



R-Zero UVFR13V1 User Guide

Disinfectant UV Light



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Safety Information

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.

- a) This equipment is designed for use with R-Zero Excimer bulbs and must be installed in compliance with competent technical directions to prevent risk of personal injury from UV radiation.
- b) UV radiation can pose a risk of personal injury. Overexposure can result in damage to eyes and bare skin. To reduce the risk of overexposure this equipment must be installed in accordance with the manufacturer's site planning recommendations. This may include instructions on the relative location of each UV radiation system component, the minimum distances between UV-generating devices and other objects or surfaces, and protection from line-of-sight exposure to UV radiation in occupied spaces located above the equipment mounting area (e. g. upper floor balconies, open staircases, etc.)
- c) UV and optical radiation can be reflected by surrounding surfaces such as ceilings and walls. Since the reflective properties of surfaces can vary widely, it should be considered as part of site planning. Follow the manufacturer's recommendations for selecting appropriate ceiling and wall finishes.
- d) **IT IS THE RESPONSIBILITY OF THE INSTALLER TO ENSURE THAT PERSONS WILL NOT BE EXPOSED TO EXCESSIVE UV OR OPTICAL RADIATION DURING EQUIPMENT OPERATION. THIS WILL REQUIRE THE INSTALLER TO CONDUCT AN ASSESSMENT OF IRRADIANCE OR ILLUMINANCE LEVELS IN THE SURROUNDING OCCUPIED SPACES PRIOR TO OCCUPANCY.**
- e) Ensure safe ozone concentrations by the responsible parties in the field, taking into account the number of products in a given volume of space, the characteristics of the ventilation system, access, and other factors.
- f) Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- g) Maintenance and servicing of this UV generating equipment shall be performed by authorized personnel. Service personnel must wear appropriate Personal Protective Equipment (PPE) if the equipment will be in operation during the maintenance or servicing work. Contact the equipment manufacturer for PPE recommendations and guidance.
- h) When replacing bulbs, replace them only with the bulbs for which the equipment is marked and intended. See UV bulb Replacement/Installation.
- i) The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- j) Do not use this equipment for other than intended use.

READ AND FOLLOW ALL SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.

Risk of electric shock. Mounting/Installation instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the User instructions. Always disconnect device power before any servicing or maintenance.



Excessive and prolonged exposure to UV-C light can have an adverse effect on plant health. Avoid exposing live plants to UV-C light from this fixture.



Power supplied to the unit must match power requirements listed on the unit label.



Do not mount under any source of moisture or condensation, such as humidifiers, cooling coils, etc.



Dispose of bulbs in accordance with state and local laws.



Device must be installed by qualified professionals.



Ultraviolet rays may break down plants, plastic, rubber or other non-metallic materials with inadequate resistance to ultraviolet. Shield all such materials that may be exposed to direct or reflected ultraviolet rays.



It is the user's responsibility to determine the suitability of the device for use in the user's applications. R-Zero Systems does not guarantee performance or results from the device's use. The user should clean and inspect the device as required to maintain it in working order and confirm all labels are present. Contact the manufacturer as needed.



This product is a pesticide device, not a medical device, and is intended for general purpose use, not for disinfecting medical devices.

Do not remove any labels. Do not discard these instructions.**READ AND FOLLOW ALL SAFETY INSTRUCTIONS. SAVE THESE INSTRUCTIONS.**

CAUTION: Indicates a potentially hazardous situation.



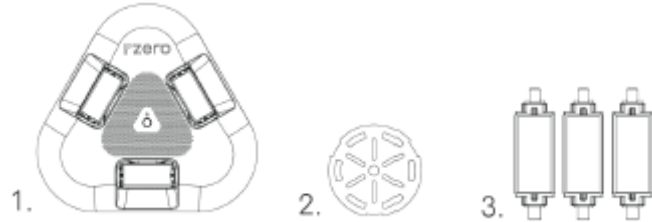
CAUTION: Indicates a potential electrical hazard. Contains no user serviceable parts.

Installation and servicing should be performed by qualified personnel

**Conformity to the applicable provisions of US Federal requirements,
including 21 CFR, Chapter 1, Subchapter J, Radiological Health**

Package Contents

1. UVFR13V1 fixture x1
2. Mounting plate x1
3. 222nm Excimer bulbs x3



ATTENTION: PROPER INSTALLATION OF THIS DEVICE IS CRITICAL TO YIELD DESIRED TREATMENT RESULTS. FOLLOW INSTALLATION INSTRUCTIONS PROVIDED WITH THE MOUNT. THE UV C TREATMENT RESULTS ACHIEVED ARE SUBJECT TO VARIATION IN APPLICATION CONDITIONS.

INSTALLATION OF THE UVFR13V1 IS TO BE PERFORMED BY R-ZERO STAFF OR QUALIFIED PERSONS ONLY

Placement Guidance

The R-Zero UVFR13V1 is best operated in rooms up to 200 square feet for a single device. Larger areas can be covered with multiple units as long as the units are a minimum of 10 ft apart. R-Zero's installation team will work with you to plan the best solution suite for your needs.



