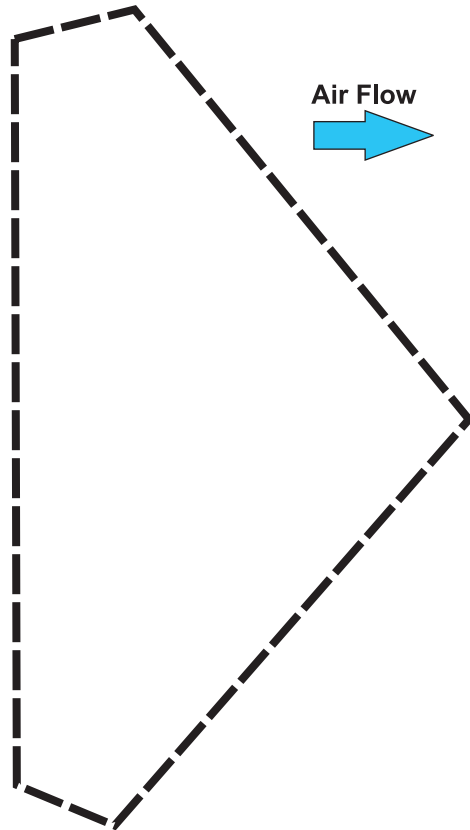


TEMPLATE

Remove page and tape to duct work where unit will be installed.
Using suitable tool cut through template and duct work.



Scan for relay instructions



Scan for air switch instructions

**HOUSING CONTAINS EXPOSED NON-METALLIC MATERIALS
SUITABLE FOR AIR-HANDLING INSTALLATIONS**

**MATÉRIAUX NON MÉTALLIQUES EXPOSÉS POUVANT ÊTRE UTILISÉS
DANS DES ESPACES DE TRAITEMENT DE L'AIR.**

*RGF® Environmental Group, Inc.
ISO 9001:2015 CERTIFIED COMPANY*

*1101 West 13th Street (Port of Palm Beach Enterprise Zone) Riviera Beach, Florida 33404
Copyright © 2020*

THIS MANUAL PRINTED IN U.S.A.

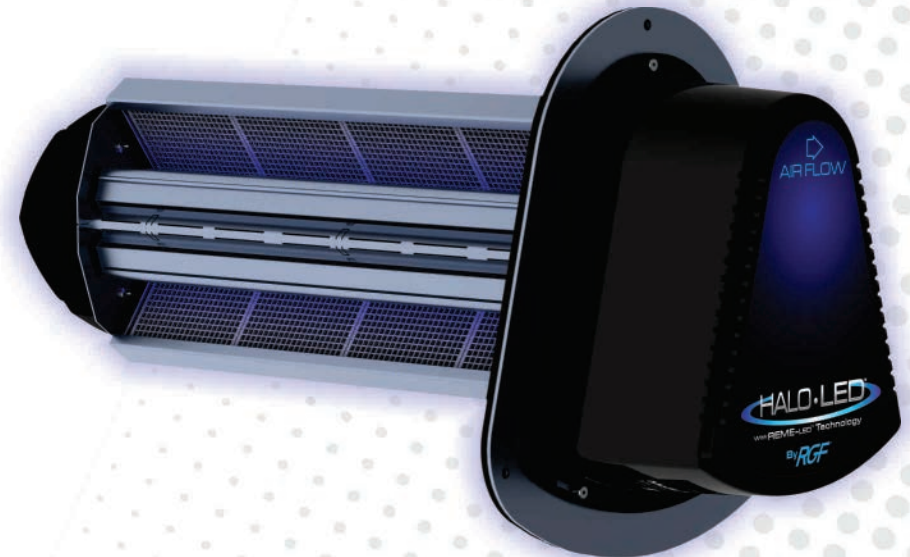
PRD-RL-MAN-1019 Rev B

REME LED 24VAC 5-2022



By *RGF*®

Whole Home Air Purification



Please take time to read these instructions.
All instructions and precautions should be adhered to while
operating this unit. Non-compliance with these installation
and operating instructions voids the warranty.



