UVCabinets

BY UVISAN

User Manual

UV-C Disinfection, Charging
& Storage Cabinet

UVISAN

for a new world

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Safety Guide

All Uvisan cabinets conform to relevant European and global directives and have been built using the latest technology.

Nevertheless, consideration to safety is always advised when using any of our products. Please read and always adhere to all safety instructions included in this guide. Misuse can result in injury, equipment damage or even death.

This technical manual must be regarded as part of the product. It should be stored with the product and must be passed on to every user. To guard against injury, basic safety precautions should be applied, including the following:

⚠ Working environment

Uvisan Cabinets are designed to work in ambient temperatures (18-30˚C).
Do not operate the cabinets in the following environments:

- Outdoors
- In direct sunlight
- Wet or humid environment
- Unstable or uneven surface
- Near emergency exits or firefighting equipment

⚠ Risk of Electric Shock or Fire:

- Do not expose Uvisan cabinets to water or other liquids

- Liquids should not be stored inside the unit

- Do not place the product directly near an open flame or heat source

- Do not insert items into the vents or other openings

- Turn the power switch off before plugging/unplugging the cabinet

- Never plug in the cabinet if the switch, receptacles, or power cord are broken, cracked, or torn.

- Ensure the power outlet meets the minimum requirements of a fully loaded cabinet (see 3.1. Specification table for a reference).

- Never plug the cabinet into overloaded power outlets

- Connect the product only to tested branch circuits (with grounding and circuit protection).

⚠ Safety Note:

- Uvisan cabinets must always be used by adults or under adult supervision

- Never open the doors while the UVC lights are on

- Ensure the casters are locked before opening the cabinet doors

- Always secure the doors before moving the cabinet.

- Do not use the power cord to pull the cabinet

- Do not roll the cabinet over the power cord

- Any repairs should always be performed by a qualified electrician.

Inadequate repair can create significant hazards to users and is not covered by the warranty. We do not accept any liability for damage if the unit is misused, incorrectly operated or inadequately repaired. Misuse, incorrect operation or tampering will void the manufacturers warranty.

Features

VR360S Cabinet
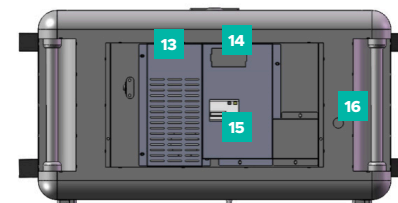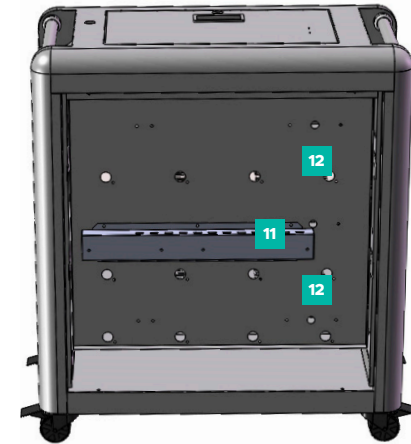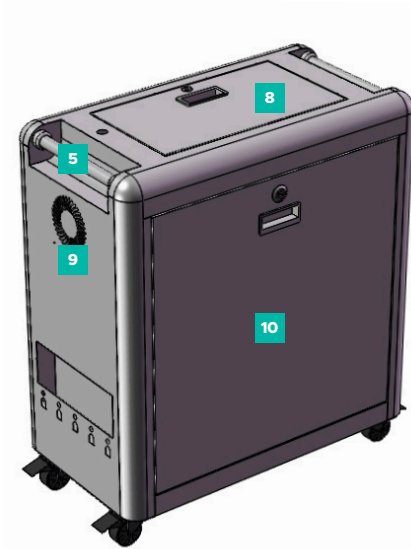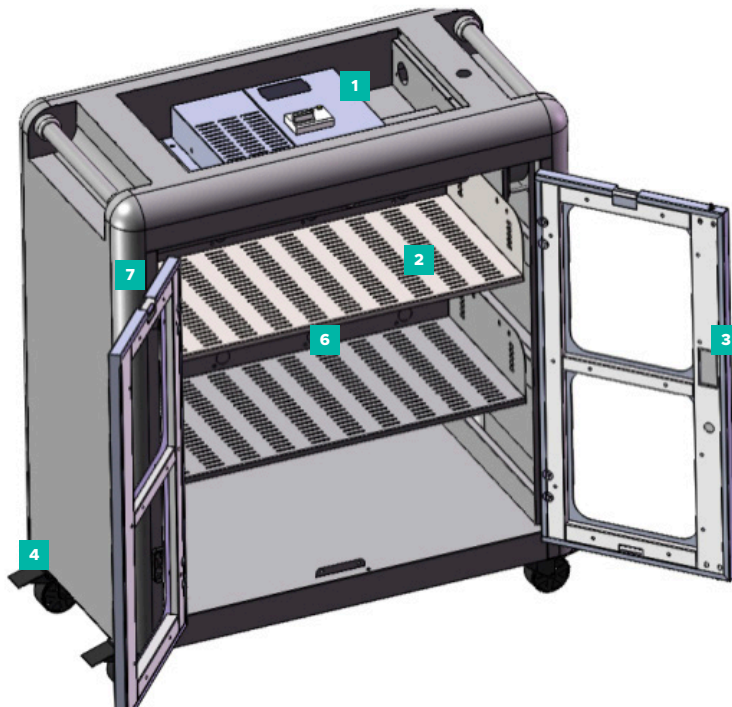
VR360S Cabinet

