



# 963E Benchtop Air Ionizer

## Technical Information

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The use of ionized air in electronics work environments eliminates the build up of potentially damaging static charges. Air ionizers are primarily used to control static charge on nonconductive materials. Grounding is normally used to control charge on conductive objects and personnel, however, nonconductors cannot be grounded to drain electrostatic charge. Ionization is the only method of neutralizing a static charge on a nonconductor. Ionized air can neutralize static charges on circuit board substrates, insulating tapes and plastic objects found in the work area. The 3M™ 963E Benchtop Air Ionizer blankets the benchtop with ionized air to help prevent static from damaging sensitive electronics.

### **New version of Benchtop Air Ionizer available**

The 963E Benchtop Air Ionizer includes a universal power transformer, to convert local electrical power into DC 24V (power line cord not included). The 963E features a two-speed fan, power indicator lamp, static-dissipative plastic housing, and a combination metal-plastic stand that can also double as a mounting bracket.



## **Rapid neutralization of electrostatic charge**

The ion-generation technology present in the 963E Benchtop Air Ionizer is capable of producing extremely large amounts of ions, resulting in nearly instantaneous static charge neutralization. The 3M 963E is capable of reducing a static charge of 1000V to 100V in less than one second, at a 0.3 m distance, when tested\* at the high fan speed. In addition, the powerful fan allows the generated ions to be carried at high speed for long distances. At a distance of 0.9 m, the discharge time only increases to approximately five seconds.

\* When tested according to ANSI/ESD S3.1-1991

## **Intrinsically balanced, maintenance-free**

3M ionizers have a proprietary, intrinsically balanced ion generation system which ensures that equal levels of positive and negative ions are produced despite variations in line voltage, fan speed, and emitter point condition. No adjustment or calibration is required to maintain ion balance. This allows the unit to generate a balanced mix of positive and negative ions - even if the emitter points become dirty.

The 963E is virtually maintenance free. The ionizer's unique design requires only periodic cleaning of emitter points to maintain optimum performance. The points do not require replacement and the unit does not require adjustment before or after cleaning.

## **Quiet and comfortable air flow**

The two-speed fan in the 963E Benchtop Air Ionizer is extremely quiet at low speed. Where industrial noise may irritate personnel and lower productivity, the 963E may be used without contributing significantly to the ambient noise. The fan's gentle airflow does not disturb paper or delicate parts. The high-speed fan setting can be used for more rapid neutralization of static charges in environments where faster decay rates are required.

## **Static-dissipative housing safe to use in ESD sensitive areas**

The injection-molded plastic case is constructed of static-dissipative plastic. The conductivity of the case prevents a static charge from building up on the surface of the housing, a common problem with ionizers. This "ESD-safe" design allows the ionizer to be part of your overall static-safeguarded electronic workstation.

## **Meets Global Regulatory Requirements**

Global usage of electronic products are often dependent on the product meeting regulatory requirements for the country of usage. To achieve this end, the model 963E has been tested to, and have passed, regulatory requirements for the European Union. The 963E carry the UL, C-UL, NOM and CE marks.

## **Basic Features**

- Neutralizes static charges on nonconductive objects
- Maintains equal balance of positive-negative ions
- Two-speed fan
- Static-dissipative housing
- UL, C-UL, NOM certification. CE-marked.

## 963E Benchtop Air Ionizer Typical Properties

Item	Typical Properties
Power Ratings	DC 24 V, 0.42 A, 10 W through included universal power transformer
Power inlet	Mini DIN Socket
Power Transformer	Input: AC 100V-240V, 0.4A, 50/60 Hz Into IEC320 Socket Output: DC24V, 0.5A 0.9 m cord with Mini DIN plug
Power Outlet Cord	Not Included
Dimensions (w/ mounting base)	18 cm (W) x 23 cm (H) x 10 cm (D)
Weight	1.1 kg
Air Volume	
low speed	2.15 m <sup>3</sup> / minute
high speed	3.17 m <sup>3</sup> / minute
Static discharge time * @ 30 cm	< 1 second
Certifications and approvals	UL, C-UL, NOM, CE

\* When tested according to ANSI/ESD S3.1-1991 at high fan speed

### New From 3M

Ensure that your Benchtop Air Ionizer is operating at peak performance. When used with the 3M™ 718 Static Sensor, the 3M™ 718A Air Ionizer Test Kit can provide periodic verification of air ionizer performance. The system as a whole is designed to meet the guidelines specified in ESD Association Draft Standard D3.3. Call our Customer Services for more information on these static control products.



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