Scan to watch video



The HALO-LED™ by RGF®

Thank you for purchasing the HALO-LED™ by RGF Environmental Group, Inc. The HALO-LED™ is the industry's first LED in-duct, whole home air purification system that is both mercury free and zero ozone compliant. The HALO-LED™ proactively treats the air-conditioned space, thereby reducing airborne and surface bacteria, viruses, mold and VOCs. Leveraging bi-polar ionization the HALO-LED™ provides the added benefit of reducing airborne allergens, dust and particulate. The new patent pending technology utilizes an exclusive hybrid hydrophilic washable ceramic catalyst and is powered by a proprietary low energy, ultra-long-life, LED array. By combining REME-LED® UV technology along with RGF's proven PHI-CELL® and REME technologies, the HALO-LED™ provides revolutionary indoor air purification.

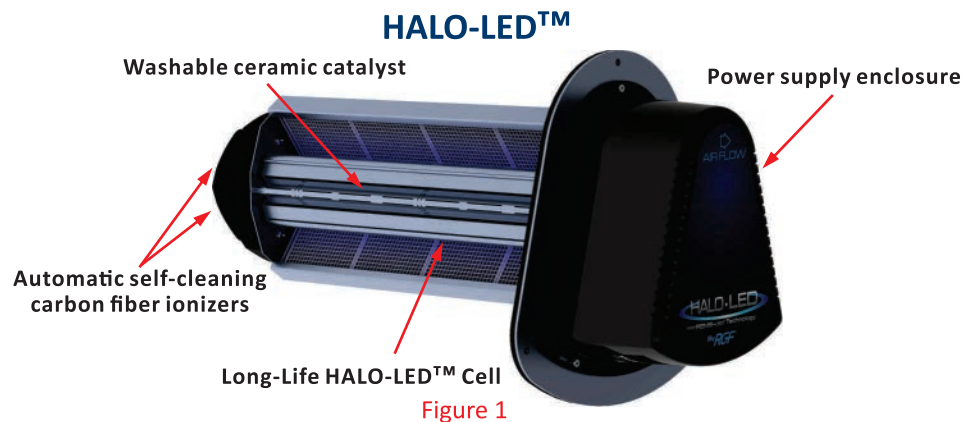


Figure 1

Typical Installation

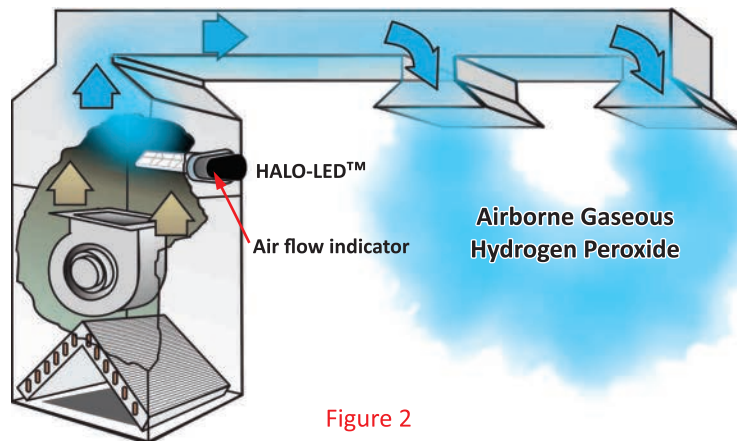


Figure 2

FREQUENTLY ASKED QUESTIONS

Why should I register the warranty?

Registering the unit with the Manufacturer extends the warranty from (5) five years to (7) seven years.

Register warranty online at www.rgf.com/registration to receive two (2) extra years of warranty protection.

How long is the warranty?

Four (4) years for the cell from the original date of purchase.

Unregistered unit: Five (5) years for the unit from the original date of purchase.

Registered unit: Seven (7) years for the unit from the original date of purchase.

Who do I contact about the warranty or if I have a question about the unit?

First, contact your local HVAC contractor to answer the question and verify your warranty.

If they cannot answer the question or verify your warranty, you can contact the RGF Customer Service department at requests@rgf.com.

