

# **MICRO AIR**®

## **AIR CLEANERS**



### **Model IE 1250**

# **OWNER'S MANUAL**

## **CAUTION**

Read complete instructions before operating.  
Please file for future reference.

## MODEL IE 1250 SPECIFICATIONS

|                  |                       |
|------------------|-----------------------|
| Input Volts:     | 120V, 60 Hz           |
| Motor:           | 3/4 HP, TEAO          |
| Dimensions:      | 42" L x 19" W x 21" H |
| Shipping Weight: | 150 lbs.              |
| Actual Weight:   | 130 lbs.              |

## PRE-OPERATING INSTRUCTIONS

1. Cut banding material that holds skid to cardboard carton.
2. Remove unit from cardboard carton.
3. Inspect power cord and the on/off switch for damage.
4. Open cells access door and inspect cell and ionizer for damage.

## HANGING INSTRUCTIONS

The following items are needed for hanging:

- ? 4/0 chain minimum rated at 200 lbs. working load.
- ? 5/16" wrench.
- ? Bolt cutter.

**CAUTION: No less than four (4) chains may be used to suspend unit from ceiling. Chains should not angle more than 15 degrees. Hang from structural supports.**

1. Remove the eyebolts from the unit.
2. Remove the four (4) screws from the four corners on the top or bottom of the unit.
3. Screw the nuts provided onto the eyebolts. Then screw the eyebolts into the unit. Tighten the nuts against the unit to prevent loosening by vibration.
4. Firmly secure four (4) chains of equal length to a firm, structural support. Wire of equal or greater strength may be used in lieu of chains.
5. Raise the unit up to chains and bond eyebolts to chains.

**CAUTION: Firm structure must be capable of supporting a minimum weight of 800 lbs.**

## ELECTRICAL CONNECTIONS

### A. CORD CONNECTOR

For cord connected application, simply plug the cord into an appropriate A.C. outlet.

### B. PERMANENT WIRING

1. Conduit electrical connections should be made by a qualified electrician and must comply with local electrical codes.

**CAUTION: Be sure that designated circuit breaker is off until all wiring has been completed.**

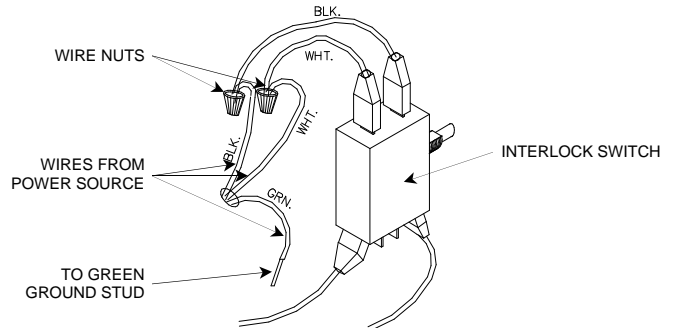
2. Remove blower access door held by four (4) screws.

**CAUTION: Be sure that the on/off switch is in the OFF position.**

3. Locate desired area for conduit connection and drill hole for conduit.
4. Route wire through conduit and into electrical compartment.

Disconnect power cord ground wire and replace with green wire from conduit.

5. Cut power cord six (6) inches from interlock switch, strip insulation back 1/2" and, using wire nuts, connect black and white wire from conduit to interlock (**Figure 1**).



**FIGURE 1**

6. Remove and discard remaining 9½ ft. of power cord.
7. Replace blower access door and turn unit on.

## OPERATION INSTRUCTIONS

1. Turn the switch on. The power lamp should glow.

Note: The cell access door activates an interlock switch when it is closed.

2. Some initial arcing (popping noise) may occur when the unit is turned on. This will stop in a few minutes after loose lint and dust are collected.
3. During normal operation, the power lamp may blink intermittently. If the lamp stops glowing completely, the cells should be inspected for excessive moisture or large particles. (See MAINTENANCE section)
4. The IE 1250 is equipped with a 4-way adjustable exhaust grille. This can be positioned for the optimum air flow pattern. Adjust grille up or down, and left or right to achieve desired pattern.

## MAINTENANCE

2. Always be sure power switch is turned off before performing any service to air cleaner.
3. When checking cell and ionizer assemblies, turn unit off and wait approximately three minutes before attempting to remove assemblies.

