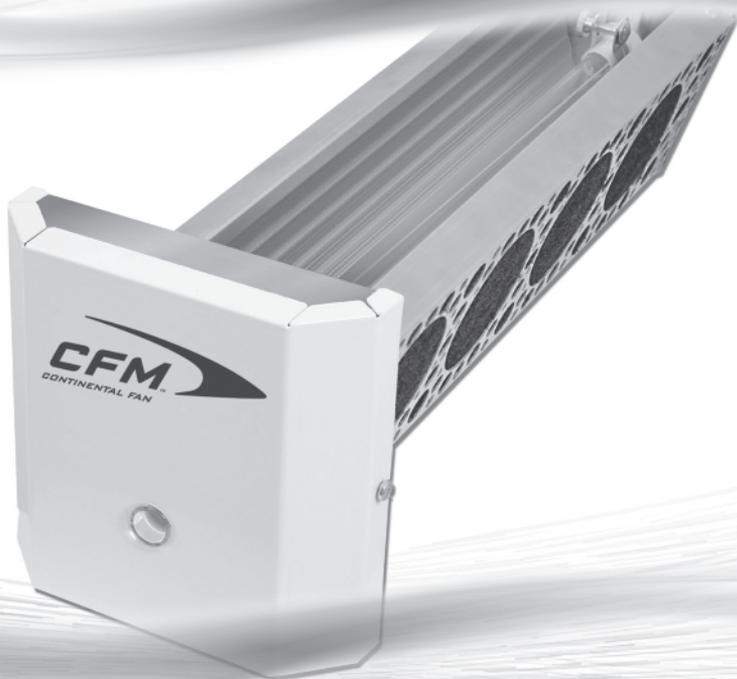




*better AIRFLOW by DESIGN™*

# *Installation & Maintenance*



**CX-PRO  
WHOLE HOUSE AIR PURIFIER**

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

## SAFETY INSTRUCTIONS

**⚠ WARNING** Never expose eyes or skin to UVC light from any source.

- Looking directly at the UVC light may cause permanent eye damage or blindness.
- Never operate the CX-Pro Air Purifier out of the plenum.
- Designed for a closed duct system. Do not mount near a supply or a return air opening.
- All duct openings in direct line of site of the UVC light must be sealed with aluminum tape or equivalent sealing methods.

**⚠ WARNING** UVC light will break down plastic materials not rated for UV exposure, like wire insulation, flex duct, drain pans, humidifiers, etc.

- The unit must be mounted at least 30" from the above stated types of materials.
- If it is necessary to mount the unit in direct line of sight of these types of materials, they must be shielded with aluminum foil, aluminum foil tape, or sheet metal.

**⚠ WARNING** DO NOT mount this unit outdoors.

- This product is designed for indoor installation only (i.e. attics, crawl spaces, basements, etc.).

**⚠ WARNING** Never touch broken lamp or internal contents of lamp. The lamp contains mercury.

- After opening the carton, unpack and inspect the unit and lamp for damage. Do not install this unit if any damage is noticeable. If lamp is damaged, cracked or broken, do not touch lamp or other contents in carton. Close carton and return to seller immediately.
- In case of accidental exposure to internal contents of lamp, wash hands and any other affected skin area with mild detergent. Remove affected clothing immediately. If skin surface is pierced, seek medical attention immediately.

**NOTE:** If you touch the glass of the lamp, you should wipe the glass clean with isopropyl alcohol and a lint free wipe. If the lamp is not cleaned, the film from hand oils will cause a reduction in the light intensity.

**⚠ WARNING** Before installing or servicing a humidifier, air filter, HVAC system, or this unit, etc., always turn all power OFF and have unit unplugged. Electrical shock can cause personal injury or death. Never expose eyes or skin to direct UVC light from any source.

**⚠ WARNING** To prevent water damage or electric shock, do not mount unit under a humidifier.

**⚠ WARNING** This product is designed for indoor installation only (i.e. basements, crawl spaces, attics, etc.). For use on gas fired, oil fired, electric and split system heat pump forced air systems\*. This product is NOT designed to be mounted outside on gas fired or heat pump packaged units\*\*.

\* Split system heat pumps are systems where the air handler and the air conditioning compressor are separate units.

