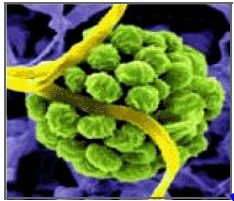




Central Air Purifier (CAP)

 Air Fantastic®

Contaminants of the Modern Home



Airborne Mold/Fungus

Chronic Sickness, Coughing, Bronchitis, Sinusitis, Sinus Headaches, Sinus Headache, Congestion, & may trigger Asthma Attacks.



Pollen, Dust, Dander

Itchy Eyes & Nose, Chronic Sneezing, Coughing, Sinus Headaches, Congestion, & may trigger Asthma attacks.

Odors

- Old Home Smell
- Musty/Moldy
- Pet Odors
- Cat Urine/Litter Box
- Cigarette Smoke
- Cooking Odor
- Dead Rodent
- Old A/C Unit Smell
- Chemical (New Home)
- Carpet/Paint Fumes



Disaster Odors

- Flood Odor
- Fire Related Odor
- Cooking Accident



Chemicals & VOCs

Headaches, Nausea, Damage to Liver, Kidney, Central Nervous System, Lung Cancer.

Source: Paint, Carpet, Furniture, Pesticide, Building Material, Cleaning Solutions.



Viruses, Surface/Airborne Bacteria

Staph Aureus, MRSA, E Coli, Flu, Cold, Listeria

Result: University tested to help eradicate MRSA surface bacteria and reduce up to 99% of airborne bacteria.

Older Air Cleaning Technology: HEPA



HEPA Air System

HEPA (High Efficiency Particulate Air)

- Developed during WW II for Manhattan project (nuclear).
- Only treats small area (~350 sq ft)
- Annual filter cost is around \$175.
- Very noisy and very high power consumption (~200W).
- Only capture large particles over 0.3 microns.
- Does not sanitize germs or mold spores (capture only).
- A HEPA filter is a paper filter similar to a coffee filter.
- Viruses are so small that HEPA filter can not capture them.
- Filter becomes covered with live mold spores & bacteria.

Replacement Filters

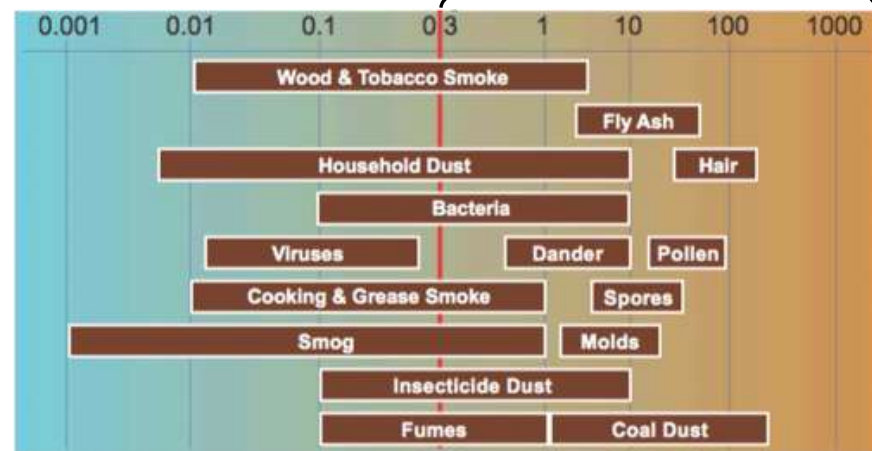


HEPA is a paper filter similar to a coffee filter.