Are there any limits to the warranty? Yes.

Yes, please refer to the Limited Warranty for full details.

What should I do to avoid problems or injuries when running my HALO-LED unit?

Thoroughly read and understand all installation instructions, warnings and precautions before use.

Is it OK to run the unit all the time? No.

No. This unit MUST be installed and wired in parallel with the blower to cycle on/off with the blower. This installation is required in order to be in compliance with new safety standards and to ensure maximum energy efficiency and LED module service life.

Can the unit be installed on the return air side of the HVAC? Yes, but..

Yes, but the best location for your HALO-LED™ unit is in the plenum just after the air handler. This allows for full distribution and extended air treatment. In situations where it is impossible to locate the unit after the air handler, it is acceptable to locate the HALO-LED unit before the air handler; however, the high moisture content of the cooling coils and the high temp of the heating coils will reduce the effective treatment capacity of the unit.

FIVE + TWO YEAR LIMITED WARRANTY

This warranty supersedes and replaces any warranty statements made orally by the sales person, distributor, or dealer, or contained in the written instructions or other brochures or informational documents related to this product.

Manufacturer warrants the HALO-LED™ unit to be free from defects in material and workmanship under normal use and service when operated and maintained in accordance with manufacturer's instructions for a period of five years (sixty months) from the original date of purchase (excluding the LED cell). The warranty is extended an additional two years (24 months), for a total of seven years (84 months), if the unit is registered (excluding the LED cell). The HALO-LED™ cell included with the original unit is warranted to be free from defects in material and workmanship for a period of four years (48 months) from original date of purchase.

International purchases are warranted for twelve (12) months from original date of purchase. Parts only. Shipping not included.

For the warranty period, the manufacturer offers an immediate over-the-counter exchange for a demonstrated defective unit. The company making this exchange, and requesting credit for said unit is obligated to verify that the unit or LED cell is in fact defective. The unit will need to be returned to the manufacturer under a Returned Materials Authorization (RMA) for review and/or repair (if found defective).

This warranty does not cover:

- Parts damaged by decomposition from chemical action, humidity, moisture, or wear caused by abrasive materials;
- Damage resulting from misuse, abuse, or any other use other than its intended use;
- Improper operation, maintenance, installation, modification or adjustments;
- Parts not made by manufacturer are not warranted.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

**NOTE TO CONTRACTOR
TO OBTAIN WARRANTY SERVICE AND RETURN AUTHORIZATION
NUMBER, CONTACT YOUR SUPPLIER. INCLUDE A COPY OF THE BILL
OF SALE, INVOICE OR RECEIPT OF PURCHASE. WITH AN
EXPLANATION OF THE PROBLEM OR DEFECT.**

HALO-LED™ INSTALLATION INSTRUCTIONS



**NEVER EXPOSE UNPROTECTED EYES OR SKIN TO
ULTRAVIOLET LIGHT.
NE JAMAIS EXPOSER LES YEUX OU LA PEAU SANS
PROTECTION AUX RAYONS ULTRAVIOLETS**



Your box contains the following:

- HALO-LED™ unit
- Adhesive backed foam gasket and aluminum sealing ring
- Three (3) mounting screws
- Six (6) wire nuts
- Instructions and Warranty Registration Card
- Caution UV Light In Use decal
- 24 VAC transformer
- Fan control relay

NOTICE TO INSTALLER & HOMEOWNER

**This unit MUST be installed and wired to cycle on/off with the blower.
This installation is required in order to be in compliance with new
safety standards and to ensure maximum energy efficiency
and LED module service life.**

**FOR DRY LOCATIONS ONLY
EMPLACEMENTS SEC SEULEMENT**



**SUITABLE FOR USE IN AIR-HANDLING UNITS
ADAPTÉ À UNE UTILISATION DE TRAITEMENT DE L'AIR**



INSTALLATION INSTRUCTIONS

1. Mounting Location:

- To maximize the effectiveness of the HALO-LED™, it is recommended, whenever possible, to install the HALO-LED™ unit in the air plenum just after the air handling unit (supply side). Refer to [Figure 2](#).
- Locate the unit in the plenum/duct box AFTER the fan. Position it near a suitable power source with enough room to accommodate the mounting plate.
- Once a suitable location is determined, position the HALO-LED™ unit midway in the air duct.

