



**Cleaner, Fresher Air in 24 Hours  
New Advanced Environmental Air Treatment System**

***For PTAC & ETAC Units***



**NOTE:** Please take time to read the attached assembly instructions.  
All instructions and precautions should be adhered to while  
operating this system.

Manufactured in the USA by RGF Environmental Group, Inc.

RGF Environmental Group, Inc.  
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# The PTAC PHI Unit by RGF

The **PHI** line of products are designed to help eliminate sick building syndrome risks by reducing odors, air pollutants, bacteria and cold and virus causing germs through the patented Photohydroionization® (PHI) process. The PHI Cell easily mounts into existing PTAC air conditioning, heating and heat pump units. When the PTAC system is in operation, the PHI Cell uses an Advanced Oxidation Process to reduce airborne contaminants.

## Typical Installation

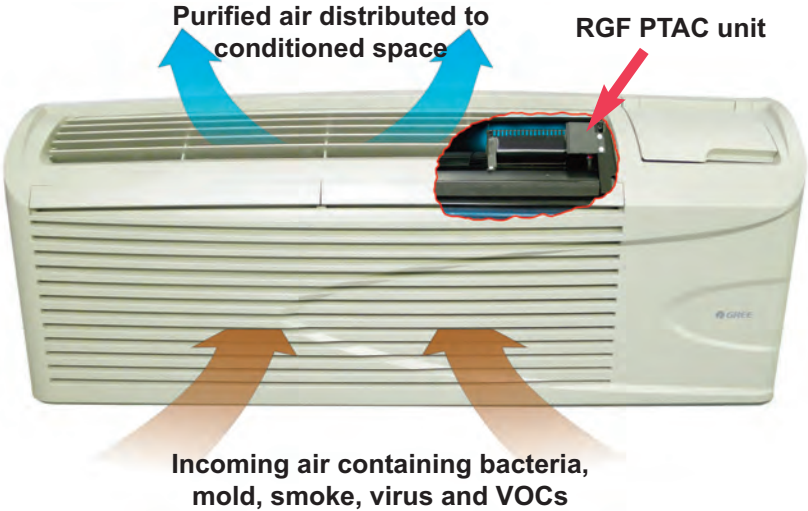


Figure 1

## PHI Cell Features

**Proprietary UVX Long life lamp**

**Quad-metallic coating**

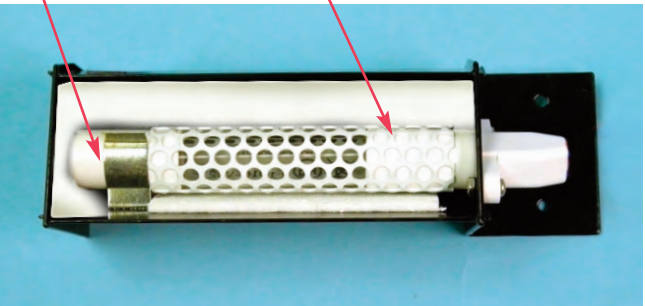


Figure 2

## PTAC PHI Unit INSTALLATION INSTRUCTIONS

**CAUTION: NEVER LOOK DIRECTLY AT AN ILLUMINATED PHI CELL.  
THIS DEVICE PRODUCES GERMICIDAL UV LIGHT AND WILL CAUSE  
DAMAGE TO EYES**

Your kit contains the following:

- PTAC unit with high voltage 208-265V ballast and 3' leads
- Four (4) mounting screws
- Four (4) wire nuts
- Two (2) wire tap splice connectors
- Instruction manual

**NOTE: BE SURE PTAC UNIT IS UNPLUGGED AND POWER IS  
DISCONNECTED BEFORE PROCEEDING WITH INSTALLATION.**

### INSTALLATION INSTRUCTIONS:

Remove plastic housing from PTAC unit by carefully lifting tabs off metal frame.

