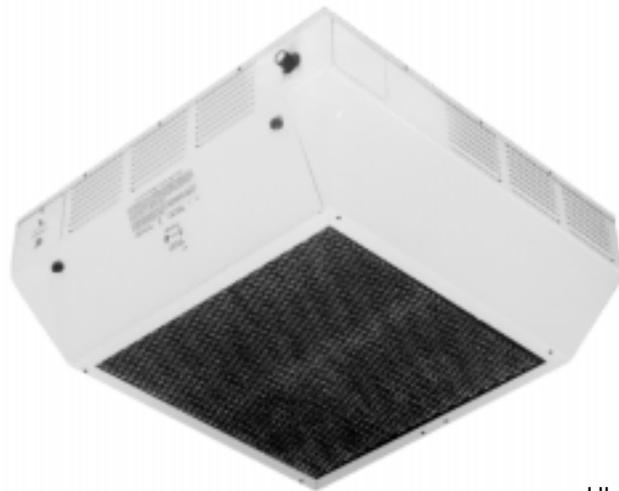




Electronic Air Cleaner

Model Number

CSC1000



UL Listed
CSA Certified

OWNER'S MANUAL

- Installation
- Operation
- Basic Service Guide
- Technical Repair Guide
- Repair Parts

Please read and familiarize yourself with the contents of this manual before installing, operating or performing maintenance on the unit.

RULES FOR SAFE INSTALLATION AND OPERATION

Please read instructions before installing and using the Electronic Air Cleaner. This will help you obtain the full benefit from the Electronic Air Cleaner you have selected.

1. Read the Owners Manual and the Rules for Safe Operation carefully. Failure to follow these rules and instructions could cause a malfunction of filter or unsatisfactory service.
2. Follow a regular service and maintenance schedule for efficient operation.



⚠ WARNING

ELECTROCUTION HAZARD
Shut off power at fuse panel before servicing. Failure to do so could result in serious personal injury or death.

⚠ WARNING

Installation of this unit must comply with local electric codes or other applicable codes.

Review and understand local codes prior to installation.

Do not use this apparatus in an explosive atmosphere.

Failure to do so could result in serious personal injury or death.

⚠ WARNING

Do not attempt installation of this unit unless you are familiar with the necessary tools, equipment, utility connections and potential hazards.

Installation should be performed only by a qualified service provider.

Failure to do so could result in reduced performance of the unit, serious personal injury or death.



⚠ CAUTION

CABINET AND CELLS MAY CONTAIN SHARP EDGES.

Use care when servicing unit or handling cells. Failure to do so could result in minor personal injury.

Specifications

CSC1000 Self-Contained Ceiling Hung Electronic Air Cleaner
Model: CSC1000
Voltage: 120 VAC, 60 Hz.
Watts HI-speed: 240
Fan Speed: Variable 200 to 1000 CFM
Dimensions: 28"H x 28"W x 11 1/2"D

Weight: 66 lbs.
Shipping Weight: 76 lbs.
Efficiency: Efficiency varies with fan speed approximately 96% at low speed and 87% at hi speed.
NOTE: Unit must run for one full hour after installation. This will allow the collecting cells to reach peak efficiency.

Basic Tools Required

Screwdriver, Rule or Tape Measure, Drill

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HOW THE AIR CLEANER WORKS

The enclosed fan circulates the air through the bottom of the electronic air cleaner and out through the four outlet grilles. The ionizing section of the collecting cell contains many fine ionizing wires that charge the incoming airborne particles. The charged particles move into the collecting plate area and are trapped to the plates (like a magnet attracts and collects iron filings).

The cleaned air is then drawn through a charcoal filter to assist in removal of unpleasant odors. The cleaned and purified air is discharged to recirculate through your building.

White Dust (Lint)

An Electronic Air Cleaner is designed to collect two major types of contaminants: ① Irritants (Pollens, Spores, Molds, Bacteria, etc.) and ② Black Soiling Contaminants (Dirt and Smoke particles).

The residue on the collecting plates of an electronic air cleaner is black, indicating it is removing dirt from the air stream. After installing an air cleaner you may notice white dust (typically, long linty particles or fibers – from carpets, cotton materials or drapery fabrics). This material is not collected by the air cleaner because it does not contain the irritants or soiling contaminants listed above or settles out of the air before reaching the air cleaner. The presence of white dust does not indicate an air cleaner requires service.

