# INSTALLATION, OPERATION, AND MAINTENANCE INSTRUCTIONS

## Series CG1000 Electronic Air Cleaner

IMPORTANT: Read entire instructions before installing the air cleaner.

### SAFETY CONSIDERATIONS

Read and follow manufacturer instructions carefully. Follow all local electrical codes during installation. All wiring must conform to local and national electrical codes. Improper wiring or installation may damage air cleaner.

Recognize safety information. This is the safety alert symbol  $\triangle$ . When the safety alert symbol is present on equipment or in the instruction manual, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard which could result in personal injury or death. CAUTION is used to identify unsafe practices which would result in minor personal injury or property damage.

# **A WARNING**

Before beginning any modification, be certain that the main line electrical disconnect switch is in the OFF position. Electric shock could result. Tag disconnect switch with suitable warning labels.

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions of cleaning and replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves.

### **GENERAL**

The Totaline® Series CG1000 electronic air cleaner is designed to be used in place of a standard, 1-in. filter in the ductwork of a house or building. The electronic air cleaner is normally installed in the filter rack of the furnace or air handler. It helps to remove pollens, allergens, bacteria, dust mites, smoke, and chemicals from the filtered air. A 24-VAC at 2 va power supply is required.

### **INSTALLATION**

- 1. Open the electronic air cleaner by lifting the latches on the side of the frame and opening. See Fig. 1. Inspect for damage and make sure all the parts are present.
- 2. Disconnect all power to unit before installation.
- 3. Wire electrical power plug to 24 VAC (2 va) power source (field supplied). Most forced-air heating or cooling systems have an internal 24 VAC power source to which the electronic air cleaner can be safely connected without overloading other circuits. Before wiring the electronic air cleaner to the power source, check with a voltmeter that the source does not exceed 30 VAC. See Fig. 2.

## **A WARNING**

The electronic air cleaner is designed to operate at 24 VAC. Damage or physical injury could result if wired to higher voltages.

- 4. Insert the power plug into the port on the electronic air cleaner. See Fig. 3. If it is necessary to pass the cord through a hole in the wall of the unit or through an access door, electrical tape, or the supplied rubber grommet, should be wrapped around the cord at the point of entry for protection.
- 5. Slide the electronic air cleaner into the filter rack of the air-conditioning equipment or furnace. On a typical installation, the latches should be facing up and the power plug should be outside the ductwork. See Fig. 4.

### **OPERATION**

The electronic air cleaner operates by removing particles from the air in two different ways. As the air flows through the electronic air cleaner, the fiberglass pads filter out most of the airborne particles. The electrified center screen continues the process. It helps to remove pollens, allergens, bacteria, dust mites, smoke, and chemicals from the filtered air.

While the electronic air cleaner is operating, the power supply light will be on. See Fig. 3. If the light does not come on when power is supplied to the electronic air cleaner, refer to the Troubleshooting section.

The electronic air cleaner uses little power and is on continuously. The system fan can be operated continuously for increased air circulation through the air cleaner.