Pre Filter: \$14.95
(replace every 2 ~ 3 mos.)
Annual cost: ~\$75

HEPA Filter: ~\$90
(replace every year)
Annual cost: ~\$90

Only removes large particles over 0.3 microns



Older Air Cleaning Technology: HVAC HEPA



HVAC HEPA Filter

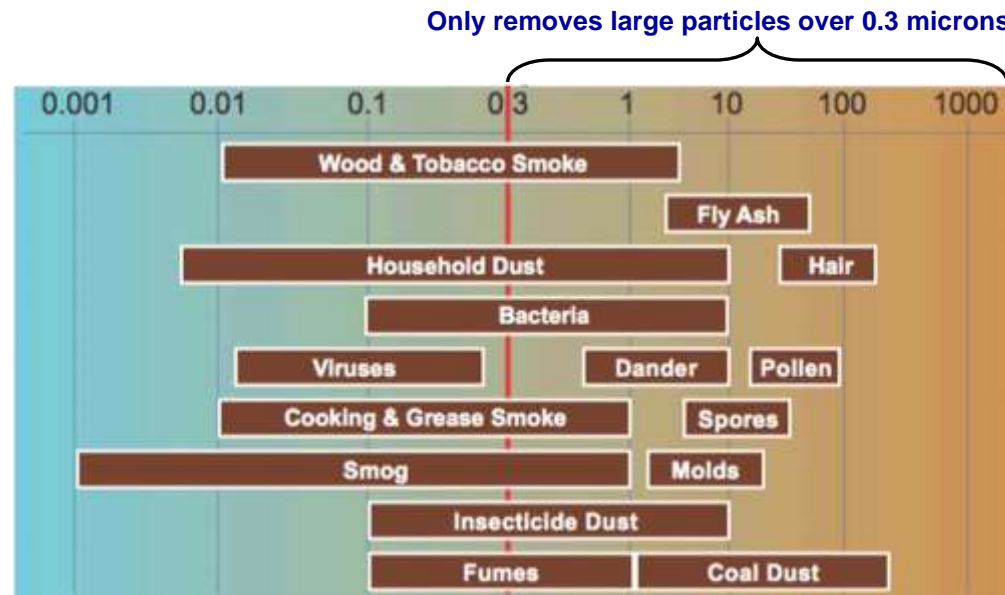
HVAC HEPA (High Efficiency Particulate Air)

Positive:

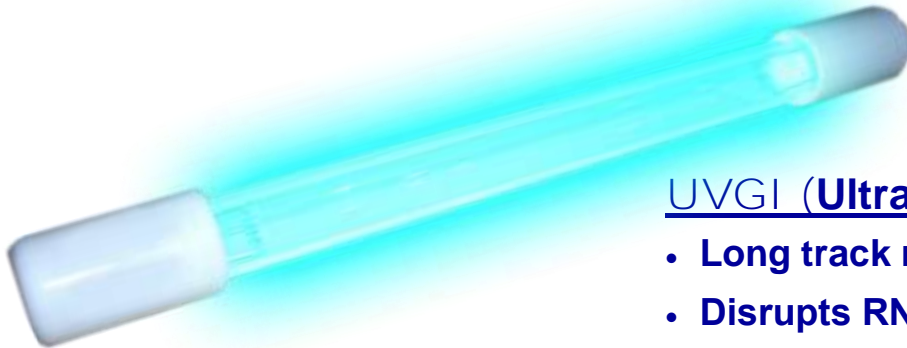
- Removes larger particles from the air.

Negative:

- Must be cleaned and replaced often.
- Only removes particles larger than 0.3 microns.
- Filter may get covered with live mold spores and bacteria.
- Can not capture viruses (too small).



Older Air Cleaning Technology: UVGI



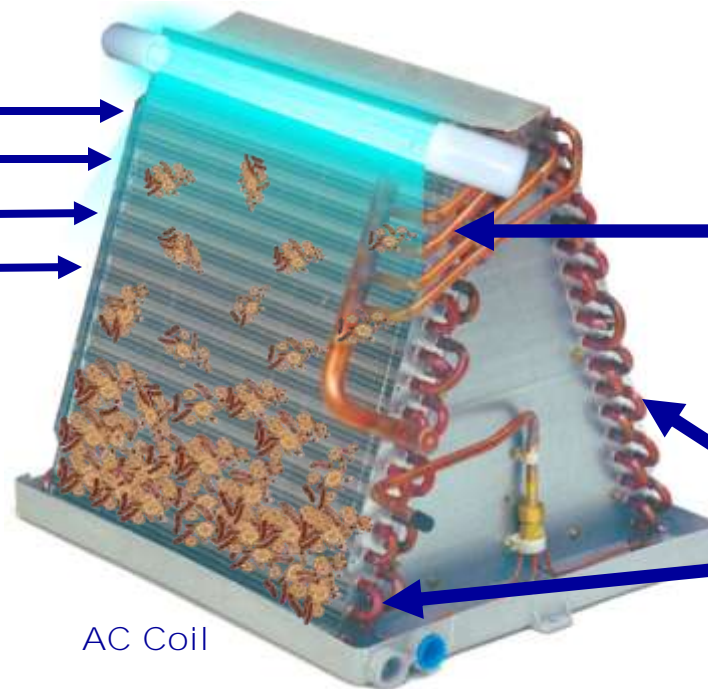
UVGI (UV Only)

