

USER MANUAL

Original Silver Generator Model X20



<http://original-silver-generator.com>

Dear Customer,

We want to congratulate you on your purchase of the model X20 colloidal silver generator. For proper operation of your generator, it is very important that you fully read and understand this user manual. Making clean, healthy and proper colloidal silver is a very detailed and specific process. The cleaning of the machine parts is of utmost importance, as is silver rod spacing and other factors. You will learn about all of this in the user manual. You can also find some FAQs at the end of the manual. If you have any problems, don't worry. Most people don't make perfect colloidal silver on their first try. Read the manual and try again. If you continue to have problems after that, feel free to email us at help@original-silver-generator.com or you can contact us from our website <http://original-silver-generator.com> and we will get back to you. We know you will enjoy your model X20 colloidal silver generator for years to come. Please share colloidal silver with your friends and family so that they can share in the benefits of colloidal silver.

Thank you,

Original Silver Generator

Table of Contents

Release of Liability Agreement	5
Arbitration	5
Binding Effect of Agreement	6
Entire Agreement	6
Assumption of Risk	6
Warnings and Safety Precautions	6
General Warnings	6
Allergy Warning	7
Laser Beam Warning	7
Argyria (or Argyrosis) Warning	7
Important Safety Information	8
Warranty Information	8
Extra Information	8
What is in the Box	9
Not Included	11
Distilled Water	11
Reducing Agent	12
Understanding Colloidal Silver vs Ionic Silver	12
Initial Setup and Use	13
Step 1 – Preparing for Cleaning	14
Step 2 – Cleaning the Generator	15
Silicone Stopper	15
Glass Flask	15
Stirring Magnet	15
Silver Rods	16

Final Rinse	16
Aftercare	17
Step 3 - Filling the Generator and Inserting the Silver	17
Step 4 – Setting Up the Generator	18
Running the generator on battery power	18
Step 5 – Powering on the Generator	18
Step 6 – Running the Generator	19
Step 7 – Checking the Batch	19
Tyndall Effect Testing	19
Ionic Silver Testing	20
Tyndall Effect & Red Laser	21
Step 8 – Turning Ionic Silver into True Colloidal Silver	23
Stir Function – Reducing Agent	23
Heating Ionic Silver to Make Colloidal Silver	24
Storing Silver Solutions	25
FAQs (Frequently Asked Questions)	25
Why is my generator beeping and flashing the lights?	25
Why are my parts per million (ppm) different than your product advertises?	25
My ppm reading is less than what the generator is rated for. How do I fix this?	26
My ppm reading is higher than the generator is rated for. How do I fix this?	26
My Tyndall reading is really high (can see a distinct red laser beam in the solution) and/or the solution is very cloudy. How do I fix this?	26
My laser is not working. How do I fix this?	26
Our Guarantee	27
Refund Returns	27
Replacement Returns	27

Release of Liability Agreement

In consideration of your use of the model X20 colloidal silver generator, you hereby agree to the following, to the fullest extent permitted by law:

- To waive any and all claims that you may have, either now or in the future, against Original Silver Generator, any of its agents, affiliates, and partnering companies, resulting from use of the model X20 generator and any of its components, and
- To release Original Silver Generator, any of its agents, affiliates, and partnering companies, from any and all liability from any loss, damage, injury, or expense that you or any users of the model X20 generator may suffer, or that your next of kin may suffer, as a result of the use of the model X20 generator, due to any cause whatsoever, including negligence or breach of contract on the part of Original Silver Generator, any of its agents, affiliates, and partnering companies, in the design or manufacture of the model X20 generator or any of its components.

Arbitration

In further consideration of the sale to you of the model X20 generator and any of its components, you hereby agree to submit to binding arbitration of any and all claims, which you believe you may have against Original Silver Generator, any of its agents, affiliates, and partnering companies, arising from the use of any Original Silver Generator products. The arbitration shall be pursuant to the rules of the Canadian Arbitration Association.

Arbitration shall be commenced within one (1) year from the date on which any alleged claim first arose. Further, the arbitration shall be held in Calgary, Alberta, unless otherwise mutually agreed to by all parties. The submission to the Canadian Arbitration Association shall be limited, and the arbitration award may be enforced by any court of competent jurisdiction.

Binding Effect of Agreement

In the event of your death or incapacity, this Agreement shall be effective and binding upon your heirs, next of kin, executors, administrations, assigns, and representatives.

Entire Agreement

In entering into this Agreement, you are not relying upon any oral or written representations other than what is set forth in this Agreement and User Manual.

