



Installation/Operating /Maintenance Instructions

Manufactured by: *ElectroStatics, Inc.*, 63 E. Broad St. Suite 6, Hatfield, PA 19440

(p) 215-513-0850, (f) 215-513-0855, e-mail sales@electrostatics.com

Product: Model HM-8000 High Mount Ionization Transport System
Part # 90731-03510 (120V), # 90731-10510 (220V)
Available w/heat-p/n #90731-03530 (120V), # 90731-10530 (220V)

Product Features:

- High Ionization Output
- Balance Indicator
- Rapid Static Decay
- Three Speed Fan
- Mounts over Work Area
- Replaceable Ionizing Points
- Available w/Heat

Description/Function:

The Model HM-8000 High Mount is designed to be suspended over the work station with the ionized air blowing down over the area to be protected against an ESD event. Valuable working space is saved since the Ion Transport System is mounted above the process. The High Mount is a self contained ionizer capable of producing copious amounts of both positive and negative ions.

Designed to cover a wide area, the ionizer will neutralize even the highest electrostatic charge. Normally the system is mounted 30" - 36" above the area to be controlled, producing an ionization pattern of approximately 36" wide X 48" long.

Three air speed settings permit just the right amount of balanced ionized air to flow over the area to be protected, without disturbing the product or causing a draft.

Inherently balanced, the Ion Transport System has a fail safe balance indicator to assure proper ionization output. Conforming to the EOS/ESD Standard S3.1-1991, the Model HM-8000 provides protection against an electrostatic charge, which is known to damage sensitive electronic components.

Product Specifications:

Weight	13 lbs.
Size	27.75" W x 6.75" D x 2.5" H
Air Volume output	150 CFM - 315 CFM
Coverage Area	3' X 4'
Balance	0 + / -5 V
Discharge Time	2.0 seconds at 18" (fan speed high) per EOS/ESD S3.1-1991
Power requirements	120 VAC or 220VAC, 50/60HZ
Amps	1.3 (fan speed high) 0.8 (fan speed low)

Performance Chart:

Center discharge rate at:

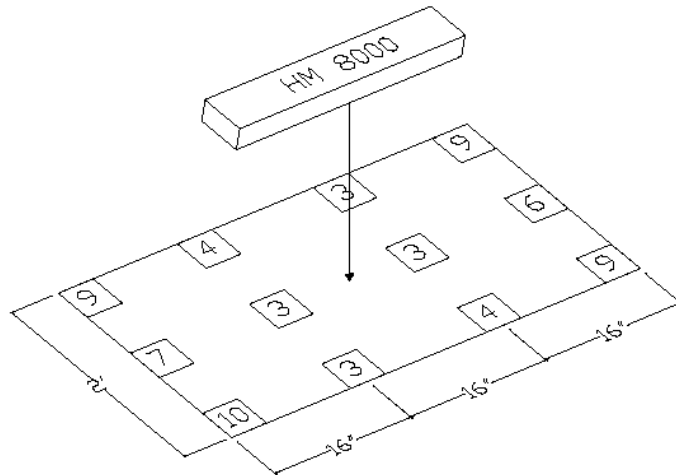
24" - 4.8 seconds

30" - 5.5 seconds

36" - 6.5 seconds

48" 9.6 seconds

Test conducted using a
charge Plate monitor
conforming to
EOS/ESD Standard S3.1-
1991



Product Inspection:

Carefully remove the equipment from the shipping container; check it against the packing list and inspect product for damage or parts missing. If there has been damage, report it immediately to the local carrier who delivered the product. Notify **ElectroStatics**, Inc., 63 E. Broad St. Suite 6, Hatfield, PA 19440. NOTE: If product must be returned to **ElectroStatics** for any reason, call and obtain an RA# (return authorization) Telephone 215-513-0850.

