



# Critical Environment Benchtop Blower

## MODEL 5802i

The Simco-Ion Critical Environment Benchtop Blower Model 5802i provides reliable, fast static charge control for benchtop work areas and small spaces, allowing optimal electrostatics management that minimizes cost and maximizes protection for ESD-sensitive areas. An internal automatic balance correction system ensures ionization continues to reach your target with complete accuracy presenting a significant time and cost savings.

The ionizer can operate with external sensors to maintain precise balance (better than  $\pm 1V$ ) by altering ion output and adapting to environment changes. With the optional sensor and collimator, the Model 5802i delivers precisely balanced and directed ionized air to your target without taking up valuable room in your environment. A greater concentration of emitter points and internal circuitry suited for high humidity applications makes the Model 5802i the standard choice for environments that need quality ESD protection with solid design.

### Features









- $\pm 3V$  or better balance ( $\pm 1V$  with the optional external feedback system)
- Cleanliness rated at ISO 14644 Class 4 (Fed. Std. 209e Class 10)
- Options for sensor input, FMS connection, alarms, and management control
- Unique airflow directing collimator option
- Auto-Clean System option

### Benefits

- Provides the best corona-based ESD protection for maximizing yields
- Designed for use in an environment with a controlled level of contamination
- Increased control with immediate notification of alarms and the prevention of unauthorized adjustment to power or fan speed
- Significantly improves airflow delivery with faster discharge times from greater distances
- Automates emitter point cleaning, reducing maintenance costs and time



## Specifications

Model 5802i Ionizer	
Input Voltage	24 VDC
Discharge <sup>1</sup>	With collimator installed better than 1 sec @ 1 ft (typ), taken in-line from the center of the fan ( $\pm 1000$ -100V); without collimator better than 2 sec @ 1 ft (typ), taken in-line from the center of the fan ( $\pm 1000$ -100V)
Balance	Better than $\pm 1V$ (typ) with external sensor; $\pm 3V$ (typ) without sensor
Ion Emission	Steady-state DC
Emitter Points	ISO 14644 Class 4 (Fed. Std. 209E Class 10) titanium, 8 per fan
Airflow	108 cfm (typ)
Cleanroom Class	Meets ISO 14644-1 Class 4 (Fed. Std. 209E Class 10)
Operating Env.	Temperature 50-90°F (10-32°C); humidity 30-70% RH, non-condensing
Ozone	0.008 ppm (typ)
LED Indicators	Green POWER on, red FAULT alarm with optional AUDIBLE ALARM
Audible Noise	High fan speed 61 dB, (typ); low fan speed 52 dB, (typ); measurements taken 12" (30.5 cm) from fan
Mounting	Tilt Lock Mounting Stand, optional wall mount bracket
Controls	Power/fan speed slide switch with off/low/high settings (pre-set fixed high speed available as an option), balance adjustment, optional sensor gain adjustment, sensor type selection, and FMS connections
Options	External sensor inputs with FMS connection, audible alarm, collimator, internal pre-set fan speed on high, power cord bracket, Auto-Clean System
Enclosure	Aluminum chassis with epoxy-polyester powder coat
Dimensions	10.5H x 7.6W x 5D in. (26.7H x 19.3W x 12.7D cm)
Weight	3 lb (1.36 kg)
Warranty	Two year limited warranty
Certifications	   
Power Supply 14-1115-SAC-01	
Input Voltage	100-240 VAC, 50/60 Hz, 800 mA
Output Voltage	24 VDC, ( $\pm 5\%$ ) @ 1.0A
Weight	0.5 lb (8 oz)
Certifications	   

1. Tested in accordance with ANSI/ESD STM3.1-2015.

## $\pm 1V$ Balance Performance

The Model 5802i ionizer's optional external feedback sensor operates with the Novx 7000 Process Monitor and with the Novx 3352 Passive or Novx 3362 Active Closed-loop Ionizer Controllers to detect and automatically correct the balance. With the antenna placed at the target area, feedback is sent to the Model 5802i blower's internal control system. This ensures that your target maintains a  $\pm 1V$  or better balance at all times.



## Directed Airflow

The optional collimator fits over the fanstack of the blower and directs ionized air straight to the target. This means that the blower can be placed further away from the target with continued excellent discharge times and reach. This faster, directed airflow method significantly improves discharge times by removing common ion disbursement and recombination problems.

## Adaptable Options

- An internally pre-set fan speed on high, ensuring uninterrupted delivery of ionization in critical work areas.
- An audible alarm that operates in addition to the visible red LED on the blower to indicate operational failures including a stopped fan or loss of ionization.
- The Auto-Clean System, which reduces maintenance periods by sweeping the emitter points when the blower is turned off and on, allowing the blower to continually perform at optimum ion output and balance.

## Ordering Information

91-5802i-CPL	Powder-coated white aluminum blower, $\pm 3V$ balance, high fixed fan speed
91-5802i-CXL	Powder-coated white aluminum blower, $\pm 3V$ balance, low/high fan speed
92-5802i-CPL-*	Powder-coated white aluminum blower, $\pm 3V$ balance, high fixed fan speed
92-5802i-CXL-*	Powder-coated white aluminum blower, $\pm 3V$ balance, low/high fan speed
*=F	Lowers balance to $\pm 1V$ ; adds FMS output to any of the above 92 level part numbers
*=E	Adds auto emitter clean system to any of the above 92 level part numbers
*=M	Adds Collimator to any of the above 92 level part numbers
*=A	Adds audible alarm to any of the above 92 level part numbers
32-5815	Wall Mount Bracket

Note: May add any combination of -F, -E, -M or -A options to the 92 level part number.

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