INSTRUCTIONS FOR SOTA SILVER PULSER
MODEL SP5

CONTENTS

INTRODUCTION

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

This unit has two functions:

1. Micropulsing to apply gentle microcurrents.
2. Making Ionic~Colloidal Silver.

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

Please read this manual carefully. We encourage you to become well-informed about Micropulsing and Ionic~Colloidal Silver.

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

The SOTA Silver Pulser is built 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 Micropulsing.
2. The Magnetic Pulser for Pulsed Magnetic Fields.
3. The Silver Pulser for making Ionic~Colloidal Silver.
4. The Water Ozonator for freshly Ozonated Water.

COMPLETE UNIT INCLUDES

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

For Micropulsing Application:

- One (1) Micropulsing Cord
- Six (6) Pair Cotton Sleeves
- One (1) Arm Band and Clip
- One (1) Neoprene® Velcro® Wrist Strap
- 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

To replace accessories, please contact your supplier.

OPERATIONAL CAUTIONS

As with all electrical devices do not use:

a. Near water

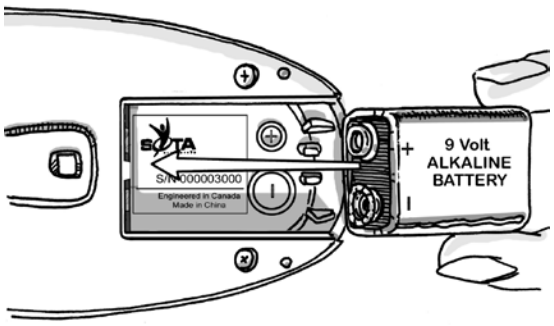
b. When driving a car or

c. When operating heavy equipment.

GETTING STARTED

1. Place the 9-Volt Alkaline battery in the unit.
   a. On the back of the unit, slide off the battery cover.
   b. Position the 9-Volt Alkaline battery so the 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

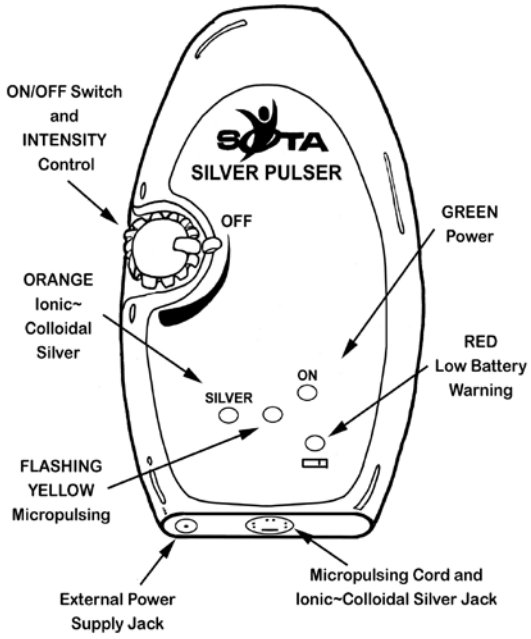


battery circle matches the larger circle in the case.

c. Slide the 9-Volt Alkaline battery into the case and push down. Slide the cover back onto the unit.

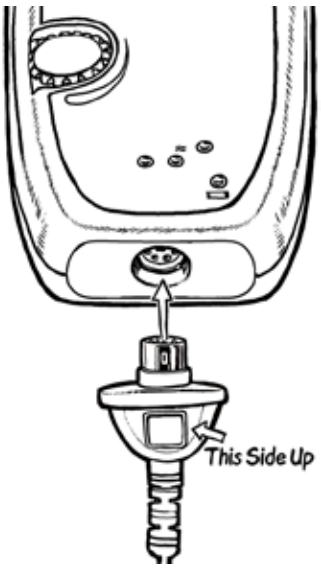
2. Turn the unit ON by rotating the ON/OFF switch clockwise.
3. The GREEN light indicates the unit is ON. If the light does not come on, the battery may not be placed correctly.
4. Turn the unit OFF by rotating the ON/OFF switch counter clockwise until it clicks.

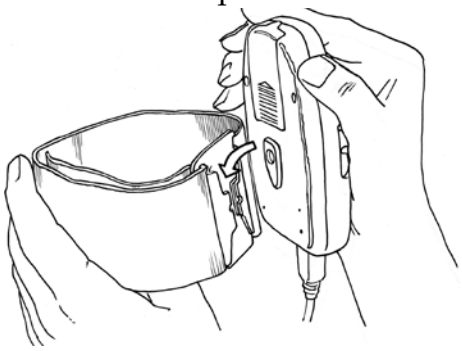
   Important: Do not force the ON/OFF switch past its natural stopping point.



