

## **Benefits of PDC's UV-C LED Bore Disinfection System (UV-C System):**

- Specifically designed for MRI, disinfecting cycle times are fast and reliable. Total cycle time under 5 minutes.
- Generates UV-C light energy across the Germicidal Spectrum, 260nm to 300nm
- UV-C light energy is scientifically proven to kill all pathogens with a confidence level of 99.9%
- Disinfects and sanitizes Radiology equipment bores and patient tables
- Can be used on MR, PET/MR, CT, PET, PET/CT, MR-guided Linac, Nuc Med and any other bores in the hospital 60-80 cm wide and up to 200 cm long
- Helps prevent the spread of infectious disease that cause HAIs

### **1. How much does the UV-C Disinfection System weigh?**

The component of the UV-C System that is placed on the patient table is called the Hub. The Hub is comprised of 2 parts. Part (A) weighs 20 pounds and Part (B) weighs 14 pounds.

### **2. How long does it take to set up and start?**

Set up takes less than 1 minute.

### **3. What can it be used to clean?**

It was designed specifically for MRI and is MRI safe. It can also be used for all Radiology bores (60-80 cm) and patient tables following non-MRI safety precautions.

### **4. Will the UV-C Disinfection System disinfect a scan room?**

No, it will not disinfect the entire scan room. The UV-C System will disinfect and sanitize the patient table and bore (60-80 cm) of any imaging system.

### **5. Does our Radiology Equipment OEM have to do anything?**

No. Your equipment vendor does not need to do anything.

### **6. Is there any preparation work or construction work needed to use the system?**

No. The system plugs into a standard electrical outlet. Nothing else is needed.

### **7. Does the UV-C Disinfection System have FDA approval?**

No, FDA approval is not needed. The UV-C Disinfection System is a disinfecting (cleaning) system. There is no patient contact. The patient is not in the room when the cleaning cycle is run. The disinfecting system does not connect to, communicate with, or modify any imaging equipment in the hospital.

### **8. Are you sure UV-C kills coronavirus?**

Yes, it has been proven by independent scientific research that UV-C light energy kills bacteria and viruses, including coronavirus.



# UV-C LED BORE DISINFECTION SYSTEM FREQUENTLY ASKED QUESTIONS

## **9. Are you sure the system delivers high energy UV-C light?**

Yes. The system has been independently tested. Regulatory agencies have verified it delivers UV-C light energy across the UV-C Germicidal Spectrum (260nm to 300nm).

## **10. What does the UV-C Disinfection System cost?**

Contact your PDC sales representative for pricing information.

## **11. Can we get a discount for multiple purchases?**

Yes, your PDC sales representative can issue a proposal with discounts for multiple purchases.

## **12. When will the UV-C Disinfection System be available?**

The UV-C System has received ETL (UL) approval and is available now.

## **13. What is the typical lead time for delivery?**

6 to 8 weeks ARO depending upon inventory availability.

## **14. What is the useful life?**

If you run a sanitizing cycle after every scan, you can expect a useful life of 7 to 10 years before system components begin to reach the end of their useful life. PDC can replace and refurbish the system extending its useful life. If you run a sanitizing cycle at the end of each day, the useful life will extend past 10 years before the system components reach the end of their useful life.

## **15. What is the warranty?**

Twelve months from the date of delivery.

## **16. Does PDC offer an extended warranty?**

Yes. An extended warranty is available. Contact your PDC sales representative for more information.

## **17. How is warranty service or replacement provided?**

PDC will either send a service tech or send a replacement component, if the part is easy to replace. The defective part must be returned to PDC.

## **18. How many component parts are included in the UV-C Disinfection System?**

The UV-C Disinfection System has 3 components. The portable cart with power supply and the UV-C LED Hub, which is configured in 2 pieces to keep it lightweight and ergonomic to place on the table. Please refer to the PDC brochure and watch the demonstration video.

## **19. Is the system safe to use in the hospital?**

Yes. The UV-C System is a Class 2 device with ETL approval. This means it is safe and there is no possibility the user can get a shock or touch anything that will cause them harm in any way. It is also MRI safe and will never be attracted to the magnet.

## **20. Is UV-C light energy safe?**

Yes, UV-C light is safe, provided the proper UV-C education is known by all staff operating the system.