Assumption of Risk

By purchasing, using, and/or assembling the model X20 generator, you are agreeing to:

- Be bound to the terms set forth in this User Manual, and
- Require anyone using the model X20 generator to be bound by such terms.

Warnings and Safety Precautions

General Warnings

I understand the possible risks involved with taking colloidal silver or silver products and the risks involved in using basic electronic components, including but not limited to:

- Possible argyria (or argyrosis) of the skin, eyes, teeth, tongue, hair, or any other part of the body, or
- Possible electric shock, electrocution, and/or death.

Do not use the model X20 generator if you are under the age of 18, unless you are under adult supervision.

Read this User Manual fully and understand the use of the model X20 generator to reduce or eliminate the risks involved.

Do not add any catalyst or third-party additions to the distilled water before or during the generation process. This could be extremely dangerous for the generator and/or the health of anyone consuming the finished product.

Do not leave any water on the outside of the flask or stopper. Make sure that everything is dry before you start your model X20 generator. Check for water between silver rods on top of the stopper, because water here can cause a short circuit. Wipe down flask and stopper until no moisture remains.

Do not run the model X20 generator twice for one batch of water. This is untested and will most likely cause massive particles in the solution. The model X20 generator will also begin to detect a false short circuit, as there is a high flow of electricity on a double run.

If the finished batch is cloudy, do not use or consume the solution.

Allergy Warning

Do not use the recommended reducing agents if you are allergic to any of their ingredients.

Laser Beam Warning

Lasers emit radiation; always wear protective eyewear while using lasers. Never look directly into the laser beam or point the laser beam at other people.

Argyria (or Argyrosis) Warning

Argyria (or argyrosis) which is a condition caused by excessive exposure to the element silver, to silver dust, or a buildup of silver particles in the body, is a serious condition and should not be taken lightly. Overuse of products containing silver could cause this condition. The small particle size and quality of the finished product produced by the model X20 generator can reduce the likelihood of getting this condition, but this does not guarantee that you will not get this condition. If you begin showing signs of this, or any other conditions, immediately stop the use of this product and consult a doctor. By using the model X20 generator, you take full responsibility and will not hold Original Silver Generator, any of its agents, affiliates, or partnering companies liable in the event that you show symptoms of, or contract this, or any other conditions after using any of our products.

Important Safety Information

We, as a company, have thoroughly tested and made every effort to make all of our products safe for use.

***** If you are unwilling to be bound by these terms, return the model X20 generator before breaking any of the seals, for a full refund. *****

Refunds will not be given on products that have broken seals. Use of the model X20 generator or any of its components involves certain inherent risks, dangers, and hazards, which can result in serious personal injury or death. In using the model X20 generator, you freely agree to assume and accept any and all known and unknown risks of injury associated with using this equipment. The risks inherent in taking products containing silver can be greatly reduced by abiding to the Warnings and Safety Precautions listed in this User Manual, by following the instructions in this manual, and by using common sense.

Warranty Information

All model X20 generators come with a 365-day warranty on the generator base unit. Warranty period starts on the purchase date. If warranty work is required, the customer will be responsible for the cost of shipping the model X20 generator to our Warranty Center. The cost of shipping back to the customer after the warranty work is done will be the responsibility of Original Silver Generator. Warranty work must be authorized by Original Silver Generator before any shipments will be accepted. Any work done outside of the Warranty coverage period will be subject to hourly shop rates, and shipping TO/FROM the Warranty Center will be the responsibility of the customer. All outstanding balances must be settled before the item/product will be returned to the customer.

Extra Information

- Pictures – Actual products may not be as shown in the pictures on the website or in this User Manual.

- Silver Rods – This model X20 generator has been tested and calibrated to run ONLY with 99.99% pure 10-gauge AWG silver rods at a length of 8.25 inches.
- Quality of Silver Solution – We cannot guarantee the quality of every silver batch done with the model X20 generator, as it relies largely on the quality of the cleaning done, contamination possibility, and the distilled water quality
- For additional information visit <http://original-silver-generator.com>

What is in the Box

1. Copper Scrubber
2. Bottle Scrubber
3. Red Laser (two AAA batteries not included)
4. Reducing Agent Micro Scoop
5. Power Adapter 110 v AC to 12 v DC (1 Amp Rating)
6. TDS Meter (Total Dissolved Solids)
7. Hypoallergenic Gloves
8. Cloth Storage Bag
9. Food Grade PTFE Stirring Magnet
10. Electrode Connectors
11. Food Grade Silicone Stopper
12. 1L / 32 oz Pyrex Flask
13. Two Silver Rods - 8.25 in. 99.99%, 3rd party certified 10 AWG
14. X20 Generator Base
15. Microfiber Cloth



Figure 1

Please note: The products shown in Figure 1 may be different from what comes in your kit. Due to availability, some items may look different or have a different color, but you will get all of items listed above. Please also understand that some of the images in this manual may look different from the items in Figure 1.

