



Model CAC 500M Media Air Cleaner

Installation Operation Service

Please read these instructions carefully for trouble free operation and to get the most out of your purchase. For further information concerning this project, contact your local Trion representative.

Due to the nature and wide variety of dusts, it is impossible to list all of the potential hazards associated with dust control equipment or systems. Therefore, it is imperative that the application and use of this equipment be discussed with a Trion representative and that all personnel involved with the equipment be instructed to comply with the statements in this manual pertaining to worker safety.



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This manual provides information for location, installation, operation and service. Before installation and use of the air cleaner, carefully read these instructions to ensure maximum benefits from the unit and to avoid needless service cost that can result from improper installation.

I. INTRODUCTION

Air movement through the unit is controlled by its own blower system. As dirty air enters the unit it passes through a high density media material which strips debris from the air and retains it in the filter fibers while allowing clean air to be returned to the room.

SPECIFICATIONS

Model	CAC 500M
Rated Capacity	135, 200, 285 CFM 230,340, 400 m ³ /hr
Unit Weight	65 lbs / 26.3 kg
Power Consumption	345 Watts (minimum)
Electrical Input	120 Volts, 60 Hz, 1 Ph

Specifications subject to change without notice.

II. OPERATION (SKETCH A)

CONTROL SWITCH (A)

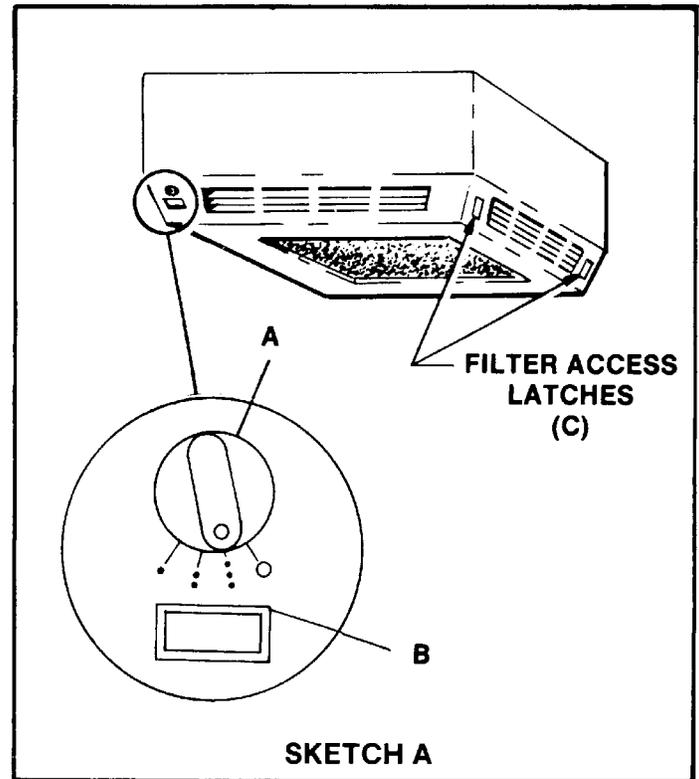
The 3 position control switch located on the side of the unit controls the speed of the fan. (Lo-135 CFM; Med.- 200 CFM; Hi-285 CFM Nominal).

ON/OFF LIGHT (B)

The on/off light monitors the electrical operation of your air cleaner. When the control switch (A) is in the Hi, Med, or Lo position, power is being delivered to the indicating light. If the on/off light does not glow, the air cleaner is in need of attention. (Refer to Troubleshooting, Page 4.)

FILTER ACCESS LATCHES (C)

The filter access latches located on the side of the unit hold the access door closed and are designed to automatically disconnect electrical power from the blower when the access door is opened.



III. INSTALLATION

Two methods of installation are described below. Read each set of instructions carefully and select the method which best suits your application.

