



## AI-400

# Benchtop, High Blow Ionizer



## Installation, operation, and maintenance instructions

### INSTRUCTIONS

The AI-400 is a compact and lightweight dual steady state DC auto-balancing bench top ionizer. The unit is normally placed at one end of the workbench or area to be neutralized. It may also be wall mounted on a shelf, the ionizer's neutralization time will be best approximately 12" to 48" directly in front of the unit and will increase as the distance from the unit increases.

### INSTALLATION

Remove the ionizer from the carton and inspect for damage, included with the unit should be:

1. stand assembly with hardware
2. emitter point cleaner
3. installation, operation, and maintenance instructions
4. Final test date

The input voltage should be set to your specification prior to shipping. It can be verified or reset by referring to the **Maintenance** section of these instructions.

Attach the stand to the unit by placing the plastic spacers between the unit and the stand and securing in place using the knurled knobs. If desired, attach rubber feet to each corner of the bottom of the stand. Press feet firmly in place.

Before installing the unit, verify that the AC outlet is properly connected to earth ground. The unit must have a good earth ground to maintain proper balance.

Install the unit in the desired location, making sure that the airflow will not be restricted. Be sure the ON/OFF switch, located on the front of the unit, is in the "OFF" position. Plug the power cord into the appropriate AC power source. 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.

### OPERATION

Set the fan speed controller on the desired position, turn the unit on. Higher airflow will result in faster neutralization rates. Position the unit so that the maximum airflow is directed at the items or area to be neutralized.

Accomplished by a small screwdriver or trimmer adjustment tool onto the balance adjustment hole located on the front panel. To increase the output in a positive direction, turn the potentiometer in a clockwise direction. Conversely, to increase the output in a negative direction, turn the potentiometer in a counter clockwise direction.

## Maintenance

Warning-risk of electric shock-these servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing of internal parts unless you are qualified to do so.

The input voltage must be verified before to use.

Under normal conditions, the ionizer will attract dirt and dust (especially on the emitter electrodes ). To maintain optimum neutralization efficiency and operation, cleaning should be performed on a regular basis.

If the performance of ionizer were to degrade because of dirty or corroded points, the unit will enter a maintenance condition. When the ionizer is in a maintenance condition, using a brush or pressure-air cleaning the emitter and the unit.

Neutralization (decay) times

The comparative efficiency of bench-top ionizers is determined by a standard test published by the ESD association: standard S3.1. typical positive and negative decay times (from 1000 volts to 100 volts) measured using this standard are shown below. The performance of the ionizer was measured with the unit positioned as shown, with the fan speed high, and without a filter.

<u>0</u>	12"	24"	36"	48"
12"	+1.0s	+2.2s	+2.9s	+4.7s
ionizer	-1.2s	-2.5s	-3.5s	-5.2s
center line	+0.8s	+1.1s	+1.8s	+3.6s
	-0.9s	-1.2s	-2.1s	-4.2s
	+1.1s	+2.1s	+3.0s	+4.3s
	-1.2s	-2.4s	-3.6s	-4.8s

12"

## Specifications

**Air flow:** Continuous flow control: 180-330 scfm

**Balance:** +/-5 volts, typical; +/-10volts maximum.

(temperature range: 65F to 80F, R.H.: 15% to 65%)

**Enclosure:** White powder coated aluminum housing.

**Dimensions with the stand:** 245mm (high) x 495mm (width) x 140mm (depths)

**Emitter points**

1.5mm diameter pure tungsten for improved mechanical strength and ionization stability.

**High voltage power supply**

4.0kv dc nominal

**Input power**

ac line power, 100~130VAC-50/60Hz

**Ion emission**

steady state dc with sense feedback.

**Mounting**

Bench top tilt adjust frame.

**Weight**

6.2Kg

**Note:** unauthorized servicing or modifications to your ionizer will void the product warranty and may create dangerous conditions. Servicing should be performed only at the factory, or by a approved technician.

**Limited Warranty**

NO-STAT expressly warrants that for a period of one (1) year from the date of purchase, the AI-400 will be free of defects in material (parts) and workmanship (labor). Within the warranty period, a unit will be tested, repaired, or replaced at No-STAT option, free of charge. Any unit under warranty should be shipped prepaid to the No-STAT factory. Call Customer Service for a Return Goods Authorization(RGA)number and shipping instructions. Include a copy of your original packing slip, invoice, or other proof of purchase date.

If the unit is out of warranty, No-STAT will quote repair charges necessary to bring your unit up to factory standards.

**Warranty Exclusions**

The foregoing express warranty is made in lieu of all other product warranties, expressed and implied, including merchantability and fitness for a particular purpose that is specifically disclaimed. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

**Limit of Liability**

The user shall determine the suitability of the product for their intended use, and the user assumes all risk and liability whatsoever in connection therewith.