Not Included

The following items used in the manual are not included in the box.

1. Two AAA batteries (for the laser),
2. Distilled water,
3. Reducing agent.

Distilled Water

When buying distilled water, keep in mind a few things.

Not all distilled water is created equal. When shopping for water, you want to find a brand that shows the parts per million (ppm) reading on the label. You will want a brand of water that reads 0 ppm before use, and you will want to find a brand that lists 0 ppm for as many items from the following list as possible.

Minerals	NO ₃ (Nitrate)	Cu (Copper)
Fluoride	Cl (Chlorine)	Zn (Zinc)
Na (Sodium)	Mg (Magnesium)	Ca (Calcium)
HCO ₃ (Bicarbonate)	SO ₄ (Sulfate)	K (Potassium)

Also, it is preferable to use distilled water that doesn't contain ozone. It will still work with ozone, but it is better to find water without it, as ozone can sometimes be problematic depending on the amount added.

You will need to buy at least 1 gallon of distilled water to complete a batch of colloidal silver. You use 1100 ml filling the flask, and you will need some to rinse the silver rods, silicone stopper, stir magnet, and flask before use. Also, it is recommended to buy a few different brands of distilled water, just in case one brand doesn't work.

One last thing to discuss about distilled water. The storage and age of distilled water are very important to the quality of the finished silver batch. In our experience, old water will not work very well, and water that has been heated or frozen will also be problematic. Use only new, fresh, room temperature water. Store water in a cool, dark

place and for no longer than about 90 days. If it is older than 90 days, buy fresh distilled water.

Reducing Agent

A common practice is to use a reducing agent to stabilize the positively charged silver ions in the batch of ionic silver. This process is the easiest and most effective way to create a very high percentage of true colloidal silver. To accomplish this, you will need a reducing agent. The reducing agent we recommend is powdered (or in a capsule) 100% Grape Seed Extract. Grape Seed Extract is the one we use most. Another option is powdered (or in a capsule) 100% Cinnamon Extract (**NOT cooking/baking cinnamon**). Other companies may try to trick you into repetitive purchases of overpriced, improperly labeled, and falsely “proprietary” reducing agent from them. Don’t fall for it. The reducing agents we suggest can be purchased at a local store for everyday low prices.

Here are some brands and names that we most commonly recommend, and where to find them.

- Natural Factors GrapeSeedRich – Amazon, iHerb.com, Vitacost.com,
- 21st Century Grape Seed Extract – Walmart, or
- Webber Naturals Extra Strength Grape Seed – Canada Only.

If you want to find your own reducing agent, try to find a product that has a powder (like flour) consistency and not granular (like table salt). We have found that a granular product doesn’t dissolve as well as powder. Also, try to find something that is a 100:1 extract.

Understanding Colloidal Silver vs Ionic Silver

The term “colloidal silver generator” is used very broadly in the marketplace to describe a generator that will eventually create colloidal silver. As of yet, a colloidal silver generator creates ionic silver (through electrolysis of silver and water), then after a reduction process, produces colloidal silver. The model X20 generator first creates a batch of ionic silver that will be turned into colloidal silver via a reducing agent. Ionic

silver is very unstable and is quick to bond with particles that are introduced into the solution. One very specific thing you don't want mixed with ionic silver is salt/sodium. This combination can make silver chloride, which is known to cause argyria. Because the human body has large amounts of available particles, including salt, that the ionic silver can bond with, it is not recommended to ingest ionic silver. We recommend using a reducing agent. A reducing agent gives the ionic silver the ability to combine and become stable, and we are in control of what it combines with. By controlling what is being added to the ionic silver, we can ensure that we are making a true colloidal silver. Ionic silver and colloidal silver both have many uses, and we recommend that all of our customers research how they wish to utilize each and come to their own conclusions on how it should be used.

