Bosch IAQ Photo Catalytic Oxidizer (PCO)
Residential Application

PCOB-09012-0--A - 9" PCO BULB
PCOB-14024-0--A - 14" PCO BULB

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UNPACKING THE PCO

Both the PCOB-09012-0--A & -40 & PCOB-14024-0--A are shipped with the UV-C bulbs packaged separately in order to protect the bulb.

The package contents should be carefully removed and inspected for damage. If any portion of the contents are damaged, please contact your local Bosch Distributor immediately.

The following components are contained in the PCO packaging:
- 9" or 14" PCO Ballast assembly with 6 foot 120 V power cord
- Honeycomb titanium-dioxide media
- One UV-C bulb
- Sheet metal screws

IMPORTANT SAFETY INSTRUCTIONS

1. Always be sure that the PCO is unplugged during installation or service procedures. Allow 15 minutes to pass after unplugging the PCO prior to servicing.

2. It is not recommended to handle the UV-C lamp without wearing protective gloves or with a soft cloth. Do not leave fingerprints on UV lamp. Clean lamp with a dry cotton cloth and isopropyl alcohol.

3. Both the PCOB-09012-0--A & -40 & PCOB-14024-0--A provide a sight glass for verification that the bulbs are active. Use this sight glass opening when the PCO is energized.

INSTALLING THE PCO

UV Light Hazard: Harmful to bare skin and eyes. Can cause temporary or permanent loss of vision.
- Never energize the PCO when not installed in the duct.
- Never look at bulbs while illuminated.
- View illumination only through light indicator located on lamp cover.
- To prevent exposure to ultraviolet light, disconnect power to Ultraviolet system before servicing any part of heating and air condition system.
- Do not mount in location that allows ultraviolet light to be seen after installation.
- Do not attempt to bypass duct mount switch.
- Do not attempt to open housing; unit is sealed to prevent ultraviolet light exposure.

Personal Injury Hazard: Power supply can cause electrical shock. Disconnect power supply before cleaning or replacing ultraviolet bulb(s). Do not open base unit or lamp cover; there are no user-serviceable components inside.

UV Lamp Hazard: Harmful to bare skin. Can cause severe burns. Disconnect power 15 minutes before removing the ultraviolet bulb(s).

Mercury Notice: This device contains mercury in the sealed ultraviolet bulb(s). Do not place your used bulb(s) in the trash. Dispose of properly.

Broken Bulb Cleanup: Do Not use a household vacuum. Sweep debris (phosphor/glass) into a plastic bag and dispose of properly. Contact your local waste management authority for instructions regarding recycling and the proper disposal of old bulb(s).

To Prevent Electric Shock: Match wide blade of plug to wide slot.

INSTALLATION LOCATION

1. Identify the installation location for the PCO.

The PCO should not be located within 30" of materials that will be adversely affected by UV light. This includes many types of plastics and air filters.
2. Ensure that the metal duct dimensions can accommodate the PCO. The width, height and depth of the duct must be considered. The duct height must be at least 8” for vertical oriented installation and 6” for horizontal oriented installation. (see dimensioned drawings at the end of this manual)

The PCO can be installed in the vertical or horizontal position. Ensure that the required clearance is available that will allow installation and removal of the ballast head unit. (See Figure 1)

3. A 120 V power source is needed for the Bosch PCO. The PCO is equipped with a 6’ long cord. Ensure a 120 V outlet is within reach or have a licensed electrician install and provide an outlet near the PCO.

4. Using the provided metal zip screws, screw and tighten utilizing the pre-drilled holes in the mounting plate.

5. Insert the lamp and ballast assembly into the PCO frame base mounting plate with the head unit at the approximately 3 o’clock position. Continue pushing downward gently and rotate unit clockwise until the unit is fully locked into position.

6. Plug in the Bosch PCO. Verify that the bulbs are energized by looking into the sight glass in the head unit only. Never look directly at the UV-C bulb.

**INSTALLATION INSTRUCTIONS**

1. After the installation location has been determined and ensuring the requirements mentioned above have been met, cut a hole in the duct measuring 6”x6” clear using the provided template.

2. Ensure the gasket is securely fastened to the PCO mounting plate to ensure a tight air seal.

3. Carefully insert the PCO frame into the duct.

Ensure the PCO is installed so that the Air Flow label on the frame is pointing in the correct direction of the air flow from the air handling unit.

emphasize

4. Using the provided metal zip screws, screw and tighten utilizing the pre-drilled holes in the mounting plate.

5. Insert the lamp and ballast assembly into the PCO frame base mounting plate with the head unit at the approximately 3 o’clock position. Continue pushing downward gently and rotate unit clockwise until the unit is fully locked into position.