UVGI (Ultraviolet Germicidal Irradiation)

- Long track record since 1950s.
- Disrupts RNA/DNA preventing replication (can't reproduce).
- Requires long exposure time to be effective.
- Only works where UV shines.
- Prevents mold growth only in close proximity to lamp.
- Multiple UV lamps up to 5 lamps are needed for entire coil.

UV limitation over distance

- 100% power @ 1 inch
- 25% power @ 2 inches
- 6.25% power @ 4 inches
- 1.56% power @ 8 inches



UV lamps only prevent mold growth in close vicinity of lamp.

Note: For this example, the coil would need to be clean and free of mold at time of UV light installation.

Mold continues to grow at distances away from the lamp.

AC Coil

Older Air Cleaning Technology: PCO

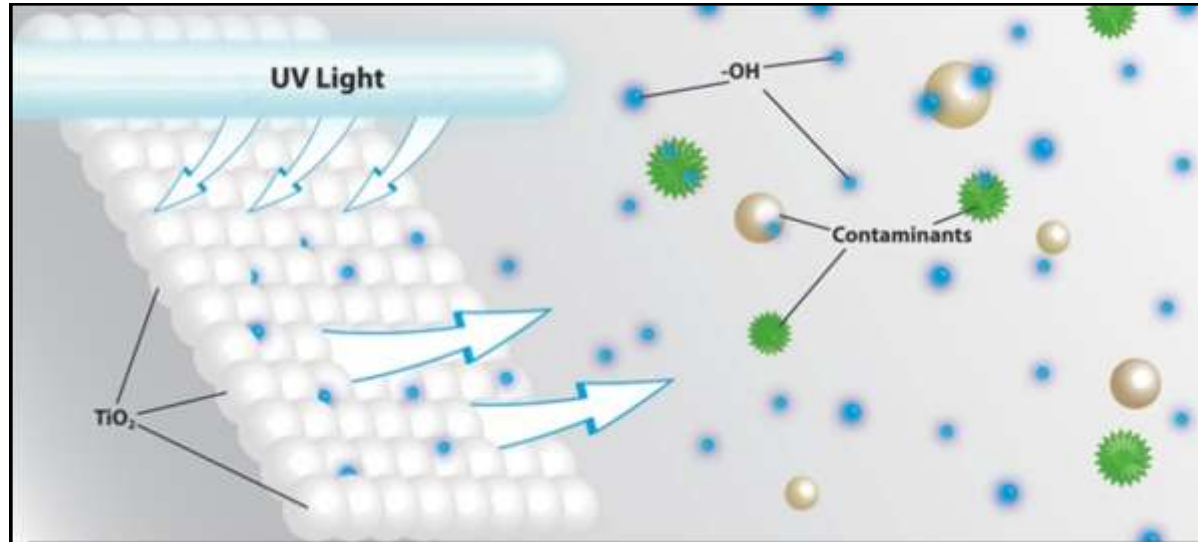


Photo Catalytic Oxidation Process

PCO (Photo Catalytic Oxidation)

- Originally developed by NASA.
- Photons from light source excite water and oxygen molecules on catalyst surface (TiO₂) to create Hydroxyl Radical.
- Creates ONLY Hydroxyl Radical.
- Cleaning action only happens near TiO₂ surface and not within the room.