Plan the number of fixtures needed for the space and ceiling height. Set the angle of the bulbs on the fixture according to the space layout. Each of the three bulbs tilt up to 45° for optimal coverage.

The R-Zero UVFR13V1 minimum mounting height IS 5.73m(18.9ft). Follow the below guidance when selecting the installation location:

Mounting/Installation

UVFR13V1 is suitable for operation and installation at 120VAC and 240VAC. Installation must be performed by persons familiar with local electrical code and local ordinance.

CAUTION: Risk of Electric Shock. Make sure power is disconnected prior to installation.

Step 1:

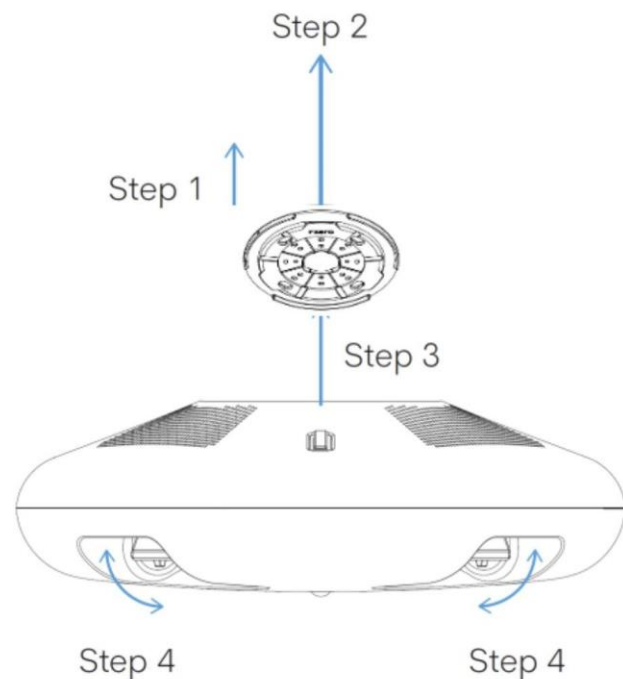
UVFR13V1 is intended to be installed to a standard junction box. Install mounting plate to junction box. **NOTE:** Junction box is not included.

Step 2:

Connect ground wire from UVFR13V1 to ground wire from junction box. Connect neutral and line wires from UVFR13V1 to neutral and line wires from junction box.

Step 3:

Mount fixture to mounting plate by aligning slots in plate to slots in the base of the fixture. Once aligned, rotate the fixture clockwise to secure. Tighten phillips set screw on mounting plate to secure fixture.



Step 4:

Adjust bulbs according to the room plan. Oil residue from handling the bulbs can leave fingerprints on the bulb's glass surface which can reduce the life of the bulbs. Use alcohol cleaner pads to gently wipe and clean the bulb surfaces prior to turning the fixture on.

Step 5:

Power may now be restored. Switch the power button to the "ON" position.











CAUTION - RISK OF PERSONAL INJURY. MOUNT THIS EQUIPMENT AT LEAST 5.73M (18.8 FT) ABOVE THE FLOOR.

ATTENTION: PROPER INSTALLATION OF THIS DEVICE IS CRITICAL TO YIELD DESIRED TREATMENT RESULTS. FOLLOW INSTALLATION INSTRUCTIONS PROVIDED WITH THE MOUNT. THE UV-C TREATMENT RESULTS ACHIEVED ARE SUBJECT TO VARIATION IN APPLICATION CONDITIONS.

Operation

If you are subscribed to the dashboard and maintenance plan, your R-Zero UVFR13V1 operates fully autonomously. The UV bulbs will automatically power on when occupancy is detected if the power button is switched on. The LED Indicator light at the bottom of the device will alert you to the current state. Contact R-Zero for troubleshooting support if needed.

LED State

-  Solid Blue: Cleaning
-  Solid Yellow: Idle (Unconnected)
-  Periodic White Flash: Idle (Connected)
-  Solid Red: Service Alert
-  Solid White: Disabled
-  Fading White: Unscheduled
-  Periodic Orange Flash: Offline
-  Periodic Green Flash: Firmware Update
-  White/Green Flash: Command Received
-  Red/Blue Flashing: Error Code Reporting

UV Bulb Replacement/Installation

There are 3 UV bulbs in the device. If you are subscribed to the dashboard and maintenance plans, you will be alerted when it is time to change the bars through the dashboard. Use only R-Zero Excimer bulbs.

1. Disconnect power to the device and allow the device to cool. Switch the power button to the OFF position.
2. Using a T20 Torx driver, remove the screw holding the cover in place. Gently open the front cover and let the cover hang from the attached hinges.
3. Tilt the bulb to 45 degrees and pull one side out using a rotation motion.
4. Install the new bulb into the bulb holder by inserting one end first and rotating the opposite end into position. NOTE: The bulb has a polarity, one side of the bulb terminal is larger than the other. Align the larger side of the bulb terminal with the larger opening.
5. Install the front cover back onto the fixture. Using the torx driver, replace the cover screw.
6. Adjust the bulbs to the desired position and clean the glass surface with alcohol wipes.
7. Restore power to the unit and switch the power button to the ON position.