Carbon (Charcoal) Filters

Odors are gas molecules, not particles. They cannot be removed by an Electronic Air Cleaner or by any other filtration media designed to remove airborne particles. However, some gases can be absorbed by an activated carbon filter or diluted with fresh outdoor air. When odors are present, the addition of charcoal filters will neutralize odors, such as cooking odors, pet odors, cigar and cigarette odors, ozone, etc. Optional charcoal filters are available for your Air Cleaner. Refer to the parts list for the charcoal filter part number for your Air Cleaner. Charcoal filters require replacement. They cannot be washed. While there is no rule of thumb for how often they should be changed, you can use your best judgement based on the odors you perceive in your environment.

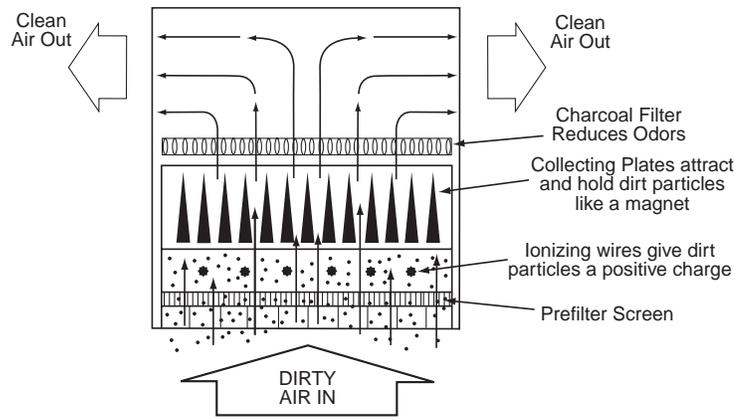


FIG. 1 Illustration of Air Cleaning Process

INSTALLATION

PLACEMENT

The installer must be qualified to make approved electrical connections and a safe ceiling installation with attention to the best placement as shown in the following drawings.

The electronic air cleaner should be mounted on the ceiling near the center of the room. Air is drawn through the bottom of the air cleaner and discharged in four directions. Divide larger rooms into sections and use a unit in each section (see Fig. 2).

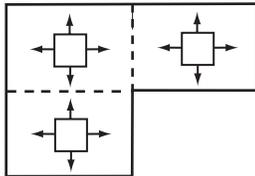


FIG. 2 Divide large room into areas

Check existing air circulation in the room. The air cleaner should be installed so that it aids the circulation already established. When air flow patterns are not immediately apparent, observe the smoke from a cigarette in various locations within the room. Do not locate the air cleaner near a heating or air conditioning intake or exhaust vent if it interferes with the air flow discharge and return air to the heating or air conditioning unit.

CEILING MOUNT

The air cleaner is mounted to the ceiling. The mounting holes in the unit are spaced 16" and 26 1/2" between centers (Fig. 3).

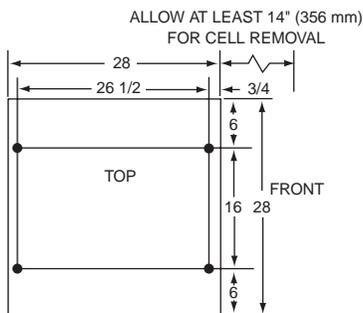
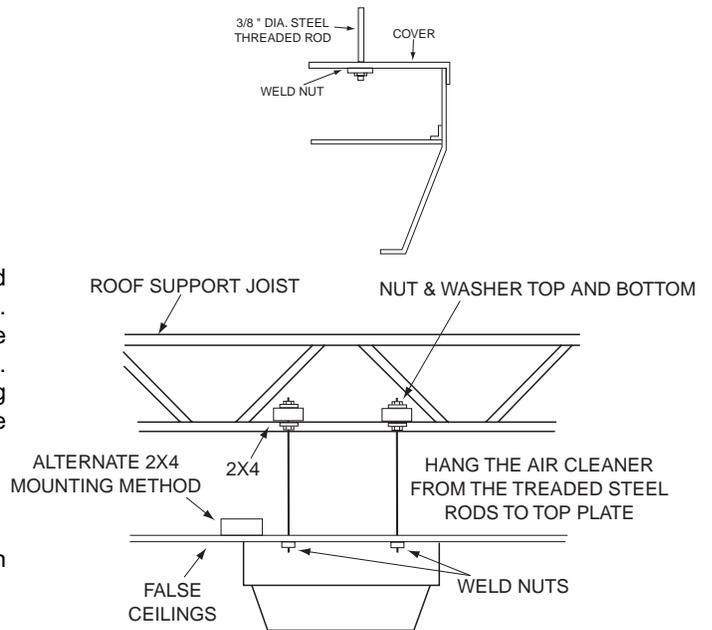


