

Mini Air Ionizer

Installation, Operation and Maintenance



Figure 1. SCS 960 Mini Air Ionizer

Description

The SCS Mini Air Ionizer is a self-contained ionizing air blower designed to neutralize static charges from non-conductive objects. The proprietary circuitry contained in the blower generates balanced levels of positive and negative ions, and maintains correct balance despite variations in line voltage, fan speed, and emitter point condition. Meets ANSI/ESD S20.20 tested per ANSI/ESD STM3.1 and ESD TR53.

The Mini Air Ionizer reduces a static charge of ± 1000 V to ± 100 V in less than 4 seconds (the discharge time) at a distance of 1 foot.

The power supply for the Mini Air Ionizer is sold separately. The Mini Air Ionizer and its accessories are available as the following item numbers:

Item	Description
960	Mini Air Ionizer
960X/980X	Power Adapter, 120 VAC Input, 24 VAC Output, North America Plug
770753	Power Adapter, 230 VAC Input, 24 VAC Output, UK Plug
770754	Power Adapter, 230 VAC Input, 24 VAC Output, Europe Plug

The Mini Air Ionizer requires 24 VAC power supplied through a RJ-11 power socket located on the back of the unit.

It is possible to connect four (4) Mini Air Ionizers together in series and power them off of one power supply. Use the included RJ-11 cable to daisy-chain the Mini Air Ionizer to another Mini Air Ionizer. A third or fourth Mini Air Ionizer can be daisy-chained using additional RJ-11 cables.

To reduce the risk of electric shock, the power supplies use a grounding plug that has a third (grounding) pin. This plug will only fit into a grounding-type power outlet. If the plug does not fit into the outlet, contact qualified personnel to install the proper outlet. Do not alter the plug in any way. If an alternate power source is used, please make sure that it conforms to the power input requirements as listed in the Specifications section. For further questions concerning the power-input requirements, please contact [SCS Customer Service](#).

Packaging

- 1 Mini Air Ionizer
- 1 RJ-11 Cable, 3 ft.
- 1 Certificate of Calibration

NOTE: Power adapter is not included and must be purchased separately.

Installation

The Mini Air Ionizer mounts easily in a variety of positions using the provided tilting bracket/stand. Place the unit on the worksurface and point it at the area or object to be neutralized. Alternatively, the mounting bracket may be attached directly to or above the workstation, or on another supporting structure. Please note that placement of the Mini Air Ionizer is important in controlling its effectiveness. Its distance from the target object will affect the ionizer's performance. As distance increases, the discharge time will increase.

Connect the RJ-11 terminal from an SCS power adapter to the back of the Mini Air Ionizer, and connect the power adapter to an appropriate power outlet. Since the Mini Air Ionizer does not have a power switch, supplying power to the unit automatically turns it on.

Operation

Supplying power to the Mini Air Ionizer through the power socket in the back of the unit will turn it on. A green monitor light is also illuminated on the front of the unit, which indicates that the ionizer is on, and that power is being applied to the emitter points.

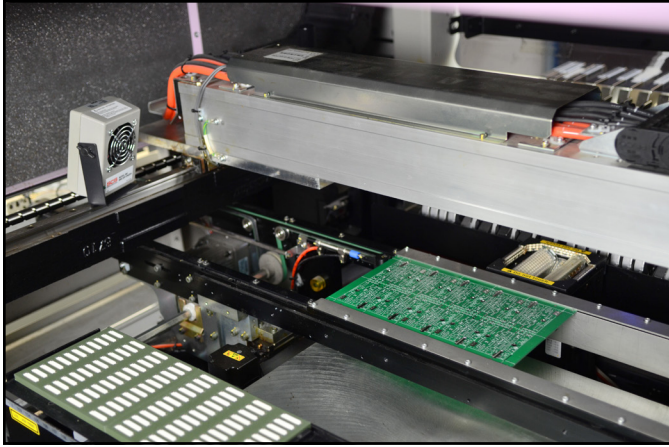


Figure 2. Using the Mini Air Ionizer inside a pick and place machine

Maintenance

Occasional cleaning of the case and of the ionizing electrodes are the only routine maintenance procedures required.

