



WORLD
PRECISION
INSTRUMENTS

INSTRUCTION MANUAL

CLEANRAY-3000

Ultraviolet Large Room Sterilizer

Serial No. _____

www.wpiinc.com

071620

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ABOUT THIS MANUAL

The following symbols are used in this guide:



This symbol indicates a CAUTION. Cautions warn against actions that can cause damage to equipment. Please read these carefully.



This symbol indicates a WARNING. Warnings alert you to actions that can cause personal injury or pose a physical threat. Please read these carefully.

NOTES and TIPS contain helpful information.



Fig. 1—The CleanRay-3000 UV Room Sterilizer is designed for large work areas.

INTRODUCTION

The CleanRay-3000 Large Room UV Sterilizer is an affordable way to disinfect your medical departments, pharmacy laboratories and food processing areas. The CleanRay Large Room model stands upright has a full 360° path to ensure sterilization of the entire room. To protect the occupants, the unit automatically shuts off when it detects movement in the room. It automatically restarts when the people are out of range. This prevents people and pets from coming into contact with the harmful UV rays.

- **USE IT EVERYWHERE** - Research labs, commercial kitchens or dining rooms, medical suites, pharmacies, industrial areas, and more.
- **100% SATISFACTION GUARANTEED** - Buy with confidence. If you are not satisfied, just send it back within 30 days for a full refund.
- **Sanitizes Without Chemicals or Irritants** - You can sanitize any surface (counters, bathroom fixtures, furniture, etc.) quickly and easily without chemical residue or harsh liquids or odors. The CleanRay Large Room model is ideal for disinfecting almost everything you touch. It is not designed for use on people or pets.

Features

- Combines two technologies in one unit - ozone and ultraviolet
- Sterilization rate of 99.9%
- 100 W of power for disinfection of large areas
- 180° adjustable lamp arm
- Timer with settings from 0-150 minutes
- Stable base design
- Suitable for kitchen, living room, bedroom, bathroom, closet, school, office and hospital use

Benefits

- Quickly disinfect your whole room in 30-60 minutes (~60 m²)
- Quick sterilization using 254 nm wavelength, the wavelength that disrupts the RNA and DNA of all pathogens like bacteria and viruses
- Easy to install
- 4 silent wheels on the bottom make it easy to move
- Bulb housing has a lock to securely protect the UV bulb

Notes and Warnings



WARNING: THIS LAMP EMITS UV-C, WHICH IS DANGEROUS AND DAMAGING TO HUMANS. NEVER USE THIS LAMP WITH HUMANS OR ANIMALS WITHIN 10 METERS (30 FEET) WITHOUT SUITABLE PROTECTION. WPI TAKES NO RESPONSIBILITY FOR MISUSE.



WARNING: EXCESSIVE INHALATION OF OZONE IS HARMFUL TO HUMANS. ALLOW MORE THAN 30 MINUTES AFTER THE CYCLE COMPLETES BEFORE ENTERING THE STERILIZED ROOM.



CAUTION: Do not move the unit when the lamp is deployed and the power is on. The bulb is fragile.



CAUTION: Allow the room to vent for 30 minutes after sterilization to allow the ozone to dissipate.



CAUTION: Power surges may cause damage to the UV lamp. Always unplug the system when you finish a sterilization protocol.



CAUTION: Do not use if the relative humidity exceeds 80%.



CAUTION: Never handle the bulb with bare hands. To avoid damage to the bulb, always use gloves when you handle the bulb.

Parts List

After unpacking, verify that all items are included:

- (1) Lamp Housing with UV Bulb installed
- (1) Front Wheel Assembly
- (2) Rear Wheel Assemblies
- (4) Machine screws with washers and nuts
- (2) Self-Tapping Screws
- (2) Spare Fuses
- (1) Screwdriver
- (1) Remote Control with battery
- (1) Instruction Manual available for download at www.wpiinc.com/manuals

Unpacking

Upon receipt of this instrument, make a thorough inspection of the contents and check for possible damage. Missing cartons or obvious damage to cartons should be

noted on the delivery receipt before signing. Concealed damage should be reported at once to the carrier and an inspection requested. Please read the section entitled "Claims and Returns" on page 11 of this manual. Please contact WPI Customer Service if any parts are missing at (941) 371-1003 or customerservice@wpiinc.com.

Returns: Do not return any goods to WPI without obtaining prior approval (RMA # required) and instructions from WPI's Returns Department. Goods returned (unauthorized) by collect freight may be refused. If a return shipment is necessary, use the original container, if possible. If the original container is not available, use a suitable substitute that is rigid and of adequate size. Wrap the instrument in paper or plastic surrounded with at least 100mm (four inches) of shock absorbing material. For further details, please read the section entitled "Claims and Returns" on page 11 of this manual.

SYSTEM SETUP

1. Place the front wheel assembly with the wheels facing up. Using two of the four machine screws, attach the rear wheel assemblies to the front wheel assembly. Align the holes at the end of the rear wheel assemblies with the holes in the angled bracket on the front wheel assembly (Fig. 2). Insert the machine screws with the flat washers from the bottom, and install the lock washers and nuts on the top. Flip the wheel assembly over (Fig. 3) and use the screwdriver to tighten the machine screws.