HOW TO USE THE MICROPULSING FUNCTION:

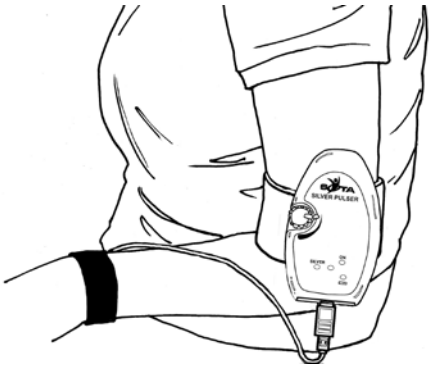
1. Clean the wrist area to remove oils from the skin. This will allow for better conductivity.
2. Insert the Micropulsing Cord into the jack on the unit as in the diagram. The indented square on the din plug should be facing up. When the plug is positioned correctly, it will slide in gently. Do not force.
3. Slide the clip on the back of the Silver Pulser into the holding clip on the Arm Band as in the diagram.





4. Slide the Arm Band, with the unit and cord, up the arm to a comfortable position. Tighten the band to secure it in place.

   Option: If preferred the unit can be placed in a pocket. A longer Micropulsing Cord is needed for this option.

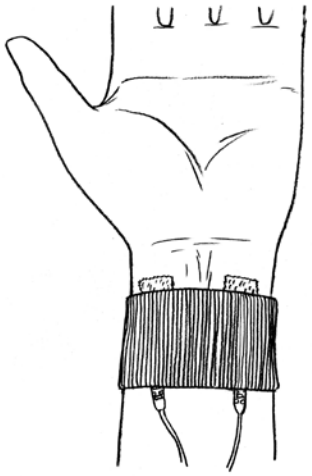


5. To position the cotton sleeves on the wrist strap, place the Velcro side of the wrist band face-out rather than towards the skin. Attach one cotton sleeve to the wrist band in line with the pulse point on the thumb side of the wrist. Press the sleeve to the wrist band to firmly adhere the sleeve in place.

Place the other cotton sleeve in line with the pulse point on the little finger side of the wrist. This pulse point is usually harder to feel. It is located in the soft hollow on the wrist, in line with the little finger. Press the sleeve to the wrist strap to firmly adhere the sleeve in place.

Once in place, the cotton sleeves will stay in the right position for repeated use.

6. Take the wrist strap off.
7. Insert one electrode from the Micropulsing Cord into each of the cotton sleeves.
8. Wet the cotton sleeves with water.
9. Put the wrist strap on so the damp cotton sleeves are against the skin over the pulse points.



10. Turn the unit ON by rotating the ON/OFF switch clockwise. Turn the switch slowly until you feel the current. If you do not feel the current, see Notes on page 14.
11. The flashing YELLOW light should come on and get brighter as the intensity is turned up. If the flashing YELLOW light does not come on, the electrical path has not been established. See Troubleshooting on page 31.
12. When finished, turn the unit OFF. The cotton sleeves will remain correctly positioned for the next session.
13. Clean the wrist and apply a healing lotion to avoid irritation.

Notes:

Suggestions for Feeling the Current: 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 the water in the 50 ml dropper bottle. A commercial electrolyte gel can also be used instead of a salt solution.

Care of Micropulsing Electrodes: Discoloration of electrodes is normal. Buff occasionally to ensure good electrical contact.

Care of Cotton Sleeves: Wash or rinse sleeves after use. Discard and replace cotton sleeves periodically.

Alternatives to Cotton Sleeves: The following items can be used in place of the cotton sleeves:

a. Unbleached Paper Towel: Cut a small square of paper towel large enough to wrap around the electrode 2 or 3 times. Moisten prior to use.

b. Cotton Flannel: Cut a small square of cotton flannel and wrap around the electrode with thread. Moisten prior to use.

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 YELLOW light goes off.

Power Supply: When the Micropulsing Cord is used, the jack to plug in a wall adaptor is not accessible. With Micropulsing, the unit can only be powered by a 9-Volt Alkaline battery.

How Micropulsing Should Feel

1. The microcurrent should be felt, but it is not necessary to turn the intensity control up to an uncomfortable level.
2. With repeated use, the ability to feel the microcurrents may change. It will then be necessary to increase the intensity.
3. Twitching of the fingers is normal at a higher intensity.

Typical Use

Alternate wrists daily.

