

Part Number P103-CMU-16

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 performing 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 Ceiling Mount UV Germicidal Air Purifier is designed to reduce airborne contaminants such as bacteria, viruses, mold, and fungus that may be found in ceiling air ducts. The air purifier also works towards eliminating odors that may develop from these contaminants. The high output, low temperature air purifier is installed in the ceiling-mounted return plenum filter box.

The air purifier can be used on 120-volt or 240-volt applications with the flip of a switch. The air purifier can be used on both 50 Hz and 60 Hz applications.

INSTALLATION

Location — The preferred location for installation of the air purifier is in the ceiling-mounted return plenum filter box. See Fig. 1. The return air duct must have an opening of 18-in. or less. See Fig. 2. The air purifier is installed inside the filter box, between the filter and the top of the filter box. There must be sufficient height inside the filter box for the air purifier and the filter. A minimum of 5-in. is required for the air purifier. If a 1-in. thick filter is used, then a total clearance of 6-in. is required. The filter box may need to be modified to allow for the installation of the air purifier. See Fig. 3 for air purifier dimensions.

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

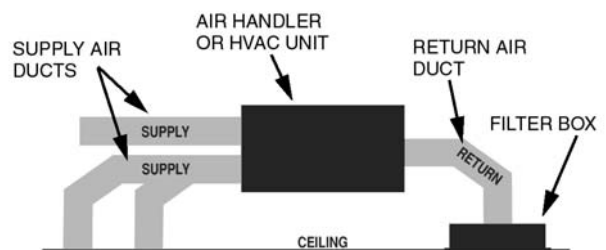


Fig. 1 — Installation Location

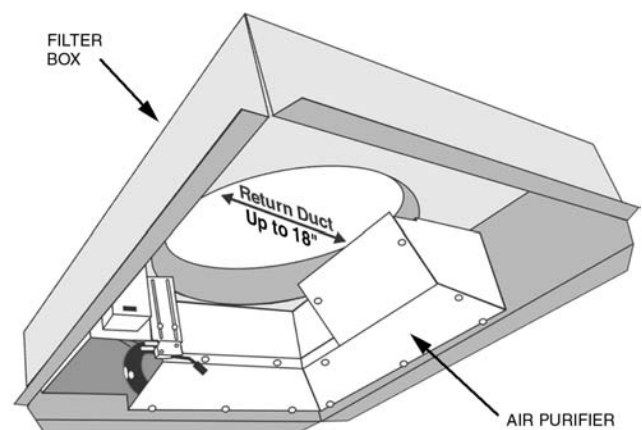
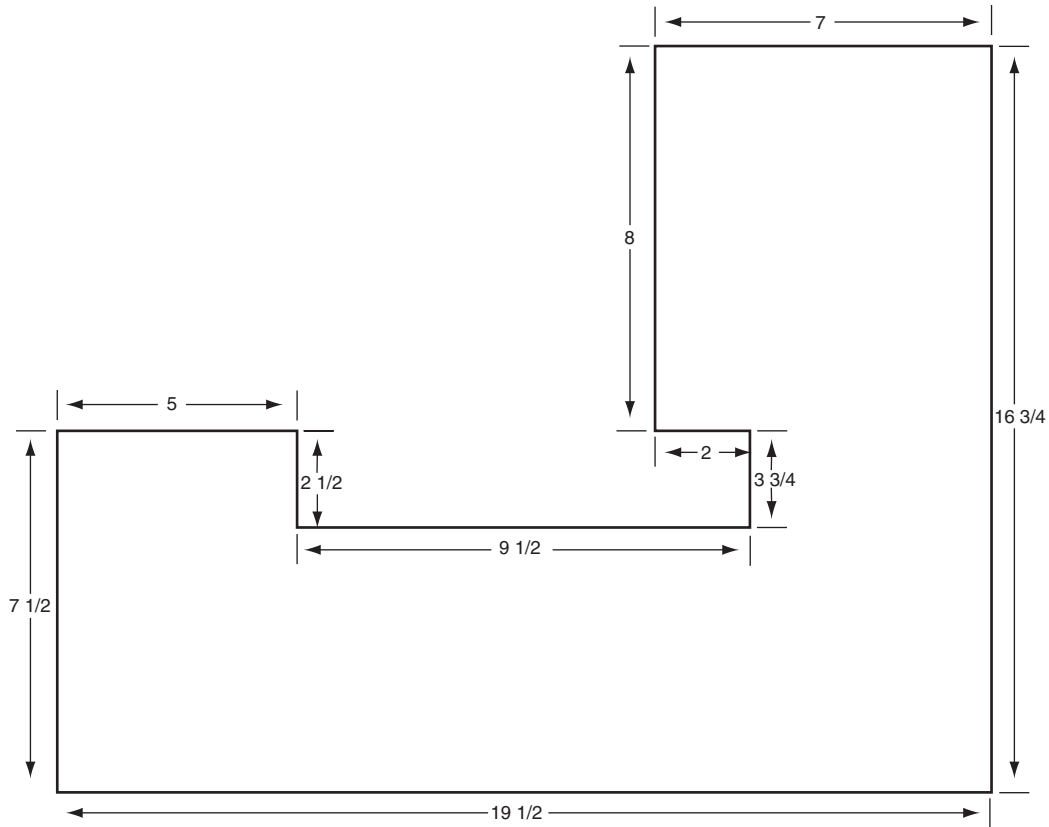