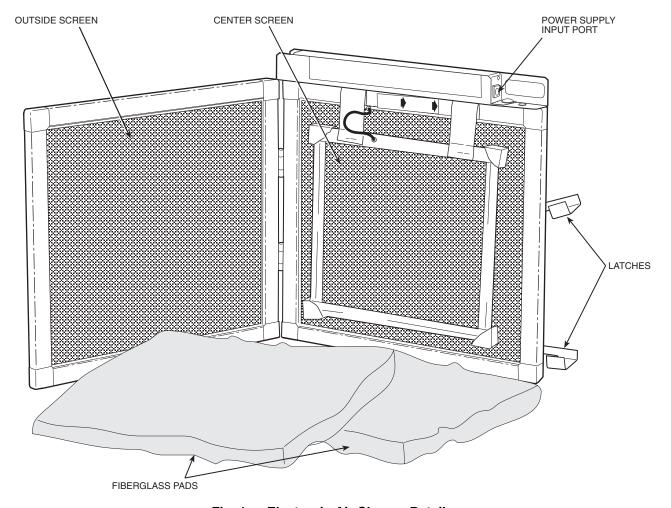


Fig. 1 — Electronic Air Cleaner Details

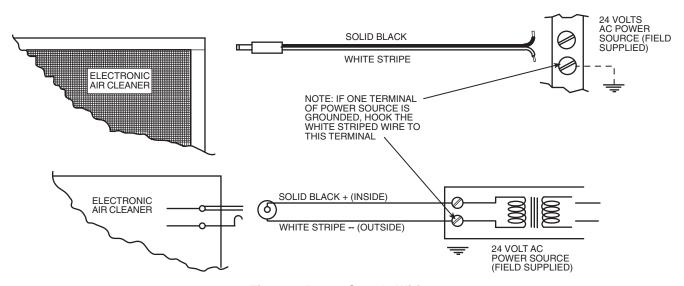


Fig. 2 — Power Supply Wiring

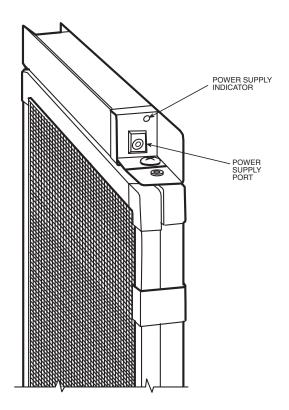


Fig. 3 — Power Supply Details

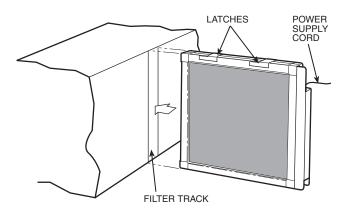


Fig. 4 — Typical Electronic Air Cleaner Installation

#### **MAINTENANCE**

Typically, cleaning should be performed every month. Once cleaning has been performed, hold up the electronic air cleaner to a strong light. If the outline of the center screen can be seen, the fiberglass filter pads do not need to be replaced. If the outline cannot be seen, replace the fiberglass pads. Typically, the fiberglass pads will need to be replaced every 3 to 6 months.

## Cleaning

- Unplug the power cord from the electronic air cleaner and remove the air cleaner from the filter rack. See Fig. 3.
- 2. Vacuum the outside mesh screens of the electronic air cleaner if lint is present. A soft cloth and water mixed with detergent can be used to clean the outside of the device. Do not use alcohol, organic solvents or other chemical agents for cleaning. To avoid damage to electrical components, do not wash the electronic air cleaner with excessive water.
- 3. Plug the power cord back in and re-install the electronic air cleaner into the filter rack.

## Filter Pad Replacement

- 1. Unplug the power cord from the electronic air cleaner and remove the air cleaner from the filter rack. See Fig. 3.
- 2. Open the electronic air cleaner by lifting the latches on the side of the frame.
- 3. Remove the two dirty pads from inside the electronic air cleaner.
- 4. Place the two new pads (purchased separately) on either side of the center screen. See Fig. 5. Be sure the pads fit squarely into the outside retainer screens.
- 5. Close the electronic air cleaner and make sure the latches are secured.
- 6. Place the electronic air cleaner back into the filter rack and plug in the power cord.

#### **TROUBLESHOOTING**

If the air cleaner does not seem to be functioning, check the following:

- 1. Verify that the power supply light is on. If light is off, check power supply and wiring connections.
- 2. If power supply light is on, perform maintenance procedure and replace fiberglass filters.

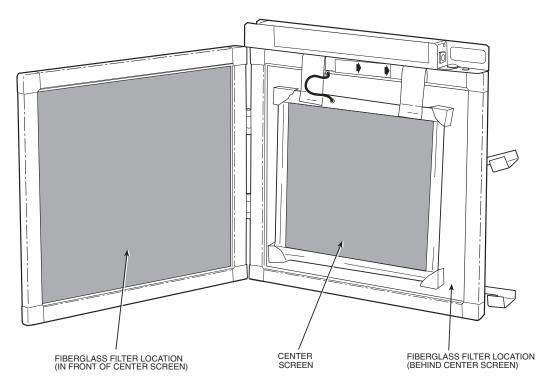


Fig. 5 — Filter Replacement

#### **ELECTRONIC AIR CLEANER LIMITED TWO-YEAR WARRANTY**

**TWO-YEAR WARRANTY** — This CARRIER CORPORATION product is warranted to be free from defects in material and workmanship under normal use and maintenance for a period of two years from the date of original installation. A new or remanufactured product or part to replace the defective part will be provided without charge for the part itself through a qualified servicing CARRIER CORPORATION dealer or service PROVIDED the deflective part is returned to our distributor. The replacement part assumes the unused portion of the warranty.

THIS WARRANTY DOES NOT INCLUDE ANY ADDITIONAL LABOR ALLOWANCE OR OTHER COSTS or other costs incurred for diagnosis repairing removing, installing, shipping, servicing, or handling of either defective parts or replacement parts. SUCH COSTS MAY BE COVERED BY a separate warranty provided by the installer.

**LIMITATIONS OF WARRANTIES** — ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED OR CHANGED BY ANY DISTRIBUTOR, DEALER OR OTHER PERSON WHATSOEVER.

#### CARRIER WILL NOT BE RESPONSIBLE FOR:

- 1. Normal maintenance as outlined in the installation and servicing instructions or owners manual including cleaning and/or replacement of filters or electronic powerhead.
- 2. Damage or repairs required as a consequence of faulty installation or application by others.
- 3. Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
- Damage or repairs needed as a consequence of any misapplication, abuse, improper servicing, unauthorized alteration, or improper operations.
- 5. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of CARRIER CORPORATION.
- 6. Parts not supplied or designated by CARRIER CORPORATION.
- 7. CARRIER CORPORATION products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
- 8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.



Replacement Components Division • Carrier Corporation Syracuse, New York • Lit. No. 249393-001 REV. A 6/96