# ElectraFlow HD-303
# Mission Critical ESD Ionizer with Air Filtration
# Specifications and Installation

**Method of operation and uses:** The HD 303 is an extreme service fully portable stand- alone mission critical bench top or desktop ionizer. The HD-303 emits a powerful yet balanced ionic output that overwhelms static laden insulative items or conductive items that are insulated from a ground source.

Uses include:

- Eliminating static from items that are used in or near static sensitive products.
- Eliminating dust or dirt due to static attraction
- The misalignment of small parts due to electrostatic charging
- The undesirable adhesion of plastic films due to electrostatic charging

**Mechanical Properties**

| | |
|---|---|
| Operating Voltage | 110V / 60Hz standard, 220V / 50Hz optional |
| Current Consumption | Max. 0.25 Amp (high fan). Min. 0.12 Amp (low fan). |
| Operating Temperature | $32^{o}$ F. - $122^{o}$ F. (0 ~50°c) |
| Air Coverage | 16" x 30" minimum |
| Air Volume | 45~110 CFM, +/- 3% |
| Size (including stand) | 3.75" x 10.25" (H) x 6.70" (W)" |
| Weight | 7 Lbs. |
| Finish and casing material | Antistatic powder coated aluminum alloy |
| RoHS Compliant | EC directive 2015/863 RoHS 3 |

**Decay Test Results / Other Pertinent Data**

| | | | | |
|---|---|---|---|---|
| Testing Condition @ <30% rH and $71.2^{o}$ Fahrenheit per ANSI / ESD SP.3.3 | | | | |
| Operating Voltage: 110V/220V, Testing Voltage: 1kV to 100V, Temperature: 22°c | | | | |
| Distance | | 12" | 24" | 36" |
| Decay time | positive | 1.0s | 2.4s | 3.8s |
| | negative | 1.2s | 2.5s | 3.9s |
| Offset voltage | < +/- 8 volts typical | | | |
| Current Consumption | 0.2 A | | | |
| Power Consumption | 250 Watts | | | |
| Ozone Generation | 0.03 $X10^{-6}$ | | | |
| Maximum Audio Volume | 59 DB | | | |

**Installation:** The HD-303 features an attached heavy duty adjustable metal stand with a non-marring, non- slip base. The ionizer may be simply placed on the work bench or table top or bolted to the underside of a work bench shelf.

**Electrical Requirements:** The HD-303 requires 110VAC /60Hz (standard) or 220VAC / 50Hz (optional) power. The instrument is equipped with a 3 prong grounded US male plug (standard). Do not modify the plug or use an ungrounded 3 prong receptacle. If an extension cord is required use heavy gauge fully grounded cords of no longer than 6 feet.

**Operating Procedure:** Activate the ionizing blower by turning fan speed knob clockwise. The ionization indicator will illuminate and indicate the presence of balanced ionized air. Airflow speed can easily be adjusted utilizing the fan speed knob. The time required to neutralize electrostatic potential is dependent on distance of ionizer to work surface and the speed of fan. When used in electronic assembly the ionized air stream should cover as much of the working area as possible. The constant flow of ionized air prevents items from developing an electrostatic potential.

**Note:** This item is NOT recommended for use in explosive or inflammable environments.

**Routine Maintenance Overview:** Clean emitters as needed. To clean ion emitter pins press and turn point cleaner knob (located in middle of air outlet) clockwise approximately one turn and reverse to lock into start position. Clean air inlet and outlets as needed with a soft brush or vacuum. Replace filter as needed. Periodically test ion output as indicated by your internal ESD program or ANSI/ESD S 20.20-2014, TR53, Air Ionizer Compliance Verification (discharge time and offset voltage). Offset voltages of >+/- 35 volts or decay rates that exceed user defined times may indicate the need for a replacement of emitters. Normal emitter life is 5 to 10 plus years, replacement emitters are easy to install and available from United SCP.

| Revision History |
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| Initial Release: 3/5/21 |
| Approved: SRC |