Fig. 2 — Air Purifier Installed in Filter Box



NOTES:

1. Dimensions are in inches.
2. Air purifier is $4\frac{3}{4}$ -in. deep.

Fig. 3 — Air Purifier Dimensions

Mounting — Perform the following procedure to install the UV Germicidal air purifier:

1. Turn off all power to air handler or HVAC (heating, ventilation, and air conditioning) unit. Remove the filter from the filter box. Open filter box for air purifier installation.
2. Remove the air purifier from its package. Remove the cover over the lamp area of the air purifier by removing the 5 screws securing it in place. Save screws. Remove the UV lamp shipping package from inside the air purifier. See Fig. 4.
3. Remove the inlet cover by removing the 7 screws securing it in place. Save screws.
4. Four mounting holes are provided. Two mounting holes are in the top of the air purifier and two are in the sides. Secure the air purifier to the filter box. Place the air purifier so that the angled side covers a portion of the return air duct. The side that faces the filter should block a minimal part of the return air duct.
5. Remove the UV lamp from the packaging and secure inside the air purifier with the Teflon covered clamp. Do not over-tighten the clamp or the lamp could break.
6. Connect the plug to the UV lamp. The plug can only be connected when the pins are aligned correctly. Rotate the plug $\frac{1}{4}$ turn if it will not connect to the lamp.
7. Replace lamp cover and inlet covers removed in Steps 2 and 3. Use screws removed in those steps.
8. Remove junction box by squeezing on sides to release. Wire the air purifier to the HVAC unit or the fan relay so that the air purifier will operate whenever the HVAC fan is operating (there is airflow through the system). Route the incoming wires through the hole in the side of the

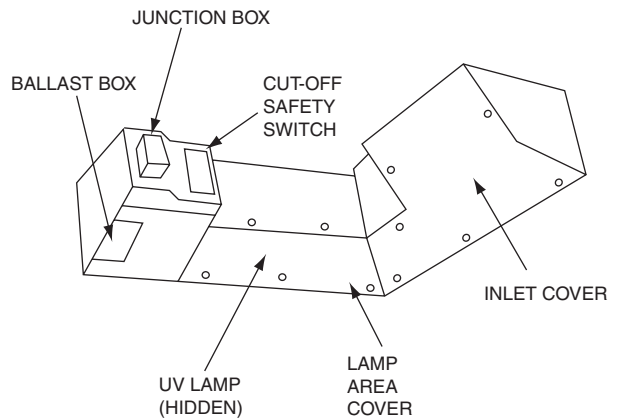


Fig. 4 — Air Purifier Specifications

junction box. Wire the black wire to power. Wire the white wire to common. Cap all wire connections. Replace the junction box. Connect the ground wire to earth ground.

