



Critical Environment Ionizer

MODEL 5802i

The Critical Environment Ionizing 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.

Maintaining better than ± 1 volt balance with an optional sensor or ± 3 volts balance without a sensor, the Model 5802i is an ideal solution for sensitive applications. 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 and Benefits

- Better than ± 1 volt balance (± 3 volts without external sensor)
- Provides the best corona-based ESD protection for maximizing yields
- Aluminum or stainless steel chassis
- Different chassis materials are better suited to match specific workplace environments
- Options for sensor input, FMS connection, alarms, and management control
- Increased control with immediate notification of alarms and the prevention of unauthorized adjustment to power or fan speed
- Unique airflow directing collimator option
- Significantly improves airflow delivery with faster discharge times from greater distances
- Auto-Clean System option
- Patented¹ device reduces emitter point cleanings, keeping points cleaner longer

1. U.S. Patent No. 5,768,087



Specifications

Input voltage	28 VDC at 400 mA, from external power supply
Chassis	Aluminum chassis with epoxy-polyester powder coat, or stainless steel
Indicators	<i>Visual:</i> green power on LED, red alarm LED <i>Audible:</i> optional audible alarm
Ion emission	Steady-state DC
Emitter points	Fed Std. 209(e) Class 1 titanium, eight per fan
Airflow	144 cfm, typical
Discharge	<i>With collimator installed:</i> better than one second at one foot, typical, taken in-line from the center of the fan ($\pm 1000V$ to $100V$) ¹ <i>Without collimator:</i> better than two seconds at one foot typical, taken in-line from the center of the fan ($\pm 1000V$ to $100V$) ¹
Balance	Better than ± 1 volt typical with external sensor; ± 3 volts typical without sensor
Audible noise	<i>High fan speed:</i> 62 dB, typical <i>Low fan speed:</i> 51 dB, typical Measurements taken 12" (30.5 cm) from fan
Mounting	Standard, wall mount, or locking stands
Operating environment	<i>Temperature:</i> 50–90°F (10–32°C) <i>Humidity:</i> 30–65% RH, non-condensing
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
Dimensions	10.5H x 7.6W x 5D inches (26.7H x 19.3W x 12.7D cm)
Weight	<i>Aluminum:</i> 3 lb (1.36 kg) <i>Stainless steel:</i> 5.1 lb (2.3 kg)
Options	External sensor inputs with FMS connection Audible alarm Collimator Internal pre-set fan speed on high Power cord bracket Stainless steel chassis Auto-Clean System
Warranty	Two year limited warranty
Certifications	

1. Tested in accordance with ANSI/ESD STM3.1-2000

Ordering Information

91-5810i	Aluminum blower
91-5810iS	Stainless steel blower
25-0660	IEC Power cable, US plug, 8.2 ft (2.5m)
25-0670	IEC Power cable, US plug, 10 ft (3m)
25-0680	IEC power cable, US plug, 15 ft (4.6m)
25-0700	IEC power cable, no plug, 10 ft (3m)
25-0710	IEC power cable, UK plug, 8.2 ft (2.5m)
25-0735	IEC power cable, German-Schuko plug, 8.2 ft (2.5m)
25-20750	IEC Power Cable (China Plug), 8.2 feet (2.5 meters)

Sensor Feedback

The Model 5802i's optional sensor input operates with qualified third-party sensors to detect and automatically correct the offset balance. With a sensor placed at the target area, feedback is sent to the Model 5802i blower's internal control system, automatically correcting ion balance. This ensures that your target maintains a better than 1V balance at all times, no matter what environmental variables exist.

Directed Airflow

The optional patent-pending 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 improves ionization delivery and static elimination significantly, removing common ion dispersion and recombination problems.



The optional collimator directs ionized air straight to the target.

Adaptable Options

The 5802i was designed with multiple options to fit in with different environments. Options include:

- 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 patented 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.



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