

# UV OZONE GENERATOR

## WHAT IS OZONE?

Ozone is a naturally occurring molecule that is primarily located in the upper atmosphere (stratosphere), and can be found in low concentrations in the air around us. Ozone is created by the chemical reaction undergone when oxygen is exposed to ultra-violet light. Oxygen (O<sub>2</sub>) consists of 2 oxygen atoms bound together. When O<sub>2</sub> is exposed to UV light those 2 atoms split apart. When one of those freed atoms collides with another O<sub>2</sub>, Ozone (or O<sub>3</sub>) is created.

## IS OZONE DANGEROUS?

Ozone is classified as an irritant to humans, and at levels over 0.15 ppm it can be hazardous. If used properly however, this Ozone Generator will produce Ozone levels far below OSHA and EPA regulations, causing no harm to people and efficiently deodorizing the air. Symptoms of high Ozone levels in the air include sore throat, irritation to the eyes and nose, difficulty breathing, and a noticeable "Ozone smell." If you are experiencing any of these symptoms leave the affected area and adequately ventilate the room before returning. People with asthma or other respiratory problems may be more sensitive to Ozone, and experience symptoms at lower levels. Adequate ventilation is the most important factor to ensure proper usage and minimize risk.

## HOW DOES THE OZONE GENERATOR WORK?

When the Generator is turned on it sucks air inside the unit and runs it past the UV light bulb, causing the oxygen in the air to convert to Ozone. The Ozone is then blown out of the unit and circulated into the air to eliminate odors.

## PRECAUTIONS

- Only use the Ozone Generator in dry, well ventilated environments.
- Never use the Generator while the housing is open or the bulb is exposed.
- Always power off and unplug the unit before cleaning.
- Using the Ozone Generator with a timer will help control Ozone levels.
- If you smell a strong "Ozone odor" or experience any of the symptoms listed above, the Ozone levels may be too high and the area needs to be ventilated better and/or the unit powered off.
- Persons with asthma or other respiratory illnesses should exercise caution when using the Ozone Generator as they may be more susceptible to Ozone affects.

## HOW DOES OZONE ELIMINATE ODORS?

The difference between oxygen (O<sub>2</sub>) and Ozone (O<sub>3</sub>) is a single atom. The third atom in Ozone has a much weaker bond to the other 2, making it more unstable. When Ozone molecules come into contact with pollutants and odor causing agents, that third atom splits off and attaches itself to the pollutants, changing their molecular composition and neutralizing the odor.

## PROPER USAGE

To prevent a build-up of Ozone do not use the Generator in small, confined spaces. Make sure there is plenty of ventilation within the room when running the unit, and it is recommended to use a cycle timer to regulate the amount of time the Ozone Generator runs. Please note: the more the bulb powers on and off the faster it will burn out. Make sure to use a timer that will not cycle too quickly. You should also mount or install the unit in an area away from people to minimize exposure. The Ozone Generator can cover up to 5,550 sq/ft so it does not need to be installed near the source of the odor to be effective. You should also never attempt to open the unit and expose yourself to the UV bulb while it is on. Just like UV light from the sun, the light from this bulb can damage your eyes and/or skin if exposed.

## MAINTENANCE

Every 6 months it is recommended to clean the internal components to maintain optimum performance. To do this, power off and unplug the Ozone Generator and open up the housing. Clean and dust the bulb and internal housing using glass cleaner and/or compressed air. Securely close the housing once cleaning is finished. Never power on the unit while the housing is open.