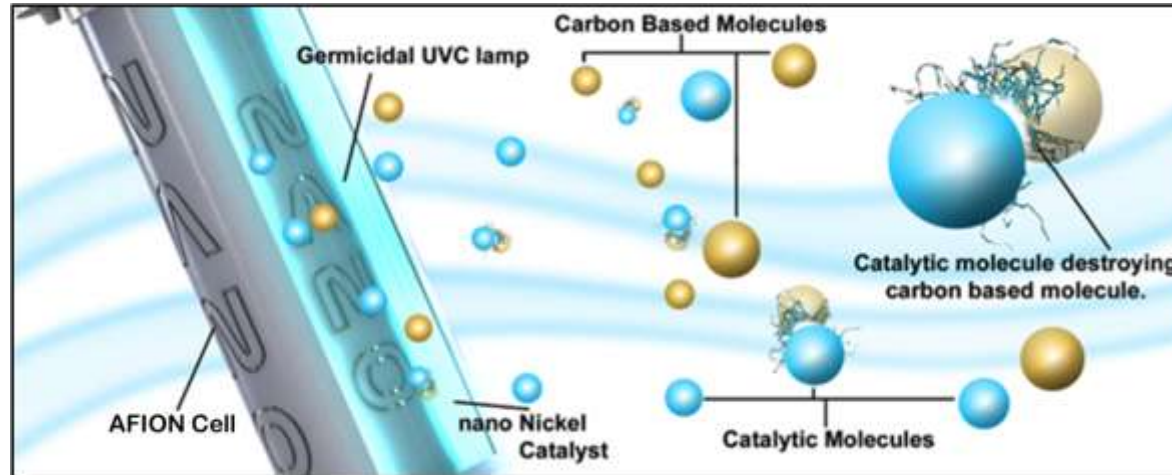
Positive:

- Hydroxyl Radicals are extremely effective against microbes and VOCs.

Negative:

- Hydroxyl Radicals have short half-life and can't travel far.
- Contaminants must come close to TiO₂ surface.
- Requires large surface area to be effective.
- Requires slow flow rate for optimal results of 50 to 100 CFM.

Air Fantastic Cleaning Technology



“Hydrated” Photo Catalytic Oxidation Process

Hydrated Photo Catalytic Oxidation

- Similar to PCO technology but includes HYDRATED technology.
- Creates Hydroxyl Radical plus Hydroperoxide, Super Oxide, and Ozonide ions.
- Hydroperoxide ions have longer half life and can travel through out indoor environment.
- Cleaning actions occurs near the probe and also within the indoor environment.
- Effective in reducing:
 1. Odors including old home smell, pet, & cat urine.
 2. Airborne Microbial (up to 99%).
 3. Particulates, Allergen, Dust, Dander (up to 99%).
 4. Volatile Organic Compounds.
 5. Surface bacteria including MRSA.

Air Fantastic Cleaning Technology

Hydrated Photo Catalytic Oxidation

- Air Fantastic technology utilizes a broad spectrum UVC lamp and advance catalyst to excite water molecules.
- Catalyst made up of smaller NANO particles increasing surface area and kinetic reaction rate that creates ion faster.
- NANO particles are equivalent to 100 times surface area of the competitor's "micron" particles catalyst.
- Catalyst is coated on the inside of an anodize aluminum tube.
- Competitor's units have exposed catalyst that can rub off and can be messy to handle.
- UVC lamp is encased in a break resistant quartz test tube to help protect lamp from temperature and moisture changes when HVAC turns on. Competitor only uses plastic tube that become brittle and white due to UV exposure that decrease performance and efficiency.



Air Fantastic®
AFION Probe

Air Fantastic CAP Probes



14"
CAP5000N
(Up to 5,000 sq ft)



9"
CAP3000N
(Up to 3,000 sq ft)

NOTE:
Areas of higher contamination such as pets, smoking, old building odor or commercial usage may require multiple units for optimal results.

Air Fantastic Rotational Shield



Rotational Shield

- **360 degrees of rotation.**
- **Shield is constructed of one solid tube of anodized aluminum.**
- **Help protect HVAC from UV**
- **You decide level of UV exposure.**
- **Helps protect sensitive electronic, plastic and rubber from deterioration due to UV exposure.**
- **When shield is close, air can still pass through unit and allow catalytic molecules to disperse in the air.**



Air Fantastic CAP AFION Features

Fire Safety

- UV stabilized Polycarbonated housing with VO fire rating.