\*\* Packaged units are systems where the air handler and the air conditioning compressor are built together and are installed outside of the building.

**⚠ WARNING** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the CX-Pro Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

# CX-PRO WHOLE HOUSE AIR PURIFIER

## MODEL: CX-Pro

The delivery set includes:

- CX-Pro Air Purifier
- 120V quick connect power cord
- UVC germicidal lamp
- #8 sheet metal mounting screws (4)
- Ductboard adapter plate



**NOTICE** This product is not sold as a medical device and is not for the purpose of diagnosis of any disease or condition nor for use in the mitigation, treatment, or prevention of any disease or condition.

## SPECIFICATIONS

UVC Germicidal Lamp	50 watts
Length in Duct	17-3/4 in.
Weight	5.5 lbs
Adjustable Voltage	120 or 230 V
Lamp Life Efficiency	2 years
Average Static Pressure Drop	0.02 in. wg
Sizing (tons)	1.5 - 5.0 tons

## BEFORE INSTALLATION

**NOTICE** READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE PROCEEDING WITH THE INSTALLATION.

**⚠ WARNING** Disconnect and lock out power supply before performing any installation work. Working on or near energized equipment could result in death or serious injury.

**⚠ WARNING** Do not exceed voltage rating. Severe damage to device and/or fire could result. Verify proper voltage.

This device MUST be installed by a qualified agency in accordance with the manufacturer's installation instructions. The definition of a qualified agency is any individual, firm, corporation or company that either in person or through a representative is engaged in, and is responsible for, the installation and operation of HVAC appliances, who is experienced in such work, familiar with all the precautions required, and has complied with all the requirements of the authority having jurisdiction.

**⚠ WARNING** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the CX-Pro Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

# INSTALLATION

## STEP 1. CHOOSE A LOCATION FOR THE CX-PRO

**⚠ WARNING** To prevent water damage or electric shock, do NOT mount unit under a humidifier.

- A. CX-Pro may be installed in supply duct, return plenum or above AC coil.
- B. CX-Pro may be installed in upflow, downflow, or horizontal flow ducts and plenums.
- C. CX-Pro may be installed directly onto a sheet metal air duct, or onto a fiberglass ductboard when installed using the included ductboard adapter plate.
- D. If locating a CX-Pro above an AC coil: position so that the maximum surface area of the AC coil is illuminated, installing as close to the AC coil as possible without damage to the AC coil.
- E. DO NOT locate within 30 inches (direct exposure) of plastic materials or air filters.

**⚠ CAUTION** Use care to avoid damage to the AC coil, wiring or other components while installing the CX-Pro.

## STEP 2. UVC LAMP & BALLAST

**NOTICE** Unplug the unit before installing the lamp.

- A. The ballast is factory set to 120 VAC. The voltage can be changed in the field to 230 VAC by sliding the voltage selector switch to the 230 volt position (Figure 1). The plug must be replaced and wiring must be done to applicable electrical codes.
- B. Remove front electrical cover by removing (2) sheet metal screws on sides.
- C. Do not touch the glass section of the lamp with bare hands. Wear oil-free cotton gloves when handling germicidal lamp.
- D. Remove lamp from packaging and slide non-pinned end through grommet.
- E. Loosen lamp clip and insert lamp so that the end of the lamp is inside the unit.
- F. Tighten lamp clip using the brass knurl. Make sure the lamp clip tightens around the plastic part of the lamp and not the glass (Figure 2).
- G. Connect ballast to the four pins on the lamp using the connector (Figure 3).
- H. Wipe down the lamp with the supplied alcohol wipe.