FIG. 3 Installation Dimensions in Inches

Mounting Detail

Be sure to select the mounting location so that the structure above is sufficiently strong to support the unit (approximately 70 lbs). See Fig.4.

CAUTION: Do not allow the unit to be supported by the ceiling tile grid suspension.



**ALTERNATIVE: Wood 2 x 4's can be used at the False Ceiling Level and supported from above with 16 ga. wire min.

FIG. 4 Mounting details

WIRING INSTRUCTIONS

Standard electrical wiring of 120 volts, 60 Hz, 15 Amp circuit is adequate. Local residential and commercial wiring codes shall apply. Flexible conduit should be used (Fig. 5).

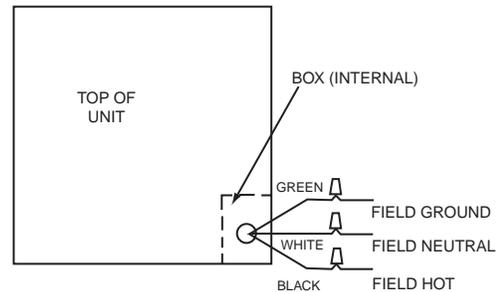


FIG. 5 Electrical connection

OPERATION/MAINTENANCE

OPERATION

1. With the 120 VAC power turned on, adjust the knob to the position desired.
2. When the fan is running, the air cleaner will be operating. An arcing or "snapping" sound may be heard occasionally, however the unit is operating properly.
3. The Operating Light should be ON whenever the fan is running. An occasional flicker of the light accompanied by harmless sparking or snapping noise may occur. This is caused by the plates trapping large particles. If arcing is continuous, the cells should be washed or checked for service problems.

WASHING

	CAUTION
	CABINET AND CELLS MAY CONTAIN SHARP EDGES. Use care when servicing unit or handling cells. Failure to do so could result in minor personal injury.

For maximum efficiency, your air cleaner cell and pre-filter should be inspected periodically and cleaned when necessary. The cleaning frequency will vary, depending on the amount of airborne contaminants. When cleaning is required the following procedure should be used:

CLEANING THE CELL

1. Turn the control switch to "OFF".
2. Open the door, slide out charcoal filter, cell and pre-filter and re-close the door for safety. Replacement charcoal filters are available for odor control (see parts list).

NOTE: Do not wash the charcoal filter.

3. Using a solution of warm water and low sudsing detergent, soak cell for 20 to 30 minutes.

NOTE: Ionizing wires may become coated, causing loss of cleaning ability by the collecting cell. Using a damp cloth, wipe each ionizing wire, exercising care not to damage them.

4. Remove the cell from solution and rinse thoroughly with clean water. After removing cell, wash and rinse pre-filter.
5. Allow cell and pre-filter to drip dry for a **minimum of 2 hours**. Cell may be tipped at a slight angle to expedite the drip-dry process.
6. Open door and replace charcoal filter.
7. Slide cell into unit with air flow arrow pointing in direction of air flow.
8. Slide pre-filter screen into unit.
9. Close the door and securely fasten.
10. Turn the control switch to desired fan speed.

A moderate amount of arcing or "snapping" may occur at this time, which will indicate that the cell is still damp. If the noise is objectionable, turn the control switch to "OFF" and allow additional time for the cell to dry.

TECHNICAL REPAIR GUIDE

⚠ WARNING

Do not attempt repair of this unit unless you are familiar with the necessary tools, equipment, utility connections and potential hazards.