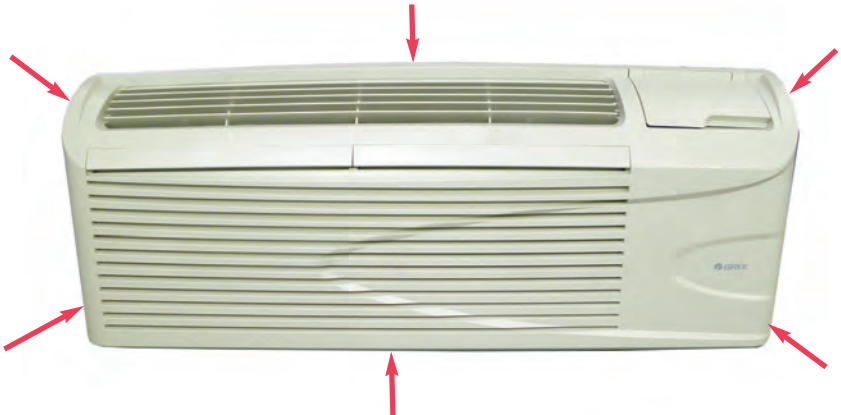
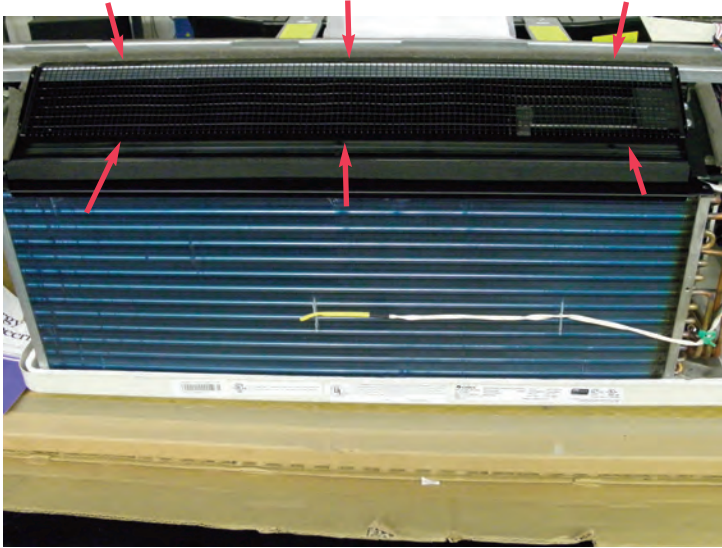


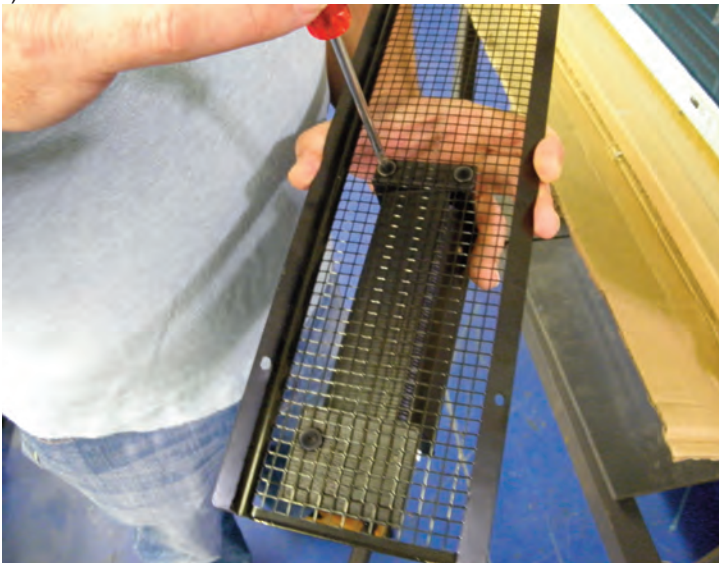
Figure 3

Remove metal screen by removing the 6 screws. (Refer to figure 4)



**Figure 4**

Attach unit to screen using the 4 screws. (Refer to figure 5)