Protection from Extreme Heat

- Small vents allow cooled air to enter housing area and keep electronics cooled.
- Electronics include a thermistor that senses potential harmful temperature and turns off unit. Once cooled, the unit will automatically turn back on.

Rotational UV Shield

- Constructed by an anodized aluminum tube that protects sensitive HVAC components from UV degradation.
- Anodize aluminum also acts as an additional catalyst.

Lamp Protection & Safety

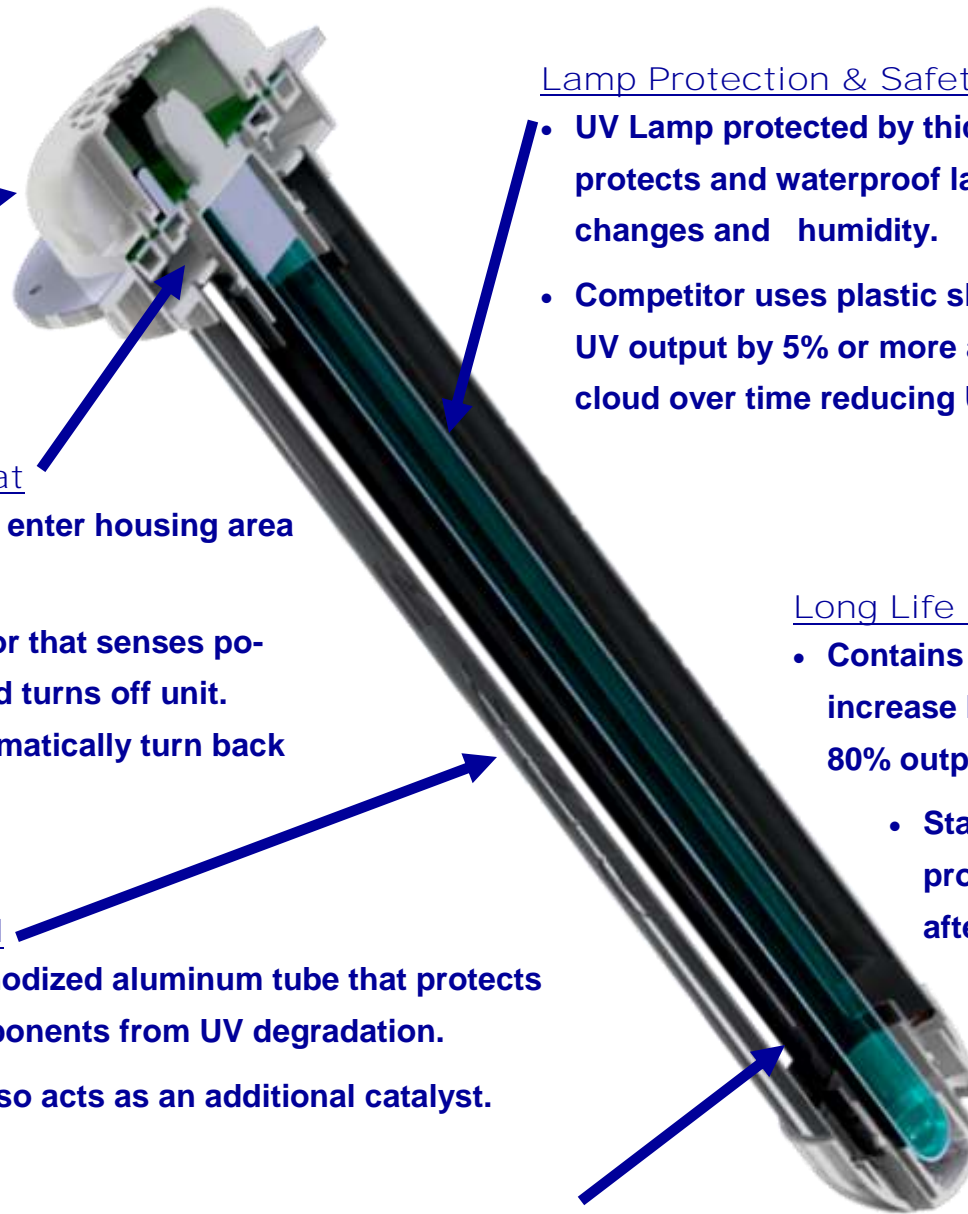
- UV Lamp protected by thick quartz sleeve that protects and waterproof lamp from temperature changes and humidity.
- Competitor uses plastic sleeve which can reduce UV output by 5% or more and can crack and cloud over time reducing UV output even further.