Repair should be performed only by a qualified service provider.

Failure to do so could result in reduced performance of the unit, serious personal injury or death.

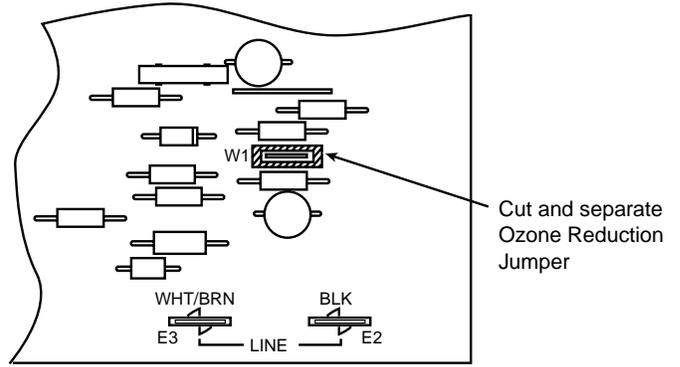
This guide contains service checks to assist service personnel in locating and correcting any malfunction that might occur to render the air cleaner ineffective or inoperative. The air cleaner has been designed with replaceable components, such as the high-voltage power supply. This allows the serviceman to replace a faulty component rather than attempt repairs of such components in the field.

SERVICE INDICATION	SERVICE CHECKS
Control switch "ON" Fan operating Operating Light ON	Unit functioning Normally.
Control switch "ON" Fan not operating Operating Light OFF	<ol style="list-style-type: none"> Power is not being supplied to air cleaner. <ol style="list-style-type: none"> Check fuse or circuit breaker. Make sure that door is closed and safety switch is pushed in.
Excessive arcing during normal operation – Operating Light may blink NOTE: Occasional arcing or "snapping" is considered normal.	<ol style="list-style-type: none"> Collecting cell dirty. <ol style="list-style-type: none"> Clean cell thoroughly as instructed in this manual. Wet collecting cell. <ol style="list-style-type: none"> Allow cell to dry after cleaning before applying power. Excessive airborne material. <ol style="list-style-type: none"> Additional air cleaner(s) may be required in extreme environments. Additional clean make-up air may be required. Damaged or shorted collecting cell. <ol style="list-style-type: none"> Inspect cell for bent plates. Straighten plates as necessary. Check for foreign objects shorting across cell plates or ionizing section. Inspect cell for loose or broken ionizing wire(s). Replace as needed. Inspect cell for cracked or broken insulator(s), around cell perimeter. Replace collecting cell if condition persists. Damaged charcoal filter. <ol style="list-style-type: none"> Remove charcoal filter. If arcing/snapping stops, the filter may be breaking down and require disposal or replacement.
Control switch "ON" Fan operating Operating Light OFF	<ol style="list-style-type: none"> Damaged or shorted collecting cell. <ol style="list-style-type: none"> Remove collecting cell. Close door so safety switch is pushed in. If Operating light comes ON with cell removed, check cell as described above. If light does not come ON, proceed to next step. Power Supply. <ol style="list-style-type: none"> Remove collecting cell. With safety switch pushed in, 120 VAC should be present at terminals marked "LINE" on power supply. If voltage is below 6100 VDC at red high voltage terminal on power supply, replace power supply. If voltage is correct, replace indicator light. NOTE: Unit may require up to one hour of operation to reach indicated voltage when first installed or when replacing cell.