**Figure 5**

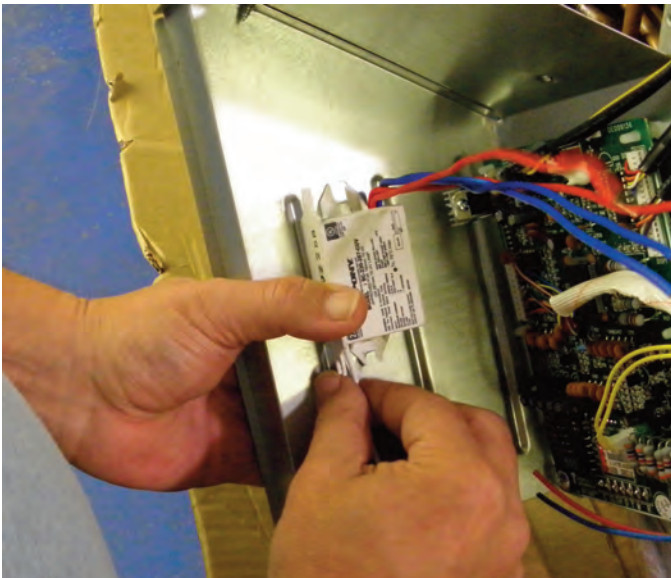
**Electrical Connection:**

Mount ballast to inside of electrical enclosure cover by first removing cover



**Figure 6**

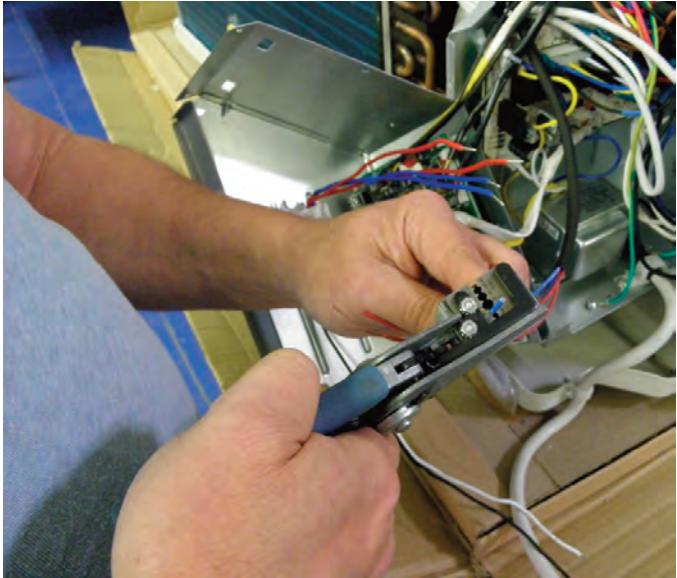
Using double stick tape mount ballast to inside of electrical enclosure cover.



**Figure 7**

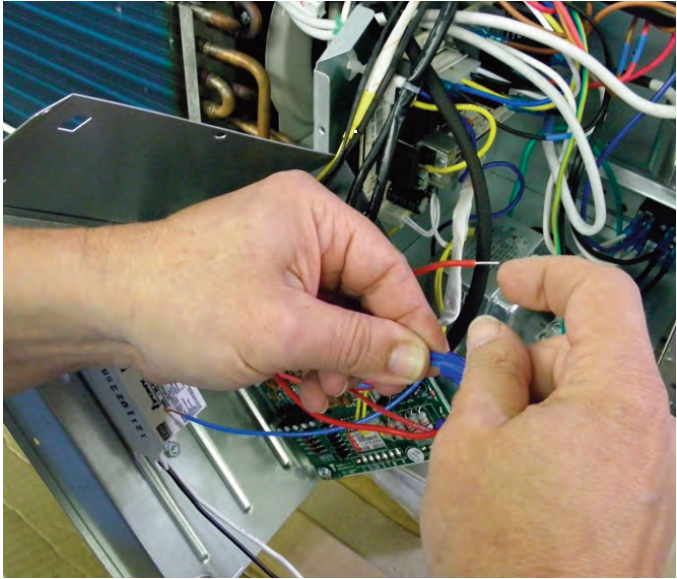


Using wire strippers remove 1/2" of insulation from ends of ballast wires and cell wires.