**CAUTION: Cell assemblies weigh 27 lbs. each.**

3. Open cell access door and note the orientations of the cell, ionizer, and prefilter. Remove for cleaning.
4. Wash the prefilter, cell and ionizer in a container of hot water, and ElectriClean or a good industrial detergent that is aluminum safe. Soak for 15 minutes or more, swishing the parts occasionally. Rinse thoroughly in clean water, drain, then allow to completely dry before assembly.

**CAUTION: Do not use any caustic or acidic solutions strong enough to damage aluminum.**

5. Make sure the cell is completely dry before installing back into cabinet.
6. Check the drive belt for tightness and wear.

7. Check the blower bearings for wear. Check the blower wheel for debris and dirt, and clean when necessary.
8. Check all wiring for loose connections or cracked insulation.

## TROUBLESHOOTING AND REPAIR

Whenever the air cleaner is not functioning, the neon light on the cabinet will not be lit. When the unit is operating this light will usually flicker to some extent. This is normal and does not indicate trouble.

### A. If unit is not working (Fan is not running and indicator light is off):

1. Check that fuse or current breaker is closed.
2. Make sure the switch is ON.

Note: If door is not in place when checking, door switch must be held in manually.

### B. If lighted switch is off:

1. Check fuse. If burnt, replace with 0.5 A fuse.
2. Remove cell and ionizer from cabinet. If light comes on upon activating door switch, the fault is in the ionizer and/or collector cell. To determine which, first place ionizer in unit. If lamp goes out then the ionizer is at fault. Repeat procedure with the collector cell.
3. If light is still not operating:
  - a) Remove the blower access door.
  - b) Put a neon test light or voltmeter across the two input leads to check line voltage on primary of high voltage transformer.
  - c) If correct voltage (120V or 220V  $\pm$ 10V, see Name-Plate) is not measured, check backward, using wiring diagram, until problem can be found.
  - d) Check voltage to light terminals (yellow and green/yellow wires. See WIRING DIAGRAM) on neon lamp. If correct voltage (120V $\pm$ 10V) is found but light is out, replace the lighted switch.
  - e) If there is no voltage, replace power pack. This can be removed by removing two (2) nuts and lock washers and sliding out the power pack. Replace new power pack in the same manner.

### C. If light is on, but cells are not collecting:

1. Check ionizer for broken ionizer wires and replace if necessary.

Note: If replacement wires are not immediately available, unit will operate satisfactorily with some of the wires missing until proper wire can be obtained. Make certain to remove all remnants of the broken wires.

2. Use an insulated handle screwdriver to cause a short at two places on the cell between two adjacent collecting plates (first) and (second) between any ionizing wire and the air flow plate. The spark at both locations indicates the cell and ionizer are working. The correct voltage readings are approximately 45000VDC for the plates, 10,000VDC for the wires. A voltmeter capable of reading 15,000VDC should be used to check for correct voltage.
3. If no spark is visible, remove the cell and make sure that the cell contacts are making contact with the contact on unit.
4. To check the cell, connect one side of an ohmmeter to outside plate of cell and other side of meter to copper contact on the end of cell. Resistance should read infinity (open circuit). If resistance is not infinity, see Step 5.
5. Examine cells and ionizers for:
  - a) Broken ionizing wires.
  - b) Damaged or bent plates. Straighten bent plate with needle nose pliers.
  - c) Excessive dirt accumulation.

### D. If the fan motor does not run:

1. Check across the black and white leads on both sides of power switch with test lead or voltmeter to assure power is on. If power is on, proceed to Step 2. If power is not on, check main panel fuses or circuit breakers.

2. If power is on and no voltage is measured on motor side of power switch, then switch is defective and must be replaced.

## WARRANTY

Metal-Fab offers a limited two (2) years warranty (from date of installation) on all replacement parts due to faulty workmanship and materials. All patent rights reserved.