2. Mounting Unit:



Figure 3

- Using a 4-1/2" hole saw, or the provided template, cut a hole into the plenum/duct box. Cutting into fiberboard is usually easier than metal, and can be done with a utility knife. Refer to Figure 3. Be sure to drill into the duct only. Do not penetrate into the mechanical areas of the HVAC system.



Figure 4

- Be sure the mating area of the duct surface is clean and dry. Secure the mounting plate to the duct by first peeling the paper backing off the self/adhesive sealing ring affixed to the back side of the mounting plate. Refer to Figure 4.

Diagram 4

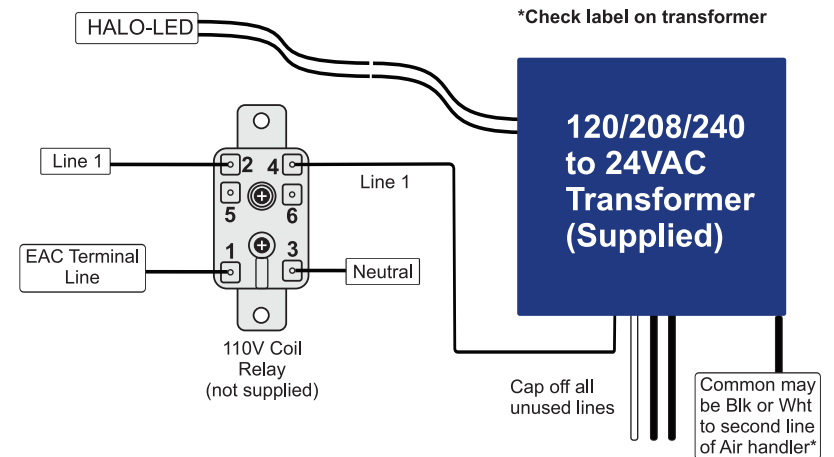
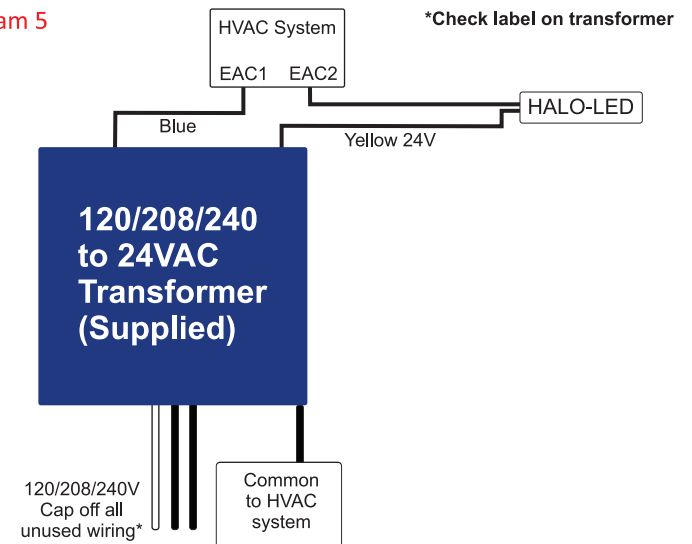