CLEANING THE CASE

Wipe the case with a soft cloth moistened with water. If a stronger cleaning solution is required, mild soap with water may be used. The use of any other cleaning solutions is not recommended.

CLEANING THE EMITTER POINTS

NOTE: Disconnect the power to the ionizer whenever cleaning the emitter points.

When the emitter points become dirty, the internal circuitry of the ionizer will be automatically adjusted to emit an equal amount of positive and negative ions. Particulates on the emitter point may, however, inhibit ionization to a limited degree. The emitter points are located between the fan blades and the rear grill. A jet of clean, compressed air can be used to remove dirt on emitter points. If a more rigorous cleaning method is needed to remove particulate, clean the points with a cotton swab dampened with isopropyl alcohol. Access to the points is available through the rear grill. Be careful not to damage the points during cleaning.

Specifications

Input Voltage and Frequency (120 VAC External Adapter)	AC Power Adapter Power Input: 120 VAC, 60 Hz Power Output: 24 VAC, 500 mA
Input Voltage and Frequency (230 VAC External Adapter)	AC Power Adapter Power Input: 230 VAC, 50 Hz Power Output: 24 VAC, 500 mA
Operating Temperature	59 to 95 °F (15 to 35 °C)
Power Consumption	5 W
Emitter Point Material	Tungsten
Dimensions (including bracket)	4.5" x 3.3" x 2.0" (114 mm x 84 mm x 51 mm)
Weight	0.75 lbs (0.3 kg)
Balance (Offset Voltage) at 12"	±20 V
Neutralization (Discharge) Time at 12"	< 4 seconds
Maximum Airflow	24 CFM
Ozone	<0.05 ppm
Certifications	UL
Country of Origin	China

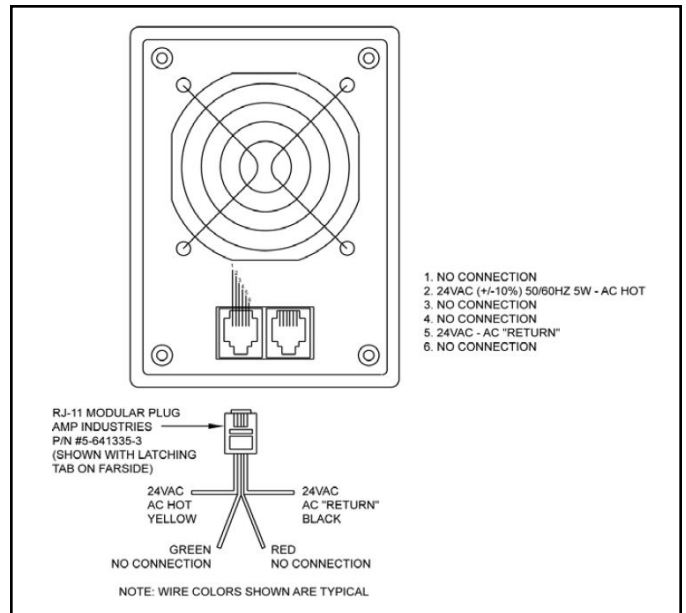


Figure 3. Pin-out of RJ11 power plug and inlet

Neutralization (Discharge) Times

The comparative efficiency of bench top ionizers is determined by a standard test published by the ESD Association: ANSI/ESD STM3.1. Typical positive and negative decay times ($\pm 1000\text{V}$ to $\pm 100\text{V}$) measured using this standard are shown in Figure 4.

NOTE: All discharge times are in seconds and representative only. They are not a guarantee. The discharge times were recorded in a factory ambient environment.

