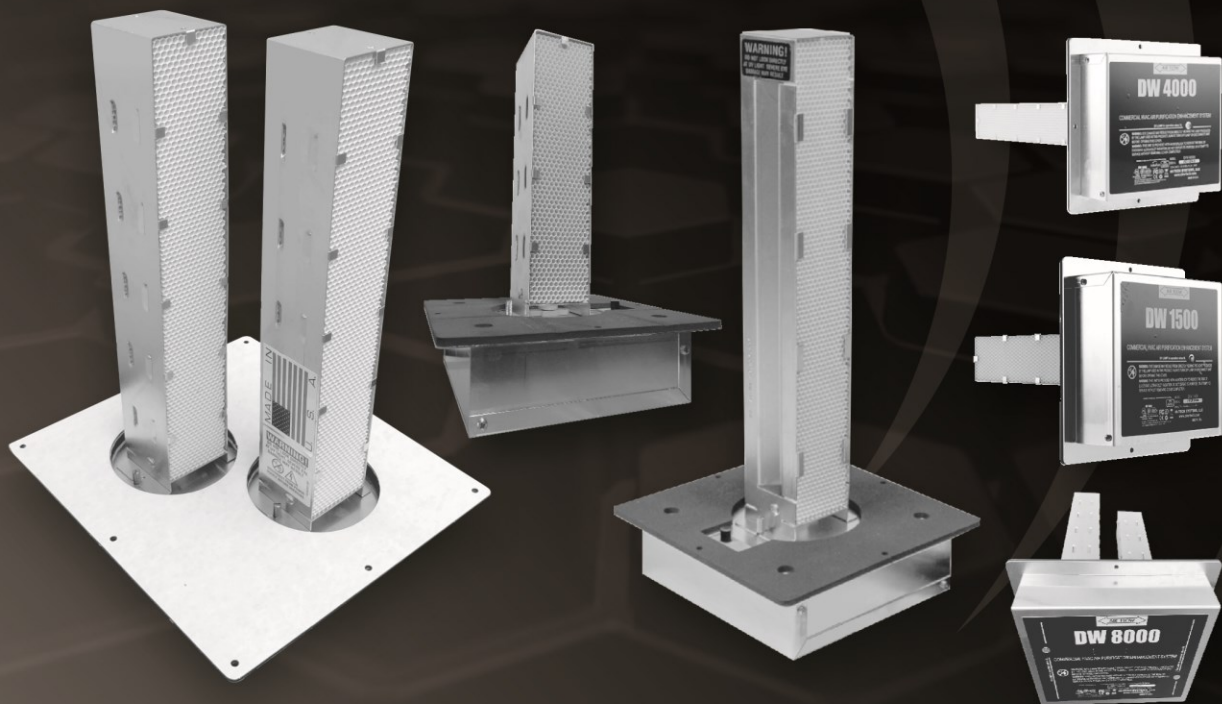




CIMR® DW8000, 4000 & 1500



EQUIPMENT MANUAL

Active Air and Surface Pathogen Scavenging Technology



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CONTINUOUS INFECTIOUS MICROBIAL REDUCTION (CIMR®)

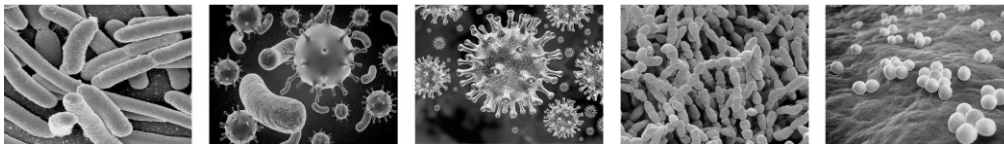
Active Air and Surface Pathogen Scavenging Technology

A Unique and Proprietary Solution

SECTION 1

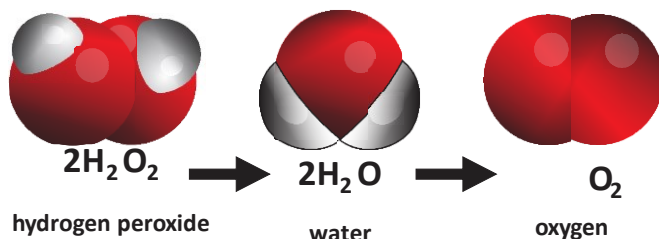
HOW CAN...

- People safely occupy shared indoor air spaces?
- Indoor air and surfaces be sanitized effectively to ensure a healthy environment?
- We combat and eliminate the transmission/spreading of pathogens (viruses, bacteria, fungi, and molds).
- We be protected from future variations and mutations 24/7/365.



CIMR®'S CAPABILITIES

- CIMR®'s Air Infusion Technology is designed specifically to kill airborne and surface pathogens.
- CIMR® is an ultra-low level, safe and effective Hydrogen Peroxide-based air and surface disinfectant system that produces zero ozone.
- Hydrogen Peroxide (water and oxygen) actively targets and deactivates both aerosolized and surface pathogens in enclosed spaces.
- CIMR® produces 0.02 ppm (parts per million) of Hydrogen Peroxide at 1/50th of OSHA (Occupational Safety and Health and Administration) limits.



- CIMR® continuously purifies the air much faster than other systems and chemicals.
- CIMR® is military-grade technology and scientifically proven through numerous independent lab tests.
- CIMR® eliminates up to 99.9% pathogens.
- Similar levels of Hydrogen Peroxide are present in the outside air.

CIMR[®]'S CREDENTIALS

- CIMR[®] was developed in 2004 by Alton Holt while working with the US Army Corps of Engineers, US Army and US Navy.
- CIMR[®]-TECH, a division of HI-TECH, is the only designer, developer, and supplier of CIMR[®] Technology, equipment and programs.
- HI-TECH provides customized engineering design systems and services based on decades of experience, independent testing and scientific reviews.
- Hundreds of military facilities have been and are using CIMR[®] with thousands of units installed worldwide.
- CIMR[®] was tested, in accordance with national and international standards as required by regulatory authorities.
- CIMR[®] is registered, and verified by accredited, and independent authorities, and scientific labs.