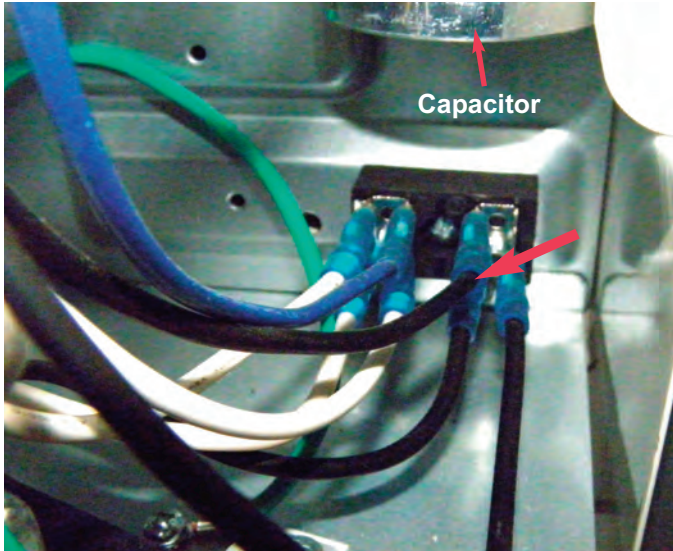
**Figure 8**

Using supplied wire nuts attach wires from cell to wires from ballast. Blue to blue and red to red.



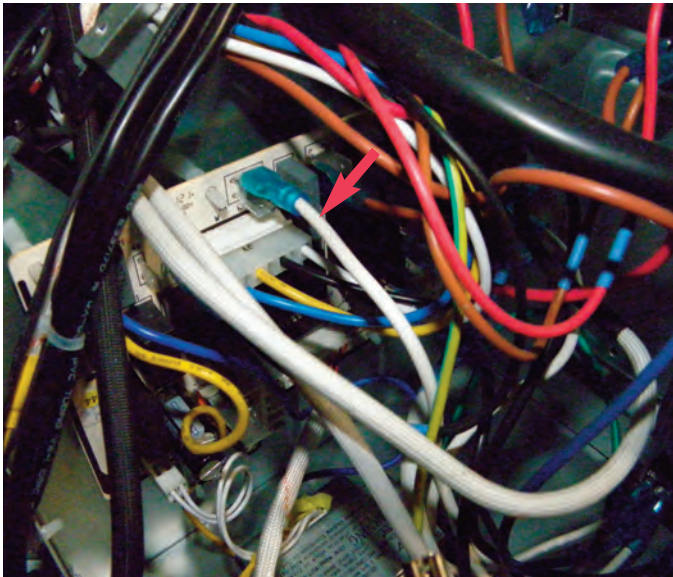
**Figure 9**

Locate input power cord terminal (directly below capacitor) and connect black wire (line) using supplied wire tap splice connector.



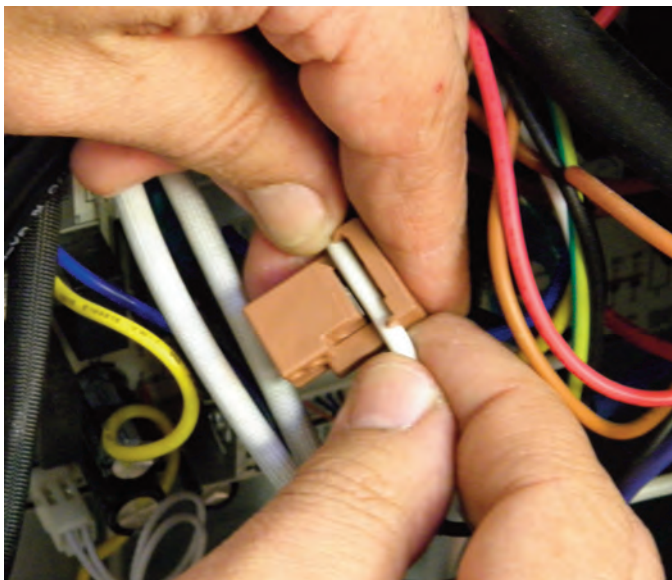
**Figure 10**

Locate terminal N1 and connect white wire (neutral) using supplied wire tap splice connector.