Length of Session: Build up time gradually. It is best to start slowly. Start with 10 to 20 minutes a day. Increase gradually to a minimum of 2 hours each day.

Length of Use: After daily use for 6 to 12 weeks, a maintenance schedule is important. See page 17 for suggestions.

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

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

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

CAUTIONS

1. Do not place the Micropulsing electrodes over skin lesions, abrasions, new scars, cuts, eruptions or sunburn.
2. Do not use if the Micropulsing suddenly feels different or prickly and the YELLOW light stops flashing. Turn the unit off immediately and contact SOTA Instruments.
3. The body may absorb nutrients and substances more readily when Micropulsing. This is a plus with healthy nutrients but it is best to avoid coffee, alcohol, synthetic supplements or excess sweets. Also avoid cigarettes and nicotine products. Do not use with prescription drugs.
4. Do not apply the bare electrodes to the skin.
5. Keep the cotton sleeves damp. Both dry sleeves and bare electrodes will cause an electrical burn which may scar.
6. Do not sleep while using the Micropulsing electrodes as the sleeves may dry out. This could result in an electrical burn.

7. During the first weeks of use, the skin may become irritated. Over time, irritation usually decreases or disappears. Alternating wrists each session allows any irritation to better heal.

Sensitive Skin

Some individuals may be particularly sensitive to microcurrents and the irritation may continue. To ensure the current is felt:

1. Wet the sleeves with purified water or Ionic~Colloidal Silver. The silver solution has a healing effect.
2. If unable to feel the current, try a commercial saline solution for the eyes. This is gentler than adding salt to the water.
3. A conductive gel can also be added to the wet sleeves to reduce irritation.
4. Another option is to wrap a small square of paper towel around the electrodes instead of using cotton sleeves. There may be fewer impurities in the paper than the cotton. Keep the paper wet. A small square of paper towel may last for several applications.

To minimize irritation,

5. Wash wrists well after each session and apply a healing gel or lotion such as aloe vera, vitamin E oil or MSM cream.
6. Drink enough water to keep the body well hydrated. The level of hydration may affect sensitivity.
7. Apply the Micropulsing electrodes for shorter periods of time until the irritation disappears.

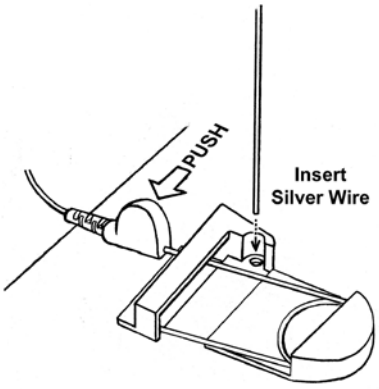
Do not use the Micropulsing function in the following situations as safety has not been explored:

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

HOW TO USE THE IONIC~COLLOIDAL SILVER FUNCTION

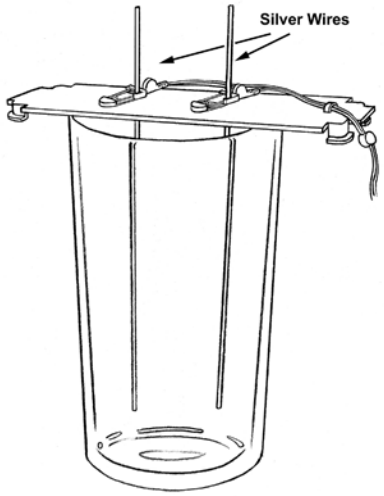
How To Assemble

1. The Silver Wires fit into the two small holes in the Silver Wire Holder.
2. To insert the Silver Wires, move the spring clip away from the hole to allow the wire to slide in smoothly.
3. Insert as in the picture or it may be easier to insert from the underside of the holder. Push the wire through. Most of the wire should be below the holder.
4. Release the clip to hold the Silver Wire snuggly in place.
5. Repeat the above steps for the second Silver Wire and plug the Silver Wire Holder into the Silver Pulser.



How To Make Ionic~Colloidal Silver

The Silver Pulser provides a constant current output. Constant current allows a very simple procedure for making a high quality Ionic~Colloidal Silver as room temperature water can be used.



1. Pour two cups (16 ounces or 500 ml) 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.

3. Turn the unit ON by rotating the ON/OFF switch clockwise. 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 (16 ounces or 500 ml) for 2 hours will produce a 5 to 8 PPM batch of Ionic~Colloidal Silver, depending on the brand of distilled water.The concentration of silver is measured in Parts Per Million or PPM.