## IE 1250 WIRING DIAGRAM

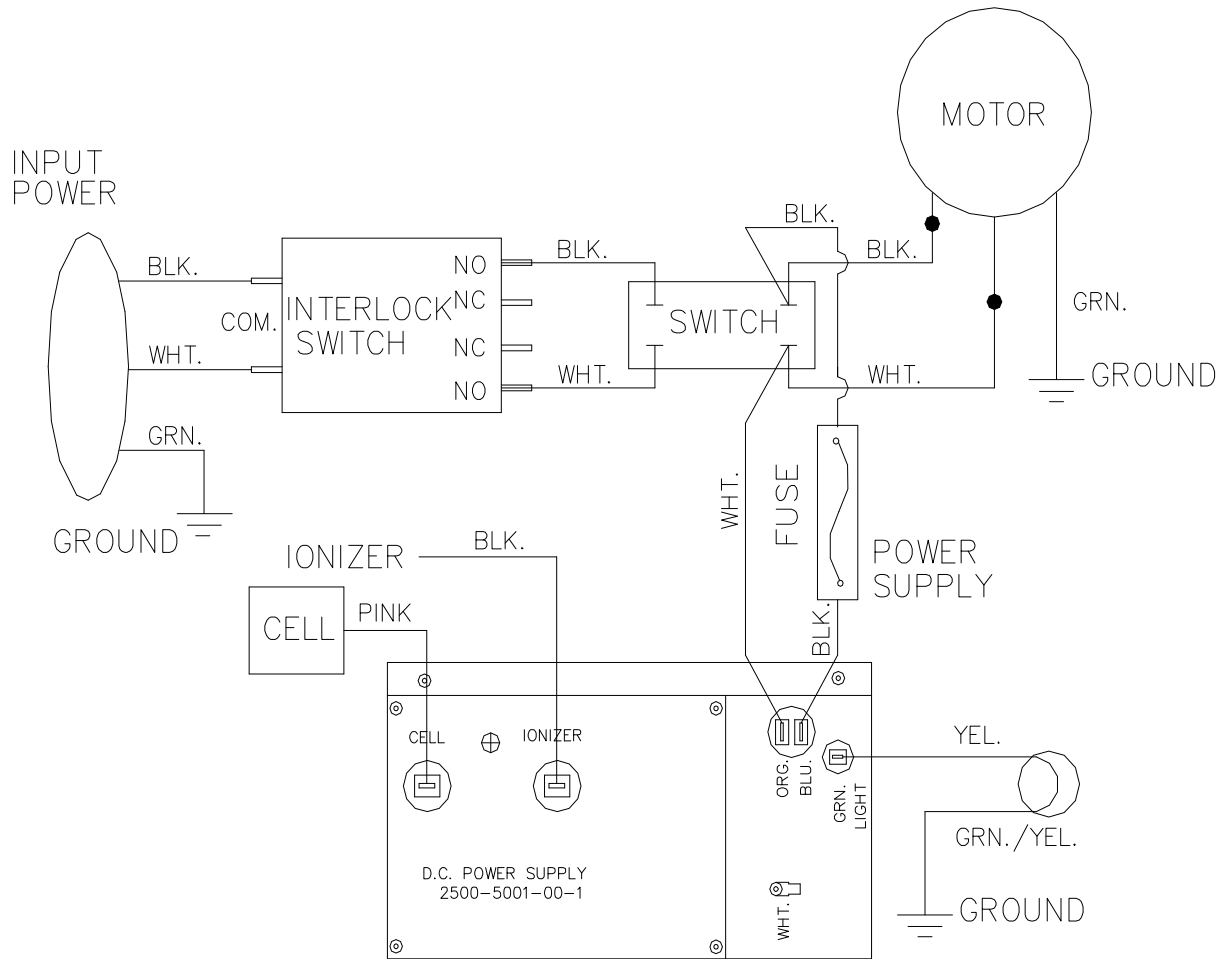
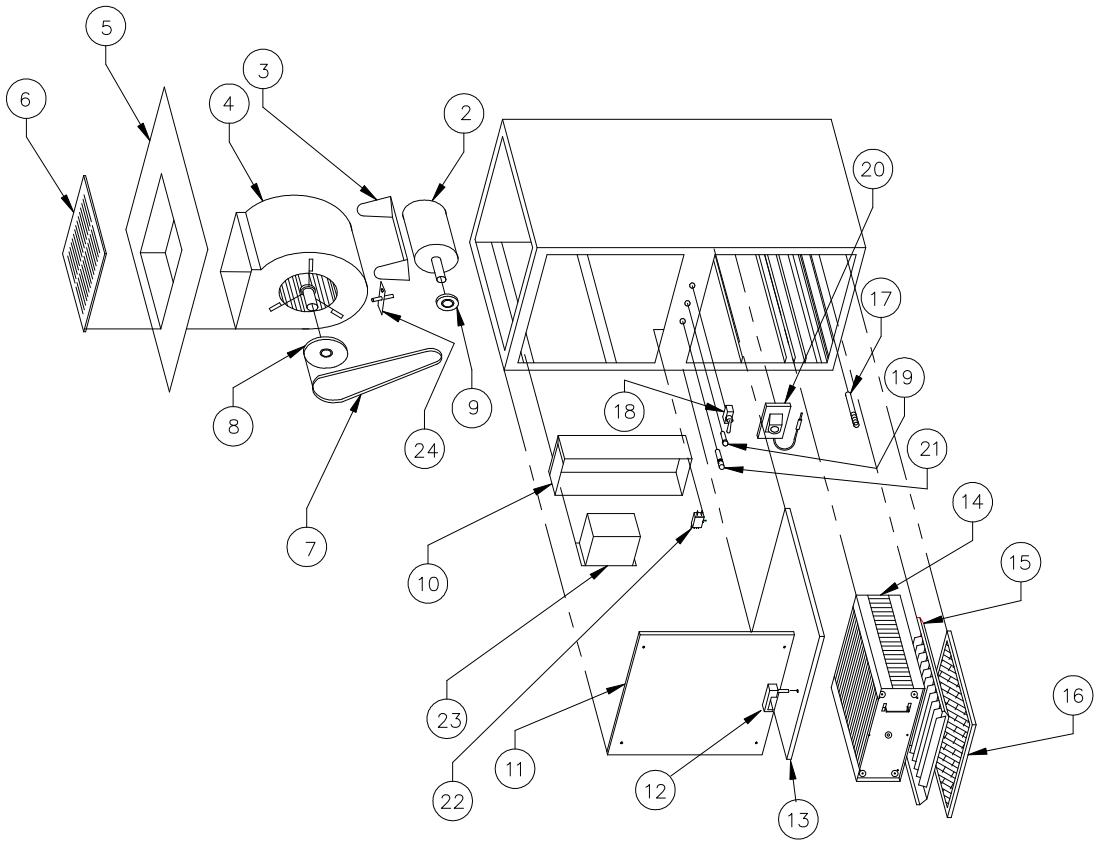