Diagram 5



Appendix

Diagram 1

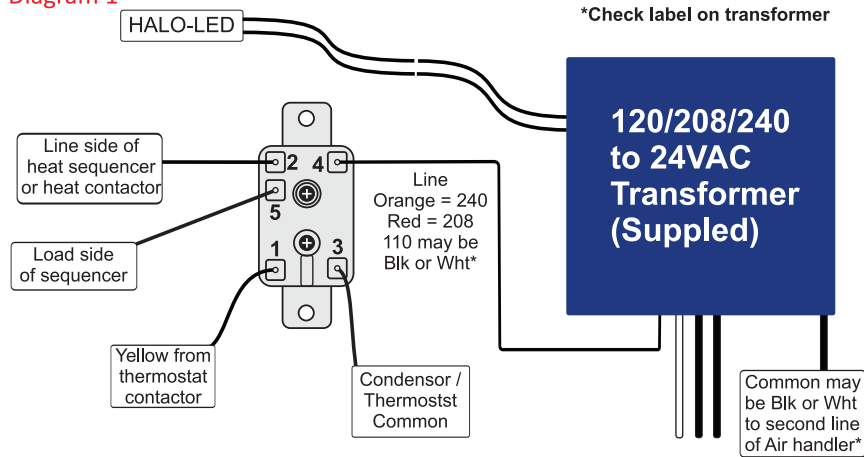


Diagram 2

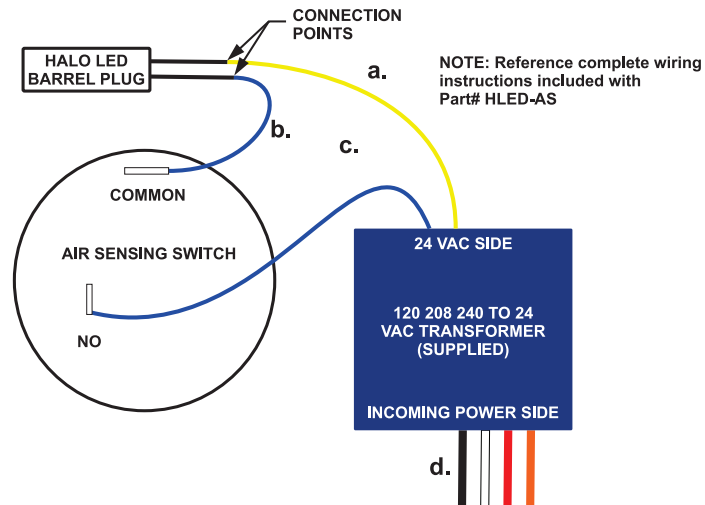


Diagram 3

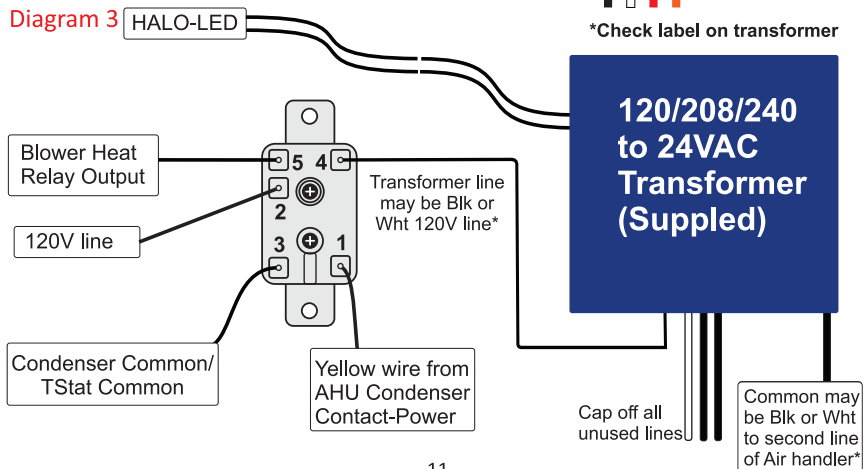


Figure 5

- Insert unit into opening with the arrow indicator going in the same direction as the airflow of the HVAC unit. Once attached to duct, press firmly all around the flange to ensure a proper seal. Refer to Figure 5. In some installations, it may be preferred to secure the unit with the provided screws via the three mounting holes located on the HALO-LED™ mounting plate.



Figure 6

- Once the unit is secure, apply the aluminum sealing ring or comparable tape in compliance with local codes. To ensure an airtight seal make sure the corresponding sealing surface is clean and dry. Remove the paper backing, center over unit, smooth and press firmly over entire surface to ensure a good seal. Refer to Figure 6.

NOTE: BE SURE TO AFFIX CAUTION DECAL NEXT TO MOUNTED UNIT.

