

Part Numbers: P103-RRPUVL-012, P103-RRPUVL-018

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform basic maintenance functions such as changing lamps. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit or accessory, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves.

⚠ WARNING

Before installing accessory or performing maintenance or service on accessory, turn off main power switch to unit. Electrical shock can cause injury or death. There may be more than one disconnect switch.

⚠ CAUTION

Never expose eyes or skin to UV (ultraviolet) light from any source. Lamp must be off before entering HVAC (heating, ventilation, and air conditioning) unit to perform maintenance or service. Personal injury may result.

⚠ CAUTION

Do not touch lamp glass without gloves. Wipe lamp clean after handling.

⚠ CAUTION

The lamp contains a small quantity of mercury. If a lamp breaks, clean area and dispose of lamp with care.

GENERAL

Totaline's Fusion Residential UV Germicidal Object Irradiator is designed to kill bacteria, viruses, mold, and fungus that may be found in a HVAC unit. The irradiator also eliminates odors that may develop. The high output, low temperature UV Germicidal Object Irradiator is preferably installed in the supply section over the coil. The Fusion UV Germicidal Object Irradiator is a simple and easy installation to an existing HVAC unit and incorporates a quick release mechanism to clean or replace the lamp. See Fig. 1.

The Fusion Residential UV Germicidal Object Irradiator can be used on 110-volt or 220-volt applications. Additional installation procedures are required for 220-volt installation. The

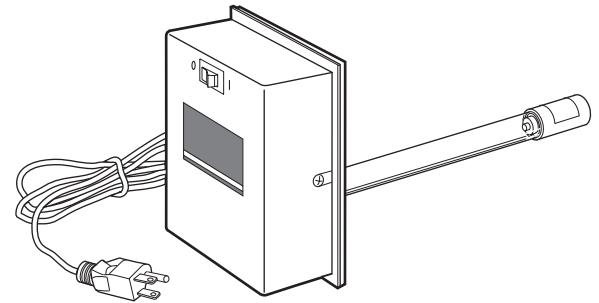


Fig. 1 — Fusion UV Germicidal Object Irradiator

UV Germicidal Object Irradiator can be used on both 50 Hz and 60 Hz applications.

INSTALLATION

Location — The preferred location for installation of the Fusion UV Germicidal Object Irradiator is in the supply section, over the evaporator coil. It should be placed 6 to 10 in. above the coil, so the UV rays will cover the coil.

Make sure site can be supplied with the necessary power receptacle. Ensure that there is adequate clearance for service.

The Fusion units can be mounted in a horizontal or vertical position. More than one unit can be used if needed.

Mount UV Germicidal Object Irradiator on Unit — Perform the following procedure to install the UV Germicidal Object Irradiator:

1. Turn off all power to unit.
2. Evaluate the ideal area for locating and installing the Fusion UV Germicidal Object Irradiator. Ensure that the UV Germicidal Object Irradiator will fit into the supply section. Space required internally is approximately 12 in. for the size 012 unit and 18 in. for the size 018 unit. See Fig. 2.

⚠ CAUTION

If the drainpan is plastic, it must be protected with a reflective material, such as metal tape.

3. Ultraviolet light may damage certain plastics and exposed non-UV-C (Ultraviolet Radiation, C-Band) protected wires or drainpan. *Wrap exposed plastic and wiring with aluminum tape or use metal conduit.*
4. Remove the control box from its package. Open the cover of the box by loosening the screw 1 or 2 turns to the left. Swing cover open to allow mounting plate access.
5. Using the back plate as a template, mark off the four corner holes and the center of the 1-in. diameter lamp access hole to be cut in the plenum.

6. Drill the four corner holes $\frac{1}{8}$ -in. diameter and the 1-in. hole.
7. Remove the protective paper from the foam on the back so the unit will be properly sealed when installed.
8. Secure the control box to the plenum using four no. 8 x $\frac{1}{2}$ -in. sheet metal screws.
9. Open the carton containing the lamp and remove the Styrofoam packaging.

▲ CAUTION

Do not touch the glass of the lamp with fingers. Use soft tissue paper to manipulate the lamp.