Initial Setup and Use

The key to producing a high quality and true colloidal silver, is to keep the batch contaminant free. The objective of the preparation process is to clean and ready all components needed to make a batch of silver. A good indicator that the preparation process has been done correctly is that the distilled water in the flask (ready for use) will read 0ppm on the TDS meter. Cleaning the items incorrectly will result in a contaminated batch of colloidal silver and a poor-quality result. During the cleaning process it is very important to use and rinse only with fresh distilled water at all times. All newly purchased items require a thorough initial cleaning before use. *New* does not mean *clean*.

The model X20 generator has a "set it and forget it" function and will turn off on its own, allowing the generator to be left unattended without problems. When finished, the model X20 generator will automatically turn off the stirrer and stop the internal circuitry. The model X20 generator will also sound three double beeps when the batch is complete. This model X20 generator creates an outstanding batch of 20 ppm silver in 90 minutes and a 10 ppm batch in 60 minutes. This model X20 generator is also equipped with anti-short technology that will detect a short circuit and automatically kick into "Safe Mode."

Step 1 – Preparing for Cleaning

Gather the cleaning supplies (Figure 2):

1. Microfiber Cleaning cloth
2. Bottle scrubber
3. Copper scrubber
4. Oppm distilled water
5. Rubber gloves



Figure 2

Be sure to wash your hands and/or use clean rubber gloves before handling any part of the model X20 generator. Human hands will be the most likely contamination source. **To ensure quality, if there is an indication of contamination (a finger slips, ppm reading is greater than 0 before running batch, cleaned part is dropped or touches something, etc.) it is strongly recommended that the cleaning process be started over.**

Step 2 – Cleaning the Generator

Silicone Stopper

If the silicone stopper is excessively dirty, you may need to scrub it first with soap and water. After cleaning the stopper with soap and water, dampen the microfiber cleaning cloth with a little distilled water and wipe down the silicone stopper. Set the clean stopper aside to be used in a moment.



Figure 3

Glass Flask

Add 50 mL (or to the bottom line on the flask) of distilled water. Vigorously scrub the inside of the flask for several minutes; this is best done with a bottle scrubber (Figure 3). Be sure to scrub all of the interior surface area of the glass, as there may be airborne contaminants or leftover silver particles from a previous batch clinging to the inside. After scrubbing, dump out the water and refill the flask with another 50 mL of distilled water to rinse. Place the cleaned silicone stopper in the top of the flask, shake well

(Figure 4). Empty the flask again and set the flask and stopper aside.



Figure 4

Stirring Magnet

Dampen the cleaning cloth with distilled water and wipe down the stirring magnet. Be sure the stirring magnet does not have any leftover residue from a previous batch. Drop the clean stirring magnet into the flask and set them aside.

Silver Rods



Figure 5

The silver rods are the generator's electrodes and are among the most important parts of the model X20 generator. Use the provided copper scrubber to rub down the silver rods, removing any previous silver

particle buildup that may have occurred (Figure 5). Never get the copper scrubber wet. This will ensure the longevity of the copper scrubber. After cleaning the silver rods with the copper scrubber,

dampen the microfiber cloth and wipe the silver rods clean. It is very important to wipe down the silver rods after using the copper scrubber, as the scrubbers can leave residue particles on the silver. Next, insert the silver rods into the clean silicone stopper. Protrude the silver $\frac{1}{4}$ inch out of the top of the stopper (Figure 6). Straighten the silver rods, allowing parallel and even distances between them. Use the measuring lines shown below to assist in straightening the rods. Straight silver rods will make a huge impact on the outcome of each batch of colloidal silver. If the silver rods are in contact with unclean human skin, that portion of silver will be insulated with oils and will not function in the electrolysis process. This can be avoided by using the microfiber cloth dampened with distilled water and wiping down the silver rods before use.



Figure 6

7 mm

Final Rinse

Take the clean flask, which should have the clean stirring magnet inside, and fill with 50 mL of distilled water. Place the stopper, which should have the silver rods inserted, on the flask. While firmly holding the flask and silicone stopper in place with one finger (Figure 4) shake everything for 30 seconds. Don't shake too hard; you don't want to damage the stirring magnet or flask. Just enough to rinse everything thoroughly. After

30 seconds, pour out the water out carefully. Be sure not to pour out your stirring magnet down the drain. Your flask, stopper, stirring magnet, and silver are all clean and ready for use now.

Aftercare

On occasion, it might be required to clean the cleaning tools above. In general, the method of cleaning these tools does not matter, as long as the tools are cleaned and then rinsed thoroughly with distilled water before use. The goal is to not have hidden contaminants on the tools that are intended to clean the generator. Never get the copper scrubber wet. This will ensure the longevity of the copper scrubber.