6. Plug in the Bosch PCO. Verify that the bulbs are energized by looking into the sight glass in the head unit only. Never look directly at the UV-C bulb.

**OWNER MAINTENANCE**

Indoor air quality products from Bosch are designed to help make your home more comfortable and increase the indoor air quality of your home.

**PCO System requirements**

120 (+10%/-15%) VAC / 60Hz / 1.1A

**HOW YOUR ULTRAVIOLET AIR TREATMENT SYSTEM WORKS**

Air Treatment System

Installed on the return or supply air duct of your system, your Ultraviolet Treatment System kills a high percentage of airborne germs circulating through your forced air heating and cooling system. Individual results depend on careful installation and maintenance and on the actual amount of time your system fan operates. See Figure 2.
BE SURE TO READ WARNINGS AND CAUTIONS BEFORE USING YOUR UV SYSTEM

**UV Light Hazard:** Harmful to bare skin and eyes. Can cause temporary or permanent loss of vision.
- Never energize the PCO when not installed in the duct.
- Never look at bulbs while illuminated.
- View illumination only through light indicator located on lamp cover.
- To prevent exposure to ultraviolet light, disconnect power to Ultraviolet system before servicing any part of heating and air condition system.
- Do not mount in location that allows ultraviolet light to be seen after installation.
- Do not attempt to bypass duct mount switch.
- Do not attempt to open housing; unit is sealed to prevent ultraviolet light exposure.

**Personal Injury Hazard:** Power supply can cause electrical shock. Disconnect power supply before cleaning or replacing ultraviolet bulb(s). Do not open base unit or lamp cover; there are no user-serviceable components inside.

**UV Lamp Hazard:** Harmful to bare skin. Can cause severe burns. Disconnect power 15 minutes before removing the ultraviolet bulb(s).

**Mercury Notice:** This device contains mercury in the sealed ultraviolet bulb(s). Do not place your used bulb(s) in the trash. Dispose of properly.

**Broken Bulb Cleanup:** Do not use a household vacuum. Sweep debris (phosphor/glass) into a plastic bag and dispose of properly. Contact your local waste management authority for instructions regarding recycling and the proper disposal of old bulb(s).

**To Prevent Electric Shock:** Match wide blade of plug to wide slot.

**How You Can Check Your PCO System**

Your UV System is designed to prevent accidental contact with electrical voltage and with ultraviolet rays in the sealed unit – the only way to verify that the bulb is energized is to view through the sight glass in the ballast after complete system installation in the ductwork.

It is recommended that every month you verify that your ultraviolet lamp is operating. **View the bulb only through the lamp light indicator on the lamp cover.**

See Figure 4.

**Never attempt to look at the illuminated UV bulb(s) within the duct work!**
MAINTAINING YOUR PCO SYSTEM

You should regularly clean your UV System to maintain peak effectiveness of your air treatment or surface treatment system. Replace the ultraviolet bulb(s) once a year.

Quarterly Bulb Cleaning

Bulb cleaning is recommended as routine maintenance on a quarterly basis. Use the UV Bulb Cleaning Reminder Schedule, Table 1, to help establish and track your regular cleaning schedule.

To clean your bulb(s):

1. Turn off the HVAC system by setting the thermostat to “OFF”. Ensure that the fan blower has stopped completely.
2. Unplug or turn off power to your PCO System and allow the bulb(s) to cool for at least 15 minutes.
3. Remove the ballast head unit by pressing down on the release button on the lower right hand corner and rotating counter-clockwise. Do not break.

Table 1: UV BULB CLEANING REMINDER SCHEDULE

| Installation Date: _______________ (month) / ______________ (year) |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                             | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC |
| Year                       |     |     |     |     |     |     |     |     |      |     |     |     |
4. Carefully remove the ballast and bulb assembly by pulling out until the bulb has completely cleared the titanium media. See Figure 5.

5. Holding the lamp unit, wipe the lamp glass using a soft cloth dampened with glass cleaner. If you touch the lamp glass with your hands, be sure to clean the area of any oils left from bare hands. See Figure 6.

6. Also wipe away any dust that may have collected between the lamp light indicator on the base and the bulb base. See Figure 7.

7. Dry bulb with a clean, dry cloth.

8. Insert the bulb and ballast assembly into the PCO frame base mounting plate with the head unit at the approximately 3 o’clock position. Continue pushing downward gently and rotate unit clockwise until the unit is fully locked into position. See Figure 8.

