

MONITORING

Devices to measure negative ions in ambient air (handheld) or in system (Duct or AHU mounted).

CAPACITY

Measurement range: 0 to 20,000 Negative Ions/cm³



Applications



New Construction

Reduce First Costs and Energy Usage
Decrease HVAC equipment sizes and cut energy usage by reducing outdoor air intake in accordance with ASHRAE's Standard 62.1 IAQ Procedure.



Office Buildings

Healthy Workplaces are Good for Business
Indoor workplaces that are free of airborne allergens, bacteria, viruses, and VOCs contribute to optimal employee performance, productivity, and happiness.



Schools

Clean Air. Clear Thinking.
A healthy indoor environment free of airborne allergens, bacteria, viruses, and VOCs reduces absenteeism and optimizes academic performance and staff productivity.



Transportation

Eliminate Gases, Odors and Pollutants
Combat harmful indoor air pollution at airports, heliports, train and bus stations.



Cannabis Growers

Clean Air. Clean Cannabis
Give your plants the air nature intended with bipolar ionization technology installed in your HVAC system. Your plants will thrive and so will your business.



Casinos & Hotels

With Clean Air, Everyone's a Winner
Keep your customers staying and playing with fresh indoor air – free of smoke, VOCs, dust, mold, bacteria, and odors.



Residential

Mountain air quality for homeowners
Invisible, silent, low maintenance and free of harmful byproducts, PlasmaPURE bipolar ionization technology outperforms PCO, UV and HEPA filters.



Senior Living

Clean Air for Better Health Care
Reduce infections, outbreaks and hospitalizations. Mitigate odor and improve quality of life for residents and staff.

DUCT MOUNTED ION SENSOR IONIZATION PRODUCT SUBMITTAL

The Plasma Air Duct Mounted Ion Sensor is designed to sense the presence of ions in a duct. Dry contacts are provided to interface with the Building Automation System (BAS). The contact will open below a user-defined value and will close above that value. The sensor also includes LEDs for power and ion indication. The unit is installed on the side of the duct utilizing the pre-drilled mounting brackets located at either side of the unit with the probe extending into the airstream. The unit contains a control knob that can be field adjusted to increase or decrease the sensitivity at which the ions are sensed