Step 3 - Filling the Generator and Inserting the Silver

Now that the flask and all of the components that reside inside the flask are cleaned and rinsed with distilled water, the filling process can begin. Fill the flask with distilled water so that the water level is just below the stopper when it is placed on the top of the flask. If the water level is too low, the finished product ppm total will be affected. Once the water level has been set, rinse the end of the TDS meter with distilled water. Turn on the TDS meter using the on/off button located on the front. **Do not press any other buttons before taking a reading.** Place the TDS meter into the flask of water to the line marking the maximum depth. The parts per million will then display on the screen of the TDS meter (Figure 7). If the ppm readout is above 0 ppm, then the water has been contaminated. We recommend to discard the water and repeat the cleaning process from the beginning.



Figure 7

Place the stopper with silver rods onto the top of the flask. Connect the alligator clip connectors to the silver rods tips protruding out of the top of the silicone stopper (Figure 8). A clip may be connected to either silver electrode, as this does not affect the generator's performance. Be sure to have as much of the silver rods in the flask as possible. This will play a large role in the ppm read out when the batch of silver is complete.



Figure 8

Step 4 – Setting Up the Generator

Do not power on the generator until the setup process has been completed.

Place the generator base on a flat, dry surface. Place the flask on top of the generator base, centered between the rubber nubs. Insert the black and red electrode plugs into their respective ports on the back of the generator base. Before connecting the power cord, ensure that the power switch is set to the Off (O) position. Plug the power cord into the power port on the back of the generator base (Figure 9).



Figure 9

Running the generator on battery power

In our testing, the X20 generator is a very powerful generator and requires at least a car battery to complete a full batch. AA, AAA or 9v batteries do not have enough amps to complete a batch. Be sure to only start to generate a batch with a fully charged battery. If a battery dies half way through a batch, that batch must be discarded, as the generator will start the process from the start on the next power up.

DO NOT connect directly from the battery terminals to the silver rods. Battery power MUST be run into the power port on the generator base.

Step 5 – Powering on the Generator

Before powering on the model X20 generator, recheck that all of the cords are plugged into the correct locations and that the electrode connectors are securely fastened. We strongly recommend not touching these areas while the model X20 generator is powered. When ready, select which ppm you wish to make (Figure 10).



Figure 10

The #1 (I) selection will create a 10 ppm batch of silver in about 60 minutes. The #2 (II) selection will create a 20 ppm batch in about 90 minutes. The stirring magnet will begin to spin, and the lights will turn on as the generator powers the electrodes. If there is an electrical short (silver rods touching, connector wires touching, etc.) the model X20 generator will beep and blink the lights once per second for 15 seconds. After that time,

the model X20 generator will attempt to resume the batch. If the short is still present, the model X20 generator will begin beeping and blinking again, and will continue to do so until the short has been fixed. While we do not suggest purposely shorting our generator, a short will not break the model X20 generator, unlike our competitors'. This is due to the advanced technology that has been built into the model X20 generator. In our testing we purposely short circuited a generator for 1 hour. The model X20 generator held up beautifully and created an outstanding batch of silver immediately after the short was fixed.

Step 6 – Running the Generator

This model X20 generator has advanced microchip technology that ensures a quality batch of ionic silver every time. Once powered, the X20 generator will automatically stop the silver making process when the batch is complete. You can read more about ionic silver on page 11. This generator has a “Set It & Forget It” system that will turn off on its own and may be left unattended for long periods of time. When finished, the generator will double beep three times, then automatically turn of the stirrer and lights and stop the internal circuitry.

Step 7 – Checking the Batch

After the model X20 generator has stopped running, power the system off by switching the power switch to the Off (O) position on the generator base. Remove the electrode cables from the silver rods and the generator base. Set them aside for future use.

Tyndall Effect Testing

Before removing the silver rods from the flask, gather the red laser (batteries not included) and shoot a laser beam through the flask. NOTE: Removing the silver rods first can give a false Tyndall reading. The red laser beam in the flask should be barely visible or not visible at all. See “Tyndall Effect and Red Laser” for more information. Next, slowly and carefully remove the silicone stopper and silver rods. Clumps of silver buildup may fall into the batch if the silver rods are removed too quickly or if they touch the sides of the glass flask on the way out. Place the stopper and silver rods aside for later cleaning (Step 2). The batch of ionic silver is now complete. Due to the instability of ionic silver, even the slight touch of a finger in the finished solution will result in major

contamination. Try to keep the solution away from open air, as this may also contaminate the batch.

