



Plasma Air Ion Meter

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.