Bench Top Blower Ionizer Installation, Operation and Maintenance

Made in the United States of America

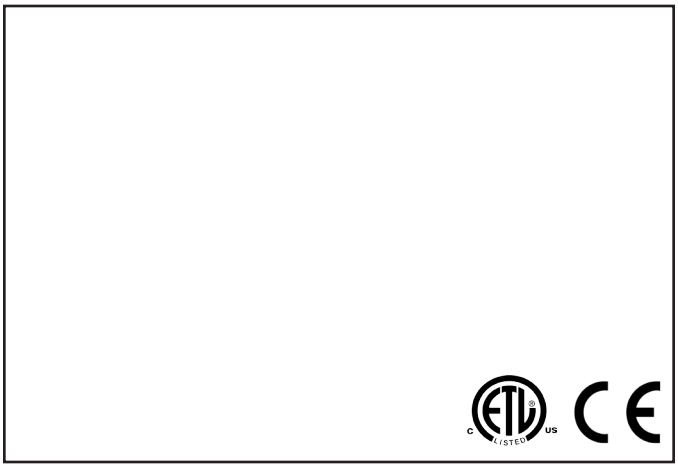

Figure 1. Desco Bench Top Blower Ionizer

Description

This ionizing unit is a self-balancing bench top ionizer. The ionizer's patented (US Patent 5,008,594) Faraday Balance System assures low offset voltage or balance automatically. It offers greater efficiency and easier cleaning than conventional ionizers. The Bench Top Ionizer is designed to neutralize static electricity from insulators and isolated conductors in localized work areas in assembly rooms, wave solder lines, laboratories, QC, test stations, packing and shipping areas and clean rooms.

Ionizers are useful in limiting electrostatic charge generation, ElectroStatic Discharge, and ElectroStatic Attraction, as well as preventing equipment latch-up. ANSI/ESD S20.20 Paragraph 6.2.3.1 Protected Areas Requirement states: "Ionization or other charge mitigating techniques shall be used at the workstation to neutralize electrostatic fields on all process essential insulators if the electrostatic field is considered a threat." Some examples of process necessary insulators are: the PC board itself, plastic test stands, plastic housing where a PCB may be mounted, as well as computer monitor screens and regular cleaning wipes. Examples of floating or isolated conductors are: loaded PCB mounted in a stand where the pins are not contacting the dissipative workstation. Ionization is not effective on items that have large capacitance, like people and carts; however, ionizers should be considered as a method for charge neutralization in cases where grounding cannot be achieved.

Air ionization can neutralize the static charge on insulated and isolated objects by producing separate charges in the molecules of the gases of the surrounding air. When an electrostatic charge is present on objects in the work environment, it will be neutralized by attracting opposite polarity charges from the ionized air. Note that ionization systems should not be used as a primary means of charge control on conductors or people. (Reference: IEC 61340-5-2:1 paragraph 5.2.9).

Ionizer Selection

ANSI/ESD S20.20 section 6.1.1.2. ESD Control Program Plan Guidance states: "The Plan should include a listing of the specific type of ESD protective materials and equipment used in the Program." When selecting an ionizer, life cycle costs should be considered, including:

- equipment cost
- installation cost
- operation and maintenance cost

The Desco Bench Top Blower Ionizer is available in the following models:

Item	Voltage	Power Cord
19500	120V	North America
19520	220V	None

Packaging

1 Bench Top Blower Ionizer
1 Power Cord, 6' (19500 only)
1 Cleaning Brush
1 Filter and Guard Assembly
1 Certificate of Calibration

Installation

The unit is normally mounted at one end of a workbench or area to be neutralized. It may also be mounted to a wall or shelf. The ionizer's neutralization (discharge) times will be best from approximately 6" to 42" in front of the unit and will drop off as the distance from the unit increases.

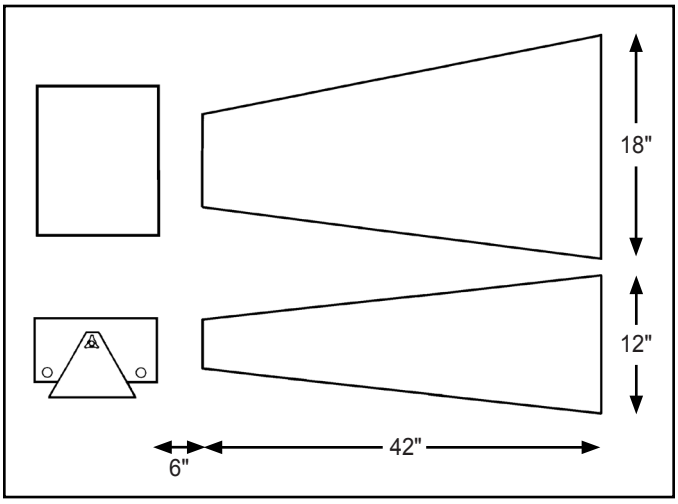

Figure 2. Area of optimum charge neutralization

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