CIMR[®]'S COMPLIANCE

- CIMR[®] was independently tested, is safe and has no adverse effects on metal, wood, fabric, and electronic equipment.
- CIMR[®] is FDA (Food Drug Administration) compliant.
- CIMR[®] carries the CARB (California Air Resources Board) certifying ZERO ozone emissions.



- CIMR[®] meets and exceeds EPA (Environmental Protection Agency), OSHA (Occupational Safety and Health Administration), CDC (Center for Disease Control) and the WHO (World Health Organization) Regulations in Air and Surface Disinfection standards.
- CIMR[®] technology and equipment has achieved various certifications, registrations, compliance seals, and stamps of approval.





CIMR®'S CUSTOMERS

- The United States Military, US Army Corps of Engineers, FEMA (Federal Emergency Management Agency),
- State and County facilities, United State Department of Homeland Security, and National Historical Society.
- Universities, schools and colleges such as Lamar University, Beaumont, Texas, Texas Educational Systems and Houston Baptist University.
- Hospitals, clinics, doctor's offices and senior care homes.
- Entertainment venues, corporate offices, oil and gas drilling, hotel and leisure facilities.
- Shelters, food production and processing facilities, places of worship, churches and homes.

SECTION 2

DESCRIPTION AND TYPE

- These DW (duct work) CIMR® units are designed for industrial, commercial and residential use.
- DW insert CIMR® units provides indoor air and surface sanitization for residential or commercial HVAC/Air conditioning and heating systems.
- Sanitize the indoor air and reduces particles that can irritate allergies and asthma.
- Protects people from dangerous pathogens, contaminants, pollutants and systems from dust build-up.
- Discreet and concealed installation.
- Low maintenance and no cleaning required.

FACILITIES AND APPLICATIONS

- A single CIMR® unit can influence up to 8,000 square feet.
- Multiple CIMR® units combined may be used for larger and/or challenging environments and indoor spaces such as:
 - Commercial and large residential buildings.
 - Auditoriums, and theaters, entertainment and exhibition centers.
 - Government and county buildings.
 - Hospitals, clinics, nursing homes and assisted living centers.
 - Universities, colleges and schools.
 - Cafeterias, restaurants, food processing and preparation facilities.
 - Gyms, fitness centers, hotels and airports.
 - Churches and places of worship.
 - Large residential buildings.
 - Remediation and under construction sites.

INSTALLATION

- This manual covers both the CIMR[®] DW1500 and DW4000 single and the DW8000 dual commercial probe CIMR[®] unit.
- The procedures shown in this manual apply to all three units, unless other- wise indicated.



WARNING!

- These CIMR[®] units must be installed by a licensed HVAC or electrical contractor.
- Failure to do so will void the warranty.
- To reduce the risk of electric shock, these CIMR[®] units may have a grounding type plug that has a third (grounding) pin.
- This plug will only fit into a grounding type power outlet.
- If the plug does not fit into the outlet, contact qualified personnel/electrician to install the proper outlet.
- Do not alter the plug in any way.
- Ensure the location for the protective earth line.

UNIT FEATURES

- Electrical wiring for hard wiring or connects a plug for outlet connection.
- Hard wire applications
- Easy installation
- No chemicals
- Low maintenance.



WARNING!

- Do not look directly at the glowing lamp.
- Prolonged exposure, even to reflected UV light, can cause eye damage according to the American Conference of Governmental Industrial Hygienist (ACGIH) Standards.

- CIMR[®] emits UV light which can cause eye damage if the light were looked at continuously, for 20 minutes or more, at a distance of one (1) inches/two point five (2.5) centimeters or less.

DISPOSAL OF USED CIMR[®] CELLS



- Please do not throw any used CIMR[®] cell into the garbage/trash.
- The special germicidal UV lights used contains a very small amount of mercury.
- You may return your used CIMR[®] cell to Hi-Tech for proper disposal.

CIMR[®] DW8000

DIMENSIONS

Unit:	11 H x 17 L x 11 W inches 28 H x 44 L x 28 W cm
Boxed:	12 x 20.5 x 12 inches 30.48 x 30.48 x 52.07 cm
Weight:	8 lbs./3.63 kg

SPECIFICATIONS

Electrical:	120 - 240V, 50/60Hz, 0.2 A
Mechanical:	2 x 14 inch/2 x 35.56 cm CIMR [®] cells 2 x UV lights
Power usage:	37 Watts
Coverage:	8,000 square foot/743 square meters
Please note:	Square foot/meters capacity and sizing is based on 8 - 10 foot/2.44 – 3.05 meters ceiling heights.



CIMR® DW4000

DIMENSIONS

Unit:	8.5 W x 17.5 L x 8.5 W inches 21.59 W x 44.45 W x 21.59 L cm
Boxed:	12 x 20 x 12 inches 30.48 x 50.8 x 30.48 cm
Weight:	7 lbs./3.18 kg

SPECIFICATIONS

Electrical:	100 - 240V, 50/60Hz, 0.2A
Mechanical:	1 x 14 inch/ 1 x 35.56 cm CIMR® cell 1 x UV light
Power usage:	20 Watts
Coverage:	4,000 square foot/372 square meters
Please note:	Square foot/meters capacity and sizing is based on 8 - 10 foot/2.44m – 3.05 meters ceiling heights.

CIMR® DW1500

DIMENSIONS

Unit:	8 W x 12 L x 8 W inches 20.32 W x 30.48 L x 20 x 30.48 W cm
Boxed:	11 x 11 x 13 inches 27.94 W x 33.02 L x 27.94 W cm
Weight:	5 lbs./2.27 kg

SPECIFICATIONS

Electrical:	100 - 277V, 50 60Hz, 0.17A
Mechanical:	1 x 9 inch/22.86 cm CIMR® cell 1 x UV light
Power usage:	16 Watts
Coverage:	1,500 square foot/139 square meters
Please note:	Square foot/meters capacity and sizing is based on 8 - 10 foot/2.44m – 3.05 meters ceiling heights.

