



MAKING COLLOIDAL SILVER

Please read this whole manual (all two pages!) before using or even plugging in the brewer.

An important word of caution here: When this unit is set up and turned on, if you were to touch both metal tips on the alligator clips, you could receive a nasty shock. Do not allow children or anyone unfamiliar with this unit to touch it when it is on. This is high enough voltage to hurt (55 VDC). In spite of the on/off indicator light on the unit, until you are familiar with this unit and have brewed several batches, don't even plug it in until everything is set up and ready for brewing. This unit is not "idiot proof" nor "user friendly". If you don't follow these basic precautions, you CAN receive a nasty zap.

I also need to say this: If you brew the CS too long, you will still have good, effective CS, but it will likely not be crystal clear (probably yellow, gold or cloudy). The longer you brew it, the darker the color. You will use up your silver wire much quicker, though. It's also OK to brew it for a shorter-than-suggested time and still end up with good CS, though you may need to ingest more of it (though not necessarily).

If you blow the fuse, the indicator light shouldn't go on (though sometimes it does anyway). If you do blow the fuse (by touching the silver wires to each other while the device is on, or shorting the red alligator clip to something else), you will need a 250 volt, 500 milliamp (1/2 amp) fuse as a replacement. (2 extra fuses are included with this brewer.) Any computer/electronics repair shop may have them, or contact us. Even some hardware stores have them. Take your old one in to show them its size (it's 20 mm long).

I want to say something about steam-distilled water. If you find water in a store that says "steam distilled" water, it is actually steam-distilled water. If it merely says "distilled" water, it is not necessarily steam-distilled water. The word, "distilled" can legally be used to describe any type of water treatment whatsoever, from reverse osmosis to filtering it through a paper napkin. For pure, clear, good CS-brewing water, look for steam-distilled water. If you brew CS from any other type of water, it will not be clear, but cloudy/murky, and the brewing times in this manual will not apply. If you cannot find steam-distilled water, I have added brewing recommendations for non-steam distilled water to the end of this manual.

To set up, fill your 1-gallon jar (wide-mouth, glass or clear plastic 'pickle' jar) with distilled water. Hang the end of each wire over the edge of each side of the jar, with about 1/2" of wire hanging down on the outside of the lip of the jar. Hook up the alligator clips to each outside wire tip.



The alligator clips don't hook on to the sides of the wires, but onto the ends, like alligators trying to bite off the ends of the wires with their front teeth. If you discover the wires resisting hanging straight down, twist the alligator clips in one direction or the other (like you were screwing or unscrewing the alligator clip) until they make the wires hang straight down. Or just bend the wires until they hang straight. I say "straight", but actually, you can curve them a bit so that they lean towards the inside of the glass jar wall away from each other, hugging the inside of the jar walls. The idea here is to make the wires be as far apart from each other as the jar walls will allow. It's ok if the wires actually touch the jar walls. By straight down, I don't mean that the wires need to be pencil-straight, I only mean that they should point down towards the jar bottom instead of angling sideways.

Make sure everything is all hooked up and ready before you plug in and turn on the power.

[The following brewing instructions are for folks using steam-distilled water. If you are going to use any other water than steam distilled water, instructions for that are in the last part of this manual.]

Allow it to brew for 2-1/2 to 3 hours, checking on it every 30 minutes. If the water at anytime becomes cloudy or yellow tinged, stop and notice how long it took to reach that point. That will be your optimum brewing time without starter, using the water that is available to you. If it is still crystal clear after 3 hours, you can brew it more, checking it every 15 minutes, or taste it. If it becomes yellow or cloudy, stop and remember how long it took to get yellow/cloudy, then deduct 10 minutes from the time it took to get yellow/cloudy. That will be your optimal brewing time. If you brew it 5 hours with no change, it means you have very pure water (that's good!). If you stop brewing at 5 hours, even though it is still crystal clear, don't worry, you have good CS. It is certainly at least 10 ppm (which is all you need).

Use 1/4th of that CS as starter for the next batch, and brew it 1 hour. If that batch turns yellow, reduce the brewing time each following batch by 10 minutes until you find the right time for brewing CS with the particular quality of water that you have. Then you will know that the previous brewing time (before it became yellow) is the longest you can brew and still get clear CS. Whatever color CS you get, **it is *not* dangerous or ineffective**. You may want to dilute it for taste, but **don't throw it away!**

Sometimes a batch will be clear when you have finished brewing, but have turned yellow by the next day. That just means to reduce the next batch by 10 - 15 minutes.