1. IT area

2. Storage shelf

3. Front doors with locking

4. Universal casters (two lockable)

5. Ergonomic handle

6. UVC Light

7. Door cavities for cables (allowing disinfection of peripherals without need for unplugging - keyboards / mouse / VR Headsets etc)

8. IT cover

9. Extraction fan

10. Rear access panel

11. USB charging ports

12. Charging cables channels

13. Power supply unit

14. UVC programmer

15. RCD and circuit breaker

16. Disinfection start button

2 | Features

VR360M & VR360L Cabinets

VR360M
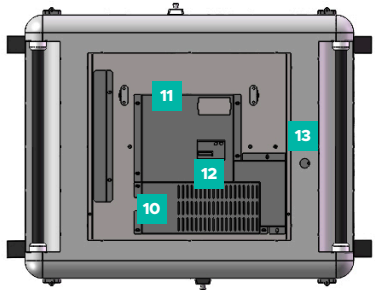
VR360L
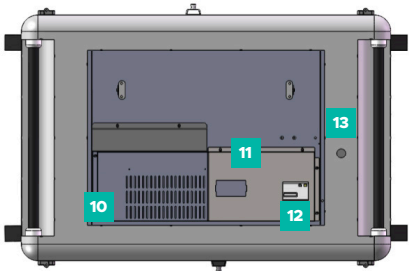
VR20 & VR30 Cabinets

1. IT Area

2. Storage Shelf

3. Front doors with locking

4. Universal casters (lockable)

5. Ergonomic handle

6. UVC Light

7. Door cavities for cables (allowing disinfection of peripherals without need for unplugging - keyboards / mouse / VR Headsets etc)