3. Electrical Connections:

NOTICE TO INSTALLER & HOMEOWNER

**This unit MUST be installed and wired to cycle on/off with the blower.
This installation is required in order to be in compliance with new safety standards and to ensure maximum energy efficiency and LED module service life.**

The HALO-LED™ must be powered using the supplied 40VA transformer. The transformer is designed to be wired in different ways depending on the type of HVAC unit:

1. Variable speed fans with electric heat and without a communicating thermostat, use the supplied transformer and refer to Diagram 1 in Appendix for wiring diagram
- 2a. Variable speed fans with a communicating thermostat, the output of the transformer must be connected through an 'Air Sensing Switch' (purchased separately using HLED-AS). Refer to Diagram 2 in Appendix for wiring diagram
- 2b. HVAC system using a NEST Thermostat, the output of the transformer must be connected through an 'Air Sensing Switch' (purchased separately using HLED-AS). Refer to Diagram 2 in Appendix for wiring diagram

NOTE: When using an 'Air Sensing Switch' thermostat cannot be set to FAN-ON. Set thermostat to AUTO or CIRCULATE MODE only
3. For HVAC units with gas heat and 2-speed blower refer to Diagram 3 in Appendix for wiring diagram
- 4a. For HVAC units with powered Electronic Air Cleaner (EAC) terminal refer to Figure 4 in Appendix for wiring diagram. Powered EAC terminal cannot be wired directly to transformer. Use Isolation Relay
- 4b. For HVAC units with non-powered Electronic Air Cleaner (EAC) terminal refer to Diagram 5 in Appendix for wiring diagram

**THIS EQUIPMENT MUST ONLY BE INSTALLED BY A QUALIFIED INSTALLER.
CET ÉQUIPEMENT DOIT ÊTRE INSTALLÉ UNIQUEMENT PAR UN
INSTALLATEUR QUALIFIÉ.**

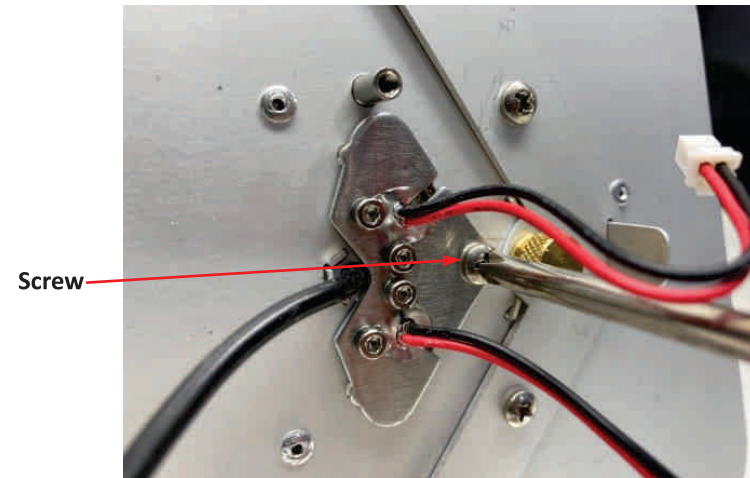


CAUTION: ENSURE THAT THE 24V TRANSFORMER PROVIDES AT LEAST 700mA FOR EACH UNIT INSTALLED ON THE CIRCUIT



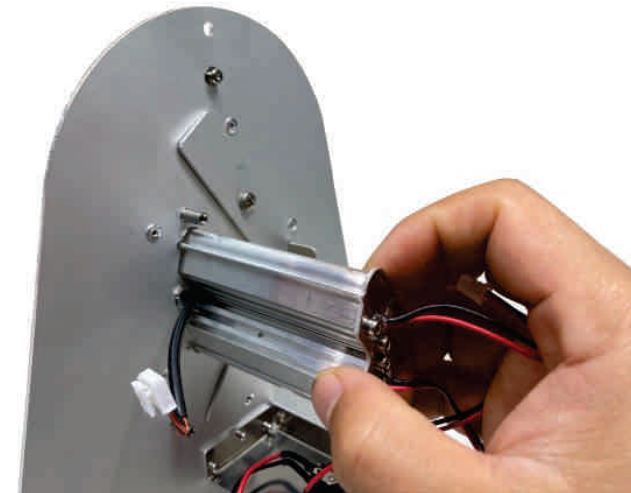
ATTENTION: ASSUREZ-VOUS QUE LE TRANSFORMATEUR 24V FOURNIT AU MOINS 700MA À CHAQUE APPAREIL INSTALLÉ SUR LE CIRCUIT.