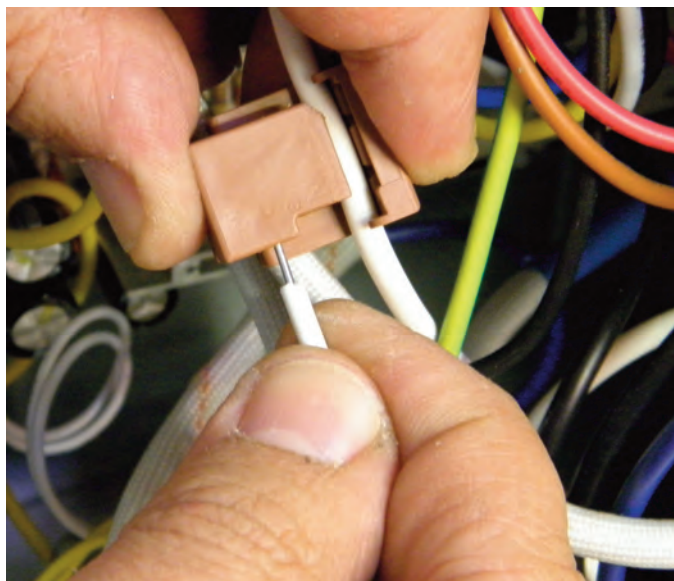


**Figure 11**

To use the wire tap splice terminal first place around wire and press firmly. Now remove 1/2" of insulation from ballast power wire and press into holes on wire tap splice. White to white (neutral) black to black (line).



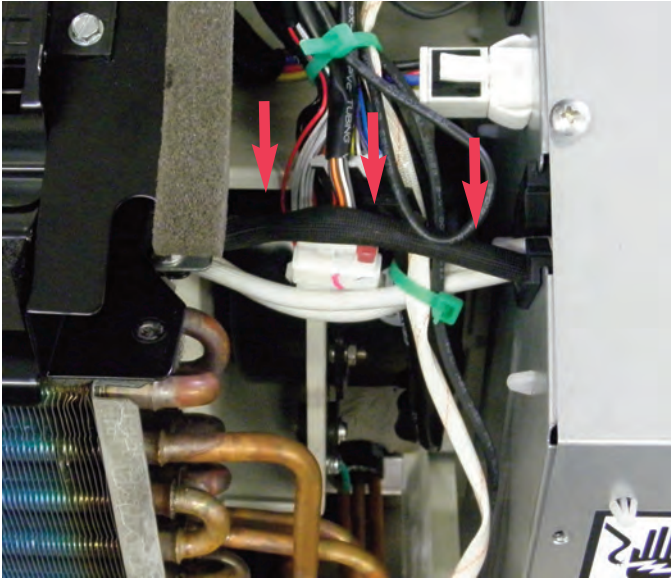
**Figure 12**



**Figure 13**



- Replace enclosure cover
- Ensure PHI power cord is routed as shown (see figure 14)
- Ensure wire does not interfere with squirrel cage operation.



**Figure 14**

- Replace screen.
- Replace cover.
- Reconnect power and turn on unit to verify PHI unit operation.  
(Should notice faint blue glow from outlet vent area.)

## LIMITED WARRANTY COMMON QUESTIONS

### How long is the warranty?

- For one (1) year from initial start up.

### Are there any parts not covered by this warranty (that the manufacturer will not repair or replace)?

- Yes. Parts damaged by decomposition from chemical action, humidity, moisture, or wear caused by abrasive materials. It does not cover damage resulting from misuse, abuse, or any other use other than its intended use. This warranty does not cover accident, neglect, or from improper operation, maintenance, installation, modification or adjustments.
- Parts not made by Manufacturer. However, your supplier will process the claim with the other manufacturer.

### Steps to take when you have determined that your equipment is malfunctioning within the warranty period.

- Call your contractor or distributor and notify them of the problem or malfunction. (It may be a simple problem or oversight with a simple solution.)
- If it is determined that a part is malfunctioning due to a defect, ship unit to your supplier or call supplier for other means of return. An Equipment Warranty Form should be completed and included.
- Your supplier will repair or exchange the defective unit with a working replacement.

### Things I should do to avoid problems or injuries when running my PTAC PHI Equipment.

- Thoroughly read and understand all Operating Instructions, Warnings and Precautions before commencing application.
- Place unit in a dry area when possible.

## **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 new PTAC PHI equipment to be free from defects in material and workmanship under normal use and service when operated and maintained in strict accordance with manufacturer's instructions for a period of twelve (12) months parts only. Shipping not included.)