9. Reconnect power to your IAQ PCO System.

10. Verify that your ultraviolet bulbs are operating by viewing only through the lamp light indicator on the lamp cover. Never look directly at your UV bulb while it is illuminated.

11. Turn your HVAC system back to the normal operating mode at the thermostat.

**PCO Bulb Replacement**

Annual replacement of the UV bulb in your IAQ PCO system is required to maintain effectiveness.

1. See Table 2 below for the correct replacement bulb for the PCO model that you have. Contact your Local Bosch Distributor for ordering the replacement bulb.

<table>
<thead>
<tr>
<th>Unit Description</th>
<th>Replacement Bulb</th>
<th>Wattage</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCOB-09012-0-A</td>
<td>7738002881</td>
<td>18</td>
</tr>
<tr>
<td>PCOB-14024-0-A</td>
<td>7738002882</td>
<td>60</td>
</tr>
</tbody>
</table>

2. Turn off the HVAC system by setting the thermostat to “OFF”. Ensure that the fan blower has stopped completely.

3. Unplug the PCO and allow the bulb to cool for at least 15 minutes.

4. Remove the ballast head unit by pressing down on the release button on the lower right hand corner and rotating counter-clockwise. Do not...
use excessive force as the locking tabs may break.

5. Carefully remove the ballast and bulb assembly by pulling out until the bulb has completely cleared the titanium media.

6. Remove bulb and ballast assembly. See Figure 5.

7. To remove the lamp bulb from the PCO unit, grasp the UV unit in one hand, and pull straight apart. See Figure 9.

8. Insert the bulb and ballast assembly into the base continually pushing gently into the lamp base as shown in Figure 10.

   **Figure #9 — Removing bulb from UV unit**

   ![Image of bulb being removed from UV unit]

8. Insert the bulb and ballast assembly into the base continually pushing gently into the lamp base as shown in Figure 10.

   **Figure #10 — Replacing lamp bulb into UV unit**

9. Insert the bulb and ballast assembly into the PCO frame base mounting plate with the head unit at the approximately 3 o’clock position. Continue pushing downward gently and rotate unit clockwise until the unit is fully locked into position. See Figure 8.

10. Turn your HVAC system back to the normal operating mode at the thermostat.

   **UV Lamp Hazard:** Harmful to bare skin. Can cause severe burns. Disconnect power 15 minutes before removing the ultraviolet bulb(s).

   **Mercury Notice:** This device contains mercury in the sealed ultraviolet bulb(s). Do not place your used bulb(s) in the trash. Dispose of properly.

   **Broken Bulb Cleanup:** Do Not use a household vacuum. Sweep debris (phosphor/glass) into a plastic bag and dispose of properly. Contact your local waste management authority for instructions regarding recycling and the proper disposal of old bulb(s).

**CONTACT YOUR LOCAL BOSCH DEALER OR INSTALLING CONTRACTOR FOR PRODUCT SUPPORT.**

**Field Technical Support:**
(954) 776-5471
Monday-Friday: 8 am - 5 pm EST

**Bosch**
601 N.W. 65th Ct.
Ft. Lauderdale, FL 33309
www.bosch-climate.us
PCO DIMENSIONAL DRAWINGS

9" PCO Dimensioned Drawing

14" PCO Dimensioned Drawing
PRODUCT LIMITED WARRANTY

Models Covered
This limited warranty is provided by FHP Manufacturing Company (“FHP”) and covers Bosch Photo Catalytic Oxidizer (hereinafter referred to as “Product”). This warranty is provided to the original purchaser of the Product as long as the Product remains installed at its original place of installation.

WARRANTY COVERAGE

Limited Warranty
FHP warrants that the Product at the time of shipment by FHP shall remain free from defects in workmanship and materials for the shorter of five (5) years from proof of certificate of occupancy date, five (5) years from proof of certified start up date or six (6) years from date of manufacture, provided it is installed and properly maintained by a qualified and trained HVAC contractor and the other conditions of this warranty are met. If FHP determines that the Product or any part of the Product has a defect in workmanship or materials, FHP, at its option, will repair or replace the defective part.

Ballast
FHP warrants that the Ballast shall remain free from defects in workmanship and materials for the shorter of two (2) years from date of installation or thirty (30) months from date of manufacture, provided it is installed and properly maintained by a qualified and trained HVAC contractor and the other conditions of this warranty are met. If FHP determines that the Ballast has a defect in workmanship or materials, FHP, at its option, will repair or replace the defective part.

