

**Tools of the Trade****ION Counters**

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**What are IONS and why do we want to count them?:**

An ion is an atom, or molecule that has acquired a net electric charge (- or +) by gaining (or losing) electrons from an initially electrically neutral configuration. If there are more electrons than protons, it is negatively charged, and conversely, if there are fewer electrons than protons, it is positively charged (Yes, time to blow the dust off that old High school chemistry book).

Countless ions are always present in the atmosphere and occur naturally but are generally short lived since negative and positive ions are attracted to each other and the charges cancel each other out leaving two neutral molecules, but don't fear, more ions are constantly created by air movements, water evaporation (e.g. crashing waves, waterfalls, or your breath), electric fields, radioactive decay (radon), and even sunlight as it naturally breaks apart air molecules.

Although ionization can occur in gases, liquids, or solids, in the context of an Ion counter, we only care about the ionization of gasses in the atmosphere. Ion counters report the number of ionized molecules per volume of air that is circulating around (thru) it, typically: # ions per cubic cm. The environment you are in will generally dictate the expected ion levels. Inside buildings are generally low 100-200 ions/cm<sup>3</sup> while outside areas can be much higher ~1000-3000+ ions/cm<sup>3</sup>. Conditions such as a thunderstorms and mountains can increase these numbers as well.

ION Counters are commonly available and range in price from \$30 to several thousands of dollars and their ranges and accuracy generally scale with the cost of the device. For paranormal research, the main factors are probably cost and portability, but no matter what you buy, understand how to use it correctly.

**Ion counters and the paranormal:**

There are many theories on how (and if) ions interact with paranormal entities, but the main ones are:

Some theorize that an entity directly draws energy from the atmosphere (creating + or - ions) thus allowing it to manifest. Some investigators will use negative ion generators (or air purifiers) to charge the air with (neg) ions in the same way that one would use an EM pump, providing the entity with energy to manifest.

Some theorize that simply the presence of an entity disrupts ion counts in the air rather than providing it energy, and others theorize that there is no correlation with the paranormal at all.

While it is true that ion counter fluxuations are generally difficult to define and explain using hard scientific evidence such as correlated air flow patterns, humidity, EM fields, electric charge, and static charge creating objects in the environment (plastics, carpets, etc).

Another very important aspect of ions are their psychological and biochemical impact on humans. Areas with net negative ionization are believed

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to elevate moods, increased Serotonin levels, and reduce stress and depression. High positive ionization areas have the opposite effect with symptoms such as: dizziness, irritability, nausea, headaches, and anxiety among others. So be aware that just like high EM field areas, high positive ionized areas may be the actual cause of 'creepy feelings' rather than anything paranormal.

#### Summary:

As with any instrument being used for paranormal investigation, the key is to *fully* understand the actual science behind the instrument, know its limitations, and how to correctly use it. An ion counter can complement other types of data when used correctly. Happy investigating ;)

#### References:

<https://en.wikipedia.org/wiki/Ion>

<http://www.webmd.com/balance/features/negative-ions-create-positive-vibes>

## Seeking Team Members and Consultants

We are seeking team members for the following positions: Part-Time Investigator, Researcher, Case Manager and Data Reviewer. All members are volunteers and must be 18 years of age or older. No member receives any compensation for their participation. All team members are required to meet certain obligations to the team. If you are serious about paranormal investigation and research and we sound like a team you would like to pursue a membership with go to [click here](#) to learn more.

We are also looking for professionals from various fields to act as consultants on cases, such as: pharmacists, meteorologists, clergy, shaman, historians, and people in the medical field. If you are in one of these fields and would like to assist a paranormal team please [email us](#).

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