



Silver Pulsar
ZBB5

Serving your Wellness Needs

A CONSUMER PRODUCT

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INTRODUCTION

Thank you for allowing us to be a part of your health team. The Silver Pulser is a consumer product designed to complement a healthy lifestyle.

This unit has two functions:

- 1) To apply gentle microcurrents.
- 2) To make Ionic/Colloidal Silver.

Please understand that results will vary. Healthy lifestyle choices are important.

We ask you to read this manual carefully. We encourage you to become well-informed about the use of gentle microcurrents and the use of Ionic/Colloidal Silver.

To learn more about the Silver Pulser we invite you to visit www.sotainstruments.com

The SOTA Silver Pulser is designed to give you many years of trouble-free use.

COMPLEMENTARY UNITS

The Silver Pulser offers two parts of a 4-part program:

1. The Silver Pulser for bio-stimulation.
2. The Silver Pulser for making Ionic/Colloidal Silver.
3. The Magnetic Pulser for pulsed magnetic fields.
4. The Water O₃zonator for freshly ozonating drinking water.

COMPLETE UNIT INCLUDES

- One (1) Silver Pulser Unit
- One (1) 9-Volt Alkaline Battery

For Using the Bio-Stimulator:

- One (1) Bio-Stimulator Probe (Cord with Electrodes)
- Three (3) Pair Cotton Sleeves
- One (1) Arm Clip and Band
- Two (2) Neoprene® Velcro® Wrist Straps
- One (1) 50 ml Dark Glass Dropper Bottle

For Making Ionic/Colloidal Silver:

- One (1) Silver Wire Holder
- Two (2) Silver Wires of .9999 (4 Nine) Purity
- One (1) Green Scrubber Pad

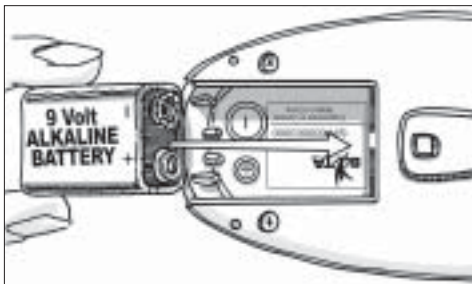
OPERATIONAL CAUTIONS

As with all electrical devices do not use:

- a. Near water
- b. When driving a car or
- c. When operating heavy equipment.

GETTING STARTED

1. To place the battery in the unit:
 - a. Slide off the lid on the lower back of the unit.
 - b. Position the 9-Volt Alkaline battery so the positive (+) and negative (-) terminals line up as in the diagram.



Note: the smaller circle

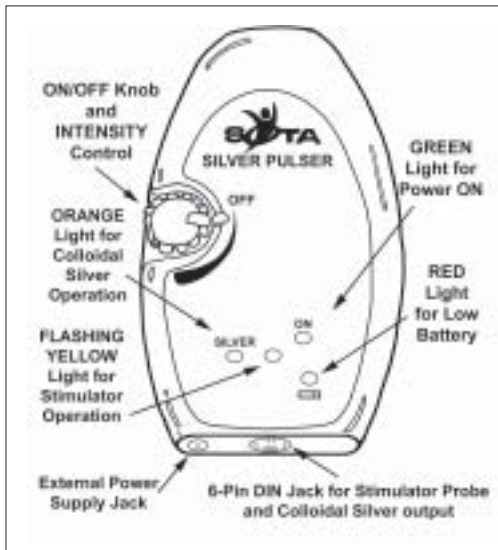
on the battery matches the smaller circle in the case ... the larger battery circle matches the larger circle in the case.

- c. Slide the battery into the case and push down. Slide the cover back onto the unit.
2. Turn the unit ON by rotating the thumbwheel switch clockwise. See the diagram on page 6.
 3. With no wires plugged in, the green light indicates the unit is ON. If the battery is inserted correctly the green light should come ON.
 4. Turn the unit OFF by rotating the Switch fully until it just clicks. Important: Do not force the ON-OFF Switch past its natural stopping point.

TO CHECK THE BIO-STIMULATOR FUNCTION:

1. Plug the Bio-Stimulator Probe into the jack.
2. Turn the unit ON and touch the electrodes together. The flashing yellow light should come on. The flashing yellow light comes on only when the electrical circuit is complete. If the lights do not come on, the battery may not be inserted correctly.

Note: When the Bio-Stimulator Probe is used, the wall adaptor cannot be plugged in. This is a government regulated feature to ensure you do not use a wall adaptor to power the unit for bio-stimulation.



