



## **Ionic Colloidal Silver Generator General Information and Operating Instruction**

Thanks for purchasing my new microprocessor controlled ionic colloidal silver maker! This is one of the finest colloidal silver makers on the market and was designed to make the process so easy that anyone can do it! It's easy to use and makes great colloidal silver water! The unit requires no batteries as it has its own power supply that plugs into a wall outlet and operates off of 120V or 240V. It makes a strong colloidal silver solution in about 8-15 hours. The device reverses polarity every three minutes during the making process, which means one doesn't have to keep cleaning the electrodes like with many other systems. The device has its own TDS circuitry and when the blinking red LED turns to solid green the PPM has reached between 10 and 15ppm and the unit will stop conducting electricity. The deviation in concentration depends on the purity of the distilled water, and the distance that the electrode ends are separated from each other. For stronger colloidal silver water bend the 99.99% pure silver electrodes so that the ends are about 4cm apart from each other. The unit operates at 27.4 Volts at .005 amps. The current stays constant throughout the entire colloidal silver making process. Silver particle size is approximately 0.16 nanometers. There are few units made that can match this particle size! The smaller the particles the better!



Having a good TDS (Total Dissolved Solids) meter is helpful in determining the quality of one's distilled water which should be 1ppm or less. It will also indicate the silver concentration of the final product. I recommend the Hanna PWT (About \$79 At Amazon). The \$15 TDS meters sold on eBay are not accurate enough for precise ppm readings!

## OPERATING INSTRUCTIONS

New Info: The plastic canning jar lid is no longer permanently attached to the colloidal silver generator. Instead, the lid is held onto the device by two o-rings. This allows users in other countries to choose their own jar and "plastic" jar lid. These users however will need to drill their own holes into the lid with the right size and spacing. The supplied o-rings will then sufficiently hold the jar lid in place for ease of use!

What Do You Need To Get Started?

Collect your supplies:a.) Colloidal silver generator and included plastic small mouth canning canning jar lid and supplied o-rings.b.) The included 120/240V power supply.c.) The two included 6 inch,12 gauge 99.99% pure silver wires.d.) 1qt small mouth canning jar (US). Users in foreign countries will need to find their own plastic lids and drill holes appropriately.e.) Distilled water that reads 1ppm or less! Most commercially available bottled distilled water will work fine.

### Getting Started



1.) Installing silver wire electrodes. Install silver electrodes by placing the generator on a flat surface and firmly, using some force, pushing the wire into the connectors. Electrodes will insert approximately 1/2 inch or 1cm.



2.) Drill holes in jar lid if necessary and attach plastic lid to the generator's wire connectors with supplied o-rings.

3.) Pour distilled water to about 1/2 inch (1cm) from the top of the glass jar.



4.) Calibrate the spacing of the electrode ends. First try aligning the electrodes perfectly in parallel.



5.) Screw plastic lid onto glass canning jar.



6.) Connect power supply to the power connector on the colloidal silver generator.

7.) Plug in power supply into electrical outlet. Foreign users with older outlets may need an adapter in order to plug the device into the electrical outlet.

Note: The bi-color LED on the colloidal silver generator will now begin to flash red. If the light turns solid green before one reaches a minimum of 10ppm (20uS on the Hanna PWT), then increase distance of the electrode ends to about 1.5 inches (4cm). If the LED turns green immediately, the water is contaminated! Make sure the jar is clean and rinsed with distilled water and try again. The power supply will first need to be unplugged from the colloidal silver maker and then plugged back in, in order to reset the device.

Note: Colloidal silver water is photo sensitive! It is always best to make colloidal silver in low light environments. If this is not practical, run the process inside a brown paper bag or cover with a dark towel.



8.) When the LED turns to solid green (8- 15 hours) check colloidal silver water with a TDS meter. The solution should be at least 10ppm or 20.00uS with the Hanna PWT. At this point the device will stop sending electricity through the electrodes.



Note: If one doesn't have a TDS meter, the water can also be tested for silver content by shining a red laser into the solution. A fairly dense beam of light will indicate a solution between 10 and 15ppm. Distilled water will not reflect a beam of light and will remain invisible, except where the beam hits the bottom of the glass jar. An inexpensive red laser that works great, can be purchased in the pet department at Walmart for under \$3.

9.) When the colloidal silver making process is complete, pour solution through a plastic or glass funnel and coffee filter into a 1qt or metric equivalent brown glass bottle. It's best not use plastic bottles, as the electrical polarity of the plastic can cause the colloidal silver water to degrade more quickly. If stored in dark place at room temperature, the colloidal silver should remain active for months! One can periodically test the colloidal silver with a red laser to check for silver content. Within a day or two of making ionic colloidal silver the water may turn slightly golden in color. This is normal as the solution stabilizes. If the beam becomes faint or disappears altogether, the colloidal silver has gone bad and should be discarded.

10.) After making colloidal silver, scrub the mason jar with a green 3M scrub pad and rinse with 3% H<sub>2</sub>O<sub>2</sub> (hydrogen peroxide). Rinse thoroughly with tap water and then with distilled water before reuse. H<sub>2</sub>O<sub>2</sub> will react with any remaining silver oxide particles that are clinging to the walls of the glass container and remove them. This also applies to the bottles used for colloidal silver water storage.



Silver electrodes should always be cleaned with a 3M scrub pad after the silver making process is complete. First lightly scrub with the 3M pad and then wipe dry with a paper towel.



One last thought... Even though the silver electrodes technically do not need to be cleaned while making colloidal silver, in passing, I will still wipe them clean with a piece of paper towel once or twice during the making process.

That's it!

Two Towers Instruments  
[www.TwoTowers.com](http://www.TwoTowers.com)