Long Life UV Lamp

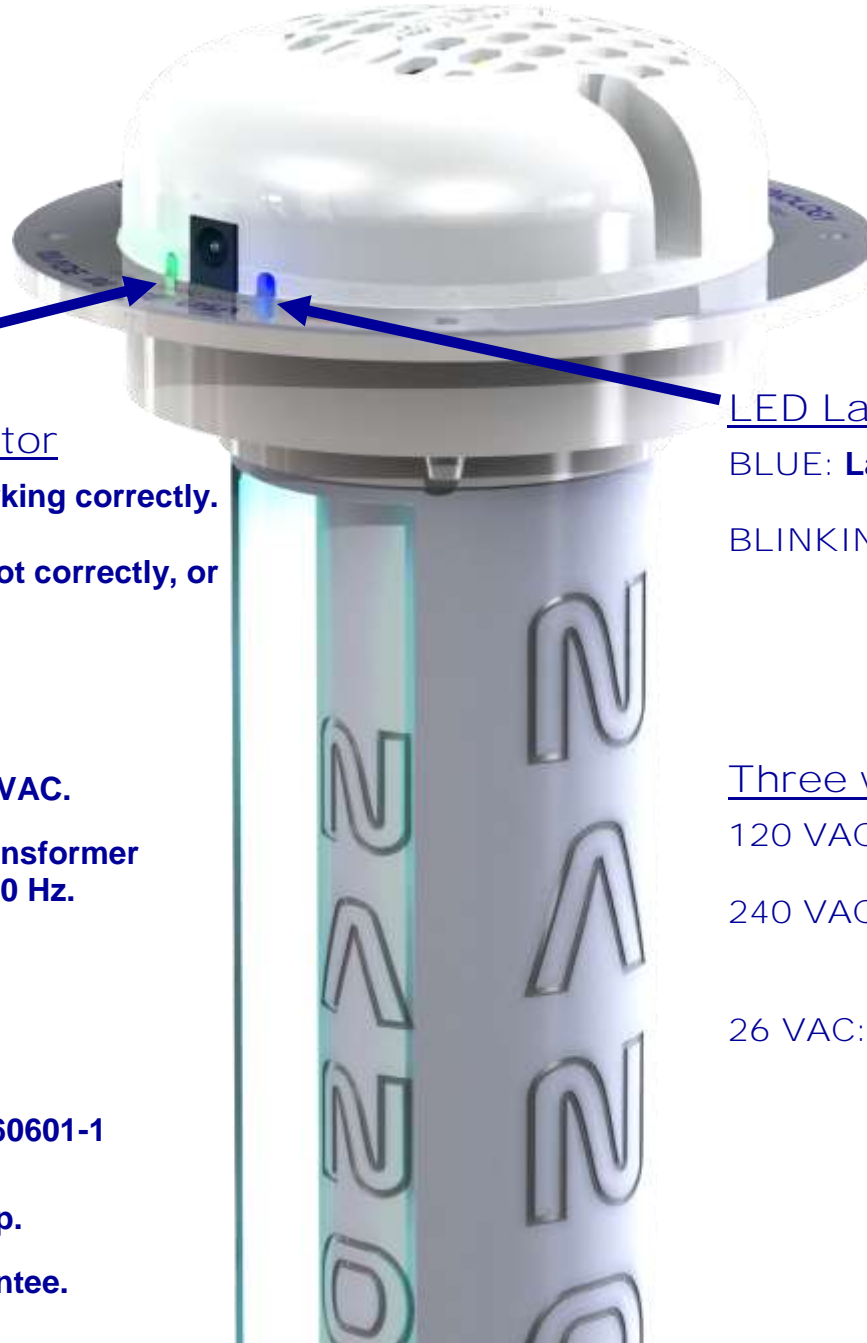
- Contains special coating that increase lamp life providing 80% output after two years.
- Standard UVC lamps provide only 65% output after two years.