FIGURE 2

**IE 1250 PART LIST**



**FIGURE 3**

| Item | Part Number | Description            | Item      | Part Number | Description              |
|------|-------------|------------------------|-----------|-------------|--------------------------|
| 1.   | 30401-01    | Cabinet Weldment       | 17.       | 30173-01    | Ionizer Contact Assembly |
| 2.   | P1717       | Motor, 110/22V, 3/4 HP | 18.       | P1727       | On/Off Switch            |
| 3.   | P1725       | Motor Mount Braket     | 19.       | P1718       | Neon Lamp                |
| 4.   | P1361       | Blower                 | 20.       | 30349-03    | Cell Contact             |
| 5.   | 30467-01    | Access Panel Assembly  | 21.       | P1720       | Fuse Holder              |
| 6.   | 30465-01    | Grille                 | 22.       | P1702       | Interlock Switch         |
| 7.   | P1451       | Belt                   | 23.       | P3500       | 120V Power Supply        |
| 8.   | P1504       | Blower Pulley          | 24.       | P1721       | Belt Adjuster            |
| 9.   | P1761       | Motor Pulley           | Not Shown | P1746       | Logo                     |
| 10.  | 30407-01    | Power Box Weldment     | Not Shown | P1363       | Cord Set                 |
| 11.  | 30410-01    | Blower Access Door     | Not Shown | 33911-01    | Ionizer Wire             |
| 12.  | 30505-01    | Latch                  | Not Shown | P1948       | Wiring Label (120V)      |
| 13.  | 30402-01    | Door Assembly          | Not Shown | P1733       | Switch Label             |
| 14.  | 33917-01    | Collector Cell         | Not Shown | P1749       | Charcoal Filter          |
| 15.  | 33910-01    | Ionizer                | Not Shown | P1752       | Media Afterfilter        |
| 16.  | P1703       | Prefilter              | Not Shown | 30585-01    | Prefilter Screen         |