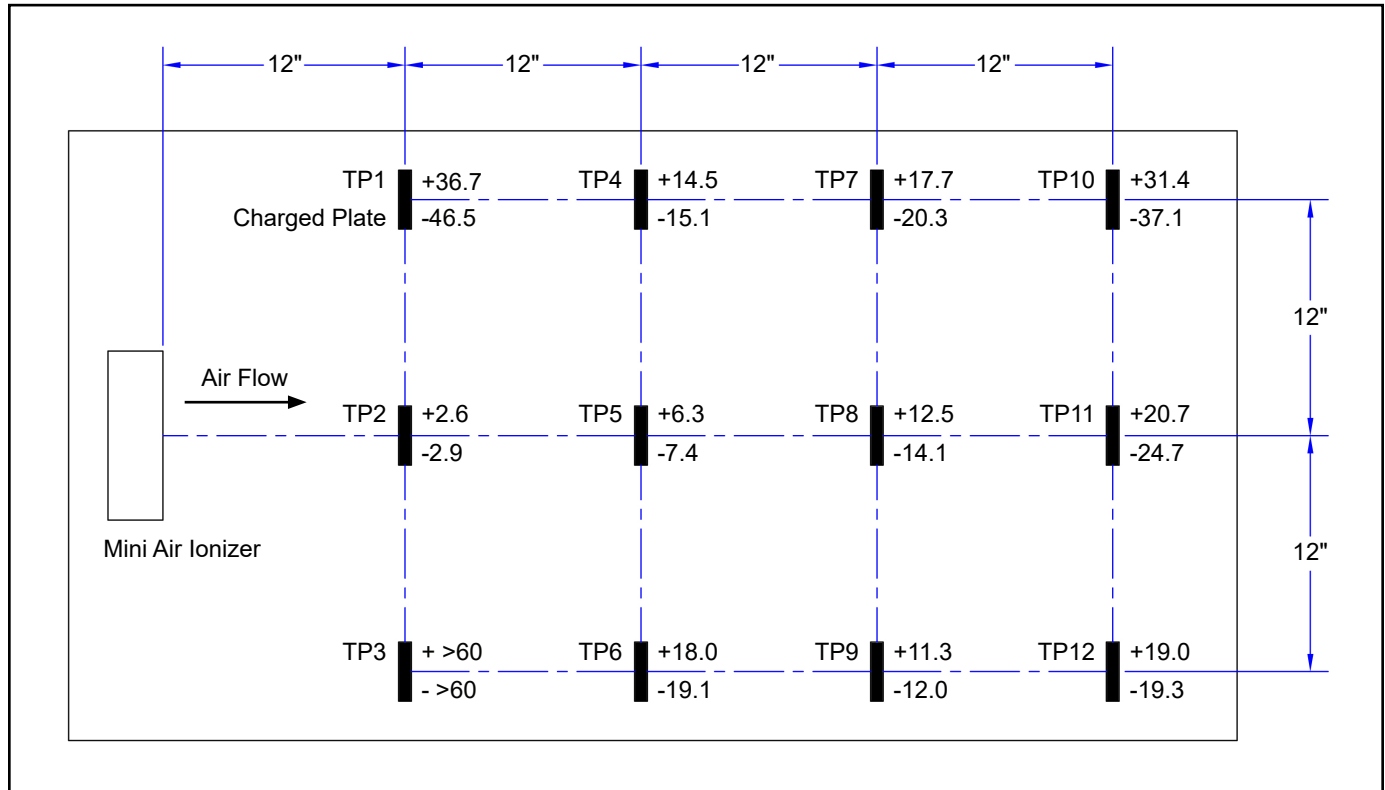


Figure 4. Neutralization (discharge) times in seconds

Limited Warranty, Warranty Exclusions, Limit of Liability and RMA Request Instructions

See the SCS Warranty -

StaticControl.com/Limited-Warranty.aspx

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