Regulatory standards prohibit personnel in the scan room during the Disinfection Cycle. This is because exposure to high energy UV-C light can cause severe sunburn to exposed skin and the cornea of the eye, called photokeratitis. Photokeratitis is like welder's flash or snow-blindness. In reality this could never happen because:

- a. The system has 8 motion (proximity) sensors for safety compliance
- b. Anyone entering the scan room during a disinfection cycle will be detected by one or all of the proximity sensors and the UV-C light will be turned off

Therefore, an individual accidentally entering the scan room, or entering without authorization during a Disinfection Cycle should be unaffected by UV-C radiant energy.

PPE can be used to protect from high energy UV-C light. Covering all exposed skin and wearing a face shield with UV-C tinted plastic will protect from all UV-C light energy.

More information about UV-C light safety can be found on the International Ultraviolet Association's website: <https://www.iuva.org/IUVA-Fact-Sheet-on-UV-Disinfection-for-COVID-19>

## **21. Is it safe for staff and patients to look through the viewing window when the UV-C Disinfection System is operating?**

Yes. UV-C light energy will not penetrate window glass. Looking through the viewing window while the UV-C System is on is safe for everyone. UV-C light energy will also not penetrate any opaque surface, clothing, walls, doors, curtains, paper products, opaque plastic products, gloves, masks, etc.

## **22. How do you clean the UV-C System?**

Wipe down the handle grips with sanitizing wipes or alcohol. Please avoid directly spray cleaning agent on UV-C System.

## **23. Is preventative maintenance required?**

No. There is no routine service needed or preventative maintenance (PM) required.

## **24. Where do I store it?**

The UV-C Disinfection System comes with a cart that is easily moved. The cart is MR-safe. The best location is a storage room in or near the imaging department. However, the cart can be stored in any imaging room, including MR, provided the power supply is turned off.

## **25. Is it safe to leave it stored in an unlocked room or in a procedure room?**

Yes. The system has a key to disable the power supply when stored in a location that has free access. Without the key it is not possible to power on the UV-C LED lights. Therefore, the system cannot be accidentally turned on where someone could unknowingly look directly at the UV-C LED light and suffer eye damage.

## **26. Can the cart be in the MR scan room when the power supply is on?**

Yes, but keep the cart 5 ft. from the magnet when the power supply is turned on. The entire UV-C Disinfection System and cart are non-ferrous and MRI safe. PDC recommends keeping the UV-C Cart 5 feet from the magnet to prolong the life of the power supply. The cart should be placed between the end of the patient table and the viewing window so the Tech can see the control panel on the UV-C System to determine when the disinfection cycle is complete.

## **27. Can it be used to disinfect coils?**

Yes, however the system was not designed to disinfect coils. It is up to the user to make the determination if they would like to expose flexible coils to the UV-C light energy. The UV-C light energy will disinfect and sanitize the coils, but it may discolor the surface material. Contact your coil manufacture for additional information about UV-C light disinfection.

## **28. What UV wavelength do you use, and is it dangerous?**

PDC's system generates UV-C light energy from 260nm to 300nm. Please refer to question 18 regarding safety.

## **29. What is the process for set-up and take-down of the UV-C System on a typical imaging table?**

1) Follow the safety guidelines established by your employer. 1) Wheel the cart into the scan room, placing the cart at the end of the MR table, facing the RF window if it is for MRI. 2) Place the UV-C Hub system on the patient table where indicated and move the table into the bore. 3) Turn the power supply on to let the proximity sensors initialize; this takes 1 minute. 4) Start the Disinfection Cycle; there is a 30 second delay before the LEDs turn on and UV-C light energy is started. 5) Leave the scan room and close the door for the duration of the disinfection cycle. 6) At cycle completion place the UV-C System back on the cart.

### 30. What is the Disinfection Cycle time?

Total Disinfection Cycle time is from 2 to 3 minutes depending upon the size and shape of the bore and the pathogens you desire to kill. Total cycle time including set-up and proximity sensor initialization is 5 minutes.

### 31. Is there any risk of breaking the expensive UV-C bulbs (lamps)?

No. The PDC system does not use bulbs or lamps. UV-C bulbs (lamps) will not function in the MRI bore. PDC developed a unique UV-C LED system that is not susceptible to breakage, has a 10-year life expectancy and will function properly in all medical imaging bores, including MRI, 60-80 cm wide and up to 200 cm long.



PDC's UV-C LED Bore Disinfection System is a 2021 AuntMinnie.com's Minnies Semifinalist winner for 2021 Best New Radiology Devices.

The UV-C System has received ETL (UL) approval.

