Auto-Ion™ Self-Balancing Ionizer Operation, Installation and Maintenance

Made in America

Figure 1. Item 94010, Auto-Ion™ Self-Balancing Ionizer

Introduction

The AUTO-ION™ Self-Balancing Ionizer is designed to effectively eliminate localized static charges, which exist in the work area. The Auto-Ion™ is available in two models: Item 94010 is 120 Volt, and item 94011 is 220 Volt. Also available is item 94012, replacement emitters for the unit.

HOW TO USE YOUR IONIZER

1 Position the ionizer on or directly above the target work area.
2 Plug the unit into an 110V AC or 220 (as indicated on back of case) electrical outlet.
3 Direct the air ion flow toward the area to be ionized.
4 Select fan speed and heater options.

For best results:

1 Keep target area clear and free from obstructions to air ion flow.
2 Keep work area clear of all static generative materials.
3 Use only approved static control grounding methods and material handling equipment.
4 By properly using ionized air, all static potentials in the work area are greatly reduced, even when humidity levels decrease.
5 **MOST IMPORTANT!** Be sure that the ionizer is grounded thru the green wire of the power cord. Also check you're ground to be sure that the outlet is properly grounded.

The unit is designed to automatically alarm and shut down if unbalanced conditions exist.

To reactivate:
After alarm and automatic shutdown of ionizer power supply, turn power to OFF, silencing alarm. Careful inspection should be made of the emitters and the fuse. Emitter cleaning may be required.

Cleaning Instructions
Your Ionizer was designed to be virtually maintenance free. The emitter points can be cleaned when there is a visible accumulation of dirt, or in the event of an automatic shutdown and alarm. Generally, emitter cleaning should be done at least twice a year, depending on the cleanliness level of the working environment.

1 Check the emitter points for dirt collection.
2 Be sure the unit is unplugged.
3 Wipe emitter point with a swab dampened in isopropyl alcohol.
4 The outside case may be wiped down with a soft damp cloth.
5 Let dry for a minute and turn back on.

Balance Verification
The Auto-Ion™ is factory set to achieve a maximum balanced ion output in standard applications. To verify balance, we recommend using the EOS/ESD-S3.1-1991, EOS/ESD association test standard.

Neutralization Efficiency (Decay Time)

The comparative efficiency of bench top ionizers is determined by a standard test published by the ESD Association (Draft standard S 3.1). The decay rates measured using this standard for the ionizer are shown in the following diagram. The performance of the ionizer was measured with the unit positioned at varying distances with the fan speed on high.

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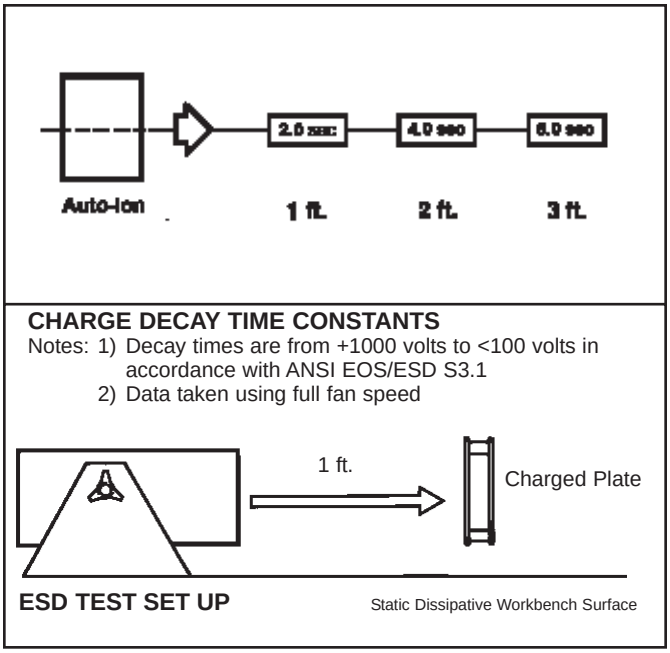

Figure 2. Decay time in seconds from 1000 volts to 100 volts on a 6" x 6" charged plater per ANSI EOS/ESD S3.1.

Objective: To observe, test and record performance levels of ionization units, utilizing readily available equipment, thereby verifying or certifying calibration.

Equipment Used:
Charged Plate Analyzer (Item 94052)

Procedure:
Following the procedures as outlined in the EOS/ESD association standard, # EOS/ESD-S3.1-1991, TITLED IONIZATION on page 12.

The balance of the unit can further be verified by assuring that there is no residual surface charging on the ground plain plate of either positive or negative polarity immediately after the ionizer is shut-off.

The BALANCE of positive and negative ion output can be adjusted to increase polarity bias by carefully and in small increments, relocating the position of the vertical sensor antenna directly behind the faceplate screen. All other ionizer adjustments are done automatically for you by the ionizer control system.

Remember:
It is important to verify calibration after any adjustments and before using your ionizer around sensitive electronics. Merely repeat above Balance Verification steps after all adjustments.

IMPORTANT:
Your IONIZER has been designed to minimize effects of localized static charges. If your processing involves generation of considerable static charges you may need more aggressive equipment. SPI has available a complete line of Ionizing Blowers, Air Guns, Bars and Overhead Room Systems to meet all ionizing requirements.

Limited Warranty

SPI Westek expressly warrants that for a period of one (1) year from the date of purchase, SPI Westek Auto-Ion™ Self-Balancing Ionizers will be free of defects in material (parts) and workmanship (labor). Within the warranty period, the product will be tested, repaired, or replaced at our option, free of charge. Call our Customer Service Department at 909-664-9986 for a Return Material Authorization (RMA) and proper shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of purchase date. Any unit under warranty should be shipped prepaid to the SPI Westek factory. Warranty repairs will take approximately two weeks.

If your unit is out of warranty, call Customer Service at 909-664-9986 for a Return Material Authorization (RMA) and proper shipping instructions and address. SPI Westek will quote repair charges necessary to bring your unit up to factory standards.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

Limit of Liability

In no event will SPI Westek or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.

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