Manufacturer's obligation under this warranty is limited to repairing or replacing any part found to its satisfaction to be so defective. The manufacturer at its discretion may replace / exchange the defective unit up to 90 days from the date of purchase. Hereafter it will need to be returned 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 or wear caused by abrasive materials, nor does it cover damage resulting from misuse, abuse, or any other than its intended use, accident, neglect, or from improper operation, maintenance, installation, modification or adjustments.

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

To obtain warranty service and return authorization number, contact your contractor or supplier.

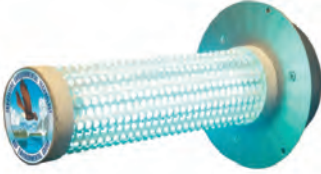
**Model number: UNV-PTAC**

**Replacement cell part number: PHIC-5GA**

Hg- LAMP CONTAINS MERCURY Manage in accord with disposal laws.  
See: [www.lamprecycle.org](http://www.lamprecycle.org)

## Additional RGF Products

### In Duct Microbe, VOC and Allergen Solutions



**RGF's Guardian Air PHI** is designed to eliminate sick building syndrome risks by reducing odors, air pollutants, VOCs (chemical odors), smoke, mold, bacteria and viruses\*. The HVAC-PHI Cells are easily mounted into air conditioning and heating systems air ducts where most sick building problems start. When the HVAC system is in operation the HVAC-PHI Cell creates an Advanced Oxidation Process consisting of: Hydro-peroxides, super oxide ions and hydroxide ions. All are friendly oxidizers that revert back to oxygen and hydrogen after the oxidation of the pollutant.

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**Guardian Air REME HVAC Cell** REME or Reflective Electro Magnetic Energy utilizes an electromagnetic energy cell to create ionized hydro peroxides™, a friendly oxidizer plasma made from oxygen and humidity. This air purifying plasma is propelled into the HVAC duct or plenum by a silent plasma propulsion module that has no moving parts, yet propels the plasma at 2 cfm. This provides for fan or blowerless operation on a 24-hour basis. The purifying plasma will be propelled through the ducts whether the fan or blower is on or not. 24 volt installation lets the REME run 24/7 without wiring to the fan/blower circuit. The oxidizer plasma transfers the electrical charge (positively and negatively charged ions) from the hydro peroxides to suspended (airborne) particles in the occupied space causing them to bond together. This makes them too heavy to float enabling them to be drawn back to the filter. This is an excellent solution for individuals that suffer from dust and dander allergies.

The purifying plasma will be propelled through the ducts whether the fan or blower is on or not. 24 volt installation lets the REME run 24/7 without wiring to the fan/blower circuit. The oxidizer plasma transfers the electrical charge (positively and negatively charged ions) from the hydro peroxides to suspended (airborne) particles in the occupied space causing them to bond together. This makes them too heavy to float enabling them to be drawn back to the filter. This is an excellent solution for individuals that suffer from dust and dander allergies.



**WARRANTY REQUEST FORM**  
**(INCOMPLETE FORMS WILL NOT BE PROCESSED!)**

**RETURN AUTHORIZATION NO.** \_\_\_\_\_

**CONTRACTOR:**

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ FAX \_\_\_\_\_

**WHOLESALER:**

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

CONTACT \_\_\_\_\_ PHONE \_\_\_\_\_ FAX \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

**UNIT:** MODEL # \_\_\_\_\_ SERIAL # \_\_\_\_\_

INVOICE # \_\_\_\_\_ DISTRIBUTOR P.O. #: \_\_\_\_\_

DATE OF SALE: \_\_\_\_\_ OVER THE COUNTER EXCHANGE? YES NO

IF YES, SERIAL # \_\_\_\_\_

**ITEM(S) SUBMITTED FOR WARRANTY:**

1) \_\_\_\_\_

2) \_\_\_\_\_

**REASON(S) FOR RETURN:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**(FOR MANUFACTURER USE ONLY)**

DATE ITEM(S) RECEIVED: \_\_\_\_\_

RECEIVED BY: \_\_\_\_\_

REPLACEMENT UNIT OR PART SENT

COMMENTS: \_\_\_\_\_

**NOTE: THIS COMPLETED FORM MUST  
ACCOMPANY ALL RETURNED ITEMS  
WITHIN 30 DAYS FOR PROCESSING  
SHIP TO YOUR DISTRIBUTOR**