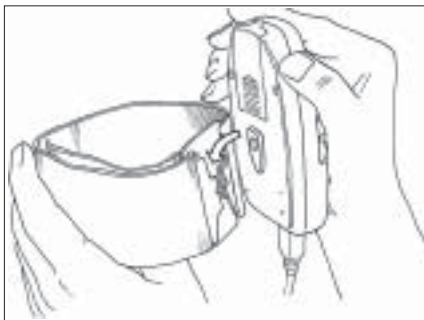
TO CHECK THE IONIC/COLLOIDAL SILVER FUNCTION:

1. Insert the Silver Wires into the Silver Wire Holder. (See page 13.)
2. Plug the cord from the Silver Wire Holder into the jack on the unit. (See page 6.)
3. Turn the unit ON and touch the Silver Wires together. The orange light should come on. The orange light comes on only when the electrical circuit is complete.

To save on batteries, an AC–DC Wall Adaptor can be used to make Ionic/Colloidal Silver. See page 18 for Wall Adaptor specifications.

HOW TO USE THE BIO-STIMULATOR PROBE

1. Clean the wrist area to eliminate skin oils. This will allow for better conductivity.
2. Place one cotton sleeve on each electrode. Wet the cotton sleeves with water.
3. Insert the Bio-Stimulator Probe cord into the jack on the unit.
4. Slide the clip on the back of the Silver Pulser into the clip on the Arm Clip and Band.



5. Slide the Arm Clip and Band with the unit attached over the hand and up the arm to a comfortable position. Tighten the Arm Clip and Band.

Option: If preferred the unit can be placed in a pocket. An additional accessory, the longer Bio-Stimulator probe cord, is needed for this option.

6. Place one Neoprene strap on the wrist.

7. Slide the damp cotton-covered electrodes under the wrist strap and move into the proper position:

position:

a. Place one electrode on top of the pulse point on the thumb side of the wrist—the radial artery.

b. Place one electrode on top of the pulse point on the little finger side of the wrist—the ulnar artery. This pulse point is harder to feel. It is located in the soft hollow on the wrist.

8. Use the second wrist strap to hold the cords in place on the arm if needed.



9. Turn the unit on. Then turn slowly until you feel the current. If you do not feel the current, see Notes on page 9 for options.
 10. The flashing yellow light should come on and get brighter as the switch is turned up. If the flashing yellow light does not come on, the electrical path has not been established. See Troubleshooting on page 19.
- When finished, clean the wrist and apply a healing lotion to avoid irritation.

Notes:

Electrode preparation options: If the current is not felt with wet cotton sleeves, prepare a mild salt solution to wet the sleeves. Add only a few grains of salt to water in the 50 ml dropper bottle.

A commercial electrolyte gel can also be used instead of a salt solution.

Low Battery Warning: The red light comes on when the battery is low. This means the battery will soon need to be replaced. The battery can continue to be used until the flashing yellow light goes off.

Care of Bio-Stimulator Probes: Wash or rinse sleeves after use. Discard and replace cotton sleeves periodically.

Discoloration of electrodes is normal. Buff occasionally to remove stains to ensure good electrical contact.

HOW THE BIO-STIMULATOR PROBE SHOULD FEEL:

1. You should feel the current but it is not necessary to turn the control up to an uncomfortable level. Adjust to a comfortable level.
2. With repeated use, the ability to feel the microcurrents may change. It will then be necessary to turn the intensity switch higher to feel the electric current.
3. Muscle twitching of fingers is normal at a higher intensity.

TYPICAL USE:

Alternate wrists daily.

Build up Time Gradually: It is best to start slowly. Start with 10 to 20 minutes a day. Increase gradually to 2 hours each day.

Drink plenty of water: It's important to drink enough water when using the unit. Drinking ozonated water is especially helpful.

Use for a minimum of 6 to 12 weeks: After daily use for 6 to 12 weeks, set a maintenance schedule.

Stop Gradually: Reduce the amount of time each day for the last week of use. If using the 4-part program, it is best to stop only one part at a time.

Maintenance Schedule: Ongoing use may be beneficial. Suggestions for a maintenance schedule are once weekly, one week per month, or 4 weeks every six months.

CAUTIONS

1. Do not place the electrodes over skin lesions, abrasions, new scars, cuts, eruptions or sunburn.
2. **Avoid:** Potentially harmful or toxic dietary substances such as coffee, alcohol, synthetic supplements or excess sweets. Also avoid cigarettes and nicotine products. The body may absorb nutrients and substances more readily when using the Bio-Stimulator.
3. Do not apply the bare metal electrodes to the skin.
4. Keep the cotton sleeves damp. Both dry sleeves and bare electrodes will cause an electrical burn with scarring. To avoid possible scarring on the wrist, it is important to keep the cotton sleeves damp.
5. Do not fall asleep using the Bio-Stimulator Probe as the sleeves may dry. This could result in an electrical burn.
6. During the first weeks of use, the skin may become irritated. Over time, any irritation usually decreases or disappears.
7. **Sensitive Skin:**
Some individuals may be particularly sensitive to microcurrents and the irritation may continue. If so,
 - a. Wash wrists well after each session and apply a healing gel or lotion such as aloe vera, vitamin E oil or MSM cream.
 - b. Wet the sleeves using purified water (no salt) or wet with Ionic/Colloidal Silver.