Ionic Silver Testing

Before using the provided TDS meter to get the parts per million reading of the silver solution, rinse the end of the meter with distilled water. Turn on the TDS meter using the On/Off button location on the front. **Do not press any other buttons before taking a reading.** Plunge the TDS meter into the flask of ionic silver to the line marking the maximum depth (on the meter). The ppm will then display on the screen of the TDS meter (Figure 11). The #1 (I) generator selection will produce 10 ppm, and #2 (II) generator selection will produce 20 ppm. Keep in mind the parts per million will depend greatly on the quality of the cleaning procedure and the correct spacing of the silver rods.



Figure 11

A TDS meter is not the best way to measure silver in a solution, but we also understand that not everyone has access to a high-powered electron microscope either. We understand that also that our model X20 generator is not going to be used in a sterile, contaminant free laboratory, or running a batch with laboratory grade distilled water. So, in an effort to provide the most accurate TDS meter reading as possible, we have adjusted the calibration from a factor of 0.5 (factory) to 0.6, an increase of 20%. This is a very conservative increase and should help to compensate for various points presented in the linked research documentation. Some points to consider are:

- In a lab, the calibration factor should be around 1.15, not the factory 0.5, which is an increase of 130%,
- Conductivity increases the higher above 7pH the solution gets,
- Unavoidable contaminants will affect ppm readings,
- TDS meters cannot measure stable silver particles, as they are insulated by the water, and
- Conductivity vs Atomic Absorption/Emission readings may have a discrepancy of 10 – 25%.

“A TDS meter actually measures the electrical conductivity of the sample then multiplies by a calibration factor, and expresses the result in ppm. Since the TDS meter is really measuring electrical conductivity, only the ions present in the solution will affect the measured value. Silver particles do not affect the electrical conductivity of the solution. The more ions present, the higher the conductivity of the solution. The standard 0.5 calibration factor has no relevance to silver ions so the ppm reading on the instrument is a meaningless number relative to silver ions. A close approximation for a silver ion calibration factor is 1.05 to 1.15”

“Since electrical conductivity varies with temperature, it is important that the temperature of the sample be at the same temperature at which the instrument was calibrated.”

“Comparing values determined by conductivity with values determined by atomic absorption/emission has shown that the results may be within 10 – 25% of the actual silver at best. This assumes that there is no ionic contamination. Ionic contamination may result from many causes”

Quotes & Research Information from:

“Determining The Properties of Colloidal Silver” by Francis S. Key and George Maas, PhD
<http://www.silver-colloids.com/Papers/CSProperties.PDF>
<http://www.pulsedtechresearch.com/wp-content/uploads/2013/06/CS-Properties-by-Dr-George-Maass.pdf>

Tyndall Effect & Red Laser

The most important part of a silver solution is the ratio of particle sizes. Shining a laser through the flask will show a beam of light revealing the size of the silver particles. This method is called “reading the Tyndall effect,” and it is the fastest and most widely used method of measuring particle size. Red is the largest visible wavelength at 650 nm (nanometers), any silver particle 650 nm or larger will reflect the red laser, because the light wave cannot go around the particle (Figure 12). This, in turn, will contribute to the thickness and intensity of the visible laser beam being seen in the flask. Seeing a thick red laser beam indicates that there are too many large particles in the solution. A

solution with large silver particles will be less effective or may even be dangerous depending on the intended use. Shoot the red laser through the finished batch and observe the thickness of the beam going through it. The beam in a batch created from a model X20 generator should have little to no thickness and should be almost nonexistent. That means that the batch of ionic silver from the model X20 generator is packed with “Nano” silver particles. This is extremely hard to accomplish, especially at the blazing fast generation speeds of our generator. The model X20 generator is better, faster, and less expensive than generators made by the “Other Guys.”

If you are looking to generate True Colloidal Silver, continue to Step 9. Otherwise, see “Storing Silver Solutions” later in this User Manual.