T-BAR CEILING INSTALLATION

NOTE:
DO NOT INSTALL THE UNIT IN A T-BAR CEILING UNLESS THE UNIT CAN ALSO BE SECURED TO THE PERMANENT CEILING OR CEILING JOISTS, BEAMS, ETC. AS DESCRIBED BELOW.

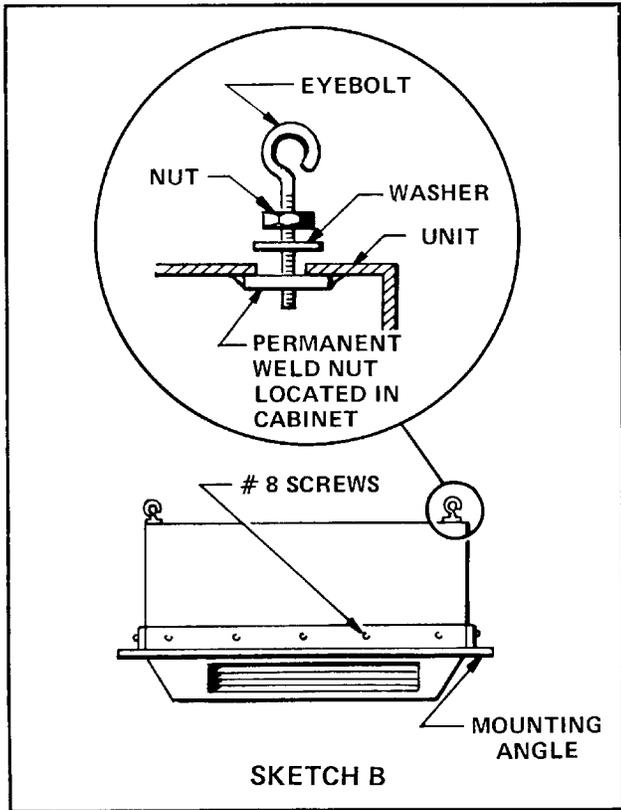
1. The following items are supplied for securing unit:
 - A. 4 ea.- 1/4 - 20 x 4" Eyebolts
 - B. 4 ea. 1/4 - 20 Hex Nuts
 - C. 4 ea. 1/4 - Lock Washers
 As required – 2/ 0 Chain (Min.) (Not Supplied)
2. Carefully unpack the unit and check for damage incurred in shipment. Report any damage to the freight carrier immediately.
3. Install eyebolts as shown in Sketch B.
4. Select and remove a ceiling tile near the center of the area to be cleaned by the unit.
5. Attach a length of safety chain (2 / 0 Min.) to each of the four eyebolts. Fasten securely.

THE NATIONAL ELECTRICAL CODE REQUIRES THE USE OF FLEXIBLE CONDUIT FOR INPUT WIRING TO A CHAIN SUSPENDED UNIT.

