

Thank you for selecting SteriPEN® Freedom. Years of careful research, development and testing have gone into the creation of this innovative product. SteriPEN® is a handheld ultraviolet (uv) light water purifier. This device will provide 8,000 0.5L (16 oz.) treatments.

### How Do SteriPEN® Purifiers Work?

SteriPEN® purifiers use shortwave germicidal UV light to disinfect water. This range of UV light disrupts the DNA of microbes in seconds. Without intact DNA, microbes cannot reproduce to make you sick. SteriPEN purifiers destroy over 99.9% of bacteria, viruses and protozoa (giardia & cryptosporidium). Complete test results at [www.steripen.com/micro-biological-testing](http://www.steripen.com/micro-biological-testing).

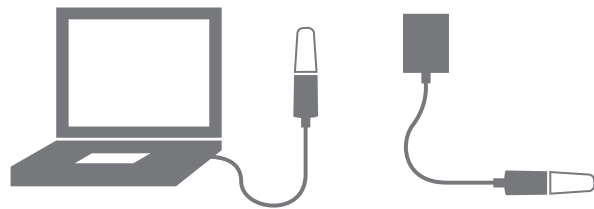
### Usage Situations

SteriPEN® Freedom will destroy microbes whether you are drawing water from a stream while camping, traveling, or using in developing countries where the water supply is not safe. It's also great insurance in emergencies when water supply is disrupted. Even bottled water in many countries comes from unknown and unregulated sources. Use on any source of fresh water in any country.

## Quick Start Guide

### Before Use

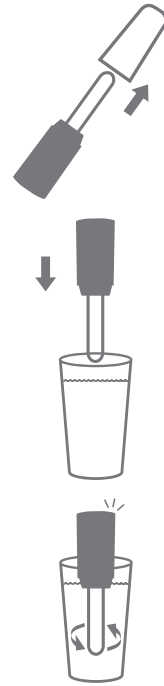
- Charge battery: SteriPEN® Freedom is powered by a sealed lithium polymer rechargeable battery, not user accessible. When fully charged, the device delivers up to 40 0.5L (16 oz.) treatments. Charge your SteriPEN® with the included USB cable using either wall power via the included AC Adapter (100 to 240 V with US prongs) or the USB port on your computer. The USB cable will also work with any USB compatible car charger (not included) or solar charger (not included).



- SteriPEN® will fully charge via AC power in about 2 hours; up to 4 hours via USB connector to PC. Steady red LED charging indicator will turn steady green when fully charged. The USB connector is protected by a soft black cover; pull gently to access connector for charging.
- Use SteriPEN® only with clear water. Discolored or dirty water should be pre-filtered until clear prior to SteriPEN® treatment. Use available SteriPEN® Pre-Filter or FitsAll Filter to help clarify water. Coffee filters or a cloth can also be used in an emergency. See also "Treating Turbid, Murky, or Cloudy Water".

## 3 Easy Steps

**SteriPEN® Freedom treats a 0.5L (16 oz.) dose of water volume**



- 1 Remove lamp cover from body of unit. Note: water sensor pins at base of lamp must be dry.
- 2 Immerse the UV lamp and water sensing pins into the water; green LED will blink. Lamp will turn on automatically. **Note:** If visible blue light is not evident, the lamp is not on, and water should not be consumed.
- 3 Agitate the water by stirring thoroughly until the lamp automatically turns off and indicator light becomes a steady green, indicating treatment is complete. The auto timer is set for 48 seconds. Agitation throughout treatment is essential to provide uniform exposure of all water to the UV light. **Note:** If red LED turns on after lamp shuts off, purification was not complete.

Video available at [www.steripen.com/freedomvideos/](http://www.steripen.com/freedomvideos/)

### After Use

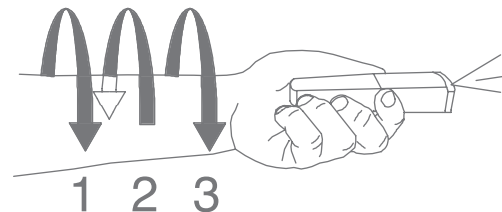
After using SteriPEN® Freedom, use a dry cloth to remove water droplets from the device. Note: Do not use a damp or wet cloth to dry SteriPEN's sensors as this may briefly activate the UV lamp.