NANO Catalyst

- Coated on the inside of the shield.



Air Fantastic CAP AFION Features



LED Power / Status Indicator

GREEN: Unit is power up and working correctly.

RED: Lamp failure, unit working not correctly, or installed improperly.

Power Options

- **Unit operates on 26 VDC or 24 VAC.**
- **International 26 VDC AC/DC transformer operates on 100~240 VAC 50~60 Hz. Rated: UL, CE, FCC, TÜV.**

Ratings & Warranty

- **Conforms to IEC/UL standards 60601-1 for domestic use and abroad.**
- **2 year warranty on unit and lamp.**
- **30 day 100% money back guarantee.**

LED Lamp Replace Indicator

BLUE: Lamp has not expired.

BLINKING: Lamp has operated for over two years and needs to be replaced.

Three ways to connect Power

120 VAC: Plug unit into wall outlet.

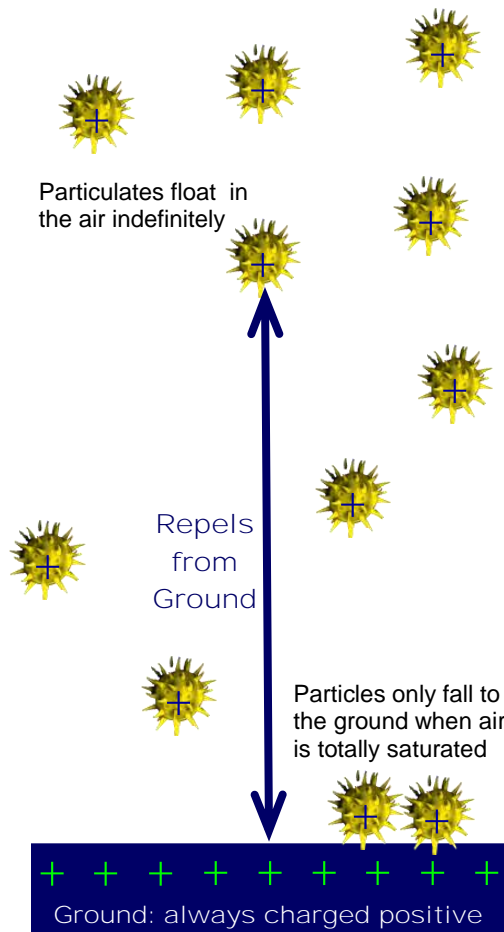
240 VAC: Cut plug off and hard wire directly to 240 VAC source.

26 VAC: Cut off AC/DC transformer and hard wire directly to 26 VAC HVAC controller. We recommend to use a dedicated controller.