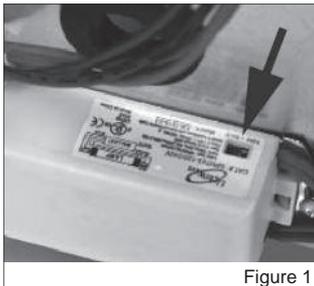


Figure 1

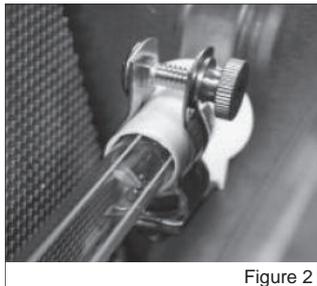


Figure 2

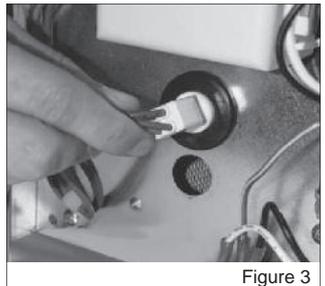


Figure 3

**⚠ WARNING** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the CX-Pro Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

## INSTALLATION

### STEP 3. INSTALL THE CX-PRO

- A. Hold or temporarily tape the included ductboard adapter plate in the location chosen for installation. Using the plate as a template, mark the mounting surface (sheet metal air duct or fiberglass ductboard) using the outermost slots in the plate (Figure 4). Alternatively, a 5-3/8" square may be marked on the mounting surface.
- B. Cut out the opening for the CX-Pro in the mounting surface, making sure to cut slightly outside the marked lines if the ductboard adapter plate was used as a template.
- C. If mounting the CX-Pro on a ductboard: attach the ductboard adapter plate to the opening by folding the inner flaps of the plate into the opening and fully back against the inside of the opening in the ductboard, either from the sides or from top and bottom of the plate. Finish the ductboard installation by sealing around the edges of the plate to the ductboard, using mastic foil tape or other material suitable for sealing duct joints.
- D. Insert the CX-Pro into the duct opening and attach it to the duct or ductboard adapter plate with the (4) included sheet metal screws. The wider side of the V-shape of the CX-Pro's panels should face into the oncoming airstream (Figure 5).  
**Note:** Pay attention to directional airflow arrow for proper installation.
- E. Reattach electrical cover using (2) sheet metal screws previously removed in step 2B.



Figure 4



Figure 5

### STEP 4. CONNECTION

- A. Attach the quick connect power cord and plug into any standard 120 volt electrical outlet.
- B. Verify lamp operation by looking through the view port on front cover.

**Note:** Continuous UVC germicidal lamp operation is recommended. At .09 cents per kilowatt hour, continuous lamp operation cost 10.5 cents per day. Cycling the UVC germicidal lamp on and off degrades lamp performance much faster and shortens the filament life .

**WARNING** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the CX-Pro Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

## TROUBLESHOOTING

**⚠ WARNING** Only qualified personnel should work on electrical equipment. Working on or near energized equipment could result in death or serious injury.

1. Check that the supply voltage to the unit and the ballast voltage setting match.
2. Be sure the lamp connector is fastened securely.
3. Check for loose electrical connections.
4. Test with new lamp. If lamp still does not light, replace ballast.

## RECOMMENDED MAINTENANCE

**⚠ WARNING** Disconnect power to the transformer and unplug the 120V quick connect power cord before commencing inspection and cleaning.

**NOTE:** Wear oil-free cotton gloves prior to maintenance in case of accidental breakage of glass.

1. The lamp should be inspected and cleaned at least every 6 months. Frequency depends upon the environment such as the type of air filter, duration of use and replacement cycle.
2. To maintain maximum output intensity, replace the CX-Pro-RL lamp every 2 years. The lamp should operate continuously for maximum lamp life and light effectiveness.
3. Do not attempt to clean the catalytic aluminum substrate with cleaning solutions. The catalyst is radiated with short wave ultraviolet light during periods of non-airflow and is self-cleaning. If there is a buildup blocking the catalytic cells, sit the unit on end, on a flat surface, with electrical enclosure facing up. Use low-pressure, compressed air to blow the surface of the catalytic cells free of blockage.

## REPLACEMENT PARTS

Replacement parts are available from the following sources:

- Your local HVAC wholesaler or contractor
- Continental Fan Manufacturing Inc., Buffalo, NY (1-800-779-4021)
- [continentalfan.com](http://continentalfan.com)

MODEL	DESCRIPTION	UPC CODE
CX-Pro-RL	17.5" UVC Lamp (1 Only)	6 27249 12223 4

**⚠ WARNING** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the CX-Pro Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

## LAMP CLEANING PROCEDURE

**⚠ WARNING** Disconnect power to the transformer and unplug the 120V quick connect power cord before starting replacement procedure.

