# LA-1000FM FLUSH MOUNT AIR CLEANER INSTALLATION INSTRUCTIONS

IT IS IMPORTANT TO READ THE FOLLOWING INSTRUCTIONS CAREFULLY – DAMAGE TO THE PRODUCT OR TO INSTALLER AND PROPERTY COULD RESULT IF INSTRUCTIONS ARE NOT FOLLOWED.

# **IMPORTANT**

- 1. Do not connect the power source until after the unit is mounted. Shock and/or damage could result.
- 2. Be sure to shut the unit off prior to any service work.
- 3. Wear gloves to protect hands during installation as well as to keep surface of air cleaner free from dirt and smudges.

# **EQUIPMENT NEEDED FOR INSTALLATION**

- 1. Regular and Phillips screwdrivers
- 2. Wire cutters
- 3. Pliers
- 4. Twelve gauge galvanized wire for hanging the wires from the true ceiling to the top of the unit (if threaded rod is to be used, it will replace the wire)
- 5. Enough twelve or fourteen gauge electrical wire and conduit to reach the nearest unswitched circuit (see Electrical Instructions)
- 6. Junction box fittings as required

# ITEMS SUPPLIED AS LOOSE PARTS

1. Four (4) black \(^1\septimes x \) 20 eyebolts

### **UNPACKING**

- 1. Remove unit from carton and turn over so that grille surfaces are accessible.
- 2. Remove pre-filter and collection cell from unit through intake side of cleaner. This is accomplished by turning the access screws and lifting the hinged opening. Cell is attached by a black grid cap connector on the side of the cell.
- 3. After removing the items in the previous step, close and lock the hinged intake panel.

# PREPARATION FOR MOUNTING

The LA1000FM is designed to fit into a T-bar drop ceiling. Remove as many of the 2' x 4' ceiling tiles as is necessary to safely and surely mount the air cleaner. The area between the true ceiling and the drop ceiling must be at least 11". There must be no duct work, pipes, or other obstructions to the area where the unit is to fit. Make sure that the spot chosen will be oriented for good air circulation. Exit grille can be adjusted for different airflows.

# **MOUNTING**

- 1. Attach four (4) 12 gauge galvanized steel support wires to the true ceiling. Twist each wire at least four times to provide for safe support for the air cleaner. Make sure the free end of the wire extends far enough to adequately reach the eyebolts and be attached to them
- 2. Turn the air cleaner onto the grille portion so that the four holes are visible on the top portion of the unit. Attach the four eyebolts to the top by screwing them into the appropriate holes.
- 3. Lift the air cleaner into place and rest on the T-bar opening. Immediately secure the unit by attaching the steel support wires to the eyebolts and turning each four times to assure stability.
- 4. Make sure the unit rests into the T-bar opening without putting weight upon the T-bar gridwork. The weight should be borne by the support wires with the T-bar acting as a holding receptacle for the unit facing. You should check the level of the unit to be assured of proper operation.

# INSTALLATION OF THE ELECTRICAL WIRING

<u>CAUTION</u>: This procedure should be attempted by persons qualified to install electrical wiring. All wiring must comply with applicable codes and ordinances.

- 1. Locate an unswitched 120V AC, 60Hz (alternative power sources would be used in the case of the LA1000FM 230V units) power circuit with a junction box near the air cleaner location.
- 2. Check the circuit breaker or fuse for that circuit is rated at 15 amperes or 20 amperes. The required copper wire size will be:

AWG #14 for 15 ampere circuits AWG #12 for 20 ampere circuits

- 3. Caution: Turn off the building circuit at the fuse or circuit breaker before proceeding.
- 4. Locate the connection box on the air cleaner and remove the outer plate which contains the knockout. You will note the presence of three wires on the inside of the box. One black, one white, and one green.
- 5. Connect the black and white wires from the pigtails in the air cleaner to the corresponding colors in the supply circuit.
- 6. Connect a green wire from the grounded terminal in the air cleaner to the grounded circuit of the building wiring system. If the building does not have conduit it will have a green or bare grounding conductor for connection to the air cleaner green wire. DO NOT CONNECT THE GROUNDING WIRE FROM THE AIR CLEANER TO THE WHITE WIRE OF THE BUILDING. The air cleaner frame must be electrically connected to the frame of the building or the electrical conduit system. Input electrical power should be run through flexible conduit as recommended by the National Electrical Code or your local authority.

#### REASSEMBLY OF THE UNIT

- 1. With the unit now in place, loosen the ¼ turn screws on the intake grille and allow the hinged portion to drop into place.
- 2. Replace the pre-filter screen, electronic cell, and carbon after filter, making sure to connect the grid cap connector to the cell.
- 3. Close and lock into place the entire hinged panel.

# EXHAUST GRILLE ORIENTATION

- 1. The exhaust grille side of your LA1000FM is equipped with individually movable louvers. To set them in the air pattern which best suits your needs, you simply turn them in the direction that you wish to direct the airflow.
- 2. A good pattern would allow for dispersion of the air so that it is not blowing straight down perpendicular to the floor.