UVC Light Bulb
FHP warrants that the UVC Light Bulb shall remain free from defects in workmanship and materials for the shorter of one (1) year from date of installation or (b) eighteen (18) months from date of manufacture, provided it is installed and properly maintained by a qualified and trained HVAC contractor and the other conditions of this warranty are met. If FHP determines that the UVC Light Bulb has a defect in workmanship or materials, FHP, at its option, will repair or replace the defective part.

ITEMS NOT COVERED

This limited warranty does not cover the following circumstances:

1. Components or parts not provided by FHP.
2. Components or parts on which the tags or nameplates have been removed, altered or defaced.
3. Scratches in or discoloration of finishes.
4. Serviceable items and normal maintenance as required per the Installation and Maintenance Manual.
5. The workmanship of any installer. FHP disclaims and does not assume any liability of any nature for unsatisfactory performance caused by improper installation, repair or maintenance.
6. Any labor or material costs for removal, reinstallation, repair and replacement of the defective component or part.
7. Electricity or fuel costs, or any increases or unrealized savings in same, for any reason whatsoever.
8. Damage caused by excessive temperatures or pressures, fuel or gas explosion, electrochemical reaction, water and air impurities, electrical failures, use during construction, flooding or acts of God.
9. Any damage or failure resulting from the introduction of harmful chemicals, caustic fluids, or liquids detrimental to any unit component, including but not limited to improperly applied or maintained heat transfer fluids or chlorinated pool or spa water.
10. Any damage or failure resulting from improper unit sizing.
11. Shipping charges, delivery expenses or administrative fees incurred by the purchaser in repairing or replacing the Product.
CONDITIONS OF WARRANTY
The warranty herein is void under the following circumstances:

1. Failure or malfunction resulting from improper or negligent operation, accident, abuse, freezing, electrical imbalance characteristics, misuse, unauthorized alteration, incorrect electrical supply, electrical surges, or improper installation, repair or maintenance. See the Installation and Maintenance Manual for installation and maintenance information.

2. Failure or malfunction resulting from any conditions within the structure, including mold and/or mildew and/or any chemical or toxin secreted there from or damage resulting from mold, fungus or bacteria.

3. Failure or malfunction resulting from a contaminated or corrosive air or liquid supply, the addition of unapproved chemicals, operation at abnormal temperatures, pressures or flow rates, opening of the refrigerant circuit by unqualified personnel or any attachment, accessory or component not authorized and approved by FHP. See the Installation and Maintenance Manual for installation and maintenance information.

4. Failure or malfunction due to misapplication or faulty building design or construction, including inadequate refrigerant levels, condensate drain, duct work design or installation.

5. Products on which payment to FHP is or has been in default.

6. Work performed without prior authorization or approval and without authorization/requisition number and without proper documentation verifying compliance with above terms.

LIMITED WARRANTY
OTHER THAN THE OBLIGATIONS OF FHP EXPRESSLY SET FORTH HERIN, FHP DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED

WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FHP’S SOLE OBLIGATION WITH RESPECT TO THE PRODUCT AND PURCHASER’S EXCLUSIVE REMEDIES ARE SET FORTH IN THE FOREGOING LIMITED WARRANTY. FHP SHALL NOT BE LIABLE FOR ANY INDIRECT, PUNITIVE, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR SIMILAR DAMAGES INCLUDING, WITHOUT LIMITATION, INJURY OR DAMAGE TO PERSONS OR PROPERTY OR DAMAGES FOR LOSS OF USE, LOST PROFITS, INCONVENIENCE OR LOSS OF TIME.

Note that any repaired or replaced product will be warranted for only the unexpired term of the original warranty.

Some states do not allow the exclusion of limitation of damages, or limitations on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

WARRANTY CLAIMS PROCESS
If you have a warranty claim you should notify the contractor who installed your Product and ask that the contractor notify FHP Manufacturing Company, 601 N.W. 65th Court, Ft. Lauderdale, FL 33309. To process your claim, you will need a copy of your original invoice or other proof of purchase, the product serial number and documentation showing the original installation date and location. The alleged defective components or parts must be returned to FHP in accordance with FHP procedure then in force for handling goods returned for the purpose of inspection to determine cause of failure (contact FHP if you have questions regarding the return process). If FHP determines that the returned components and/or parts are defective and that this warranty applies, FHP will furnish the repaired or replacement components and/or parts to the contractor who installed your Product.

This Warranty applies to FHP products installed in the Continental United States and Canada only