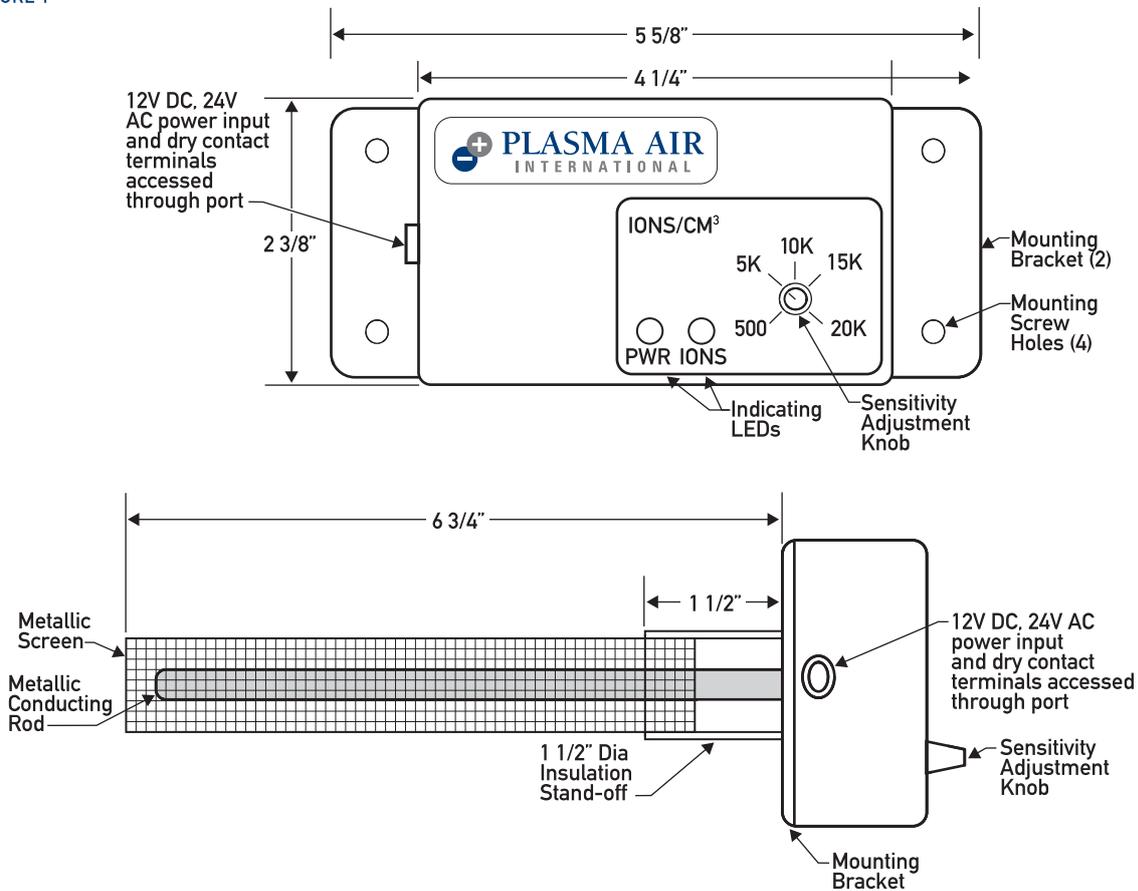


SPECIFICATIONS:

- Housing Material:** Die Cast Aluminum
- Maximum Operating Temperature:** 200°F (93°C)
- Electrical:**
 - Input Voltage** 12V DC or 24V AC
 - Frequency** 50/60 Hz
- Mounting:** Side angle brackets
- Pressure Drop:** <0.05" W.G.

- Dimensions:** See Figure 1
- Ion Detection:** LED and Closed Contact
- Detection Range:** 500-20,000 ions/cm³
- Detection Adjustability:** User
- Detection Polarity:** Positive and Negative
- Detection Limit:** 500-20,000,000 ions/cm³

FIGURE 1



DUCT MOUNTED ION SENSOR
not to scale

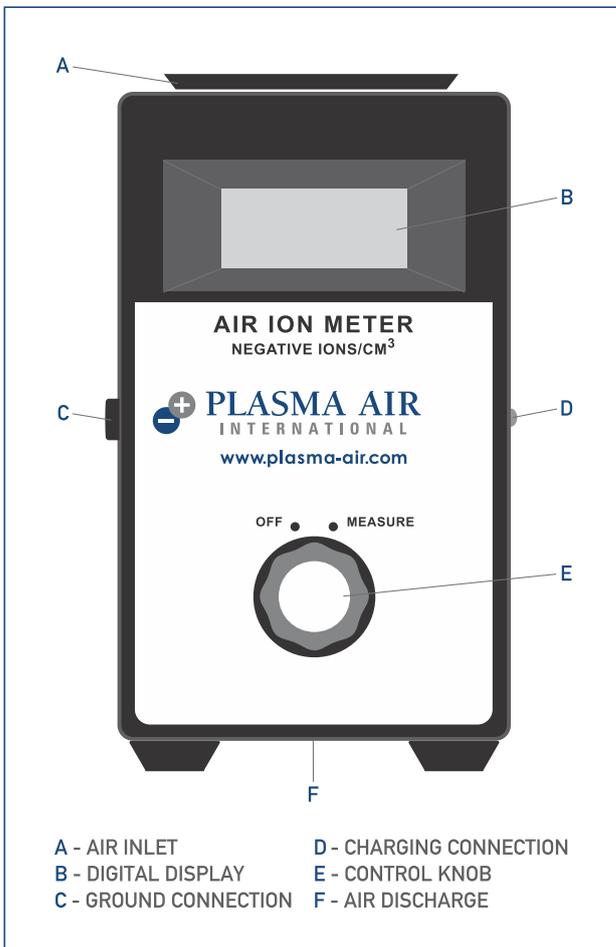
PLASMA AIR - ION METER IONIZATION PRODUCT SUBMITTAL

The Plasma Air Ion Meter is a meter specifically designed to measure the effectiveness of Plasma Air ion generators in commercial, institutional and residential applications.