**NOTE:** Wear oil-free cotton gloves prior to procedure in case of accidental breakage of glass.

1. Unplug the quick connect power cord from the CX-Pro.
2. Remove the front electrical cover by removing (2) sheet metal screws on sides.
3. Remove (4) sheet metal mounting screws.
4. Remove the CX-Pro from the duct by sliding it out of the duct or ductboard adapter plate.
5. Use a cotton cloth with isopropyl alcohol and gently clean the surface of the lamp.
6. Insert the CX-Pro into the duct opening and attach it to the duct or ductboard adapter plate with the (4) sheet metal mounting screws.
7. Reattach electrical cover using (2) sheet metal screws previously removed in step 2.
8. Plug the quick connect power cord into the CX-Pro.

## LAMP REPLACEMENT PROCEDURE

**⚠ WARNING** Disconnect power to the transformer and unplug the 120V quick connect power cord before starting replacement procedure.

Recommended every (2) years of continuous service. Replace only with CX-Pro-RL model UVC germicidal lamp. This is a custom manufacture lamp designed only for high output thermal compensating electronic ballast.

**NOTE:** Wear oil-free cotton gloves prior to procedure in case of accidental breakage of glass.

1. Follow steps 1-4 in the Lamp Cleaning Procedure above. After step 4, loosen the lamp clip using the brass knurl at the rear of the lamp.
2. Unplug the lamp electrical connector from the end of the lamp (Figure 6).
3. Gently slide the lamp out the front of the CX-Pro housing.
4. Reinstall by reversing the above steps.

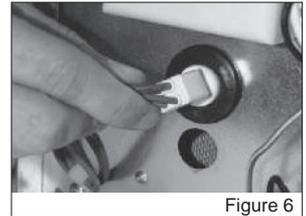


Figure 6

- NOTE:** If blue light leaks through any portion of the plenum and/or around the mounting plate, immediately unplug the quick connect power cord and seal affected areas.
5. UVC lamps contain a small amount of mercury, like a typical fluorescent lamp. Check with your local waste management authority for local disposal or recycling requirements.

**⚠ WARNING** Never touch broken lamp or internal contents of lamp. The lamp contains mercury.

**NOTE:** In case of accidental exposure to internal contents of lamp, wash hands and any other affected skin area with mild detergent. Remove affected clothing immediately. If skin surface is pierced, seek medical attention immediately.

**⚠ WARNING** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the CX-Pro Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

## CLEAN-UP OF BROKEN LAMPS

**NOTICE** See warnings on page two of this manual.

UVC lamps contain a small amount of mercury, like a typical fluorescent lamp. DO NOT touch any of the mercury with your bare hands.

1. While wearing disposable, non-absorbent protective gloves, carefully pick up the large pieces of glass with your hands.
2. Then, vacuum the entire area with a standard household vacuum cleaner ensuring the removal of all lamp material.
3. Dispose of the pieces of glass, the vacuum cleaner bag, and the disposable gloves in a sealed garbage bag.
4. Check with your local waste management authority for local disposal or recycling requirements.
5. Wash hands and remove and wash clothes for added safety measures.

## LIMITED WARRANTY

Subject to the provisions of the clauses herein, Vendor agrees to correct any defect or defects in workmanship or materials which may develop under proper and normal use, by repair or by replacement of the defective part or equipment, at Vendor's option, FOB factory. Unless otherwise stated, the warranty period for the CX-Pro shall be ten (10) years from date of shipment. The exceptions to this warrant period are:

UVC Lamp - ninety (90) days

This warranty is provided to the original Buyer, and may not be transferred, sold or bartered. Motors, drives, electrical controls and other components manufactured for Vendor by others are not covered by these warranty provisions. All warranty claims must be processed through point of purchase. All warranty repair work must be performed either at the factory or by a factory certified service center. For additional information regarding warranties, see Vendor document: Limited Warranty-1105.

## CONNECTION CERTIFICATE

Company name \_\_\_\_\_

Installed by \_\_\_\_\_

Installation date \_\_\_\_\_

Signature \_\_\_\_\_

CX-Pro-I&M-2010



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