Fig. 2—(Left) Attach the rear wheel assemblies.

Fig. 3—(Right) Turn the wheel assembly upright and tighten the machine screws

2. Gently lay the lamp housing on its side so that the bottom hangs over the edge of a table.
3. Line up the screw holes on the front of the lamp housing cabinet with the holes on the lip of the front wheel assembly. Use the two self-tapping screws to securely fasten the wheel assembly to the lamp housing (Fig. 4).



Fig. 4—The front wheel assembly has a lip that fits inside the lamp housing. Slide it in and line up the screw holes.

4. Align the holes on the rear of the lamp housing with the holes in the base of the rear wheel assemblies (Fig. 5). Use the remaining two machine screws to securely attach the wheelbase. Slide the machine screws and washers through the base and into the wheel assembly. Place the lock washer and the nut on the screw and tighten all the nuts securely.



Fig. 5—Align the holes on the base of the lamp housing with the holes on the rear wheel assemblies and fasten securely with the last two machine screws.

5. Gently set the CleanRay-3000 upright and open the lamp housing door to expose the bulb.

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6. At the top of the lamp housing is a cord. Connect the cord securely to the lamp socket.



7. Remove the foam packing from around the bulb. Then close the housing door.

NOTE: There is a foam bulb stopper at the bottom of the lamp housing which should not be removed. It protects the bulb during movement of the lamp housing and may be used as an aid if the bulb requires replacement.

8. Plug the unit into a suitable AC power outlet. Make sure the power is grounded to avoid electrical shock. Always unplug the system when you finish a sterilization protocol.

OPERATING INSTRUCTIONS

1. Open the lamp housing door. Use the lamp handle on the top of the unit to lift the lamp out of the housing. Raise the lamp from the housing to its maximum height and rotate it to the desired angle. Close the lamp housing door.



Fig. 6—(Left) Lift the lamp from the housing using the lamp handle.

Fig. 7—(Right) The lamp is fully extended from the lamp housing.

2. Press the Start button on the control panel. If you prefer, you may use the ON/OFF button on the remote control to turn on the unit.



Fig. 8—The control panel is located on the front of the lamp housing.

3. Choose the time (60) by pressing the Choice button twice. Options include 30, 60, 90, 120 or 150 minutes. If you prefer, press the appropriate button on the remote control.

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- Press the Start button again to begin the sequence. YOU MUST LEAVE THE AREA IMMEDIATELY. After 15 seconds the UV lamp will illuminate.



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WARNING: EXCESSIVE INHALATION OF OZONE IS HARMFUL TO HUMANS. ALLOW MORE THAN 30 MINUTES AFTER THE CYCLE COMPLETES BEFORE ENTERING THE STERILIZED ROOM.

NOTE: The remote control is unique for each unit. You may not swap remote controls with other CleanRay-3000 units. The remote control is not required to operate this unit.

- After the cycle completes, the lamp will turn off. Once it shuts off, allow at least 30 minutes for the ozone to dissipate before you reenter the sterilization area.
- To put the lamp back in the storage position use the lamp handle to extend the lamp to its full height plus a little bit, and then carefully lower it back into the lamp housing.
- Unplug the unit.

THEORY OF OPERATION

A light bulb is encased in the light arm, and the arm can be adjusted from 0-180°, as needed. The wavelength of the ultraviolet light damages the DNA and RNA of microorganisms by irradiating them. The bacteria will not be able to reproduce, effectively disinfecting the irradiated area.

MAINTENANCE

Changing the Bulb



CAUTION: Never handle the bulb with bare hands. To avoid damage to the bulb, always use gloves when you handle the bulb.

1. Unplug the unit.
2. Lay the CleanRay-3000 on its side with the lamp housing door facing up.
3. Open the door and deploy the bulb in the fully upright position.
4. Using the provided screw driver, remove the two screws with dome nuts from bulb connector assembly. You may need a pair of needle nose pliers to hold the dome nut. Remove the back nut (closest to the handle) first, and then the front nut.



CAUTION: The bulb will be loose once the nuts are removed.

5. While holding the bulb, disconnect the power connector from the bulb connector assembly at the top of the lamp housing.
6. Carefully remove the bulb. The bulb needs to be disposed of properly. It is considered similar to a fluorescent bulb and should be recycled. Many home stores/DIY stores recycle fluorescent bulbs.
7. Take the replacement bulb in its foam packaging and align the bulb connector with the fixture. It may help to temporarily remove the foam protective lamp stopper in the lamp housing and use it to balance the bulb while you attach the two connection screws. Replace the connection screws with the flat washers by inserting them through the connector into the case. Then secure them with the lock washer and dome nut. It may help to install the top (further from the handle) screw first, then the bottom screw (near to the handle).
8. Attach the power connector to the bulb connector being careful not to damage the pins or the connector.
9. Ensure that the bulb can be deployed and retracted without difficulty.
10. Remove the protective foam around the bulb. Do not touch the glass part of the bulb with your bare hands, as it will shorten the bulb life.
11. If you removed the protective lamp stopper to assist in holding the bulb during installation, return the protective stopper to the bottom of the bulb cabinet.
12. Gently stand the unit upright.