8. USB Charging Ports

9. Extraction fan

10. Power Supply Unit

11. UV-C programmer

12. RCD and Circuit Breaker

13. Disinfection START button
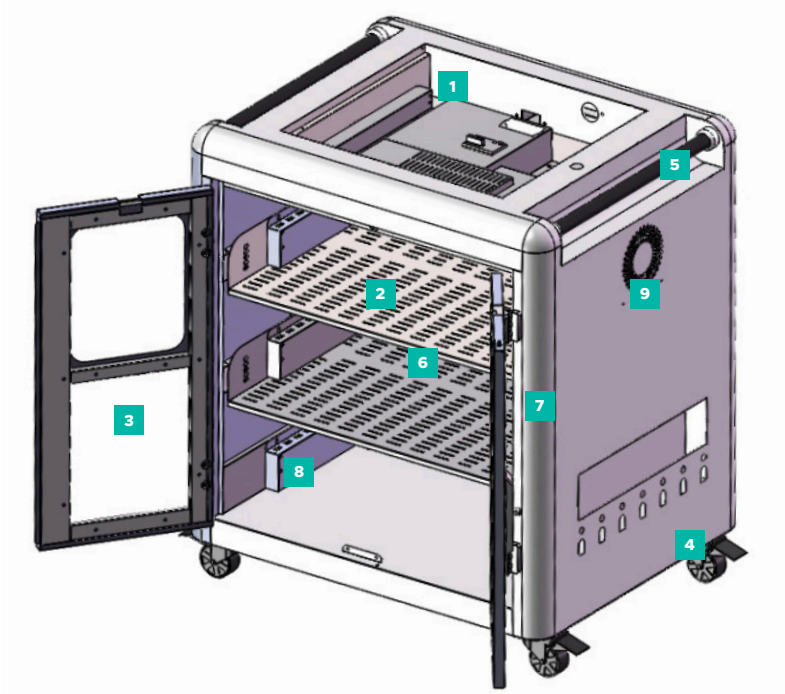
Technical Data

3.1 Specification Tables

	VR**360S**
Dimensions	w 750mm /29.5" D 400mm / 15.8" H 860mm / 33.9"
Shelf size	w 600mm /23.6" D 250mm / 9.8" H 200mm / 7.9"
Max Capacity VR Headsets (Pico)	12
Max Capacity Laptops (13")	6
Max Capacity Tablets (vertical racks)	30
Fast Charge USB Ports	12
Doors	1 x double sided doors (front)
Weight	55 kg / 121 lbs
Charging Point	USB charging ports 5V, 2.1A DC
Charging Protection	Leakage and short circuit protection module, over-charging protection
Power System	INPUT: AC100-240V 50/60HZ (Based on different country standard)
Rated Power	200W
UVC Disinfection	254nm, low pressure UVC bulbs
Power of UVC lamp	8W
Programmable Timer	Yes
Cooling and Ventilation	Yes
Mobility	Four universal casters, two with locking functions; two-handles with ergonomic design
Security	3-point mechanism with locking in front doors, separate locking on top IT area

	VR**360M**
Dimensions	w 750mm /29.5" D 600mm / 23.6" H 860mm / 33.9"
Shelf size	w 600mm /23.6" D 550mm / 21.7" H 200mm / 7.9"
Max Capacity VR Headsets (Pico)	20
Max Capacity Laptops (13")	12
Max Capacity Tablets (vertical racks)	60
Fast Charge USB Ports	20
Doors	2 x double sided doors (front & back)
Weight	75 kg / 165 lbs
Charging Point	USB charging ports 5V, 2.1A DC
Charging Protection	Leakage and short circuit protection module, over-charging protection
Power System	INPUT: AC100-240V 50/60HZ (Based on different country standard)
Rated Power	200W
UVC Disinfection	254nm, low pressure UVC bulbs
Power of UVC lamp	15W
Programmable Timer	Yes
Cooling and Ventilation	Yes
Mobility	Four universal casters, all with locking functions; two-handles with ergonomic design
Security	3-point mechanism with locking in front doors, separate locking on top IT area

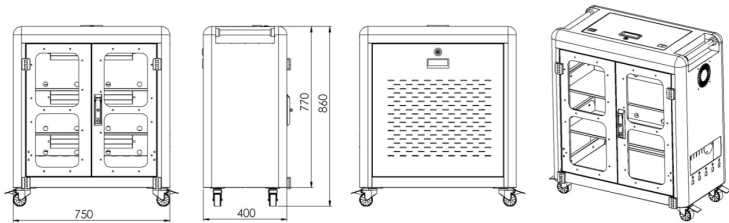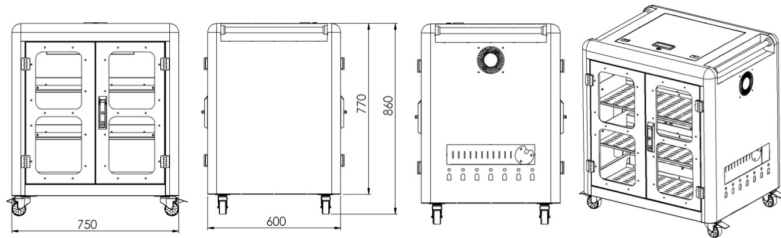|	VR**360L**
Dimensions	w 900mm /35.4" D 600mm / 23.6" H 860mm / 33.9"
Shelf size	w 750mm /29.5" D 550mm / 21.7" H 200mm / 7.9"
Max Capacity VR Headsets (Pico)	30
Max Capacity Laptops (13")	18
Max Capacity Tablets (vertical racks)	75
Fast Charge USB Ports	30
Doors	2 x double sided doors (front and back)
Weight	82 kg / 181 lbs
Charging Point	USB charging ports 5V, 2.1A DC
Charging Protection	Leakage and short circuit protection module, over-charging protection
Power System	INPUT: AC100-240V 50/60HZ (Based on different country standard)
Rated Power	200W
UVC Disinfection	254nm, low pressure UVC bulbs
Power of UVC lamp	15W
Programmable Timer	Yes
Cooling and Ventilation	Yes
Mobility	Four universal casters, all with locking functions; two-handles with ergonomic design
Security	3-point mechanism with locking in front doors, separate locking on top IT area