- c. If you do not feel the current using only water, try a commercial saline solution for the eyes as that may be gentler on the skin.
- d. An electrolytic or conductive gel on the wet sleeves is another way to reduce irritation.
- e. Your degree of hydration may affect your sensitivity. It is best to drink enough water to keep the body well hydrated.
- f. Apply the electrodes for shorter periods of time.

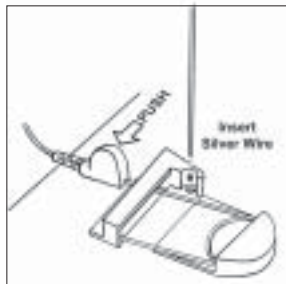
Do not use the Bio-Stimulator Function in the following situations as safety has not been explored:

- In the case of pregnancy, nursing or trying to get pregnant.
- With a pacemaker or other active implanted device.
- With severely impaired liver or kidney function.
- If taking a pharmaceutical drug or any recreational drugs.

HOW TO USE THE IONIC/COLLOIDAL SILVER ATTACHMENT

HOW TO ASSEMBLE:

1. Move the spring clip away from the hole to allow the Silver Wire to slide in smoothly.
2. Insert the Silver Wire into the small round hole from the bottom of the holder. Push through leaving most of the wire below the holder.
3. Release the wire clip to hold the wire snugly in place.
4. Repeat the above 3 steps for the second wire.



5. Plug the jack from the Silver Wire Holder into the Silver Pulsar.

HOW TO MAKE IONIC/COLLOIDAL SILVER:

The Silver Pulser provides a constant current output. As a result, it is a very simple procedure to make a high quality Ionic/Colloidal Silver. The concentration of silver is measured in **PARTS PER MILLION OR PPM**.

1. Pour two cups of room temperature distilled water into a tall glass or jar. Do not use a metal or plastic container.
2. Place the Silver Wire Holder on the glass or jar immersing the Silver Wires. Keep them at least 25 mm or 1 inch from the bottom of the container. The Silver Wire Holder positions the wires at an optimal 38 mm apart.
3. Turn the unit just on. It is not necessary to turn up the intensity. Allow it to operate for 1.5 to 2 hours. The orange light will brighten as the current increases up to the 1.5 mA limit.
4. Stir occasionally with a non-metal utensil. Occasionally, wipe off the grey or black silver oxide that builds up on the Silver Wires.
5. Two cups for 2 hours will produce an Ionic/Colloidal Silver of between 5 to 8 PPM depending on the brand of distilled water.
6. Wipe the Silver Wires with paper towel to remove residue. Buff lightly when needed to keep them free of sediment. Harsher buffing will wear away the silver.

Colour: Ionic/Colloidal Silver from 3–5 PPM should be clear. At a slightly higher PPM it will be a pale gold color. Do not drink if it is darker than pale gold as this indicates a higher level of impurities or larger particle sizes.

To Make Larger Quantities:

4 cups requires 3–4 hours.

1 gallon (16 cups) requires 10–12 hours.

Storage: Pour the Ionic/Colloidal Silver into a dark glass bottle—never metal—and store in a dark place. Over time, sunlight or room light will degrade Colloidal Silver by turning the solution grey or black—just as exposure to light darkens the silver in camera film. When made and stored as described, it retains freshness for many weeks. It is suggested, however, that you use as freshly as possible. (If settling occurs, it is losing potency. This occurs when light neutralizes the positive charges on the silver ions.)

Do not freeze or refrigerate or expose Ionic/Colloidal Silver to rapid extremes of temperature (such as a hot car) as its potency may be affected. Do not drink any sediment.

Save on batteries: The unit can be powered by a wall adaptor to make Ionic/Colloidal Silver. (See page 18 for specifications.)

Equalize wear on the wires: The ions of silver move from the wire in the positive (+) terminal or anode into the water. This Silver Wire will gradually wear away. To equalize the wearing of the Silver wires, exchange the position

of the Silver Wires for the next use. Place the Silver wire that is in the positive (+) terminal into the negative (-) terminal.

Purity of the Silver Wires: The Silver Wires are of the highest grade .9999 or 99.99% or 4 Nine pure fine silver.

WARNING: When the Silver Wires wear too thin, do not replace SOTA's pure Silver Wires with sterling silver wire. Sterling silver contains nickel which can be toxic.