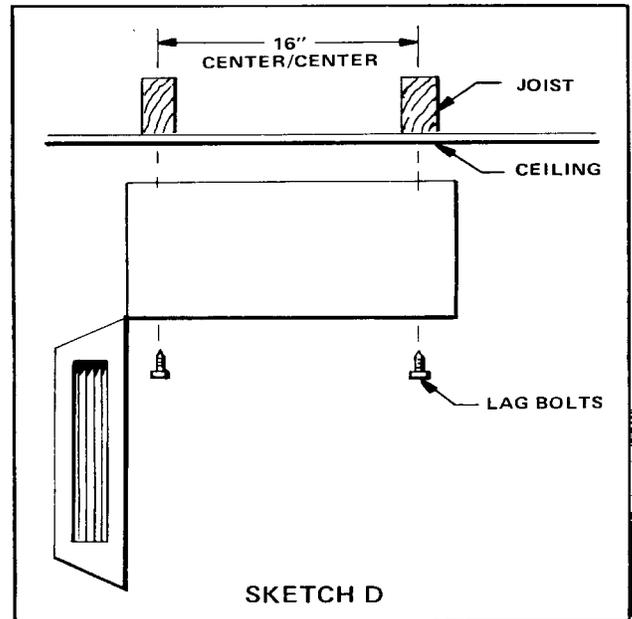
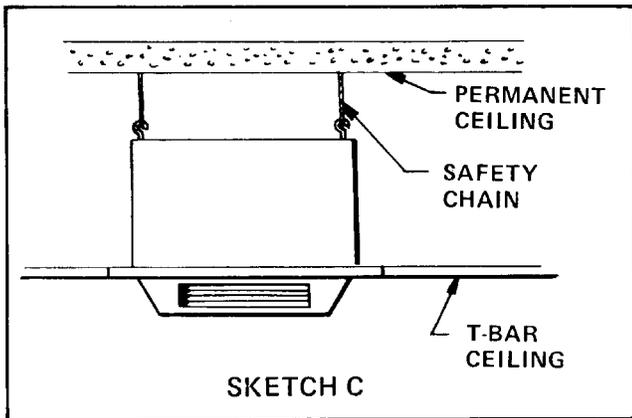
8. If available clearance between permanent ceiling and T-Bar ceiling is less than 11", mounting angles must be relocated on unit as required. This will result in further extension of the unit below the ceiling line.
9. If a charcoal filter is used, remove filter from plastic bag and locate on air exit side of filter.
10. Re-install media and charcoal filter.
11. Close access door and unit is ready for operation.

FLUSH MOUNT INSTALLATION

1. Carefully unpack the unit and check for damage incurred in shipment. Report any damage to the freight carrier immediately.
2. Select a location near the center of the area to be cleaned and locate the ceiling joists in that area.
3. Locate four mounting points (each being at a joist) and pre-drill holes into the joist and unit housing as shown in Sketch D.



6. Lift unit into place and support unit while securing to permanent ceiling, ceiling joists, etc. See Sketch C.



CAUTION:
DO NOT ALLOW FULL WEIGHT OF UNIT TO REST ON T-BAR CEILING.

7. Connect electrical power to unit. See Field Wiring Diagram, Page 3.

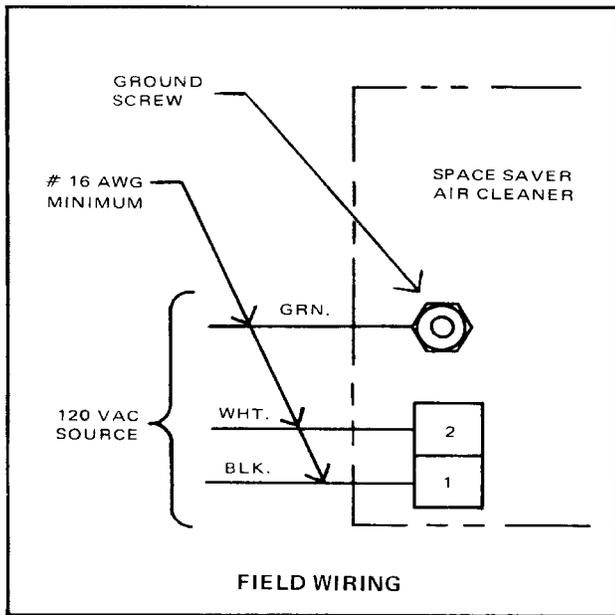
4. Lift unit to ceiling and secure using four 1/4 " X 2 1/2 " lag bolts as shown in Sketch D.
5. Connect electrical power to unit. See Field Wiring Diagram.

6. If a charcoal filter is used, remove filter from plastic bag and locate on air exit side of filter.
7. Re-install media and charcoal filter.
8. Close access door and unit is ready for operation.

IV. ELECTRICAL WIRING

Knockouts are provided in the top and side of the housing assembly. Wire the unit to 120 volt, 60 HZ, 1 phase.