Technical Data

3.2 Model Varieties

VR**360S**

VR**360M**

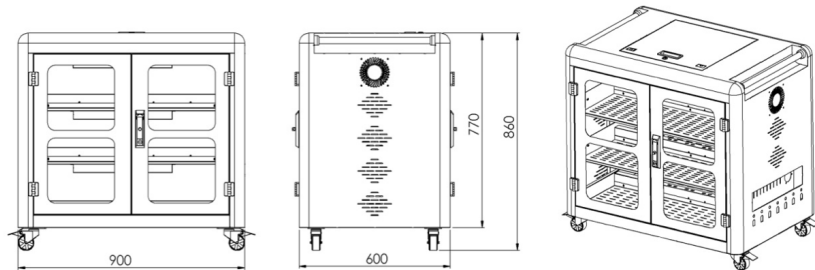### VR**360L**

Controls & Programming

Uvisan Cabinets are preprogrammed for 5 minutes disinfection cycle, which is specifically designed to deliver over 99.99% reduction of common bacteria and viruses. Disinfection cycle is initiated by the start button (page 7 and 9 position 16 and 13)

Starting The Cycle

In order to start the disinfection cycle, the below steps must be followed:

- Open the door and place all items on the cabinet selves. Please note that all items must be evenly spread, they cannot overlap - allowing for a maximum UVC light penetration to all objects and their surfaces.

- Plug all electronic devices into the charging ports (if charging is required)

- Close and latch the doors

- Press the start button

- When the disinfection cycle is completed, the UVC lights will automatically switch off.

- The doors now can be opened, and all disinfected items can be removed

If the disinfection time needs to be changed, please follow the UVC Digital Timer Programming Instructions - Appendix 9.1 of this guide.

5   Initial Set Up

6   Cleaning & Maintenance

5.1 VR360S

- Remove the back panel from the Uvisan cabinet to allow access to the USB charging ports

- Starting from the top area of the cabinet, connect the charging cables for individual
  devices to the USB charging ports

- Pass the charging cables through holes in the back panel and route them to the front of
  the cabinet.

- Repeat the above process for connecting all required USB charging cables

- Position the cabinet near a wall outlet and plug it in

- Load your devices into the cabinet and connect them to the charging cables
  (if charging is required)

- Close the doors and initiate disinfection cycle (as per 4. Controls and programming)

5.1 VR360M & VR360L

- Starting from the top area of the cabinet, connect the charging cables to the USB charging
  ports (located on the side of each shelf)

- Position the cabinet near a wall outlet and plug it in

- Load your devices into the cabinet and connect them to the charging cables
  (if charging is required)

- Close the doors and initiate disinfection cycle (as per 4. Controls and programming)

- For a daily cleaning use a soft dry cloth, do not use abrasives or solvents.

- Check if the rear access panel (VR 12 only) is secured and locked

- Check the power cord for any visual damage

- Check the body of the cabinet for visual damage

- Avoid using the cabinet in dusty, dirty places

- Avoid storing the cabinet in low temperatures. If the cabinet is stored in a cold place,
  allow 24 hours transition to ambient temperature before the cabinet can be safely
  connected to electricity to avoid potential water and condensation damage

- Always move the cabinets with care

- When not in use, unplug from the power outlet

- Always use the standard or licensed accessories. Unauthorized accessories, especially
  electronic components could damage the electronic circuits

- In case of product failure contact Uvisan

- Light bulbs fall under the remit of the Waste Electronic Equipment.
  Faulty bulbs need to be delivered to the local waste recycling centre.

7 | Troubleshooting

The devices are all plugged in, but won't charge?

- Make sure cabinet's power cord is fully inserted into a power outlet

- Check if RCD/Circuit Breaker is ON

- Check if the IEC end of the power cord is fully inserted to power inlet unit under the IT cover

- If none of above solve the problem, contact: **contact@uvisan.com** or **support@uvisan.com**

The UVC bulbs do not work?

- Make sure cabinet's power cord is fully inserted into power outlet

- Check if the power button is ON

- Check if the IEC end of power cord is fully inserted to power inlet unit under the IT cover

- Make sure the UVC programmer is setup correctly (Appendix 9.1)

- Make sure that both doors are fully closed (there is a safety switch in the door opening)

- Make sure the safety switch is not visually damaged

- If none of above solve the problem, contact: **contact@uvisan.com** or **support@uvisan.com**

The cabinet does not move?