MECHANICAL

- DW 8000 requires a 16 inch/40.64 minimum ductwork system.
- DW 4000 requires a 16 inch/40.64 minimum ductwork system.
- DW 1500 requires a 12 inch/30.48 cm minimum ductwork system.

FEATURES

- UV indicator (s)
- Replaceable CIMR[®] cell (s)
- Replaceable ballast

MAINTENANCE

The only periodic maintenance required for the DW CIMR[®] units is replacement of the CIMR[®] cell/s as indicated by the small indicator lamp located on the ballast cover .



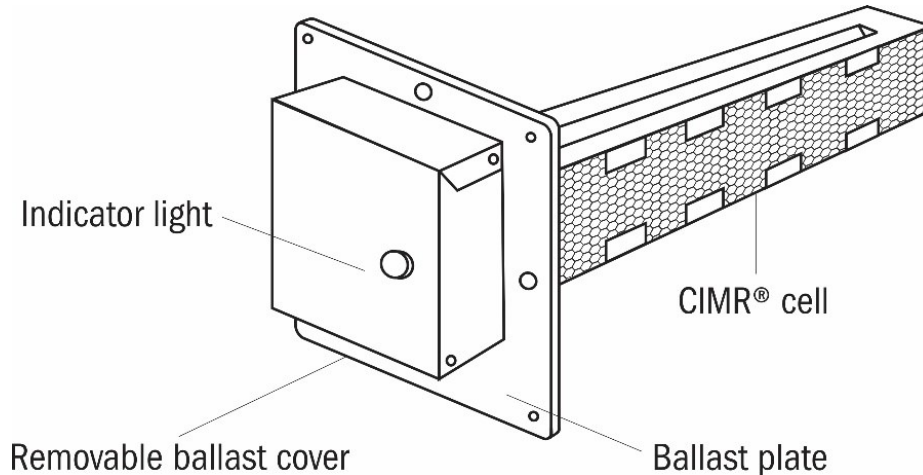
WARNING!

- **Never attempt to check operation of the CIMR[®] cell (s) by direct observation.**
- **Severe eye damage can result.**
- **Use the indicator lamps on the bottom of the ballast only.**
- **Replace the CIMR[®] cell/s when the cell UV lamp no longer functions, or every three (3) years, whichever comes first.**

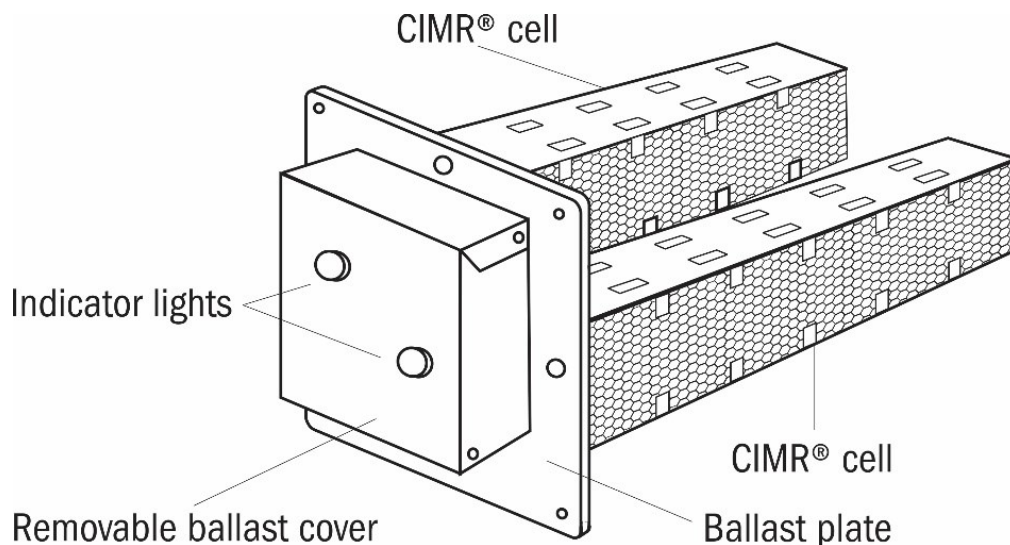
INSPECTION OF THE UNIT

- Remove CIMR[®] unit/s from shipping carton.
- Remove all protective materials.
- Check for shipping damage and loose or broken parts.
- Read the content of this manual thoroughly prior to installation.
- Determine location for placement of the CIMR[®] unit/s.

DW400 & 1500



DW8000



INSTALLATION PROCESS AND REQUIREMENTS

- The CIMR[®] unit/s should be installed after the air handler (supply side) in the HVAC system.
- The duct work around the installation area should be clean and dry to ensure proper connection.
- Depending on model, one opening (DW1500 and DW4000) or two openings (DW8000) approximately 3.5 - 4 inches/9 – 10 centimeters in diameter will need to be cut into the existing duct work to install properly.
- If required, installation of a UL approved plug should be done by a qualified electrical contractor.
- The CIMR[®] unit is shipped with a blunt cord.



WARNING!

- When the CIMR[®] unit is installed in a roof mounted HVAC system, the unit must be protected from the elements.
- If installed near a furnace or where emergency heat coils could raise the temperature inside the plenum, cycle the AC unit through three full heating cycles assuring that the temperature never exceeds 200°F (93°C).
- The CIMR[®] cell must not be exposed to heat exceeding 200°F (93°C).