## Treating a 1.0 liter (32 oz.) volume

You may treat a full liter or 32 oz. by treating the water with two doses. Volumes larger than 1.0L (32 oz.) should be divided into 1.0L or less quantities and treated. During all treatments stir thoroughly.

## Flashlight Activation

The flashlight LED is near the USB connector at the base of SteriPEN® Freedom. To turn on flashlight, hold horizontally and then rotate your wrist 180 degrees 3 times. Repeat action to deactivate the flashlight. To protect UV lamp when using flashlight, operate with lamp cover in place.



Video available at [www.steripen.com/freedomvideos/](http://www.steripen.com/freedomvideos/)

## Safety and Operating Tips

### Water Containers

SteriPEN® purifiers may be used in glass, plastic, ceramic or metal containers. SteriPEN® purifiers should not be used in quartz containers.

### Water Sensor Circuitry

The SteriPEN® water sensor circuitry is intended to prevent the UV lamp from illuminating unless it is completely immersed in water. If SteriPEN water sensors are not immersed within 13 seconds of being activated, unit will turn off. Activation or "ready mode" occurs when user removes lamp cover.

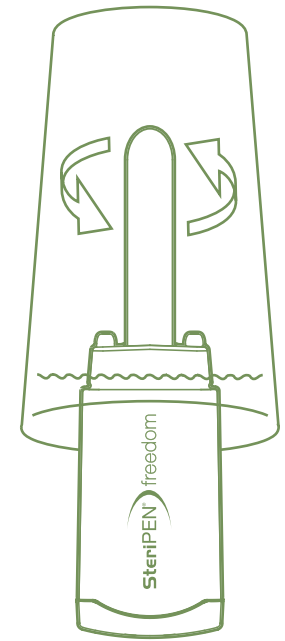
### Agitation of Water

Agitation of the water by stirring with SteriPEN® or rocking the container is essential for proper operation as this insures uniform exposure of all water to germicidal UV light.

### Cold Weather Considerations

Bring SteriPEN® Freedom up to a temperature above 32°F/0°C before using. The purifier is programmed to add more time in cold weather. Ideally, store your SteriPEN® in your pocket or warm place when in cold weather conditions.

SteriPEN® User's Guide  
Instructions for Using SteriPEN®



## SteriPEN® LED Signals

LED COLOR AND PATTERN DISPLAY	INDICATION
<b>Operating Signals</b>	
Green, slow blinking: 1 second on, 1 second off	0.5 liter (16 fl. oz.) dose in progress.
Red, slow blinking: 1 second on, 1 second off	<b>(1)</b> Dose incomplete. Dry water sensors and repeat treatment. <b>(2)</b> Low battery warning; recharge your SteriPEN® Freedom
Green slow blink with Red blink	0.5 liters (16 fl. oz.) dose completed; low battery
Green, steady	Dose complete
<b>Battery Signals During Charge</b>	
Red, steady	Battery charging
Green, steady	Unit fully charged
<b>Lamp Warnings</b>	
Red 2 blinks, Green 2 blinks (repeating)	Over 7,900 treatments completed; lamp replacement needed in under 100 doses
Red 3 blinks, Green 1 blink (repeating)	Lamp failure; replace lamp
No LED signal & UV lamp emits no visible blue light	<b>(1)</b> Charge unit <b>(2)</b> Lamp failure. Do not consume water. Follow warranty procedure.

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## Lamp Life

After lamp reaches 8,000 treatments, lamp must be replaced by manufacturer or a SteriPEN® licensed technician.

## Troubleshooting

If the lamp does not light when immersed in water, check to be sure lamp is completely immersed and that water is contacting both water sensing pins. If lamp still does not activate, contact technical support.