10. Insert front of the lamp through the center hole and slowly insert lamp completely until the face of the metal plate of the lamp touches the metal backplate and through the two standoff screws. Turn the metal disc to the right so the two elongated holes of the outer metal ring are touching the screws. When in place, tighten the two screws using a Phillips screwdriver.
11. Connect the ceramic white plug with the four colored wires onto the lamp pins. The plug is designed so that it can only be installed one way. You may have to rotate the socket 90 degrees to line up the pins with the holes.
12. Close cover and secure by tightening the Phillips screw on the right side.
13. To install the UV indicator plug, drill a $\frac{3}{8}$ -in. diameter hole in the plenum return in the area around the installed unit.

14. Insert the indicator plug into this hole and push to lock into place.
15. The Fusion UV Germicidal Object Irradiator can now be plugged into a standard 110-volt receptacle for 100-volt operation. For 220-volt operation, perform Step 16.
16. The Fusion UV Germicidal Object Irradiator is shipped from the factory for 110-volt operation; for 220-volt operation, perform the following:
 - a. Move the ballast switch from the 110-volt setting to the 220-volt setting. The ballast switch is inside the Fusion UV Germicidal Object Irradiator and can be accessed with the cover open. Close the cover after changing position of switch.
 - b. The 3-pronged plug cannot be used. Remove the plug. Strip the wires at the end of the cord and hard-wire the cord into a 220-volt circuit or attach a 220-volt plug.

NOTE: With 110-volt wiring, the white wire is neutral, the green wire is ground, and the black wire is "hot," carrying the electricity. With 220-volt wiring, both the black and white wires "hot," and the green wire is neutral or ground.

OPERATION

To start the Fusion UV Germicidal Object Irradiator, simply press the switch to | (on) position. The switch is illuminated to show when power is on. Within a few seconds, the UV lamp will energize. To ensure that the UV Germicidal Object Irradiator is on, look at the indicator plug. It should be reflecting the bluish color of the UV lamp. While lit, lamp color should be light blue. If lamp color changes to red or flickers, replace the lamp. Lamps that are not light blue will not emit ultraviolet radiation and will not kill harmful bacteria or fungi.

MAINTENANCE

Disconnect all power before performing any maintenance or service.

The ultraviolet lamp should be cleaned every two to three months. Simply open the control box by loosening the Phillips screw on the side. Disconnect the white socket from the lamp. Slightly loosen the two screws that hold the lamp mounting plate. Rotate the lamp to the left to disengage the head of the screws and simply pull the lamp out. Be careful not to touch the glass of the lamp with fingers. Clean the lamp with a soft tissue and alcohol based solution. Reverse the above procedure to reinstall the lamp.

Lamps need periodic replacement to maintain design specifications. Replace lamps after 6000 hours of operation or 1 year, whichever comes first. Contact your dealer for replacement lamps.

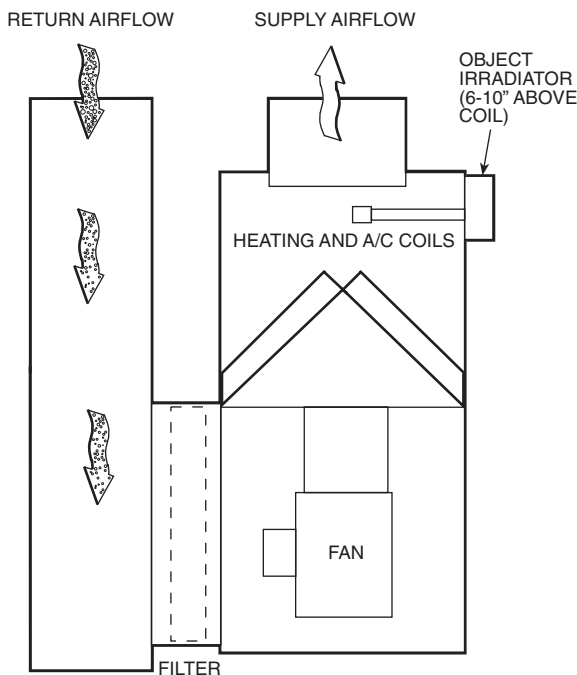


Fig. 2 — UV Germicidal Object Irradiator Installation Location