

# PYRAMED QUICK START GUIDE

1. Fill the 600ml beaker to the 500ml mark with distilled water (see note 1)
2. Plug the 2mm silver rods (electrodes) into the red and black sockets on the base of the PyraMed (push firmly)
3. Place the PyraMed on the beaker so that the silver rods are immersed in the centre of the water
4. Plug the 12 Volt power supply into the 2.1mm jack at the back of the PyraMed
5. Connect the power supply to the mains socket
6. Switch on the power supply. Switch on the PyraMed using the on/off switch at the top of the unit
7. The LED indicators and beeper will operate three times in quick succession to show that the PyraMed electronics are working correctly. Following this, the unit measures the purity of the water, at which time a short beep is heard, and the white led on the underside of the PyraMed will come on for a short time as the measurement is taking place.
8. The ppm LED (The blue LED on the front panel) will flash to show the ionic concentration in ppm (parts per million). The number of flashes will indicate how pure the distilled water is. Zero or one flash is normal, and indicates good quality distilled water (**see note 2**)
9. Production of colloidal silver will now begin unless a water quality error condition has occurred (see CS1 Operating Instructions for details)
10. Every four minutes the beeper sounds a short beep, the white led comes on, and the blue ppm LED will flash to show the concentration
11. When the concentration has exceeded five ppm, lift out the PyraMed from the beaker and wipe the electrodes clean with kitchen paper (no need to switch off). Promptly replace the PyraMed on the beaker (see note 3)
12. The production of colloidal silver will now continue with the PyraMed software control system to ensure small particle size
13. The silver content will have reached a concentration of 10 ppm ionic usually within a 2 hour period, depending on the purity of the distilled water (this can vary depending on the distiller and on the source of water used - see note 4). Wipe the electrodes clean as in 11. & 12. above
14. The PyraMed will automatically stop production when the concentration has exceeded 12 ppm (see note 5)
15. The blue ppm LED will stay lit, there will be a short beep, and the white LED will illuminate every five seconds
16. Turn off the PyraMed and remove from the water. Decant and filter the solution into a dark glass bottle. Bleach-free coffee filters are ideal for filtering
17. Total Silver Concentration (TC) = ionic ppm + colloidal ppm. TC will be approx. 20 ppm on completion.

Note 1 It is important to use only distilled water having less than one ppm of total dissolved solids (TDS). Domestic tap water is unsuitable since it can contain residual chlorine which will combine with silver to make silver chloride, giving a white, cloudy solution. Only steam distilled water will provide the necessary pure conditions for a quality product. De-ionised, de-mineralised or mineral water are not suitable since they also contain dissolved solids (de-ionised water can contain bacteria). Some shops will sell you 'pure water' – however, there is no guarantee that the water is distilled. For quality bottled distilled water, see [colloidalsilvergenerator.co.uk/links](https://colloidalsilvergenerator.co.uk/links) for suppliers. If you plan to make regular quantities of colloidal silver, the PyraMed 'H2O' Water Distiller is recommended - see the Water Distillers category for further details. Website: <https://colloidalsilvergenerator.co.uk/product/pure-water-distiller-100e/>

Note 2 **If using a water distiller, do NOT use the charcoal filter, as this can leave deposits in the water (Except when you need to remove VOC's (see note 4)).** For water containing high levels of contamination, run the water through the distiller a second time (double distillation). If you clean your water distiller, please use the recommended cleaning crystals.

Note 3 Simply wipe clean the electrodes – no need to unplug from the PyraMed. The software checks the concentration every four minutes (approx), so make sure the PyraMed is replaced before the next scheduled measurement. Cleaning the electrodes removes build up of silver oxide.

Note 4 Water can contain VOC's (Volatile Organic Compounds) which have a boiling point less than 100 degrees C. In this case, the VOC will be distilled before the water boils, and will end up in the collection chamber alongside condensed steam. It is important to realise that the quality of distilled water can vary, and therefore the time taken for the PyraMed to make Colloidal Silver can also vary, and depends upon local conditions (the source of water) and on the type of distiller used. Production times can therefore vary between 20 minutes and two hours, or longer when the PyraMed is used for the first time. This is normal. (Removal of VOC's is typically done using Activated Carbon Granules. Paint and Organic solvents are a typical source of VOC's).

Note 5 The PyraMed is calibrated for ppm with respect to a standard KCl solution of 84µS/cm (Conductivity standard). Some TDS meters are calibrated with respect to NaCl or other standards. To obtain a higher concentration to comply with another standard, use less distilled water (eg fill to 400ml, instead of 500ml).

Note 6 The electrodes also act as a 'measurement cell'. The displayed ppm (on the blue led) is determined by the geometry of the electrodes, the conductivity of the water, and the immersion depth (ideally 9 cm). It is therefore important to keep the electrodes straight and parallel.

Note 7 For subsequent batches, use 50-100ml of previously prepared CS, and make up to 500ml. This will shorten the production time, since the conductivity of the solution will be higher. Note also the 'plug-in' end of the rods, so that the same end is used.

Questions? – see: <https://colloidalsilvergenerator.co.uk/contact> and the 'resources' page.