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Static Eliminator

General Information

The COUNTER Static Prevention Ionizer (SPI) is designed to effectively eliminate localized static charges, which exist in the work area.

Instructions for Use

Your Counter SPI comes completely balanced and ready to use.

1. Place your tabletop unit on a flat, level surface.
2. Plug the Counter SPI into any 120V AC (220V optional) electrical outlet.
3. Turn on/off switch to ON position.

Note!

- Keep effective area clear and free from obstructions of ion flow.
- Position unit so that emitter points are directed towards area to be ionized.

Remember!

- Keep work area clear of all static generative materials.
- Use only approved static control grounding methods and material handling equipment.
- By properly using ionized air, all static potentials in the work area are greatly reduced, even when humidity levels decrease.

Important Information

Your Counter SPI ionizer has been designed to minimize effects of localized charges. You may need more aggressive equipment if your processing involves generation of considerable static charges.

Maintenance: Cleaning

The COUNTER SPI was designed to be virtually maintenance free. The emitter points can be cleaned when there is a visible accumulation of dirt. Generally this would be twice a year, depending on the cleanliness level of the working environment.

Cleaning Instructions

The following aids are required for cleaning the COUNTER STATIC PREVENTION IONIZER:

Cotton Swab

Soft, absorbent, lint free cloth (cotton)

Isopropyl Alcohol

Caution!

Prior to any maintenance work the static eliminator should be unplugged to avoid risk of electric shock.

Procedure

Check the emitter points for dirt accumulation.

Wipe emitter point with a swab dampened in isopropyl alcohol.

The outside case may be wiped down with a soft damp cloth.

Maintenance: Calibration and Balance Verification

The COUNTER SPI (C/SPI) is factory set to achieve a maximum balanced ion output in standard, non-air assisted applications. To certify calibration, we recommend EOS/ESD association standard “EOS/ESD-3.1-1991”.

General Information

There are two adjustments that can be made on the C/SPI – the BALANCE and the RATE.

- BALANCE of the positive and negative ion output can be adjusted to increase polarity bias.
- RATE or PULSE FREQUENCY can be adjusted down to 1 pulse per second or up to 5 pulses per second.

Caution!

It is important to verify calibration after any adjustments and before using the COUNTER SPI around sensitive electronics.

Field repairs are not normally encouraged during warranty period. Repair attempts made by unqualified personnel may invalidate warranty.

Objective

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

Equipment Used

Charge Plate Monitor (CPM): See SPW30700 Ionization Test Kit

Note!

There are 3 LED’s located on the front panel:

- The LED on the left is the on light.
- The other 2 LED’s are the indicators of the positive and negative.

The lights should be set at a slow switch rate.

Note the on and off times changes on the indicator lights as you offset the positive and negative (balance).

Procedure

Position the C/SPI 12 inches away from the CPM directly facing the unit.

With the C/SPI and the CPM on, adjust the balance trim pot located on the lower left side of the C/SPI.

Balance the C/SPI to zero on the CPM.3

Charge the (CPM) to 1Kv of either polarity + - and push the decay button. The timer will automatically time the decay rate.

Note!
The typical decay is 1,000 to 100 volts in less than 60 seconds of both polarities.

Adjustments

There are two adjustments that can be made on the Counter SPI, BALANCE and RATE.

Procedure – Balance

Positive and Negative ion output can be adjusted to increase polarity bias.

Insert a small screwdriver through the Balance Port and slowly turning the trim pot:

- CLOCKWISE to *increase positive* and *decrease negative* On Time Pulses

or

- COUNTER CLOCKWISE to *increase negative* and *decrease positive* On Time Pulses

Procedure – Rate (Pulse Frequency)

This can be adjusted down to one pulse per second or up to 5 pulses per second.

Insert a small screwdriver through the Rate Port and slowly turn the trim pot:

- CLOCKWISE to *increase* or COUNTER CLOCKWISE to *decrease frequency*

Remember!

Repeat above Balance Verification steps after all adjustments.