Field wiring requires connecting black and white leads to corresponding building current input. Connect incoming ground (green) wire to the ground screw located in air cleaner.

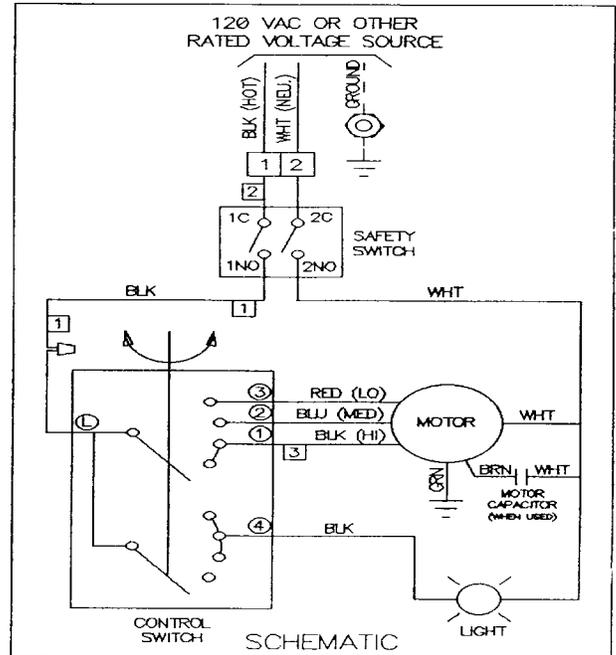


week intervals. When there is a noticeable build-up of dirt, it is time to replace the filter.

Filters usually last from 2 to 6 months.

STEPS FOR REPLACING FILTER

1. Switch control switch "OFF".
2. Remove media filter.
3. Replace with new media filter.
4. Close filter access door.
5. Turn control switch to the desired speed.



V. SYSTEM CHECKOUT

After assembling and installing the unit, switch control switch on.

- A. The on/off light should now be on. The light shows unit has line voltage.
- B. Open filter access door. The on/off light should go out. The blower should also stop.

VI. MAINTENANCE

When to change media filter: Periodically the dirt collected by your unit must be removed. The frequency will depend on the amount of debris present in the air in your locality.

The replacement frequency best suited for your unit can be determined by examining the filter at three

VII. TROUBLESHOOTING

WARNING:
Disconnect power before troubleshooting.

Troubleshooting the unit is very easy as there are only three electrical components in the unit: the motor, the 3 speed switch and indicator light.