If immediately after completing a treatment another treatment is attempted, but lamp will not activate, remove SteriPEN® from water, dry sensing pins off, wait 10 seconds and immerse in water to activate. If unit will not activate and battery is fully charged, contact technical support.

## Technical Support

For support, please email [support@steripen.com](mailto:support@steripen.com) or call +1 207.374.5800 (Toll Free USA: 1-888-SteriPEN)

## Repair Information

Any repairs to your SteriPEN® should be done by a SteriPEN technician. Please contact Hydro-Photon, Inc. at above phone number or at [support@steripen.com](mailto:support@steripen.com) for repair guidance.

## Product Registration & Warranty Information

Hydro-Photon, Inc. warrants your SteriPEN® product for 3 years from date of purchase for any manufacturing defect. For product registration and complete warranty information, please visit [www.steripen.com/support](http://www.steripen.com/support). Warranty will be voided if SteriPEN® Freedom is (a) altered in any way, (b) used for purposes inconsistent with product's intended function, or (c) if product instructions and warnings are not followed.

## Treating Turbid, Murky or Cloudy Water

SteriPEN® is intended for use, and is most effective, in clear water. However, SteriPEN® has been shown to reduce microbial contamination in turbid water. If clear water is not available, first try to filter the water to clarify it. If it is necessary to treat turbid, murky or cloudy water in an emergency situation, use SteriPEN® as follows:

- To treat 1 liter of turbid water, use four 0.5 liter doses. To accomplish this, remove SteriPEN from water, dry sensing pins off and immerse in water to activate again.
- To treat 0.5 liter of turbid water, use two 0.5 liter doses. To accomplish this, remove SteriPEN from water, dry sensing pins off and immerse in water to activate again.

Turbidity is a measure of water clarity as effected by the presence of suspended solids. As turbidity increases, the suspended solids and murkiness of the water also increase. It is difficult to communicate a particular level of turbidity with just a written

description. Accordingly, please take into account the following when considering the use of SteriPEN® in water that is not clear: Laboratory testing has shown that SteriPEN® is effective in water with a turbidity of not less than 30 ntu (Nephelometric Turbidity Units) as described in the US EPA Guide Standard and Protocol for Testing Microbiological Water

Purifiers, section 3.3.4. SteriPEN® has been successfully tested in water with a turbidity measurement of 33 ntu. If viewing 33ntu water in a clear 1 liter bottle, one might characterize the water as follows: Much closer to clear than opaque, Obviously not clear, Obviously cloudy, Objects viewed through the water are visible but blurry, as cloudy as weak lemonade.

## Warnings for Safe Use

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling. 40 C.F.R. §156.10(i)(2)(ii). Improper operation of SteriPEN® may cause injury. Read and understand all warnings prior to operating SteriPEN®.
- Do not allow water to enter SteriPEN® through the USB connector at base of unit.
- Keep soft black USB cover on when not charging.
- Keep lamp cover on when not purifying.
- Do not operate SteriPEN® in quartz containers such as quartz laboratory beakers.
- SteriPEN® should not be used by children.
- SteriPEN® is a high voltage device. Removal or tampering with the electronic circuit board or lamp assembly may cause injury, or damage SteriPEN®.
- Do not open, expose, modify or touch internal circuitry; this can lead to high voltage shock.
- Do not attempt to bypass water sensor; this is an important safety feature.
- While SteriPEN® is highly reliable, with any water treatment system you should always have a backup method available for added protection.
- Like most fluorescent-type lamps, the SteriPEN® lamp contains a small amount of mercury. Please dispose of your SteriPEN® properly.
- SteriPEN® is not intended to disinfect surfaces of a drinking container, i.e. those that typically contact the mouth when drinking. Be certain that your drinking container has been properly cleaned/washed prior to using SteriPEN®.
- SteriPEN® is not intended to disinfect water above the surface of the water in the container, i.e., droplets of water suspended on the side of the glass. Remove droplets by absorbing with cloth before consuming water.
- SteriPEN® is intended for use with clear water. Discolored or dirty water should be pre-filtered until clear prior to SteriPEN® treatment. Use the available SteriPEN® Pre-Filter or FitsAll Filter to help clarify water. Coffee filters or a shirt can also be used in an emergency. See also "Treating Turbid, Murky, or Cloudy Water".