OZONE REDUCTION

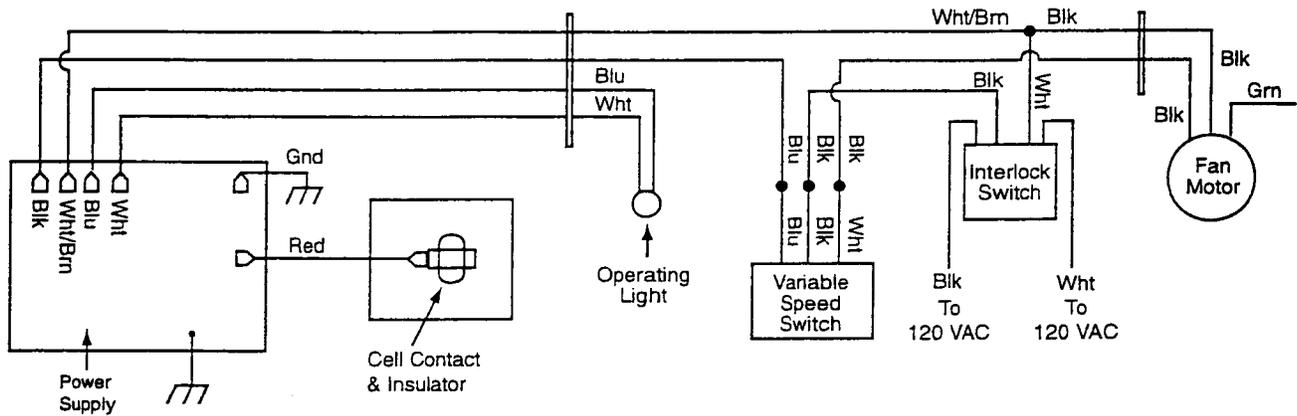
All electronic air cleaners typically produce a small amount of ozone that is within established limits. Some customers may notice an odor especially at high altitudes or low air flow rates.

This power supply has a "hairpin" shaped jumper wire labeled W1 that can be cut and separated in case of such complaints. This will cause the power supply to limit the maximum operating power to a lower level.

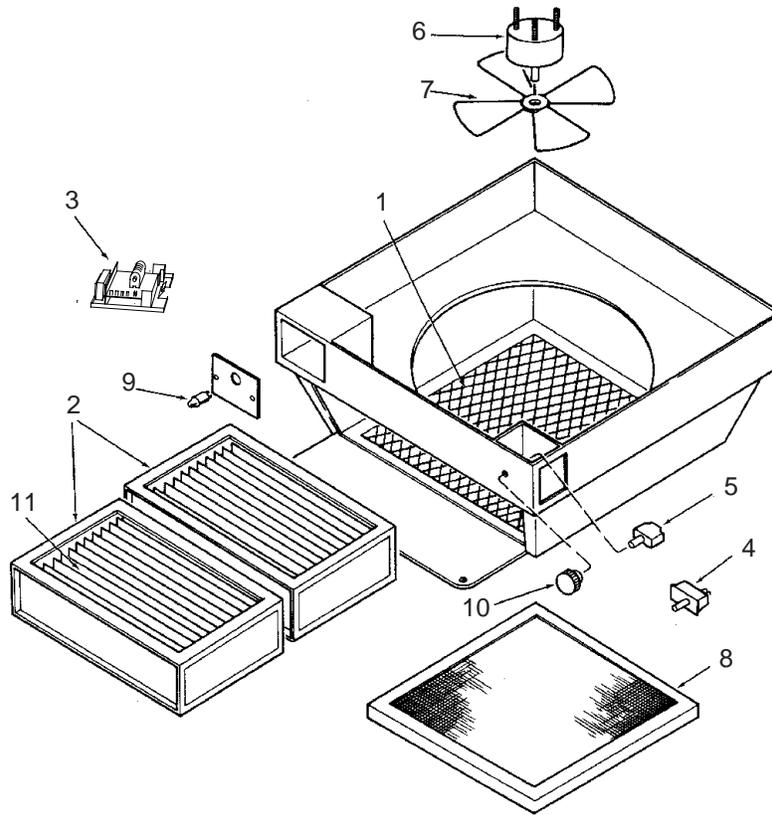


CSC1000

WIRING DIAGRAM



REPLACEMENT PARTS DIAG



ITEM NO.	DESCRIPTION	CSC1000
1	Pre-Filter	F825-0357
2	Collecting Cell	F811-0414
3	Power Supply †	F858-1002
4	Switch, Safety	F876-0199
5	Switch, Variable Speed	F876-0203
6	Fan Motor	F849-0060
7	Fan Blade	F848-0315
8	Charcoal Filter	F825-0460
9	Light	F844-0143
10	Knob	F839-0019
11	Ionizing Wire	F843-0500
††	Manual	37-6336

† F858-1002 Kit includes Air Flow Switch not used on this model

†† Not Shown