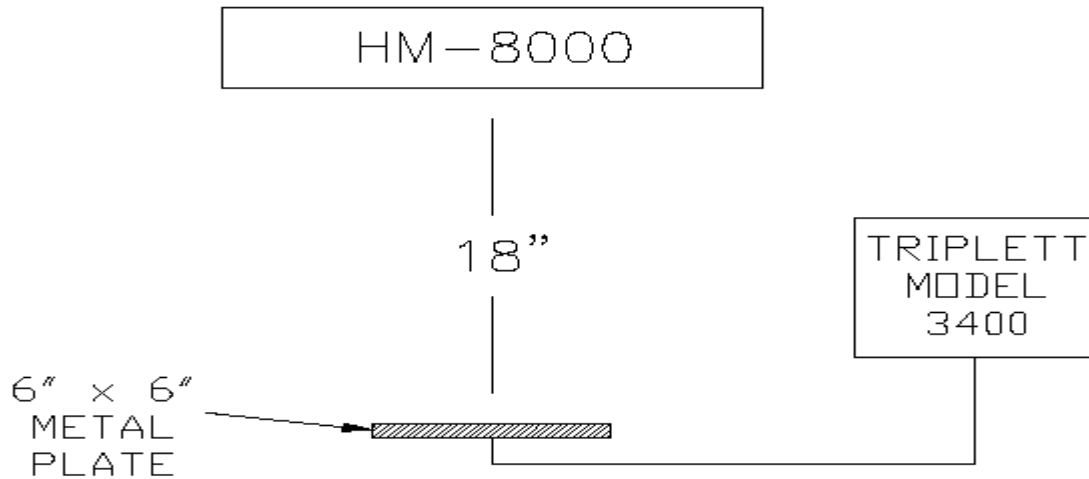
Pack product properly for safe return to **ElectroStatics**, Incorporated.

Pre-Installation Notes:

The Model HM-8000 High Mount is a self contained unit requiring no assembly. The unit is best used when suspended over the work area with the ionized air blowing down. Mounted in this fashion will insure your work area will be protected against ESD events. The optimum distance from the face of the High Mount to the work surface should be between 30" and 36". A special electronic balancing circuit

provides the capability of adjusting the ion output. The balancing circuit is adjusted at the factory and normally will not require any further adjustments.

NOTE: If you currently have a charge plate monitor and are testing for balance of other air ionizers, you may test the HM-8000 in an identical fashion. If you do not have a CPM, then follow these instructions.



1. The 6" X 6" metal plate should be placed directly under the HM-8000 at the 18" distance from the face and on its center line. Keep the plate parallel to the ionizer.
2. Connect a triplet Model 3400 voltmeter (or equivalent) as shown above and set it on the 200 MVDC scale.
3. With the fan speed set on "HIGH" turn the power unit "ON" and allow at least 10 minutes for the system to stabilize.
4. On the top of the unit, remove the calibration sticker to expose the potentiometer adjustment screw.
 - If the unit is out of balance to the positive side, adjust the potentiometer by turning counter-clockwise until balance is achieved. If unit is out of balance to the negative side, adjust the potentiometer clockwise until balance is achieved. **Very little adjustment should be necessary to return the unit to a balanced situation.**

NOTE: VERY IMPORTANT! You will note there are two (2) green LED lamps on the front of the unit, one (+) and one (-). When these LEDs are lit, the proper positive and negative voltage is being applied to the ionizing points. If either of the green LEDs should go out, turn the unit off immediately and contact *ELECTROSTATICS*, Inc. at 1-888-STATICS. We will issue a return authorization (RA) number for the unit to be returned for repair.

Installation:

The optimum distance from the face of the High Mount to the work surface should be between 30" and 36". Secure the four (4) eye bolts, two (2) on either end of the back surface. Cut the chain into four (4) equal parts. You will note we have not supplied the attachment to the ceiling. Depending on your

method of suspending the unit, you will need to locate the proper fixture. Also, you may need additional chain due to the height of your ceiling. Before plugging in the line cord, make sure the power source is of the correct voltage and frequency as listed on the nameplate affixed to the rear of the case. It is essential for maximum effectiveness that the unit be thoroughly grounded. This can be accomplished by connecting the grounded plug provided on the cable to a grounded receptacle. If your receptacle is grounded then no further grounding is necessary. The HM-8000 unit is designed with three (3) highly efficient neutralizing modules producing ionization in such quantities as to effectively neutralize any electrostatic charge. A filter is located at each air input to insure clean air passing through the unit.