Use a Phillips screwdriver to unscrew one (1) screw holding the HALO-LED™ Cell in place . Refer to [Figure 16](#)



[Figure 16](#)

Carefully pull HALO-LED™ Cell from housing. Refer to [Figure 17](#)



[Figure 17](#)

Reverse the above procedure to install the new HALO-LED™ Cell.

- Use a Phillips screwdriver to unscrew two (2) screws holding the electrical power board in place, remove and set aside. Refer to [Figure 14](#) and [Figure 15](#)

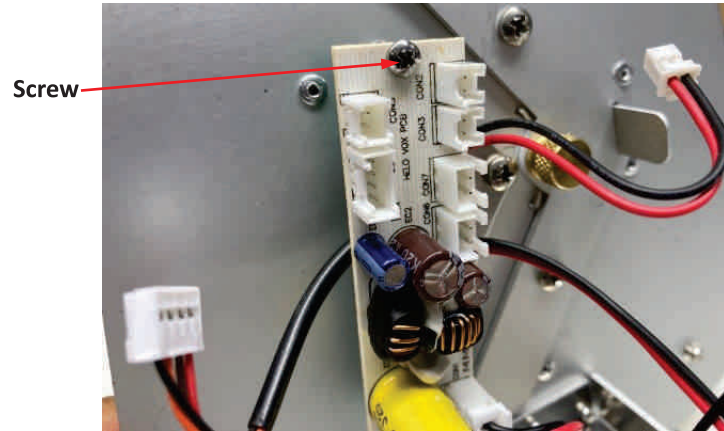


Figure 14

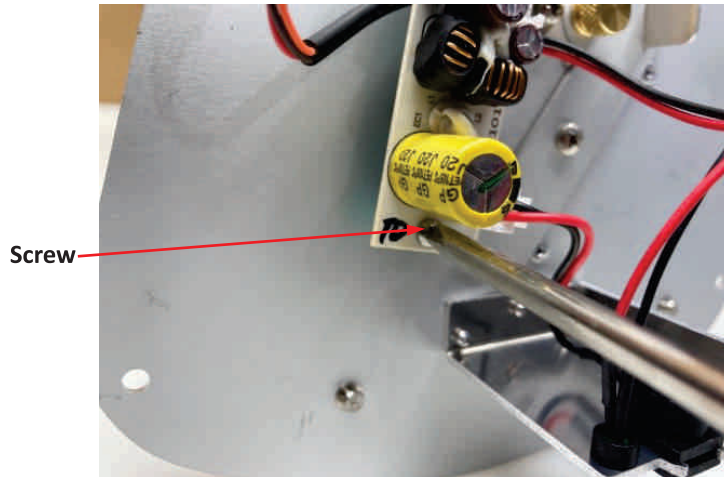


Figure 15

Maintenance of the Ceramic Catalyst

- In high smoke and particulate load environments it is recommended to clean the ceramic catalyst every six (6) months.
- Disconnect power to the HALO-LED™ and remove black housing cover from the unit by turning counterclockwise. Refer to [Figure 8](#)



Figure 8

- Remove the brass thumb screw that holds the ceramic catalyst. Refer to [Figure 9](#).

