

***JenActUV***

**GRU-V<sup>®</sup> Air Purifier**



**Product Manual**

## **JenAct**UV

GRU-V® Air Purifier – Product Manual

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## Description

The GRU-V® Air Purifier is an air treatment device which uses 254nm ultraviolet light to disable microorganisms. Thanks to its rigid construction and stainless steel materials, the GRU-V® is ideal for use in industry and small businesses.

Package contents:

- 1x GRU-V® Air Purifier
- 1x Mains lead with UK plug and IEC connector
- 1x Product manual

## Installation

**READ THE PRODUCT MANUAL IN FULL  
BEFORE INSTALLING THIS PRODUCT.**

The GRU-V® is designed to be installed vertically on a wall. The mains cable feeds the unit from the bottom and therefore it should be assured that the bottom edge of the GRU-V® is kept at least 100mm away from the nearest object. We recommend installing GRU-V® at least 0.5m away from the nearest object, room corner, floor or ceiling in order to achieve efficient treatment of air within the whole room. Two wall plugs and screws (not supplied) are required for wall installation. The screws must be 330mm apart.

The fragile UV lamps are securely packaged within the GRU-V®. Prior to installing the unit onto a wall, unscrew all eight M5 screws which hold the cover and slide the cover off the base. Remove all packaging, mount both UV lamps by fixing each of them into a lamp clip and then gently pushing the lamp base into a lamp holder (see section *Service and Maintenance* for illustration).

The GRU-V® comes with 2m mains cable fitted with UK mains plug. Once the unit is fitted on the wall, plug the connector from a mains lead into the unit and then plug in the mains socket plug. Operate the switch next to the mains connector to turn the GRU-V® on and off.

When the GRU-V® is operating, there is a residual leakage of light. If you cannot see any light coming out through the supply/exhaust fan grills once the GRU-V® is switched on, the unit is not operating properly. Please refer to section *Service and Maintenance*.

## Operation

The GRU-V® does not produce any ozone, harmful particles or odours. When the GRU-V® is operating for the very first time, you may notice a change of smell within the treated room. This is normal and it is actually one of the indicators that the unit is working properly. No odours are generated usually within 12 hours of operation after the installation.

## Service and Maintenance

**WARNING - HARMFUL ULTRAVIOLET LIGHT!  
THE GRU-V® SHOULD NEVER BE OPERATED OR  
TESTED WITHOUT COVER FITTED.**

In applications where the GRU-V® is used continuously, the UV lamps should be replaced after 1 year of operation in order to maintain good level of disinfection. If the GRU-V® is operated 8 hours a day, 5 days a week, the UV lamps should be replaced after approximately 4 years of service.

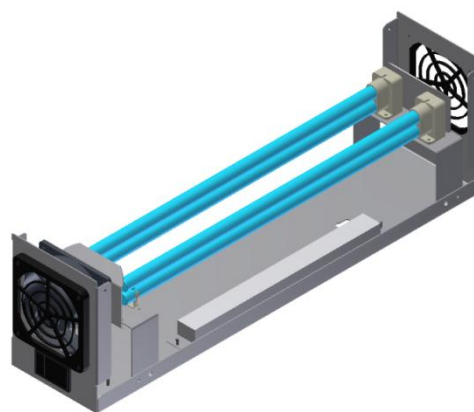
However it is recommended to carry out simple maintenance on a 6-month basis to ensure prolonged operation. It is advisable to:

- Wipe UV lamps with lint-free cloth to remove dust or stains
- Visually check ballast and wiring
- Check the filter assembly and replace degraded or clogged filter pad
- Check AC fan and replace if excessively noisy

If the GRU-V® is installed office or public places, the inlet filter pad is likely to get clogged by dust more quickly. In this case we recommend more often checks (e.g. every 3 months) to ensure that air flow within the GRU-V® is not restricted and a required level of disinfection is achieved.

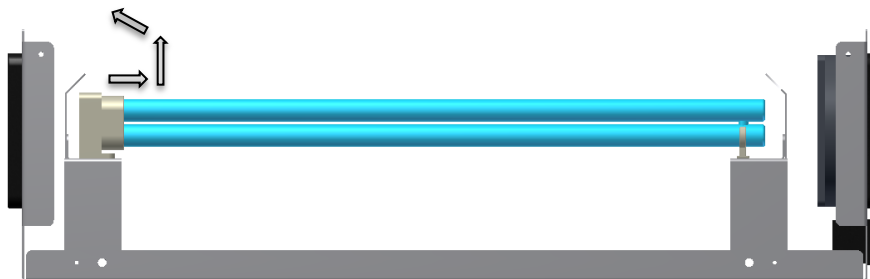
### Replacing filter pad

1. Disconnect the GRU-V® from mains
2. Unscrew all eight M5 screws which hold the cover and slide the cover off the base. The base with components is shown in the picture on the right.
3. Undo Nyloc nut, which secures the filter assembly, and remove an outer grill cover.
4. Replace the filter pad.
5. Re-assemble the filter assembly and secure with the screw and Nyloc nut.
6. Place the cover back on and secure with all eight M5 screws.
7. Connect the mains and turn on the GRU-V®.