For 120 volt units

Black = L1

White = Neutral

Green = Ground

For 220 volt units

Black = L1

White = L2

Green = Ground

International units

Brown = L1

Blue = Neutral

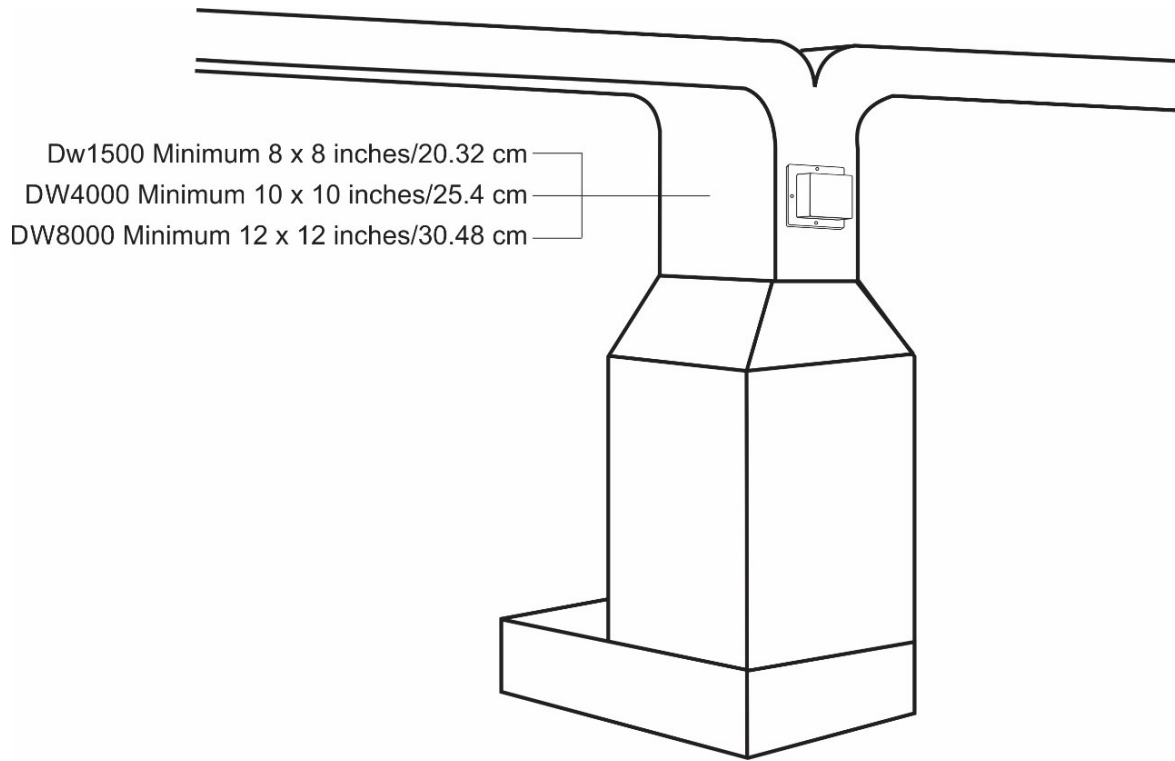
Green with Yellow Stripe = Ground



WARNING!

- Wiring of the CIMR[®] unit into your HVAC system should be done by a licensed HVAC installer or electrical contractor only.