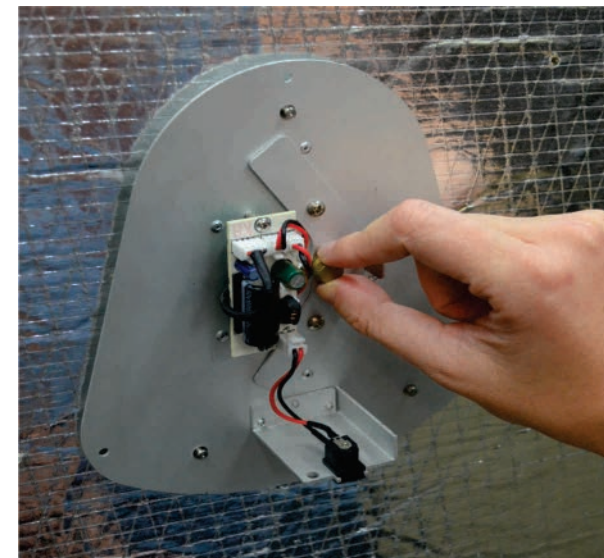


Figure 9

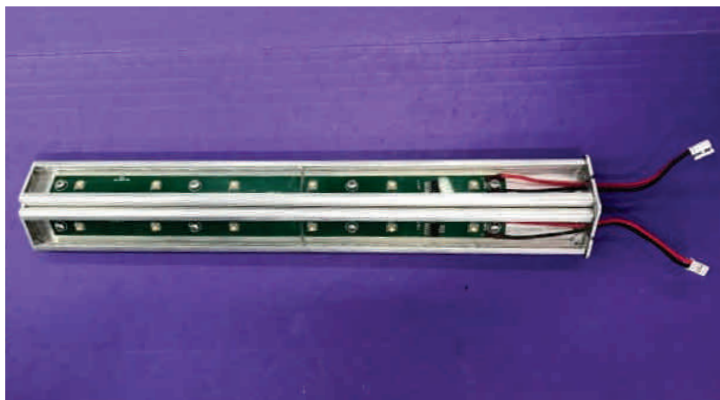


Figure 10

- Slide out the ceramic catalyst assembly. Refer to [Figure 10](#).
- The individual ceramic catalyst matrixes can be removed from the assembly and washed with warm water and a mild detergent. In environments such as heavy smoking rooms the ceramic can be immersed in boiling water for several minutes.
- **Be sure each ceramic catalyst matrix is completely dry before reassembling and returning to the HALO-LED™ unit.**

HALO-LED™ Cell Replacement

The HALO-LED™ Cell should be replaced after five (5) years with RGF part number PHIC-REME-LED



- Disconnect power to the HALO-LED™ and remove the black housing cover by twisting counter clockwise. Refer to [Figure 11](#)



Figure 11

- Unplug four (4) power cords on the electric board. Refer to [Figure 12](#) and [Figure 13](#)

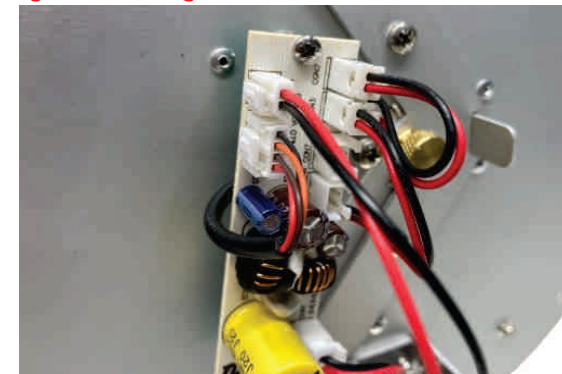


Figure 12

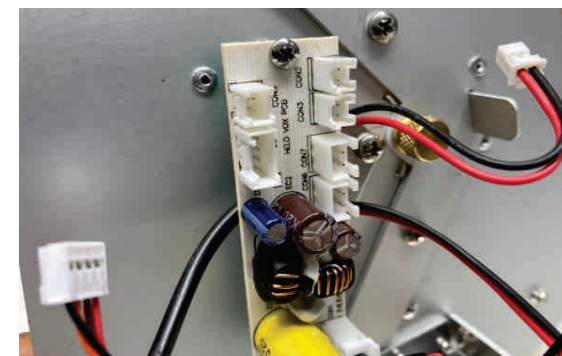


Figure 13