



HOW CAN I TELL IF MY SPA OZONE GENERATOR IS WORKING?

Four main indicators help determine if your Spa Ozone Generator (Ozonator) is working:

1. AGE. With the average lifespan of 3 years, some Spa Ozonators live 18 months and others can last up to 7 years. Here is a basic guide, followed by more detailed information below:

Which Ozonator do you have? And >	What is Ozonator's filtration time?	Expected lifespan:
Ultra Violet (UV) by DELZONE (ZO-310/312/300/301/302)	4-6 hours per day	3-5 years
Ultra Violet (UV) by DELZONE (ZO-310/312/300/301/302)	24 hours per day	Designed to produce ozone for 9,000 hours (3-5 years), running the DELZONE UV Ozonators 24/7 extends the life of the Ozonator. Expect 3,5...up to 18 years if you have a ZO-300 or 302
Ultra Violet by Balboa, Prozone, UltraPure, Clarathon	24 hours per day	Expect these low-producing ozone generators to last 1.5-3 years
CD Chip by DEL Ozone (CDS-16; Spa Eclipse)	4-6 hours per day	Unlike the UV ozone generators, CD Chips live longer when cycled on and off, so expect 1.5-3 years
CD Chip by DEL Ozone (CDS-16; Spa Eclipse)	24 hours per day	Expect 1.5 years
CD Electrode by DEL Ozone (MCD-50, MCD-250, SO, HO, T3)	4-6 hours per day	These ozonators do not deteriorate when cycled on/off, so expect 3-5 years if you live in high-humidity areas, and 3-7 in dry areas
CD Electrode by DEL Ozone (MCD-50, MCD-250, SO, HO, T3)	24 hours per day	DEL's CD Electrode Ozonators operate well either in cycles or running 24/7. Expect 3-5 years if you live in high-humidity areas, and 3-7 in dry areas



UV Ozone Generators. UV Ozone Generators light up for years giving the impression there is ozone. The reality is that UV ozonators use Mercury to create ozone; over time the Mercury vaporizes and ozone concentration dies. Just because the bulb's glowing does not mean there is adequate ozone to sanitize spa water. Most UV owners believe if they light is glowing, their ozonator is "working."

The DELZONE UV Ozone Generators ZO-300 and ZO-302 produced the most ozone of all UV Spa Ozone Generators. These UV units tend to last years (some customers claim up to 18) if the generator runs 24/7. However, when run in cycles, the ballast burns out and the lifespan decreases. If you have anything other than a DELZONE (Balboa, Prozone, UltraPure, Clarathon, etc), expect 1.5-3 years. Some UV ozonators produce such low levels of ozone, you don't even know when they die.

CD Chip Ozone Generators. The CD Chip Ozone Generator CDS-16 has been manufactured by DEL Ozone since 1998 as a more eco-friendly alternative to UV Ozonators. In 2000 DEL introduced the same technology to the after-market spa sector with the Spa Eclipse, allowing consumers to purchase this great, new technology at affordable pricing. Using less raw materials and electricity, the CD Chip units were designed to last 9,000 of operating hours, with an expected life of 1.5-3 years. Both CDS-16 and Spa Eclipse have Renewal Kits available.

CD Electrode Ozone Generators. Taking the powerful CD Ozone Technology the Eclipse Pool Ozone Generators were engineered with, DEL Ozone introduced the spa-sized version, making CD Ozone Electrode Spa Ozonators for the industry in 2000. Keeping this high-end technology a privilege to a hand full of Spa Manufacturers, DEL finally released the MCD-50 to the spa after-market in 2008. Twice the ozone and lifespan, the MCD-50 is a low-energy user and has Renewal Kit available - this technology has been the #1 choice for consumers for years, and continues to rule the after-market spa sector.

DEL Ozone also manufactures these CD Electrode Ozone Generators:

- SO - Not Renewable, No Indicator Light, handles up to 1,000 Gallons
- MCD-250 - Renewable, Indicator Light, handles up to 3,000 Gallons
- HO - Not Renewable, No Indicator Light, handles up to 3,000 Gallons

2. WATER CLARITY. Spa water should be crystal clear and odorless. Anything less than perfectly clear, balanced water is an indicator that:

- Spa Ozonator has expired and needs replacing
- Spa Ozonator isn't producing enough ozone to properly sanitize
- Check valve failed and ozone isn't getting into spa water
- Injector may be clogged or needs to be upgraded (make sure you have a Mazzei Injector)



3. ODOR. If your spa water smells like a footlocker, you could have bacteria and/or viruses building up. This is an indicator you have no ozone generator, or that the existing ozonator has expired. 200 times more powerful than chlorine, ozone kills 99.99% of all known viruses and bacteria (chlorine and bromine do not).

If your spa water smells like a chemical factory, don't get in it! Contrary to common belief, smelling toxic levels of chemicals does not mean your spa is safe; it could indicate your chlorine or bromine is locked up, ineffective, and dangerous to breathe or soak in. With a properly-designed ozone system, spa water should smell fresh and clean, not like chemicals. Ozone reduces chlorine to .5PPM and bromine to 1PPM. It also reduces the need to purchase shock, metal out, pH up and down, and other water clarifiers and adjusters. With ozone, water is easy on the eyes and skin, and easy to balance.

4. CONFIRMATION SPA OZONATOR IS PRODUCING OZONE. When in doubt, test it out! DEL Ozone released an accurate, easy-to-use Spa Ozone Test Kit for Spa Technicians in 2009. With a helpful video on YouTube (live link below) showing how to use the test, the video gives the added benefit of showing you how an ozone generator, check valve and injector are installed relative to each other. At the end of this great video, see what perfect ozone bubbles look like.

DEL Ozone Spa Test Video: <http://www.youtube.com/watch?v=UYS8rMM1zsQ>

We hope this article helps you determine whether or not it is time to replace your existing Spa Ozone Generator. For personal assistance, we have four convenient ways to reach us:

1. Toll Free US: 888.242.0111
2. International: 805.439.1898
3. Email: help@LoveYourHotTub.com
4. Click for Live Help at the bottom right of your screen