- Check the universal casters; make sure both locking mechanisms are disengaged.

8 | Warranty

This Warranty applies to physical goods including any associated software licensed along with the goods (the "Goods"), purchased from Immotion VR Ltd, trading as Uvisan ("Company" or "Uvisan").

What does the Warranty cover? This Warranty covers any defects in material or workmanship which cause the Goods to fail under normal use during the Warranty Period.

When does the Warranty begin? Unless otherwise agreed with the Company in writing, the Warranty begins from the date that the Goods are delivered to the installation address.

What will we do to correct problems? The Company will either repair the Goods at no charge, using new or refurbished replacement parts or replace the Goods free of charge. We will not cover incidental costs which arise from any defect covered by the Warranty. These costs include loss of use and rental charges for alternative equipment, telephone calls, other travel or accommodation expenses, time or inconvenience or loss of business earnings.

How long does the warranty cover last? The Warranty Period for Goods purchased from Company is 12 months from the date of purchase (excluding bulbs). A replacement part or Goods is covered for the remaining warranty period of the original Goods or 30 days from the date of replacement or repair, whichever is longer.

What does this warranty not cover? This Warranty does not cover any problem that is caused by malfunctions or damage not resulting from defects in materials or workmanship.

In particular the warranty will not cover issues arising from:

- fair wear and tear from use of the Goods;

- non compliance with user Manual in respect of installation or operation of the Goods;

- non-approved modifications to the Goods;

- incorrect repairs to the Goods by any party not authorised by Uvisan;

- influences acting on the Goods including failure of electricity systems (including power surges) accidents, civil unrest, malicious or wilful actions by third parties, fire, flood and theft.

What do you have to do if you wish to claim under the Warranty? To obtain warranty service, you must first contact us by email: contact@uvisan.com or calling +44 (0)333 577 3254 to advise of the problem and allow us to begin diagnosis of the issue and the most appropriate solution for you.

General For customers who are not consumers the Warranty is the sole remedy available against Uvisan. Except for any personal injury or damage to property arising out of the negligence of Uvisan, liability for all other forms of loss is excluded.

9 Appendix

9.1 UVC Touch Screen Programming Instructions

Fig 1

When the unit is switched on the display will briefly show the Uvisan logo (Fig1) followed by '**CLOSE DOOR TO OPERATE'** if the doors are open (Fig 2).
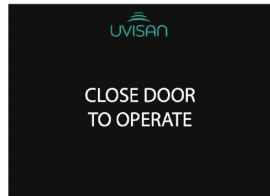

Fig 2

If the doors are closed, the touchscreen will display the default **'START'** icon (Fig 3).
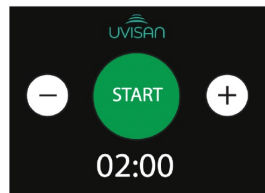**Note - on delivery the timer is set to 2 minutes.**

Fig 3

To operate the unit, close the doors; when the green **'START'** button is displayed, simply touch the **START** button, the cabinet's UVC lamps will illuminate; the panel will display a red **'STOP'** button (Fig 4) and the digital timer will count down from 2 minutes to zero.

Fig 4

When the counter reaches zero, the lamps will turn off and the touchscreen will return to the green START button image and be reset at 2 minutes.

Note that if the door is opened during a cycle, the lamps will turn off, and on closing the door the touchscreen will return to the default start setting.

Changing the duration of the disinfection cycle.

The duration of the cycle can be increased or decreased by simply pressing the '+' or the '–' signs on the touch display. Pressing the + symbol will increase the timer in increments of 30 seconds, conversely pressing the – symbol will decrease the timer duration in increments of 30 seconds.

Note, the new timer setting will remain the new default timer duration until it is altered, to return the unit to the default 2-minute cycle setting, simply use the + or – symbols until 2 minutes is displayed.

9 Appendix

9.2 Frequently Asked Questions

Does it prevent the spread of Covid 19?
It is scientifically proven that UVGI kills all bacteria, spores, viruses, protozoans, moulds and yeasts. The level of UVC irradiance in our cabinets will kill 99.99% of Poliovirus 1, SARS, H-CoV 229E , H-CoVOC43, H-CoV 229E, Influenza A (H1N1), Covid 19 in under one minute of exposure to UVC light (*ref.: M. Buonanno, D. Welch, I. Shuryak, D.J. Brenner; DOI: 10.21203/ rs.3.rs -25728/v1), (*ref.: Tree et al. 2005), (*ref.:CDC, 2020) . By increasing the exposure, higher log reduction is achieved.