SPECIFICATIONS

This unit conforms to the following specifications:

Light Source	Quartz ultraviolet
Ultraviolet Wavelength	253.7 nm
Coverage Area	> 61 m ²
Lamp Power	150 W
Light Arm	0° - 180°
Classification	Type I
Ozonization	Yes
Product size	104 x 24 x 30 cm
Environmental Temperature	-10~50°C;
Relative Humidity	< 90%,
Air Pressure	860hpa~1060hpa,
Power Supply	110 V AC, 60 Hz
Rated Power	< 144 W
Airflow	800 m ³ /hour
Ultraviolet Lamp Life	≥ 1000 hours

Specifications are subject to change. Please contact WPI for any updates.

WARRANTY

WPI (World Precision Instruments) warrants to the original purchaser that this equipment, including its components and parts, shall be free from defects in material and workmanship for a period of one year* from the date of receipt. WPI's obligation under this warranty shall be limited to repair or replacement, at WPI's option, of the equipment or defective components or parts upon receipt thereof f.o.b. WPI, Sarasota, Florida U.S.A. Return of a repaired instrument shall be f.o.b. Sarasota.

The above warranty is contingent upon normal usage and does not cover products which have been modified without WPI's approval or which have been subjected to unusual physical or electrical stress or on which the original identification marks have been removed or altered. The above warranty will not apply if adjustment, repair or parts replacement is required because of accident, neglect, misuse, failure of electric power, air conditioning, humidity control, or causes other than normal and ordinary usage.

To the extent that any of its equipment is furnished by a manufacturer other than WPI, the foregoing warranty shall be applicable only to the extent of the warranty furnished by such other manufacturer. This warranty will not apply to appearance terms, such as knobs, handles, dials or the like.

WPI makes no warranty of any kind, express or implied or statutory, including without limitation any warranties of merchantability and/or fitness for a particular purpose. WPI shall not be liable for any damages, whether direct, indirect, special or consequential arising from a failure of this product to operate in the manner desired by the user. WPI shall not be liable for any damage to data or property that may be caused directly or indirectly by use of this product.

Claims and Returns

Inspect all shipments upon receipt. Missing cartons or obvious damage to cartons should be noted on the delivery receipt before signing. Concealed loss or damage should be reported at once to the carrier and an inspection requested. All claims for shortage or damage must be made within ten (10) days after receipt of shipment. Claims for lost shipments must be made within thirty (30) days of receipt of invoice or other notification of shipment. Please save damaged or pilfered cartons until claim is settled. In some instances, photographic documentation may be required. Some items are time-sensitive; WPI assumes no extended warranty or any liability for use beyond the date specified on the container

Do not return any goods to us without obtaining prior approval and instructions from our Returns Department. Goods returned (unauthorized) by collect freight may be refused. Goods accepted for restocking will be exchanged or credited to your WPI account. Goods returned which were ordered by customers in error are subject to a 25% restocking charge. Equipment which was built as a special order cannot be returned.

Repairs

Contact our Customer Service Department for assistance in the repair of apparatus. Do not return goods until instructions have been received. Returned items must be securely packed to prevent further damage in transit. The Customer is responsible for paying shipping expenses, including adequate insurance on all items returned for repairs. Identification of the item(s) by model number, name, as well as complete description of the difficulties experienced should be written on the repair purchase order and on a tag attached to the item.

** Electrodes, batteries and other consumable parts are warranted for 30 days only from the date on which the customer receives these items.*

USA

175 Sarasota Center Blvd., Sarasota FL 34240-9258
Tel: 941-371-1003 • Fax: 941-377-5428 • E-mail: sales@wpiinc.com

UK

1 Hunting Gate, Hitchin, Hertfordshire SG4 0TJ
Tel: 44 (0)1462 424700 • Fax: 44 (0)1462 424701 • E-mail: wpiuk@wpi-europe.com

Germany

Pfingstweide 16, D-61169 Friedberg (Hessen), Germany
Tel: +49 (0)6031 67708-0 • Fax: +49 (0)6031 67708-80 • E-mail: wpide@wpi-europe.com

China & Hong Kong

WPI Shanghai Trading Co., Ltd.
Rm 27A, Liangfeng Building, No 8, Dongfang Road, Pudong New District, Shanghai, PR China
Tel: +86 21 6888 5517 • Toll Free: 400 688 5517 • E-mail: chinasales@china.wpiinc.com

Brazil

Av. Conselheiro Nébias, 756 sala 2611, Santos-CEP: 11045-002, São Paulo Brazil Tel: (013) 406-29703 • E-mail: info@brazil.wpiinc.com

Internet

www.wpiinc.com • www.wpi-europe.com • www.wpiinc.net • www.wpibrasil.com.br