CLEARANCES

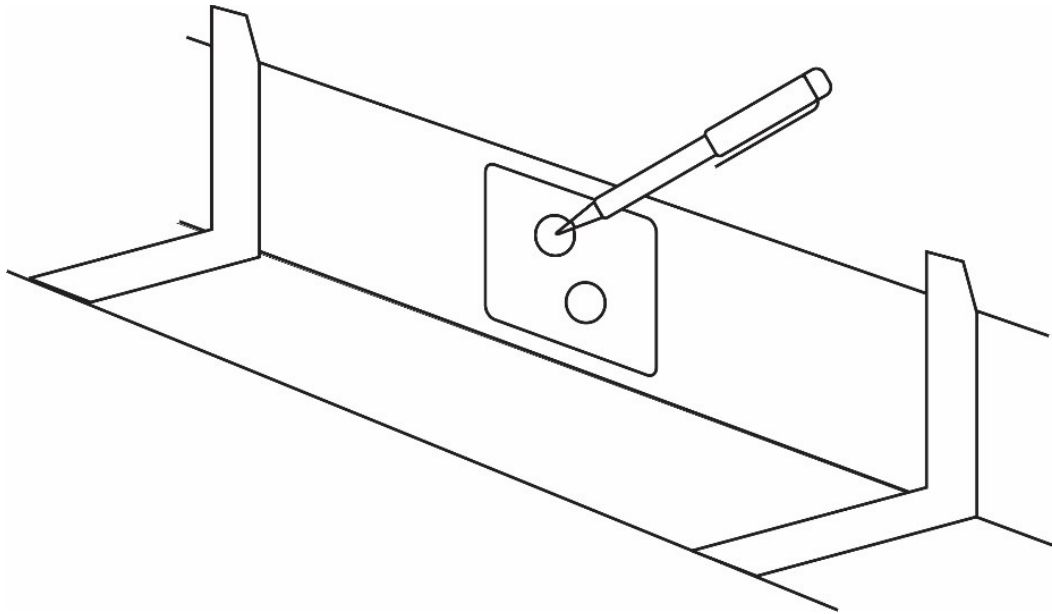


INSTALLING THE UNIT

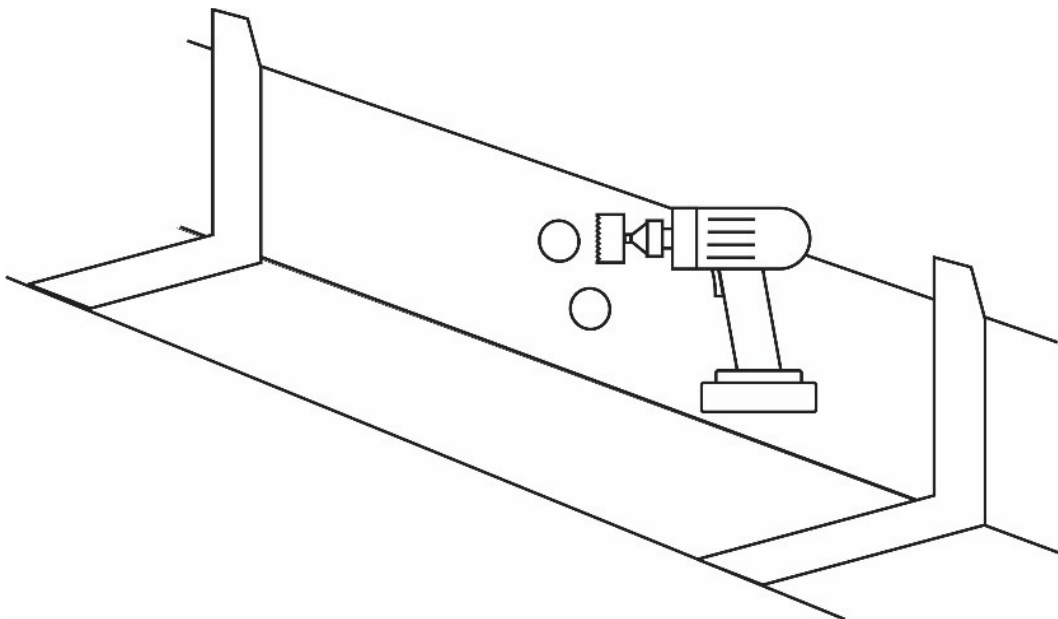
- Find the optimal position downstream from the air handler.
- Ensure location in duct has enough room for the mounting plate.
- For maximum effectiveness it is recommended that the CIMR® unit be placed as close to the air handler as possible.

NOTE

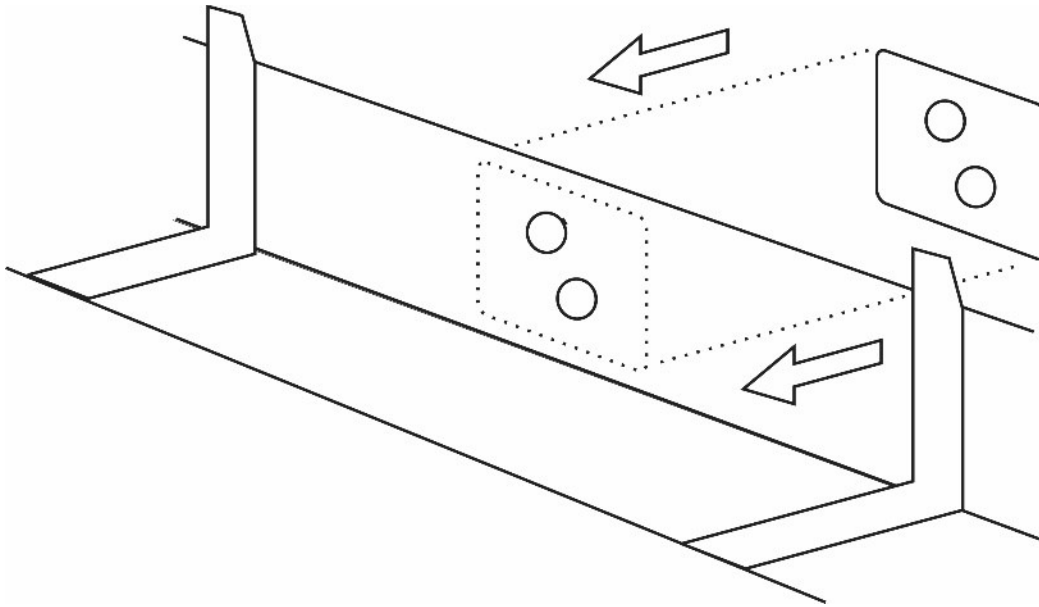
- The illustrations are showing the installation of a CIMR® DW8000.
- The procedures shown in this manual are applicable to all CIMR® units, unless indicated.



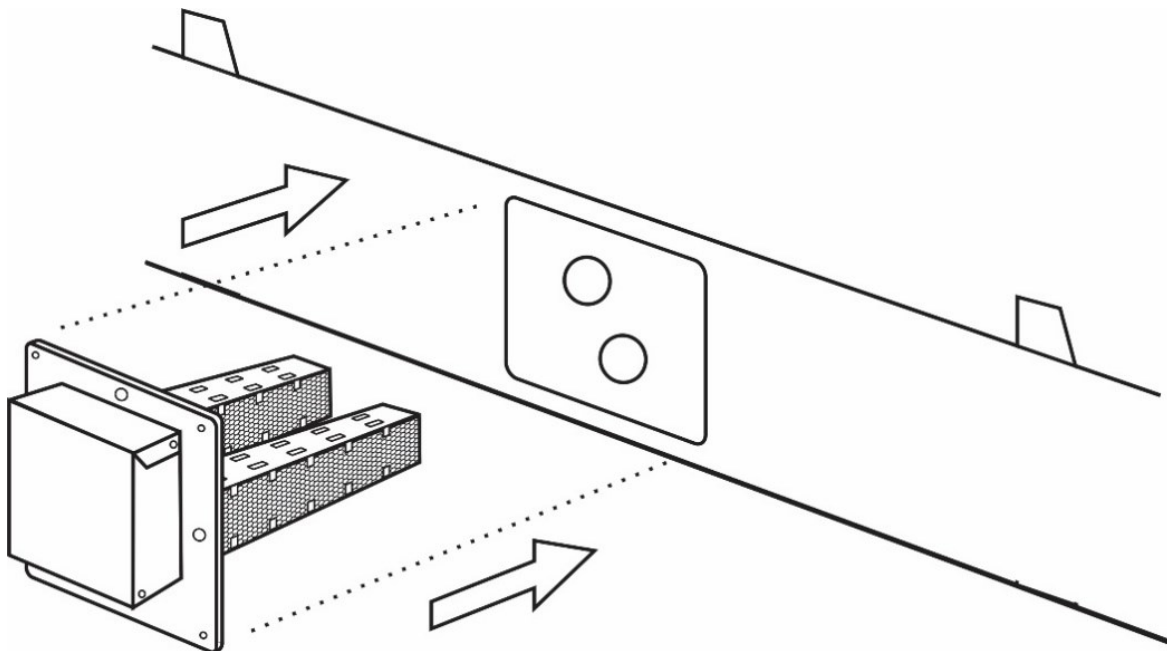
- Using the appropriate template included, mark location for installation - CIMR® DW8000 is shown.
- Using a 4" (4 inch)/10 centimeters hole saw, cut opening (s) into duct work.