- SteriPEN® Freedom is designed to treat 0.5 liter (16 fl. oz.) of clear water. If in doubt about volume of water to be treated, confirm volume with a measuring device such as a measuring cup.
- When operating properly, the SteriPEN® lamp will emit visible light as well as UV light. If lamp is not emitting visible light, it is not functioning properly, and should not be used until repaired.
- The SteriPEN® lamp assembly must be clean prior to use. Wipe lamp with clean cloth as needed.
- If SteriPEN® purifier is below 32°F/0°C it should be warmed above 32°F/0°C before operating.
- Do not allow impact to the lamp end. If lamp assembly (lamp or quartz sleeve) is cracked, chipped or damaged, do not operate. For repairs, contact Hydro-Photon directly at [support@steripen.com](mailto:support@steripen.com) or 1-888-SteriPEN (USA) or +1 (207) -374-5800.
- Do not use in liquids other than clear water (i.e. tea or soda).
- Do not use in water with ice or water above 140°F/60°C.
- Use only a dry cloth or dry towel to remove water from SteriPEN after use. Use of a damp or wet towel to dry SteriPEN's sensors may activate the UV lamp.
- UV light can be harmful to eyes and skin. Never look at an unshielded UV lamp during operation. When used properly, in water and according to instructions, the user is well shielded from UV light. If lamp is on out of water, immerse lamp or cover lamp.
- Do not operate near skin, eyes or bodily orifices.
- While carefully controlled microbiological testing of SteriPEN® has been conducted, use of SteriPEN® in the field may produce results that vary from our laboratory test data.

## Certifications & Patents

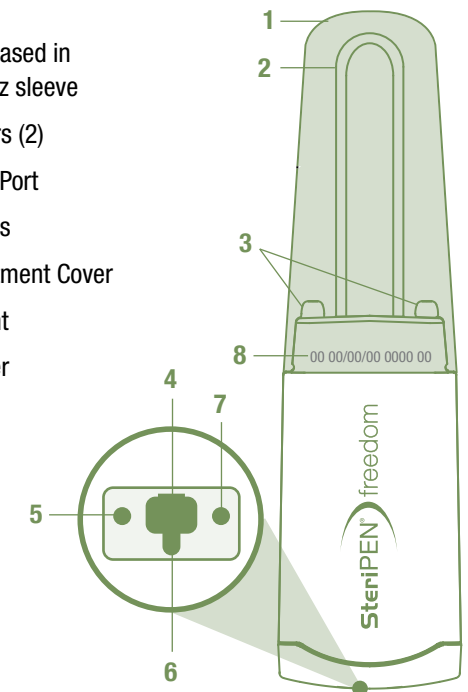
Conforms to UL 61010. Certified to CAN/CSA Standard C 22.2 No. 61010. U.S. Patent Numbers 5,900,212 & 6,110,424 & 6,579,495 Patents and patents pending worldwide.



SteriPEN® technology is patented in the USA with further U.S. patents pending and patents pending worldwide. SteriPEN® is a registered trademark of Hydro-Photon, Inc. © 2011 Hydro-Photon, Inc.

## Guide to SteriPEN® Parts

- 1) Lamp Cover
- 2) UV Lamp encased in durable quartz sleeve
- 3) Water Sensors (2)
- 4) Micro USB B Port
- 5) Indicator LEDs
- 6) USB Compartment Cover
- 7) LED Flashlight
- 8) Serial Number



*Note: SteriPEN® Freedom requires use in bottles or containers with a minimum opening of 3.8 cm (1.5 inch).*