Can it cause radiation exposure?
Uvisan cabinets are designed in a way that no UVC radiation can escape. This is reinforced with IEC 62471 Photo-biological Safety certificate placing Uvisan in the Exempt group - the highest possible safety standard. Additionally, all devices are equipped with a door safety switch preventing accidental light exposure (in the event that the doors are opened during sanitisation cycle).

Is it safe?
Uvisan Cabinets are completely safe for all users, domestic and corporate. All the devices have CE, RoHS and IEC 62471 and are certified for Electromagnetic Compatibility in line with Low Voltage Directive. Additionally, our manufacturing processes are in line with ISO 9001 and ISO 14001.

What testing and certification for health and safety does Uvisan have?
CE, RoHS, IEC 62471, Electromagnetic Compatibility/Low Voltage Directive, ISO 9001, ISO 14001, Sterilization Efficacy Evaluation certificate.

Has a laboratory certified that it kills viruses?
Uvisan has third party lab certificates confirming antibacterial efficacy and are using medical grade UVGI bulbs, which are proven to kill the bacteria, spores, viruses, protozoans, moulds and yeasts.

How does it work?
Ultraviolet germicidal irradiation (UVGI) is a disinfection method that uses short-wavelength ultraviolet (ultraviolet C or UVC) light to kill or inactivate microorganisms by destroying nucleic acids and disrupting their DNA. This leaves them unable to perform vital cellular functions. UVGI is used in a variety of applications, such as food, air, and water purification.

Is it environmentally friendly - I hear it produces ozone?
NIOSH (National Institute for Occupational Safety and Health) defines a safe exposure limit for ozone at 0.1ppm. Uvisan bulbs total combined production is very small - 0.07 particles per million (measured inside of the cabinet at the maximum concentration). Any Ozone that is produced is filtered out immediately and prevented from ever leaving the bulbs.

What can I NOT clean in it?
No living creatures are allowed inside of our cabinets. Other than that, almost every commonly used item which needs a surface disinfection can be cleaned. Metals, various plastics, cardboard, rubber surfaces can be safely sanitised in our devices.

Does it meet EU law requirements for this type of equipment?
Yes, it does (CE, RoHS, IEC 62471, Electromagnetic Compatibility/Low Voltage Directive, ISO 9001, ISO 14001, Sterilization Efficacy Evaluation certificate)

Do you provide a guarantee / support service?
Yes, we have a standard one-year guarantee, and we provide customer support.

Can it damage what I put into it?
We have done excessive stress testing with various headsets and other popular electronic devices (mobile phones, tablets etc) simulating 1.5 year of standard usage. We observed no impact of the UVC radiation neither on the appearance nor on functionality.

Is there any fire risk?
All the electric and electronic devices are protected by circuit breaker and RCD module. Also, during normal operation, the temperature inside the cabinet is in the region between 20 and 30 degrees Celsius. Additionally, the cabinet is made of non-combustible materials (mostly steel).

What weight can the shelves take?
10 kg per shelf is the maximum we recommend.

How is the machine calibrated so it always achieves 254nm?
It is specific to the lamp - an electric discharge produces UV radiation in a very narrow band (peak exactly at 254nm). There are also small "sidebands" produced in a visible range (over 400nm) - this is the pale blue colour characteristic to all UVGI bulbs.

What is the shelf life of the machine? Does it always achieve 254nm over the life cycle? Is there an indicator for this?

The bulbs offer almost constant UV output over their complete lifetime. For maximum security of disinfection and high system efficacy - always 254nm. Lifespan of our bulbs is 9000 hours. With a standard working cycle (4 cycles an hour, 8 hours a day, 5 days a week) - annually this amounts to 693 hours**.**

9 Appendix

9.2 Frequently Asked Questions (continued)

What are the environmental operating temperatures?

The cabinets are designed to work in ambient room temperatures (temperature range 18 - 30 degrees Celsius). The cabinets are not designed to work in wet or cold conditions.

Can the unit be left on overnight?

Yes

Does it need to be switched off after the cycle is complete?

No, it will switch off automatically after the cycle is finished.

Do you supply replacement parts?

Yes

Do I have to clean the inside or outside of the Uvisan cabinet?

We recommend dusting the cabinets with soft cloth as a standard daily practice. Outside of the cabinet should be wiped with 70% alcohol wipes.

Should a user wear gloves to remove items?

We would suggest gloves are worn as an extra precaution to prevent contamination post disinfection cycle.

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