9. The air purifier is shipped from the factory for 120-volt operation; for 240-volt operation, move the ballast switch from the 120-volt setting to the 240-volt setting. The ballast switch is inside the air purifier and can be accessed with the cover open. See Fig. 4.

With 120-volt wiring, the white wire is neutral and the black wire is “hot,” carrying the electricity. With 240-volt wiring, both the black and white wires are “hot”.

10. Align the safety cut-off switch so that when the filter is in place, the switch will make contact with the filter. The safety cut-off switch will keep the air purifier from operating when the filter is not installed. Tighten the screws on the cut-off switch when the switch is positioned correctly. Do not re-install filter at this time.
11. Return power to the HVAC unit and make sure fan is running. The air purifier should not operate with the filter removed. If the air purifier comes on, then the safety cut-off switch is not properly aligned. Turn off HVAC unit and re-align switch.
12. Re-install filter. Filter should engage the safety cut-off switch. Return power to the HVAC unit and make sure fan is running. The air purifier should operate. If the air purifier does not come on, then the safety cut-off switch is not properly aligned. Turn off HVAC unit and re-align switch.

OPERATION

The air purifier will operate whenever the fan is operating. The filter must also be in place. 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 reduce harmful bacteria or fungi.

MAINTENANCE

Disconnect all power before performing any maintenance or service.

Lamps need periodic replacement to maintain design specifications. Replace lamps after 3 years of operation. Contact your dealer for replacement lamps.

To replace lamp, open the air purifier by removing the 5 Phillips screws on the cover. Disconnect the white socket from the lamp. Loosen the wing nut on the clamp that holds the lamp in place. Pull the lamp out. Be careful not to touch the glass of the lamp with fingers. Reverse the above procedure to install the new lamp.

REPLACEMENT PARTS

Contact your dealer for replacement parts.

REPLACEMENT PART	PART NUMBER
UV Lamp	P103-GERMLAMP004
Ballast	P103-BALLAST-004
Safety Switch	SANX092-01

**GERMICIDAL AIR PURIFIER
LIMITED THREE-YEAR WARRANTY**

THREE-YEAR BULB & PARTS WARRANTY — This CARRIER CORPORATION product is warranted to be free from defects in material and workmanship under normal use and maintenance for a period of three years from the date of original installation. A new or remanufactured bulb or part to replace the defective bulb or part will be provided without charge for the bulb or part itself, through a qualified servicing CARRIER CORPORATION dealer or service, PROVIDED the defective bulb or part is returned to our distributor. The replacement bulb or part assumes the unused portion of the warranty.

THIS WARRANTY DOES NOT INCLUDE ANY ADDITIONAL LABOR ALLOWANCE OR OTHER COSTS incurred for diagnosis, repairing, removing, installing, shipping, servicing, or handling of either defective parts or replacement parts. SUCH COSTS MAY BE COVERED BY a separate warranty provided by the installer.

LIMITATIONS OF WARRANTIES — ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

CARRIER WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instructions or owner's manual including replacement of bulbs.
2. Damage or repairs required as a consequence of faulty installation or application by others.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
4. Damage or repairs needed as a consequence of any misapplication, abuse, improper servicing, unauthorized alteration, or improper operations.
5. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of CARRIER CORPORATION.
6. Parts not supplied or designated by CARRIER CORPORATION.
7. CARRIER CORPORATION products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

Model No.	Unit Serial No.
Date of Installation	Installed by
Name of Owner	Address of Installation