### START-UP AND CHECKOUT OF THE UNIT

To make sure the unit is operating correctly before leaving the installation, please check the following;

- 1. Check all electrical connections and make sure they are tight and properly connected.
- 2. Electronic cell is in place and properly oriented so that the airflow arrow points in the direction of the airflow.
- 3. Turn on the unit and check to see that it runs properly at all speeds. In addition, make sure the light goes on when the unit is in operation.
- 4. Open the intake grille section and check to see that the unit shuts off completely. Reengage the panel and make sure unit turns on by watching light.

If for any reason the unit does not appear to work correctly, refer to the Troubleshooting Guide for assistance.

# LA-1000FM FLUSH MOUNT AIR CLEANER MAINTENANCE

#### WASHING THE ELECTRONIC CELLS AND PREFILTER

In order for your LA1000FM to maintain peak operating efficiency, the pre-filter screen and the electronic cells must be washed regularly. The frequency of this cleaning will depend on the atmosphere in which the units are operating. The best way to clean the cells is by soaking them in hot water with cell cleaning detergent (other methods can be used if time is a restraint).

- 1. Following the cell cleaner manufacturer's instructions, add detergent to hot water in an appropriate container such as a stationary tub.
- 2. Immerse the cell in the water and soak for 15 to 30 minutes. Then remove the cell and rinse with clean water, making sure to remove all reside from the cell surface.
- 3. Check cells for broken ion wires or bent plates and repair or replace if necessary.
- 4. Make sure the cell is completely dry before placing it back into the air cleaner.
- 5. Remove lint and other dirt from the pre-filter by vacuuming or washing in a mild detergent solution.

**CAUTION**: Care should be taken when handling the LA1000FM cells and filters.

- 1. Edges may be sharp on the collection plates as well as the area near the ionizing wires.
- 2. Be sure to wear appropriate gloves and goggles when dealing with cell chemical of any kind. Contact with the skin is not recommended
- 3. Electronic air cleaners and their components are susceptible to damage. Take care when working with them to avoid equipment damage.

# **SERVICE**

Should your LA1000FM malfunction, there are several simple checks which you can make to check the performance before a service person need be called.

- 1. Check to see if the fuse on the unit is tripped which would indicate electrical interruption to the unit. Correct by replacing fuse. If the circuit breaker or service box fuse is blown, that too will need replacement.
- 2. Be sure the electronic cell is in place and that the access door is locked down. Failure to have this done will cause the safety interlock to override the circuit.
- 3. If the operating light is not lit after checking these things, a service person should be consulted

All electronic air cleaners undergo a process known as "arcing" from time to time. It's a snapping noise coming from the electronic cell when very large particles pass into the collection cell or when the cells are wet or extremely dirty. If an unusual amount of arcing persists, check the collecting cells for broken wires, bent plates or to see if they are very dirty. If arcing still occurs, check with your service person or dealer.

For any questions, please contact our customer service department at **1-800-237-9199**.

# LA-1000FM FLUSH MOUNT AIR CLEANER APPLICATION

The LA-1000-FM Electronic air cleaner provides a single electronic cell with uni-cell construction for maximum efficiency and minimal maintenance. Installed in the 2' x 4' space of an acoustical panel drop ceiling, the LA-1000-FM delivers up to 1000 cfm, or "cubic feet per minute" of clean, fresh air into your breathing environment. Two sets of adjustable louvers on the clean air delivery panel allow for an infinite variety of airflow patterns you can set. A low 11" depth means the LA-1000-FM requires very little space between the "true ceiling" and drop ceiling for installation, and no portion of the unit hangs down from the ceiling.



- The LA-1000-FM incorporates a single electronic Medial filter with a built-in carbon after-filter for quick and easy filter changes.
- Two centrifugal blowers allow two distinct cleaning modes and gives the LA-1000-FM high cfm capacity for quiet and efficient operation.
- The hinged intake panel allows for easy access to the internal components for easy cleaning and maintenance.
- Top mounting installation system provides for easy drop-in placement into standard 2 x 4 suspended ceiling construction.
- Louvered intake panel and louvered clean air delivery panel allow for variable yet smooth air flow.
- A removable hood with less than 12 inches of depth required for simple installation.
- 7 Year Limited Warranty!
- Dimensions 47<sup>3</sup>/<sub>4</sub>" x 23<sup>3</sup>/<sub>4</sub>" x 11"
- Weight 95 lbs.
- Clean Air Capacity Low; 400 cfm High; 1000 cfm
- Power Usage: 600 Watts
- Power: 120v, AC/60Hz/5 Amps
- Sound Level: 54-57 dB(A)
- Particle Removal: Up to 95% of particulates as small as 0.01 microns

## How The LA-1000-FM Flush Mount Air Cleaner Works...

As dirty air is brought to the LA-1000-FM electronic air cleaner by the dual squirrel cage blowers, the larger particles are trapped by a washable, pre-filter screen. Smaller particles pass through to the ionizing section of the electronic cell where they are given an electrical charge. The "charged" particles then continue through to the collecting section of the cell where they are attracted to a series of grounded plates. The pollutants are held in the section until washed away during the cleaning process. It is important when buying an air cleaner to make sure that it has an ample collection area. The carbon after-filter eliminates odors that may have been trapped in the filter and circulates fresh air back into the area.

IMPORTANT: The carbon afterfilter should be changed every 1-3 months.

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