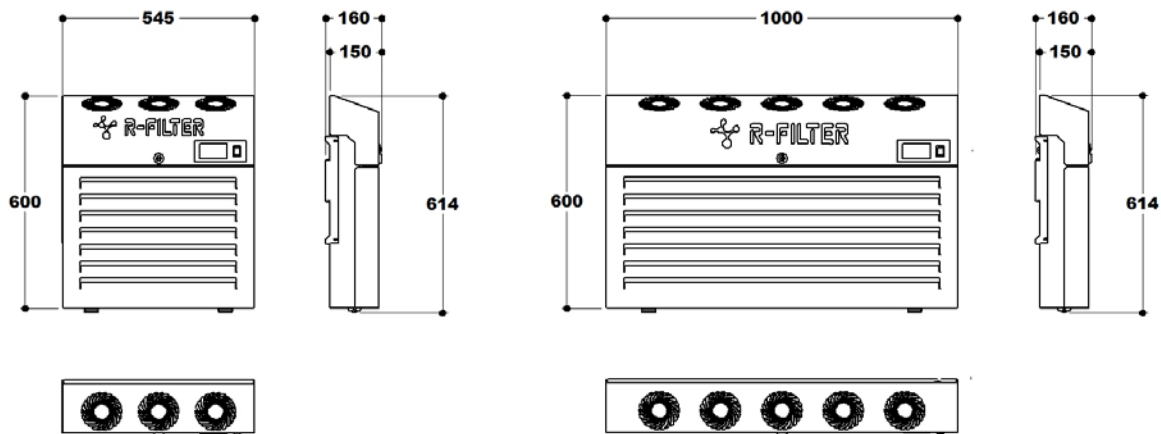
Three-dimensional view of the device, identifying the parts:



III. Specifications and dimensions

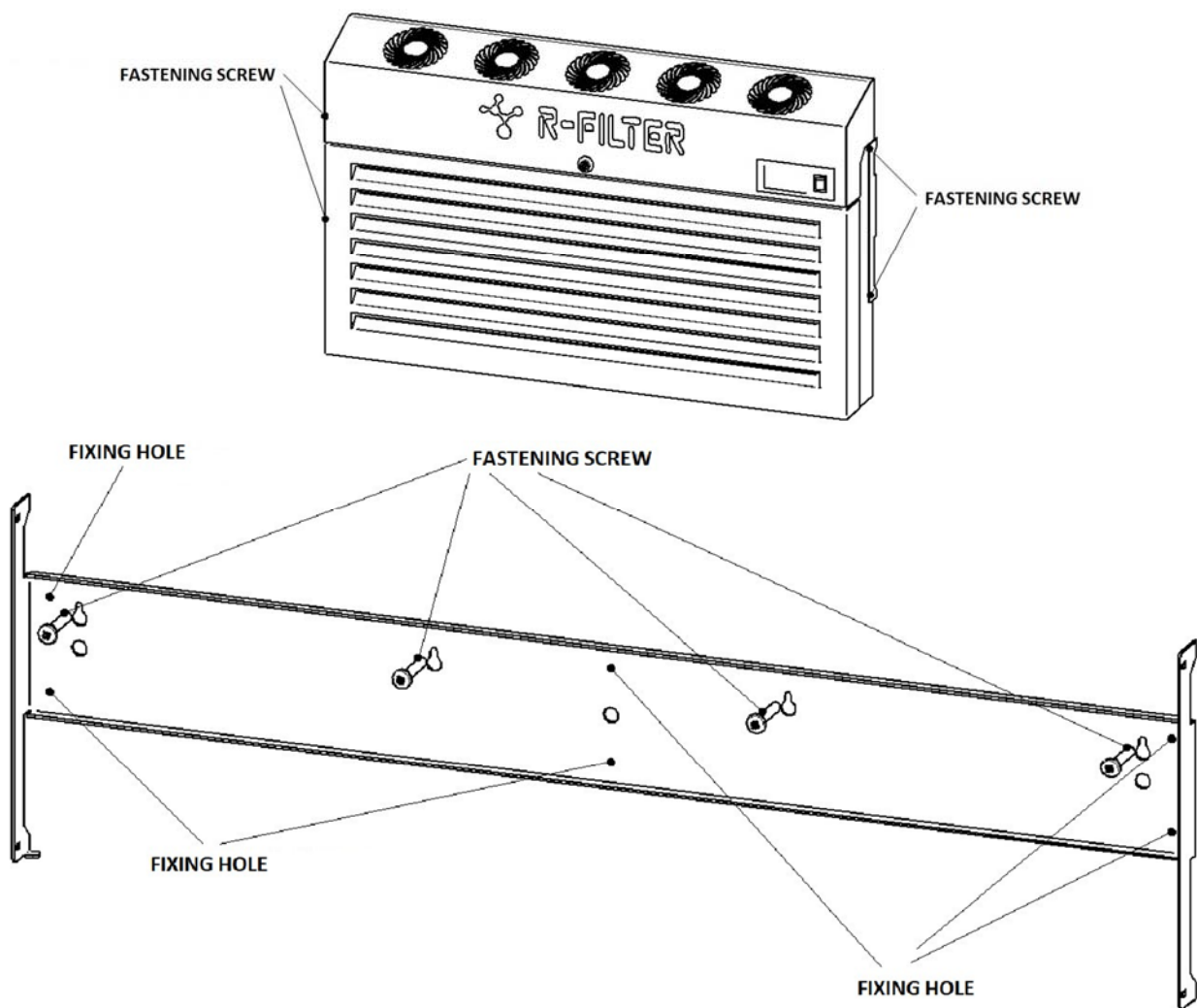
Type	Colour	Size LxWxH (mm)	Max. air flow (m ³ /h)	Supply voltage (VAC)	UVC lamps	Fans	Input electric power (W)	Current flow (A)	UVC output (W253,7nm)	Safety devices
										Door contact switch
UVE 110KUB	black	550x600x150	180	230/50	4x25W	3x18W	154	0,7	4x7,2W	✓
UVE 110KUC	chromic	550x600x150	180	230/50	4x25W	3x18W	154	0,7	4x7,2W	✓
UVE 220KUB	black	1000x600x150	300	230/50	4x55W	5x18W	310	1,35	4x19W	✓
UVE 220KUC	chromic	1000x600x150	300	230/50	4x55W	5x18W	310	1,35	4x19W	✓