- Cut the second hole for CIMR® DW8000 only.



- Place the mounting plate squarely into place and fasten to duct work with metal screws.



- Move ballast assembly to location and secure to duct work with the four (4) wing nuts provided
- The CIMR® unit may be taped with aluminum HVAC tape to provide complete seal.

WIRING THE UNIT



WARNING!

- **Hard wiring the CIMR® unit into HVAC system should be done by a licensed HVAC installer or qualified electrical contractor only.**
- **Disconnect power at the breaker or fuse panel before servicing CIMR® unit.**

NOTE

Connect wires coming from the CIMR® DW unit to the fan relay.

All CIMR® units come standard with a blunt cord.

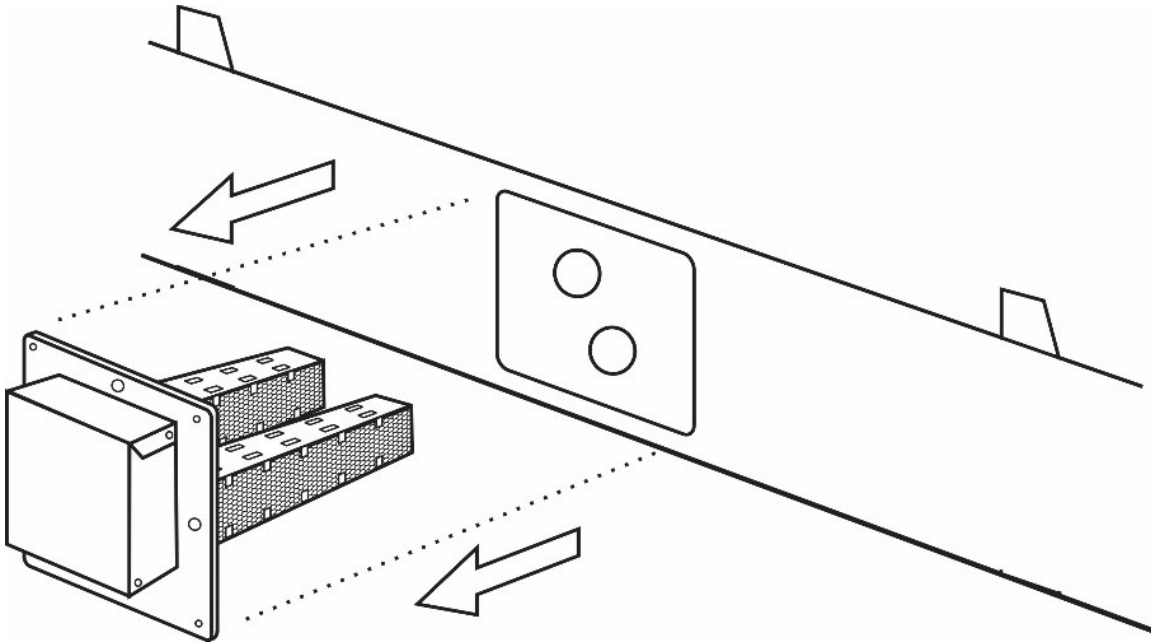
- For 120 volt unit: Black = L1, White = Neutral, Green = Ground
- For 220 volt unit: Black = L1, White = L2, Green = Ground
- Connect the CIMR® unit to the load side of the proper fan relay
- Be sure to ground the ballast by securing the CIMR® unit to the metal surface of the AC unit or power box
- Check indicator light for proper operation.