*****The Tyndall reading will be greatly affected by the cleaning procedure and the spacing of the silver rods before the batch was generated.*****

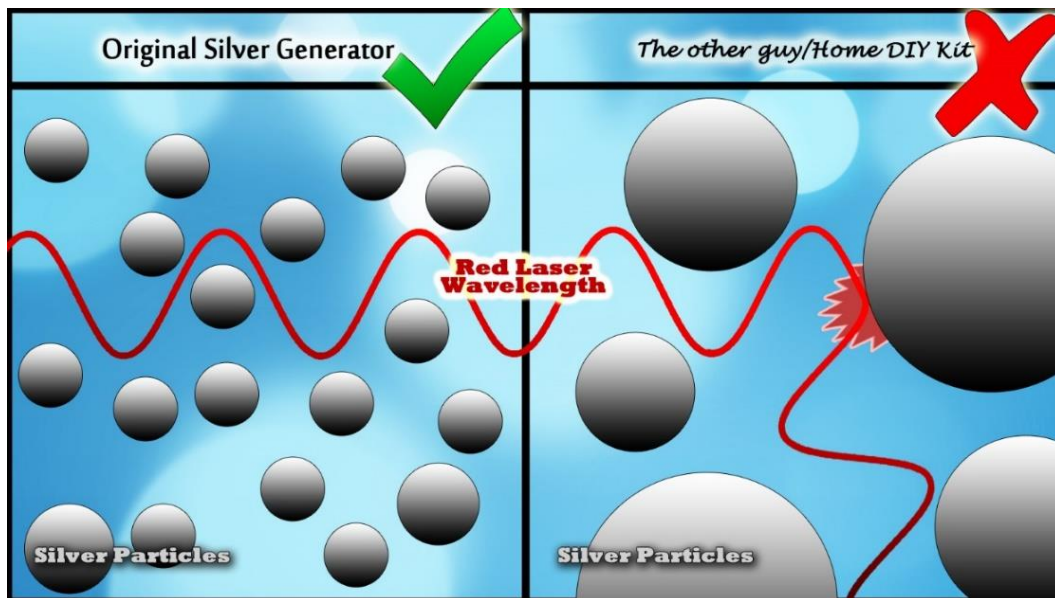


Figure 12

Step 8 – Turning Ionic Silver into True Colloidal Silver

After completing a batch of ionic silver, further action is required to stabilize the ionic silver into true colloidal silver. This process can be accomplished in one of two ways, with a reducing agent or by heating the ionic silver.

Stir Function – Reducing Agent

See the section called “Reducing Agent” under “Not Included” to learn about picking a reducing agent. Unlike our competitors, the model X20 generator has a separate active stir setting to ensure NO electric shock from attached connectors or silver electrodes. Remove the electrode clamps from the back of the generator and place them off to the side, as they are not needed when adding the reducing agent to the ionic solution. When ready, turn the power button, located on the back of the generator base, to selection #1 (I) or #2 (II) (Figure 13). The generator will automatically detect that there are no electrode wires attached and will kick into stir mode. The stirring magnet will rapidly spin creating a vortex in the flask.



Figure 13



Figure 14

Do Not Reduce Your Silver Batch With The Rods Still In The Flask! Doing so will pull all of the unwanted silver buildup attached to the rods into the silver solution, lowering its quality. Once the model X20 generator is in stir mode, open the reducing agent capsule (if applicable) and drop a level scoop of reducing agent into the flask using the micro scoop that came with your X20 generator (Figure 14).

Once the reducing agent has been dropped into the flask, remove the silver rods from the silicone stopper, then use the stopper to seal the flask. The high-powered stirring function creates a vortex that drags the reducing agent down from the surface of the water. This will ensure a complete and even reaction that is able to create a very high percentage of true colloidal silver from a batch of ionic silver. The reduced batch of true colloidal silver can take up to 10 minutes to completely mix. The flask solution will be

amber in color when the reaction is finished (Figure 15). If the solution does not appear amber in color, we recommend adding more of the reducing agent and let the stir mode run for another 10 minutes.

Heating Ionic Silver to Make Colloidal Silver

Heating a batch of ionic silver can create colloidal silver, but keep in mind that it is not as effective or thorough as using a reducing agent. The percentage of colloidal silver will be lower vs using a reducing agent. This is why we suggest using a reducing agent, if possible.

Fill a pot with 2 inches of water and place on the stove. Place the flask inside of the pot of water. Do not pour out the ionic silver, keep it in the flask. You do not want to heat the ionic silver directly. Let the water come to a low boil. Keep an eye on the flask, as it may start to rock when bubbles form under the glass. It helps to tilt the flask slightly to create more room between the pot and the flask for the bubbles to escape. Once the water has come to a low boil, let the flask heat for 10 to 15 minutes. You may see a slight color change after boiling, but most of the color will happen as the solution sits and cools. Let it cool overnight, or wait until completely cool before using. Usually you will not see a full amber color like you would see when using a reducing agent, but there will be a yellowing of the solution. This is because boiling is not as thorough at fully converting all of the ionic silver into colloidal silver.