Device views with dimensions:



IV. Installation

In rooms to be disinfected and deodorized, the devices can be placed on a desk or wall. For wall mounting, the supplied bracket must be mounted on the wall:



V. Comissioning

The device may be connected only to 230 V rated mains supply, having protective-earth connection! The unit is turned on using the red main switch on the front panel. The UV system lights and air recirculation fans go on working. The light of the UV lamps activates the photocatalyst. In case of contaminated air, air purification starts as described above in point II.



In order to be performed air cleaning at only certain times of the day - when needed- a cycle time setting display has been integrated next to the main switch. Its detailed operating instructions are appended to the user manual.

VI. Safety regulations

Our safety and hazard warnings serve for your protection, the protection of third parties and the protection of the components of the exhaust air system. You must therefore pay attention to them. These operating instructions must be read and applied by everyone who is assigned to work on the system. It must be available to these people at all times.

- If the unit or the connecting cable shows signs of damage, do not install the unit.
- Repairs or modifications to the device are prohibited.
In case of malfunction, contact your country's specialist dealer from whom you purchased the device or contact the designated service center.

⚠ Warning of UV-C light: This light can cause painful irritation to the cornea. Therefore, direct eye contact with the blue UV tube light should be avoided and UV blocking safety glasses must be worn during commissioning and maintenance work! The door contact switch must not be operated when the door is open!

⚠ Warning of dangerous voltage: Before working on the unit or opening the cover, remove the mains plug from the socket to avoid electric shock.

VII. Cleaning of UV-device



1. Use the key to open the service door.



2. Check the UV lamps for damage and cleanliness.



3. Hold the door and clean the UV lamps one by one and catalyst plates with a soft brush.



4. The dust inside the unit can be removed by a vacuum cleaner.



5. Check the internal surfaces for cleanliness.



6. Close the service door, turn the key to locked direction.

Inspect the condition of the UV tubes once a week (visual inspection). The UV tubes work optimally only if they are clean and free from deposits. They should be cleaned every operating 500 hours. Cleaning can be performed in disconnected from the power supply. Not necessary to remove the tubes from their holder. The titanium dioxide coated catalyst surface is self-cleaning, this is the basis of the process of purifying the air flowing through it. If harmless dust from the cleaning process remains on the surface, it can be easily removed with a vacuum cleaner. The pictures above illustrate the cleaning process. After cleaning, turn on the UV unit. Check proper operation! In case of any malfunctions are found, turn off the power and consult with the service center.

VIII. Exchange of UV lamps

The service life of the UV lamps is max. 12.000 operating hours. To ensure full operation, all light tubes must be replaced at the same time within this time. The cycle time adjuster referred above can be used to set the required operating time of the UV tubes and the device.

TO CHANGE THE LIGHT TUBES UNDER VOLTAGE IS FORBIDDEN!



1. Turn off the device and unplug it.



2. Use the key to open the service door.



3. Check the UV lamps for damage.



4. Unscrew – anticlockwise- the retaining rings of the selected UV lamp separately.



5. Remove the UV lamp from the socket and change it for the specified type according to the specification.



6. Close – clockwise- the retaining rings carefully to ensure their proper protection. Clean the lamps if needed.



7. At closing the service door, check the exact fit.



8. Close the service door, turn the key to locked direction



9. Plug the device to the supply, set the power switch to „ON” and check the operation.

ALWAYS REPLACE THE UV TUBES AS PERFORMED ABOVE!