## Replacing UV Lamps

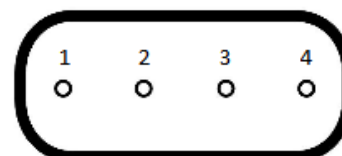
1. Disconnect the GRU-V® from mains.
2. Unscrew all eight M5 screws which hold the cover and slide the cover off the base. The base with components is shown in the picture on the previous page.
3. Using both hands, gently pull a UV lamp out of the lamp socket. Then carefully remove the UV lamp from the socket and the lamp clip on other end. The movement of the lamp base during this procedure is illustrated by arrows in the picture below.



4. Visually and/or electrically (see below) check the electrodes of UV lamps for any defects and replace faulty lamp(s).
5. Mount the lamp(s) back by fixing it into lamp clip and then gently pushing the lamp base into a lamp holder. You may hear a click but continue pushing the lamp base into the socket until they are fully inserted into the lamp socket.
6. Place the cover back on and secure with all eight M5 screws.
7. Connect the mains and turn on the GRU-V®.

## Testing individual UV lamp

The figure on the right shows pins in the lamp base. There should be a short circuit between pins 1 and 2 and between pins 3 and 4. If either of these shows open circuit, the UV lamp has to be replaced.



## Troubleshooting

If the fan of the GRU-V® Air Purifier is operating but there is no light leakage from the exhaust grille, either one or both UV lamps have failed. The unit must not be operated and the failed UV lamp(s) must be replaced. We recommend replacing both UV lamps at the same time in order to achieve maximum disinfection efficiency.

In the very unlikely event that both lamps are not faulty but the GRU-V® is still not operating properly, the ballast will have to be replaced. Please contact us to arrange for service and/or replacement of the unit.

## Technical Specifications

### Operation

Air flow rate:	92m <sup>3</sup> /h nominal
UV-C dose:	24mJ/cm <sup>2</sup> (calculated average dose after 8,000 hours)
Disinfection rates*:	100% kill rate of Influenza A, MRSA, E-Coli, Tuberculosis (single pass, 13 log kill or higher)
	99% kill rate of Anthrax (single pass, 2 log kill)
	61% kill rate of Clostridium difficile (single pass)
	99% kill rate of Clostridium difficile (five passes recirculation)

\* Disinfection rates based on calculated averages after 8,000 hours of operation. Single pass inactivation means that the air is exhausted after it is treated and is not recirculated.

### Mechanical

Dimensions:	150mm x 200mm x 700mm
Weight:	9 kg
IP rating:	IP50
Noise level:	50db/A

### Electrical

Supply voltage:	230 Vac, 50Hz, max 1A
Fuse:	1A
Power:	150W max
Electronic ballast:	HF-P 254/255 TL5 HO/PL-L III IDC
Ballast lifetime:	50,000 hours
UV lamp:	2x 55W PLL germicidal
UVC output per lamp:	16.5W
UV lamp lifetime:	8,000 hours

### Temperature

Operation:	from -10°C to 60°C
Storage:	from -40°C to 80°C

## Health and Safety

**UV LAMPS PRODUCE HARMFUL ULTRAVIOLET LIGHT WHICH MAY RESULT IN THE DAMAGE OF EYES AND SKIN.**

The leakage of ultraviolet light from the GRU-V® has been measured at the air inlet/exhaust and was found to be minimal. However, long-term exposure even to very low intensity of ultraviolet light can also be harmful and therefore GRU-V® should not be mounted within 0.5m of areas or spaces where continuous exposure for more than one hour is likely.

## Waste and Recycling



**DO NOT PUT INTO THE NORMAL RUBBISH COLLECTION**

The GRU-V® is marketed, sold and distributed by JenAct Limited. JenAct Limited is part of Jenton Group of companies. The GRU-V® is manufactured by Jenton International Ltd.

Jenton International Limited is a company registered with WeeeCare Compliance Scheme and therefore fulfil their obligations in accordance with Waste Electrical and Electronic Equipment Regulations 2006.

The GRU-V® contains hazardous materials. For the disposal, please use your local recycling facility or send the unit back to us.

**Compliances**

EMC 2004/108/EC

LVD 2006/99/EC

RoHs 2002/95/EC



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