Particulate Reduction Technology

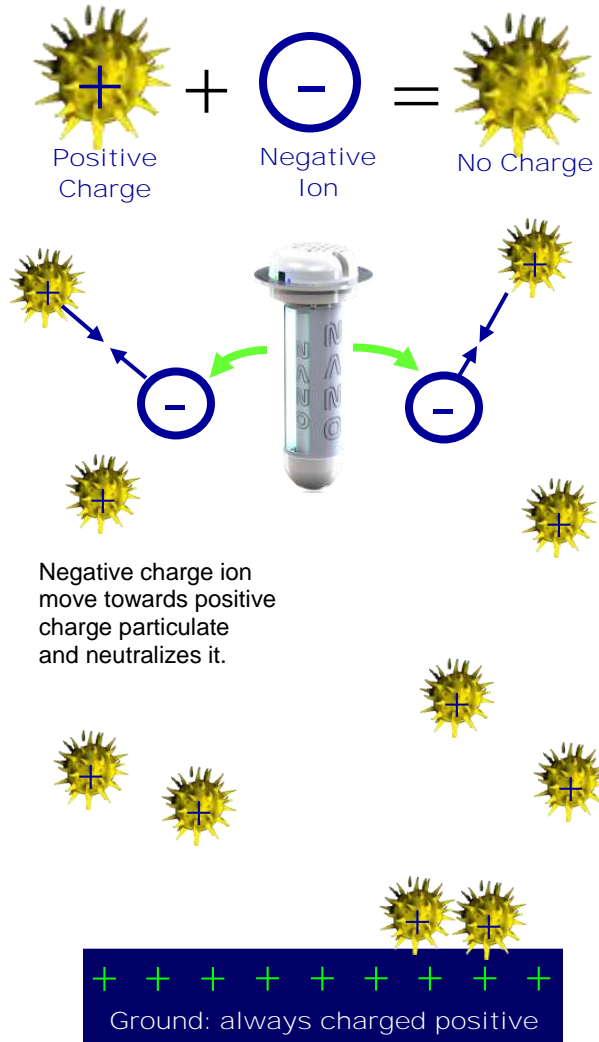
Why Particulates Float

- The ground is always charged positive.
- Particulates also are charged positive.
- Just like magnets: positive repels positive.
- Pollen, dust, & dander float indefinitely.
- Particulates only fall to the ground when the air can no longer carry any more particulates (saturation).



Air Fantastic Negative Ions

- The ions produced are negative and move towards the positive charged particulates.
- The two combine until the particulate is neutralized.



Particulate Free Air

- Neutralize particulates fall to the ground in seconds and can no longer float in the air!
- Particulates are reduced by up to 99%.
- Neutralize particulates can now be easily vacuumed up.



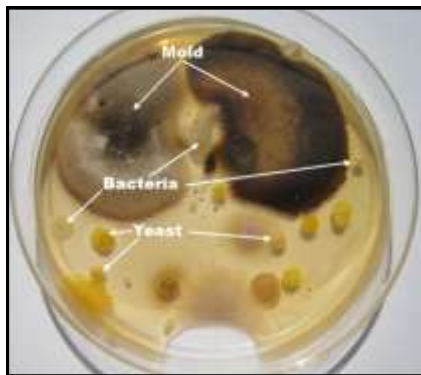
Sanitizing & Deodorizing Technology



Reduces Airborne & Surface Germs including MRSA (W. Texas A&M)



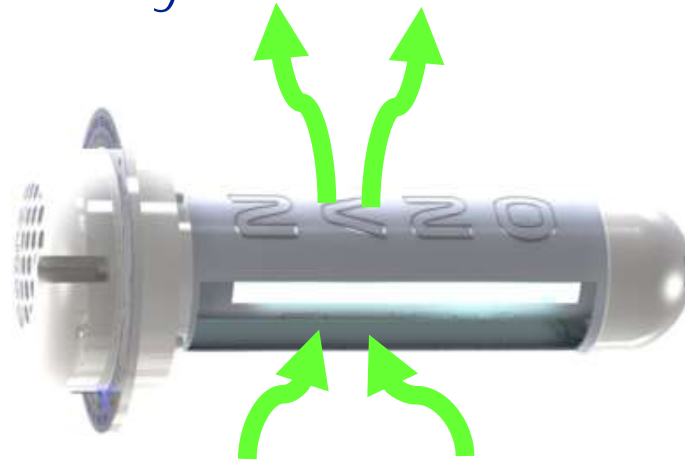
Reduces dangerous Chemicals & VOCs



BEFORE



Hydro Peroxide



Moisture + Air



Reduces Airborne Mold & Fungus up to 99% (W. Texas A&M)

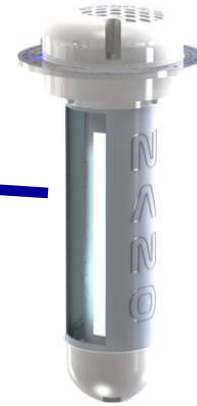


Eliminates almost any odor 24 hours-a-day



AFTER

Healthy Modern Home



- One Unit for Whole Home:
- Continuously produces natural & safe hydroperoxide.
 - Hydroperoxide travels everywhere in the home.
 - Helps protect you & your family from germs, mold spores, chemicals and odors.

Independent University Test Study (W. Texas A&M)