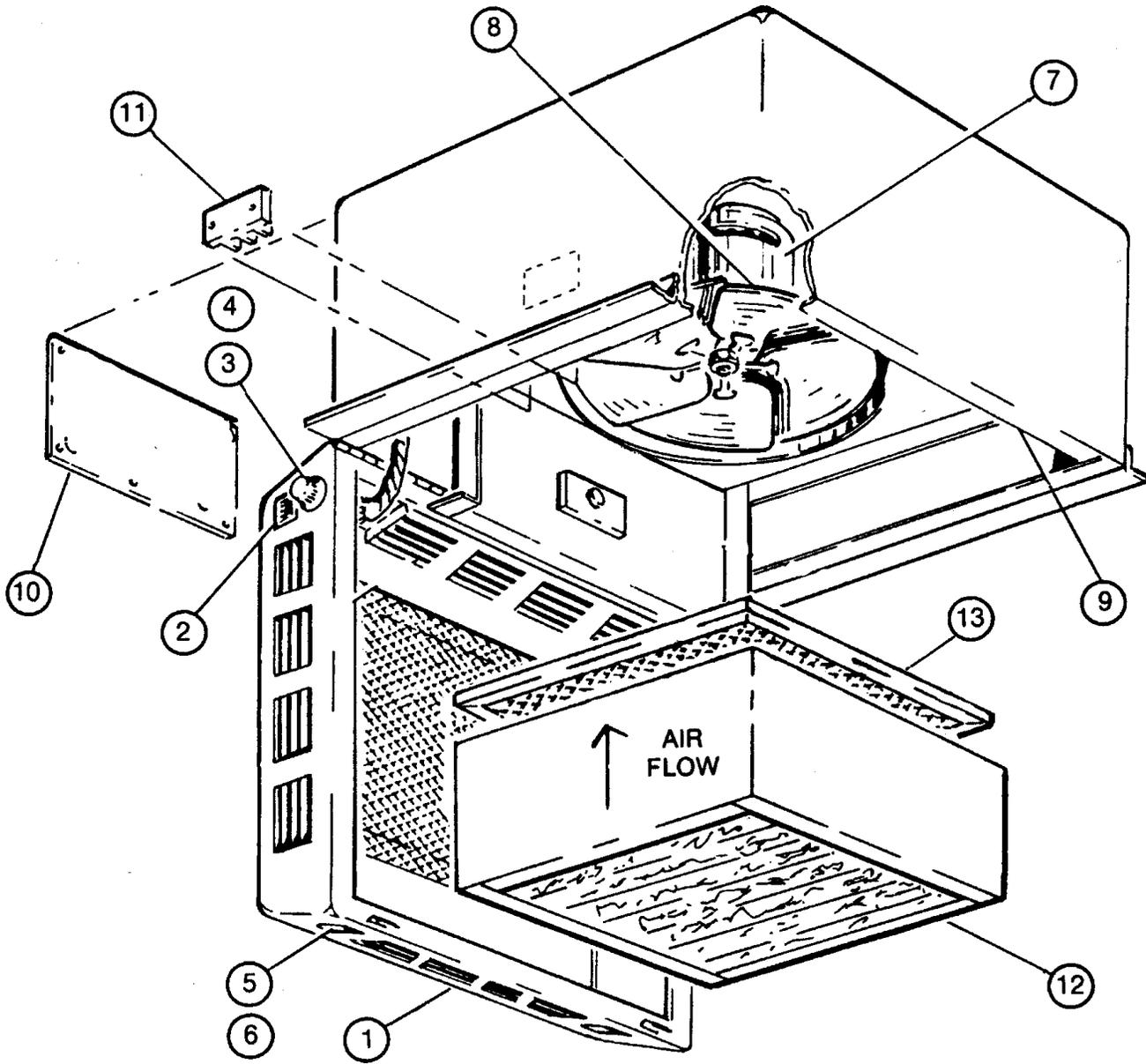
Problem	Solution
A. Unit does not operate. Light does not light.	A1. Check 115 VAC input power A2. Broken lead in power cord A3. Bad switch
B. Light glows but blower does not run	B1. Broken wire between the speed controller and the motor B2. Bad motor

VIII. ORDERING PARTS

When ordering replacement or spare parts, state the Unit Model No. and Serial Number. These numbers are shown on the data plate located on the cabinet housing .

Replacement parts are available through your local Distributor. Orders will be filled in accordance with the terms and conditions of current price sheets.

A return material request form must accompany all return parts.



PARTS LIST

Key Number	Part Number	Description	Qty
1	446009-001	Cabinet Top	1
2	121110-002	Light	1
3	243939-001	Rotary Switch	1
4	242235-001	Knob	1
5	134205-002	Latch	2
6	134206-002	Latch Actuator	2
7	243155-001	Motor	1
8	136333-001	Propeller	1
9	132315-001	Gasket	7 ft
10	343017-001	Cover Plate	1
11	220400-002	Terminal Block	1
12	1000-3000-0101	Media Filter	2
13	132309-001	Charcoal Filter (optional)	1

WARRANTY

All Trion air cleaners are warranted for component failure and workmanship for a period of three years after purchase. Do not return defective parts without prior permission from the factory. Contact your local Trion Distributor or Trion Customer Service Department at 1-800-884-002 or Fax 1-800-458-2379 to obtain material return authorizations and service information.



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