TYPICAL USE:

How strong or how many parts per million (PPM)?

Laboratory testing indicates Ionic/Colloidal Silver is effective as low as 2 PPM. When ingesting on a regular basis, it is suggested to limit the PPM to less than 10 PPM.

How much to use?

There is no definite amount to drink. When consumed on a regular basis—daily or several times a week—it is best to drink no more than 1 to 2 ounces at a time. After an extended period of use, it is wise to take breaks.

CAUTIONS

Ingesting large quantities of Ionic/Colloidal Silver over a longer period of time, could possibly result in argyria. Argyria is a darkening of the skin that occurs when silver molecules are pushed out to the skin and exposed to light. It is especially noticeable around the eyes and nose on the face. Darkening of the moons of the finger nails is an early sign of argyria.

The risk of argyria is greater if one is deficient in selenium or vitamin E. Larger quantities over time may gradually deplete selenium and vitamin E. Mark Metcalfe, author of *Colloidal Silver, Making the Safest and Most Powerful Medicine on Earth for the Price of Water* states that argyria is possibly reversible using these two nutrients and others. His book is available from Silver Protects at Tel: 503-359-5954 Fax: 503-359-5518 or www.aboutsilvermedicine.com

SUMMARY OF LIGHTS:

GREEN light: Indicate the unit is on.

RED light: Indicates the battery is low and will soon need replacing.

YELLOW light: Indicates the Bio-Stimulator function is in operation.

ORANGE light: Indicates the Ionic/Colloidal Silver function is in operation.

ELECTRICAL SPECIFICATIONS

EXTERNAL POWER SUPPLY:

A DC Power Jack is provided on the end panel of the Silver Pulsar to connect a wall adaptor when making Ionic/Colloidal Silver.

Use a wall adaptor with an output from 6 to 12 Volts DC with a positive centre pin that supplies at least 500 mA (milliamperes) of current.

CAUTION: Do not use an adaptor with a negative centre pin or incorrect electrical specifications.

A wall adaptor cannot be used with the Bio-Stimulator Probe. Only battery operation can be used for the Bio-Stimulator function.

POWER REQUIREMENTS:

When the battery needs replacing, use only a 9–Volt Alkaline battery for proper operation.

The wall adaptor that comes with any of SOTA's units can be used for making Ionic/Colloidal Silver.

With an additional attachment, the Silver Pulsar can also be operated from a 12 Volt DC automobile battery or an appropriate Solar Panel. Purchase a Universal Power Cord with tip positive from an electronic store for this purpose.

CAUTION: Exceeding the voltage rating may result in injury or unit failure.
This will void the warranty.

OUTPUT VOLTAGE:

The output voltage is a nominal 31 Volts.

Ionic/Colloidal Silver Generator with Constant Current Output:

The maximum current through the Silver Wires is 1.5 milliamperes (+/-0.5 mA) at 31 VDC compliance voltage when the Silver Wires are touched together to short the circuit.

Bio-Stimulator Probes:

Frequency through electrodes is ~3.92 Hz, ½ of the Earth Schumann frequency of 7.83 Hz, (+/- 1 Hz) with a Bi-Phasic Square Wave @ 31 Volts (+/- 1 Volt) peak per cycle.

Maximum current through the electrodes is ~8 milliamperes into 1,000 ohms, ~12 milliamperes into a short circuit at 31 Volts peak per cycle.

TROUBLE SHOOTING

TEST TO DETERMINE IF BIO-STIMULATOR PROBES NEED REPLACING:

If the yellow light does not come on and the bio-stimulator probes cannot be felt, replace the 9-Volt alkaline battery and turn the unit ON. If the problem persists:

- a. Ensure the electrodes are clean. Use a scrub pad to remove any stains.
- b. Plug in the Bio-Stimulator probe. Turn the unit ON and touch the electrodes together. The yellow light should come on and flash. Turn up the intensity and the flashing yellow light should get brighter.

This tests both the Silver Pulser output and the Bio-Stimulator probes. If the light does not come on, the Bio-Stimulator probes may need replacing.

WARRANTY

SOTA Instruments Inc. continually strives to manufacture the highest quality, most reliable units possible.

SOTA Instruments Inc. reserves the right to update, modify, revise, alter, or otherwise change or make changes to the Silver Pulser without notification.

The Silver Pulser is covered by a 3 (three) year parts and labor warranty on all internally mounted components. Please keep proof of purchase. Warranty is void if the failure is due to abuse or negligence.

Warranty and Repairs:

For repair, please contact your supplier for return instructions. Or, for information about your closest repair depot, contact:

repairs@sotainstruments.com

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The ZBB5 is designed and engineered in Canada. Made in China.



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