   Note: Do not add salt or heat the water to try to decrease the time required. With constant current the time required to produce 5 PPM or more will not be reduced by trying to increase the conductivity of the water.

6. When finished, 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.

Notes:

Color: Ionic~Colloidal Silver remains clear to about 5 or 6 PPM. 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: The Silver Pulser can be used to make larger quantities of Ionic~Colloidal Silver. For a concentration between 5 to 8 PPM, use the following times as a guide.

For 4 cups or 1 litre: 3 to 4 hours.

For 1 gallon (16 cups) or 4 liters: 10 to 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.

When made and stored properly, Ionic~Colloidal Silver retains freshness for many weeks. It is suggested, however, that you use as freshly as possible. If settling occurs, it is losing potency.

Do not freeze, refrigerate, or expose Ionic~Colloidal Silver to extremes of temperatures as its potency may be affected. Do not drink any sediment.

Save on batteries: The unit can be powered by a wall adaptor when making Ionic~Colloidal Silver. (See page 24 for specifications.)

Switch Silver Wire positions: The ions of silver come off only one of the wires. The silver ions move from the wire in the positive (+) terminal or anode into the water. To equalize the wearing of the Silver Wires, exchange the position of the wires. If left in the same position, only one Silver Wire will gradually wear away.

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

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

Typical Use

Quantity: 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 (30 to 60 ml) at a time. After an extended period of use, it is wise to take breaks.

Strength: 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 strength to less than 10 PPM.

CAUTIONS

Ingesting larger quantities of Ionic~Colloidal Silver over a longer period of time could possibly result in argyria. Argyria is a darkening of the skin—a bluish tinge. This occurs when silver molecules are eliminated through the skin and exposed to light. Darkening of the moons of the finger nails is usually an early sign of argyria. The bluish tinge becomes especially noticeable around the eyes and nose on the face.

The risk of argyria is considered greater with larger particle sizes. When made with a constant current unit using distilled water, the particle size remains small so the risk of argyria is considered less.

The risk of argyria is greater if one is deficient in selenium or vitamin E. Drinking Ionic~Colloidal Silver for long periods of time is known to deplete selenium and vitamin E. In addition to taking breaks from ingesting Ionic~Colloidal Silver, it may be wise to supplement with these two nutrients.

With proper supplementation and the use of Far Infrared saunas, it may be possible to reverse or remove the bluish tinge of argyria.

ELECTRICAL SPECIFICATIONS

Power Requirements

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

The wall adaptor that comes with other SOTA units can be used for making Ionic~Colloidal Silver. A wall adaptor cannot be used with the Micropulsing function. Micropulsing requires a 9–Volt Alkaline battery.

External Power Supply

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

To use a wall adaptor for making Ionic~Colloidal Silver the output should be from 6 to 12 Volts DC with a positive centre pin and a minimum of 500 mA (milliamperes) of current.

CAUTION: Do not use a wall adaptor with a negative centre pin or incorrect electrical specifications. Exceeding the voltage rating may result in injury or unit failure.This will void the warranty.

Output Specifications

The output voltage is a nominal 31 Volts.

Micropulsing Application: Frequency through electrodes is ~3.92 Hz or 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.

Ionic~Colloidal Silver Application: 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.

The SP5 is designed and engineered in Canada and made in China.

Rechargeable Batteries

We suggest you purchase a battery charger with NiMH rechargeable batteries. When doing so, please take the Silver Pulser with you as some rechargeable batteries are too large for the enclosure. This way you will be sure to purchase batteries that fit.

SUMMARY OF LIGHTS

GREEN light: Indicates the unit is on.

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

YELLOW light: Indicates the Micropulsing function is in operation.

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

TROUBLE SHOOTING

Test to determine if Micropulsing Cord needs replacing:
If the YELLOW light does not come on and the microcurrents cannot be felt, replace the 9-Volt Alkaline battery and turn the unit ON. If the problem persists:

1. Buff the electrodes lightly to ensure good electrical contact.
2. Plug in the Micropulsing Cord. 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 Micropulsing Cord. If the light does not come on, the Micropulsing Cord may need replacing.

If current is not felt, check to ensure that the inside of the wrist strap is not wet. If wet, the current is being shorted rather than entering the skin.

WARRANTY

The Silver Pulser, model SP5 is covered by a three (3) year limited warranty. Please keep proof of purchase. Warranty is void if the failure is due to abuse or negligence. SOTA reserves the right to make changes to the Silver Pulser without notification.

REPAIRS

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

repairs@sotainstruments.com

Tel: 1.250.770.2023 Fax: 1.250.770.1999

CE RoHS Compliant