Post Installation Notes :

In order to insure proper performance, the ionizer should be tested to prove results. There are two ways of testing:

1. Friction a piece of plastic film until it wants to cling to your hand or machine frame. Note: Make sure not to friction the plastic while in the ionizer's air stream, as it will neutralize the plastic immediately, rather turn your back toward the blower while frictioning. When a static charge has been developed on the plastic, pass the plastic through the ionizer air stream. You will note the material will not cling to your hand or machine part.
2. If you have a static-measuring device (static locator) it will be quite simple to check the efficiency. Follow item 1 by frictioning the plastic and take a reading (you will note a static charge). Pass plastic through the ionized air; check again, you will note the static charge has been reduced to virtual zero. A static locator meter, Model 9000 (P/N# 90930-10001) is a most effective tool for locating and measuring where static is present. Also, the meter will determine the efficiency of the ionizing blower. The meter is available from *ELECTROSTATICS*, Inc.

Maintenance:

Under normal conditions there is very little maintenance necessary to keep your HM-8000 working at full efficiency. Check the filters periodically to make sure they are clean. Filters are available from *ELECTROSTATICS*, Inc. Use p/n # 99000-10006, for a package of 6. The ionizing points should be cleaned regularly and replaced when you can no longer achieve a balanced ionizing condition. (See following instructions):

Ionization is produced by applying a high voltage to a sharp conductive or semi-conductive point. When the point is very sharp there will be a high degree of ionization. Over a period of time the tip of the point, through ionization action, can become slightly rounded. As this occurs, your ionization effectiveness can decrease slightly. Replacement of the ionizing points will return the HM-8000 to its original high level of ionization. Follow carefully the instructions for point replacement:

- 1- Turn the unit off and unplug system.
- 2- Remove the filter guard on each fan and remove filter media.
- 3- Remove the filter housing base, exposing the four (4) ionizing points.
- 4- Using a 3/16" socket wrench, remove all four (4) points, turning the point counter clockwise. Discard old points.
- 5- Replace each point into the point holder securing by turning clockwise until seated. It is necessary only to bottom the hex nut point combination not applying too much torque

- 6- Repeat items 3, 4 and 5 with each of the remaining two fans.
- 7- Replace the fan cover base
- 8- Check filter media and replace if necessary.
- 9- After filter media is in place, replace the filter media cover. Unit is now ready to return to service to insure the complete protection against ESD. Note: If you have an ESD program for periodically checking ionizers for balance, check this unit before returning it to production. If it is necessary to re-calibrate the unit, see item #4 of the pre-installation notes

For any other repairs, the unit should be returned to the factory. Call 1-888-Statics and obtain a return authorization number.

Safety Issues:

Do not use the system in a hazardous area!!

Replacement Parts:

Filter Media - Pkg. (6) #99000-10066

Eye Hooks - pkg (4) #23161-24140

S hooks - pkg (4) #16302-02001

Chain - (48") #17002-61030

Ionizing Point replacement kit (4) # 99306-20003

Warranty

ElectroStatics warrants the product to be free from defects in material and workmanship under normal use and service. *ElectroStatics*' sole obligation under this warranty shall be limited to replacing or repairing, either at it's plant or at installation site, any product or part thereof which shall, within 1 year after date of delivery be returned to *ElectroStatics* and which *ElectroStatics* examination shall disclose to have been thus defective. This warranty is expressly limited to parts and components specifically manufactured by *ElectroStatics*. This warranty is expressly in lieu of all other warranties, expressed or implied, including warranties of merchantability and fitness for particular purpose. There are no warranties, which extend beyond the description of the face thereof. No person, firm or corporation is authorized to assume for *ElectroStatics* any other liability in connection with the sale of this product. Any adjustment or attempted repairs to the product will void the warranty. Should product require servicing, contact *ElectroStatics* for assistance.

WARNING: PRODUCT WARRANTY IS AUTOMATICALLY VOIDED IF CONNECTED TO INCORRECT LINE VOLTAGE.

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