OK, after you have set it up and turned it on, here is what to expect:

After a few minutes you may observe tiny bubbles rise from one or both of the wires, while a very fine silver mist may begin to float off either wire. This will take longer, up to half an hour or even several hours, with your first non-starter batch. It will happen faster if you are using CS starter. Sometimes it doesn't happen at all. The color of the water when you are finished,



whether gray, yellow or gold, is not relevant to the effectiveness of the CS. Also, the more color, the shorter the life of your silver wire, so clear CS is optimal. Since there are usually silver sludge/particles/hairs to some degree after the batch is finished brewing, you might strain the CS through a coffee filter or paper towel, although that is not essential or even important. (The silver particles are not toxic or harmful.) Either of the wires may grow a gray “fuzz” around it, making the wire look like a long, straight, furry caterpillar, which you may want to gently wipe off (not scrub off) the wire with a rag when you are through. (I don't even bother.) This is normal. *You can make no mistakes that make CS toxic or ineffective if you follow these directions and use the pure silver wire I provided and pure steam-distilled water.* It's difficult to make a mistake even with non-distilled water. Your jar will eventually become stained on the sides and bottom with silver oxide, which scrubs off easily with a nylon pot scrubber - **do NOT use soap** (I do it every 6 months or so). One of the wires may become “hairy” with a gray-black fur, and there may be gray-black stuff on the sides or bottom of the jar, or floating around in the water. One or both of the wires will likely turn various colors, from black, to white, to brown to green or gold. *All normal.* If the water you are using is very pure, nothing may seem to be happening for 3 or more hours, though usually, one or both wires will get dark. There may be a silvery film on the top of the water, though this usually only happens if you overbrew it. This may also be an indication that your water is not as pure as it could be, but none of it is anything to be concerned about. The purer your water is, the less you will see of stuff on the wires or on the jar, although you will see it happen eventually, and you will see some of it in almost every batch anyway. **Don't let it bother you, it's harmless.**

At the end of the brewing time, turn off the device (and unplug it) and unhook the alligator clips from the wires. **Make sure you have turned off/unplugged the device before you unhook the alligator clips.** Put a coffee filter into a funnel or coffee filter holder from a coffee brewer (if you decide to bother to strain it), pour your CS through it into a clean jar, and you've done it! If you very *gently* stir the batch during the brewing, every 30 minutes or so, the fuzz will be much less, and there will be less “sludge” in the water. (I don't personally bother.) If you do stir it, **turn it off** before stirring to prevent the wires from accidentally touching each other and blowing the fuse. You can stir it with a plastic, wood or even metal utensil (make sure it is clean). Generally, stirring is only needed if your water is not very pure.

When you are making clear CS, your silver wires will also last the longest. If you forget while brewing and don't turn it off, you can completely dissolve the silver wire (a very expensive batch of CS) and your CS will look like coffee. (I've done it several times. I just super diluted it.) Having some kind of alarm to remind you to shut it off is essential, unless you have total recall. Some hardware stores carry them for \$10-\$15. A Dollar Store has them even cheaper (they just remind you). And virtually every cell phone has an alarm app on it. At any time that it starts becoming yellow or cloudy, stop brewing and use some of that batch as starter for the next batch (drink the rest). With future batches, drink any colored or cloudy batches (I drink all my off-batches – I never throw any CS away). If the taste is too bitter, simply dilute it to taste.



"What if I can't get steam distilled water?"

Now, after having suggested the above brewing times, the reality is that your experience may be different because of the quality of your water. If your water has minerals or other stuff in it (such as is the case with well, spring, filtered, tap water or less-than-5-stage Reverse Osmosis water), you will need to brew a much shorter period than I suggested. If you end up with cloudy, yellow or gold or darker CS, you will need to experiment with brewing times until the CS you are brewing gets so cloudy you can barely see your hand through the jar it is being brewed in. If you are using any other water but Steam Distilled water, you don't need any CS starter, the minerals in the water will be starter enough.

Using any other type of water, the process is simple: No starter and brew for 10-15 minutes. Remember that over-brewing with non-steam distilled water uses up your silver wire much, much faster (up to 5X or more faster). Avoid using chlorinated water.