REPLACING THE CIMR® CELL

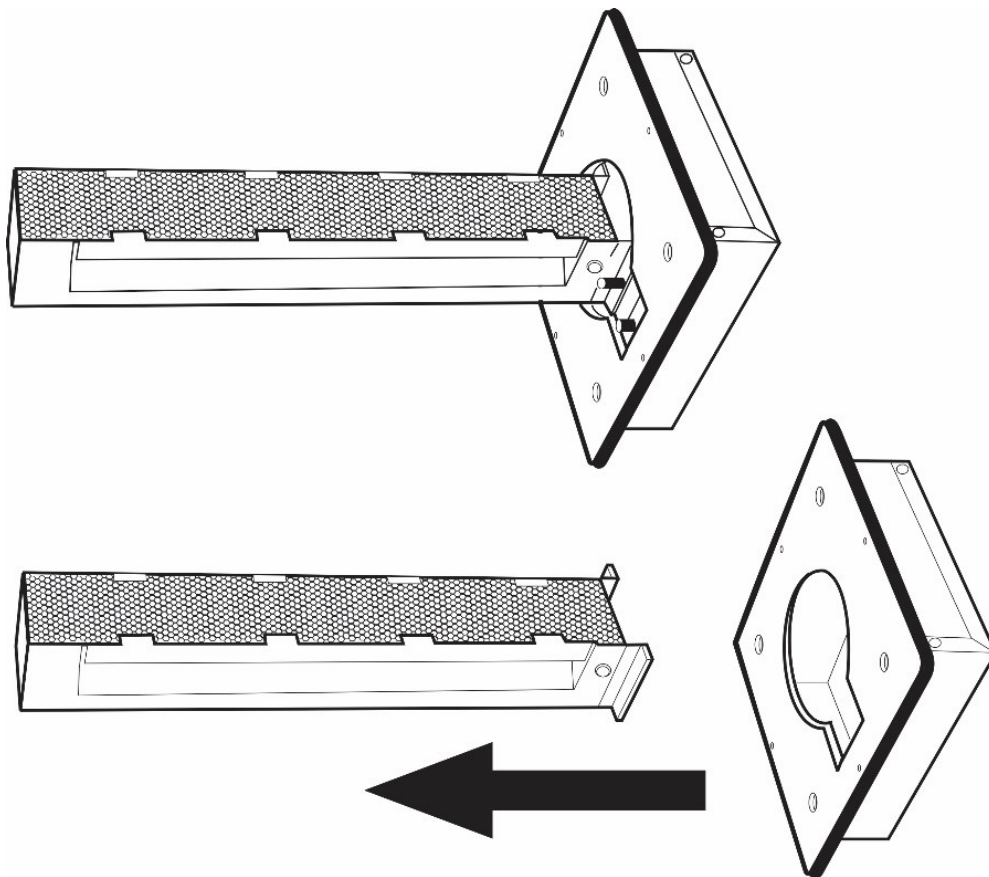


WARNING!

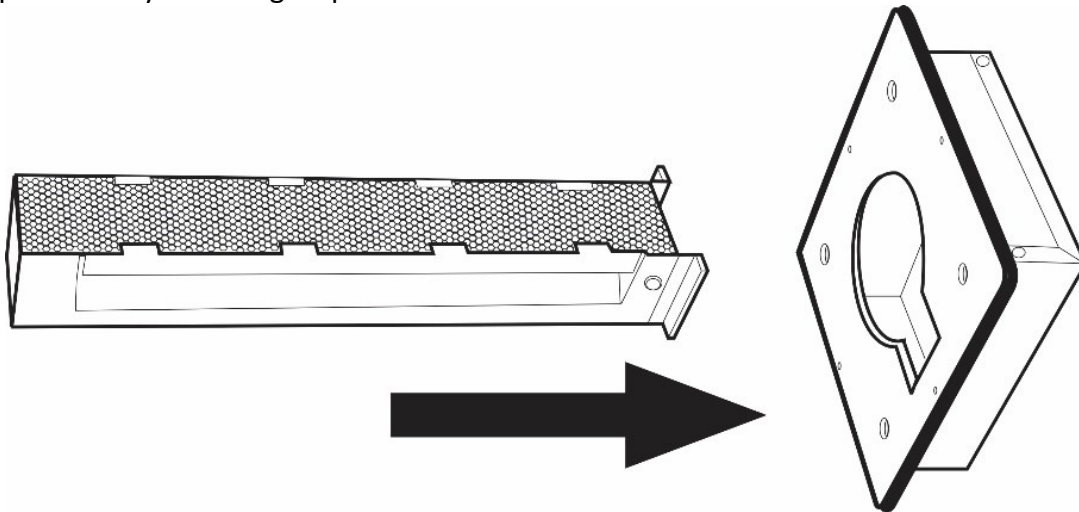
- **Never attempt to check operation of the CIMR® cell by direct observation.**
- **Severe eye damage can result.**
- **Use the indicator lamps on the bottom of the CIMR® unit housing only.**
- **Replace the CIMR® cell when the UV lamp no longer functions, or every two (2) years, whichever comes first.**
- **Disconnect power at the breaker or fuse panel before servicing CIMR® unit.**
- **Remove the ballast assembly by removing the four (4) wiring nuts.**



- Remove the two bolts on either side of the cell to remove the cell from the ballast assembly



- Replace cell by reversing steps 1 – 3



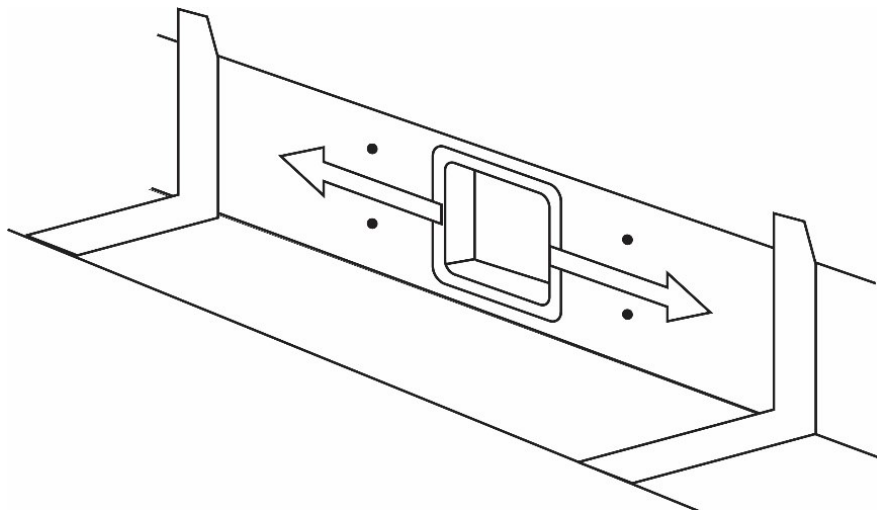
REPLACING THE BALLAST

- Replacement of the ballast may be necessary, if, after replacing the CIMR® cell, the lamp still does not become active.