Figure 15

Storing Silver Solutions

After generating a silver solution, it is very important to store it correctly. As a general rule, it is a good idea to keep any silver solution out of sunlight. Sunlight may promote degradation of the silver solution. This is true for both ionic and colloidal solutions. A simple storage practice would be to place the flask in a cupboard with the stopper in the top of the flask. The ideal storage setup in an opaque/brown glass bottle that is air tight and stored in a cool dark place. **ONLY STORE YOUR**

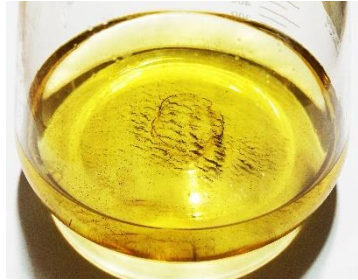


Figure 16

SILVER SOLUTION IN A GLASS CONTAINER. Be sure to rinse out any storage container with distilled water before transferring your silver solution into it. The shelf life varies, but if stored properly a batch of ionic or colloidal silver should last roughly 4 to 6 weeks. If a solution looks to have a collection of particles on the bottom of the flask, that solution is “clumping and settling out.” This is normal and may indicate that there was an excess of reducing agent used in the reduction process (Figure 16). The solution can still be used, as the silver particles are still suspended in the water. Do not consume the settled particles; discard them.

FAQs (Frequently Asked Questions)

[Why is my generator beeping and flashing the lights?](#)

This indicates a short circuit. Double check that the silver rods are not touching and the electrode clips are not touching. If this beeping happens in the middle of a batch: Once the short is fixed the model X20 generator will resume where is stopped.

[Why are my parts per million \(ppm\) different than your product advertises?](#)

The ppm of every batch can differ depending on how well the parts are cleaned, the distance between the silver rods, the quality of the distilled water, and how closely the manual was followed while setting up the model X20 generator. We have tested our generators and guarantee that the generator can create a minimum of what we advertise.

My ppm reading is less than what the generator is rated for. How do I fix this?

Make sure you are following this User Manual completely. A low ppm can be attributed to the silver rods being too far apart while in the flask or not being evenly spaced and parallel. Fix the spacing on the silver rods, or if they are already straight and parallel, move the rods slightly closer together.

My ppm reading is higher than the generator is rated for. How do I fix this?

As long as the Tyndall readings are okay, having a higher ppm reading is not a bad thing and just shows that you have a stronger batch. If you would like to have a lower ppm reading, just increase the spacing between the silver rods by bending or slightly separating the rods more than the suggested 7 mm (on center).

My Tyndall reading is really high (can see a distinct red laser beam in the solution) and/or the solution is very cloudy. How do I fix this?

High Tyndall readings can be caused by two things. Accidentally contaminating the batch and/or silver rods that are too close together. Be sure to follow this User Manual completely when cleaning the generator parts. You can try spacing the silver rods slightly wider apart than the suggested 7 mm (on center).

My laser is not working. How do I fix this?

The laser requires two AAA batteries. The batteries need to be new or completely charged, as the laser will not function on half dead batteries. If your batteries are new/fully charged, try quickly turning the laser on and off for 10 seconds. This can give the laser a kick start, as they require a lot of power to get started.

Our Guarantee

We stand behind our products!!! If we are unable to help you get your generator working as advertised, we will either have you return it for a full refund or we will fix/replace it for you.

All returns must be authorized by Original Silver Generator before you return anything. Any unauthorized returns will be refused and sent back to you at your expense.

Please contact us online from the website where you purchased your product: Amazon, eBay or our store (<https://original-silver-generator.com>)

Please be aware that you are responsible for the item until we receive it back, so consider using a shipping method that includes a tracking number and insurance.

Refund Returns

Package up all items in a small shipping box. Do not return the copper scrubber. Any damaged or missing items will be deducted from your refund. Add the return labels to every side of the shipping box. If you do not add the return labels to the shipping box, any duty/import fees will be deducted from your refund. Return to the address at the bottom of the page.

Replacement Returns

Package up and return only the generator, power cord and alligator clips. When declaring the item, describe it as broken electronics and put a value of \$10. Declaring anything else may result in duty/import fees. Return to the address at the bottom of the page.

Return Address

Original Silver Generator
Attn: Returns Department
P.O. Box 1046
Magrath, AB, T0K 1J0
Canada