IX. General information

- **TRANSPORT**

The system is delivered in its original packaging on a single pallet. Do not place another pallet on the stack.

- **STORAGE**

Store the system in a protected place that is free of dust and moisture. In order to avoid damaging the UV tubes, handle the system with increased caution.

- **BEFORE USE**

Before installation, make sure that the system is undamaged and ready for use. Do not use damaged equipment or components as this may compromise the air tightness of the ventilation system.

- **UV-LAMPS**

The system is supplied with UV tubes installed and tested by the manufacturer.

- **INSTALLATION**

The **R-FILTER** professional operation in this case of the manufacturer offers a 3 year warranty.

- **OPERATION**

The system only makes effective deodorization and air purification if it is equipped with the planned quantity and output of UV lamps. We are not liable for damage caused by insufficient cleaning and missing replacement of UV lamps.

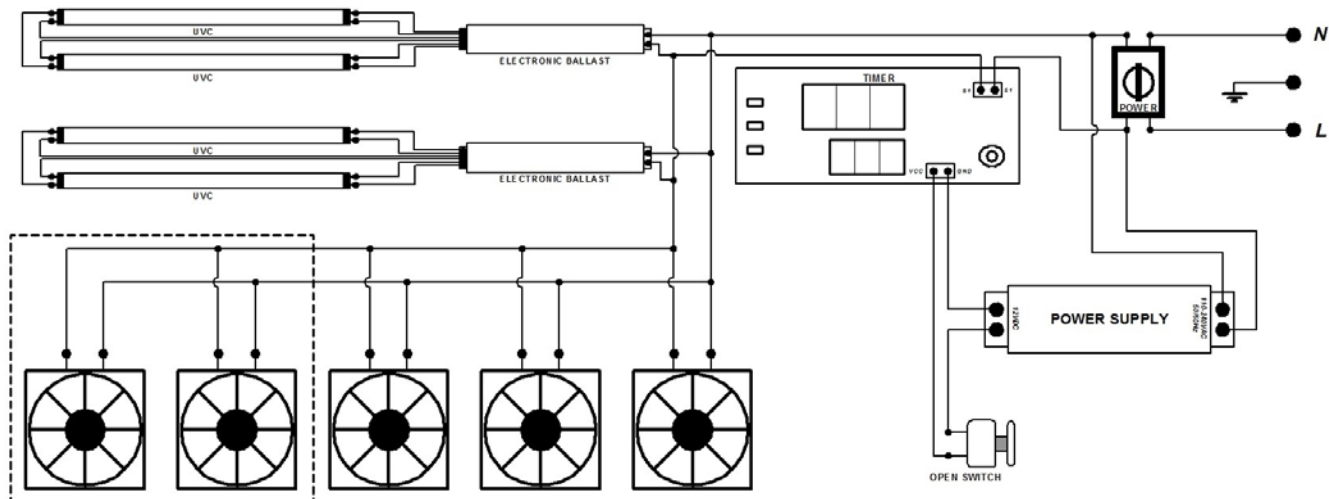
- **ORDER OF SPARE PARTS**

Spare parts must meet the technical requirements specified by the manufacturer. Therefore, use only original spare parts.

Please send your spare parts orders to Air-Filter Kft., H-1039 Budapest, Csetz Janos u. 88-90. (Email: r-filter@r-filter.hu) or your local dealer. We need the following information to process your order: 1. Name of the device 2. Year of construction 3. Order No. 4. Name and article No. of the spare part 5. Order quantity 6. Your shipping address and email address

X. Spare parts, circuit diagram

ITEM	QUANTITY/ DEVICE	TYPE	ARTICLE NO.
UVC LAMP 	4 PCS	UVE110	R-FILTER LTC25
UVC LAMP 	4 PCS	UVE220	R-FILTER LTC55
SERVICE KEY 		FOR ALL DEVICES	RFT-UV01
FAN 	3 PCS	UVE110	RFT-UV17
	5 PCS	UVE220	
RETAINING RING 	8 PCS	FOR ALL DEVICES	RFT-UV10
HINGE 	2 PCS	FOR ALL DEVICES	RFT-UV13



DECLARATION OF CONFORMITY

Manufacturer:

Air-Filter Kft.

Budapest

Czetz János utca 88.-90.

H-1039



We hereby confirm that the UV Photocatalytic Disinfecting and Deodorizing Air Purifier Devices manufactured by us under the following identification numbers:

UVE 110; UVE 220

comply with the Machinery Directive *2006/42/EC*, Low Voltage Directive *2014/35/EU* and the Electromagnetic Compatibility Directive *2014/30/EU* in their design and construction as well as in the version marketed by us.

Place/Date: Budapest, 2019.02.05.

AIR-FILTER Kft.

represented by

Rácz Ádám

Managing Director

service/dealer



Avenue Jean monnet 1
1348 Louvain La Neuve
Email: info@airvision.be

België