Ideal ion levels range from 500 to 1,500 negative ions per cubic centimeter. The meter is designed for ease of use by contractors and building owners to verify actual ion levels.

The digital readout is a direct reading and special circuitry has been employed to minimize variations in ion readings. The meter automatically zeros itself at each start-up, and every ten minutes during prolonged continuous use to avoid erroneous readings caused by static buildup.

The meter has a rechargeable battery and provides about 6 hours of continuous operation – more than enough to survey even large buildings. The charger plugs into any wall outlet.



SPECIFICATIONS

Measurement Range	0 to 20,000 Negative Ions/cc
Measurement Accuracy	± 20 % of reading.
Zero Adjust	Automatic Every 10 Minutes
Power	9 V Internal Lithium-Ion, replaceable
Meter Run Time	6 Hours
Charging Time	3 Hours
Charger	Universal 110-240 volt 50/60 Hz
Ground Reference	20 ft cable with alligator clip provided
Casing Material	Graphite Coated ABS
Weight	1 lb
Size	6.9 inches x 4 inches

Made In USA

Plasma Air Ion Meter

Installation, Operation and Maintenance Manual

Overview: This meter measures the number of negative ions per cubic centimeter in air. During operation, a fan draws air in around the top black rectangle and the air exits from the round grille at the bottom of the meter.

Battery Charging: There is a rechargeable battery inside, which fully charges within 4 hours. The light on the battery charger indicates a charging state. When the light changes to green, the battery is fully charged. Leaving the charger plugged into the unit will not overcharge the battery. The battery typically handles 1,000 charge cycles.

Note that if the charger is left plugged into the meter while the charger is not plugged into an active AC outlet, the charger will drain the battery. This will not damage the battery but the battery will discharge. To prevent this, always unplug the charger from the meter before unplugging the charger from the AC wall outlet. When the Low Battery indicator appears the meter will operate correctly for an additional 30 minutes, at which time the battery must be recharged.

Even if the meter is left on indefinitely, there is no chance of damage to the battery. Only replace the battery with the equivalent Lithium-Ion rechargeable battery.

WARNING: Use of any other battery could result in an explosion or fire during the charge cycle.

Grounding: The outside of the meter is coated with an anti-static paint; if the meter becomes charged with static electricity, the ion reading may be too low. For this reason, there is an earth ground jack on the left side of the meter. This jack must be used with the 20-foot cord supplied.

Connect the alligator-clip end of the cord to an earth ground such as a metal screw in a wall plate, a metal conduit, metal plumbing, or to any metal in contact with the earth. You can use the unit without the ground wire provided that you avoid static buildup by frequently touching a grounded object while you are holding the meter.

Operation: To operate the meter, turn the knob to MEASURE. Several decimal points will display as the meter acquires a “zero” level, which takes about 10 seconds. Then the decimal points will disappear, the fan will turn on, and the meter will begin reading negative ions per cubic cm. Maximum reading is “19,999” (just below 20,000). If the number of ions is higher than that, the display will read a “1” to the extreme left, and it will stay that way until the number of ions per cubic cm drops below 20,000. To get accurate readings, hold the meter at arm’s length with the black rectangle pointing toward the area you want to measure. The round grille should not be blocked (but it can be set flat on a table on the rubber feet if necessary). Try not to move the meter very much during the 3 seconds required for each reading update. A “-” sign will show if negative ions are present. If the negative ion count is almost zero, this “-” may not be present, and a small (positive) number might be displayed. The display update is every 3 seconds. However, on initial power up, allow 2 full cycles (or 6 seconds) after the decimal points disappear.

Warranty: These meters are warranted for one year and are assembled in the USA. Accuracy is +/-25% of the actual reading. Please note that stable ion counts will occur if the air is well mixed. Otherwise, there may be high-ion zones adjacent to low-ion zones.