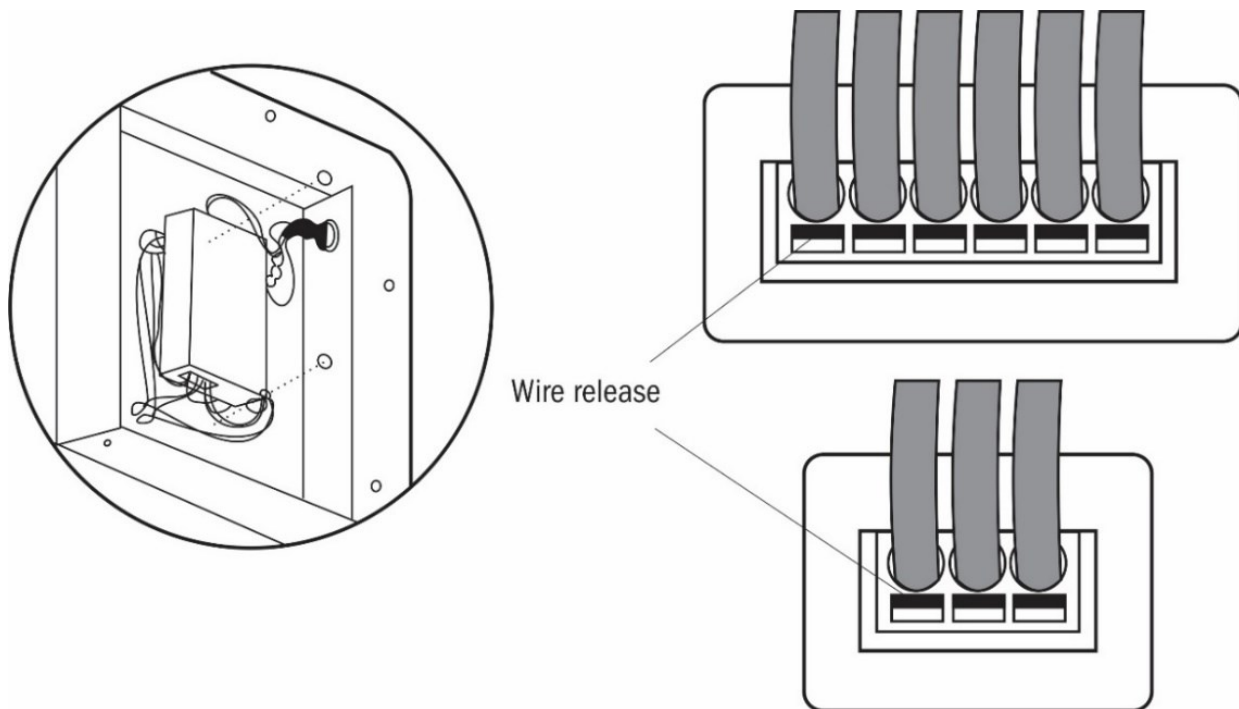


WARNING!

- Disconnect power at the breaker or fuse panel before servicing CIMR® unit.
- Open the ballast housing by removing the four (4) screws then removing cover.



- Remove the two (2) nuts on the top and bottom side of the ballast to pull ballast from assembly.
- Remove the wires (CIMR® DW8000 – 8 wires, CIMR® DW4000/1500 – 6 wires) from ballast by pressing a small screwdriver into the wire release.
- Place new ballast into original location and fasten the two (2) locking nuts into place.



- Return wiring to its original locations on the ballast.
- Replace cover and secure with the original four (4) screws

Reconnect power and check for proper operation (UV indicators should be lit when in operation).

TROUBLE SHOOTING

Symptom	Probable Cause	Solution
Machine not operating	Plug in receptacle "House" Power fuse or circuit breaker tripped	Re-insert plug. Replace "House" fuse or reset circuit breaker.
Low or no gas output	Loose electrical connection. Fan motor not running. Broken or inoperative CIMR® Cell. Blocked air passage.	Loose electrical connection. Fan motor not running. Broken or inoperative CIMR® Cell. Blocked air passage.

FCC STATEMENT AND USER INFORMATION

- This equipment has been tested and found to comply with the limits for Industrial, Scientific, and Medical Equipment (ISM), pursuant to Part 18 of the FCC Rules.
- These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
- This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
- Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



WARNING!

- **Do not look directly at the glowing UV light.**
- **According to the American Conference of Governmental Industrial Hygienists standards, prolonged exposure, even to reflected UV light, can cause eye damage.**
- **CIMR[®] emits UV light which can cause eye damage if the light were looked at continuously (for 20 minutes or longer) at a distance of one (1) inch or less.**

WARRANTY

- This warranty supersedes and replaces any warranty statements made orally by the Sales Person, Distributor, or Dealer, or contained within instructions, or other brochures, or informational documents in relation to this product.
- The Manufacturer warrants the new CIMR[®] DW units to be free from defects in material and workmanship under the normal use and service when operated and maintained in strict accordance with the manufacturer's instructions, for a period of one (1) year from the date of receipt of equipment.
- This Warranty is void if the sealed CIMR[®] DW unit is opened or tampered with.
- The Manufacturer's obligation under this warranty is limited to repairing or replacing any part found to its satisfaction to be so defective.
- This warranty does not cover parts damaged by action, humidity, moisture, or wear caused by abrasive materials, nor does it cover any damage resulting from misuse, abuse, accident, neglect, or any use other than its intended use, or from improper operation, maintenance, installation, modification, or adjustments.



- This warranty does not cover parts or CIMR® units/equipment used with the CIMR® DW units that are not made by Manufacturer.
- These items are covered by warranties of the respective Manufacturer.
- The Manufacturer will process the claim and install the part.
- The Manufacturer assumes no liability for any harm which might occur as a result from the use of this equipment, and shall not be liable for consequential or any other damages, whether or not caused by the manufacturer's negligence, or resulting from any express or implied warranty or breach thereof.
- Consequential damages for the purpose of this warranty shall include, but not be limited to, loss of use, income or profit, loss of or damages to property, injury or death to persons or animals occasioned by or arising out of operation, use, installation, repair, or replacement of the equipment or otherwise.
- While this warranty gives you specific legal rights, you may also have other rights, which vary from state to state.
- There are no warranties which extend beyond the description on the face hereof.
- To obtain warranty service or return authorization number, contact Hi-Tech or ship the part at your expense, along with a copy of bill of sale, invoice, or receipt of purchase, with an explanation of the problem or defect to:

Warranty issued by:

CIMR-TECH

A division of HI-TECH Air & Water Purification, LLC.

Lamar University-CICE

5091 Rolfe Christopher, Suite 213

Beaumont, TX 77705

info@cimrtech.com

(866) 231-3687 Option #2

CIMR® is the solution.

CIMR® protects lives, businesses and economies.

CIMR® is the way forward!

END