SteriPEN® purifiers use shortwave germicidal UV light to disinfect fresh water. 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.

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.

Usage Situations
SteriPEN® Freedom will destroy microbes whether you are drawing water from a stream while camping, traveling, or 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 80 doses of 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.

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 your wrist 180 degrees 3 times. Repeat action to deactivate the flashlight LED.

Video available at 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® LED Signals

<table>
<thead>
<tr>
<th>LED COLOR AND PATTERN DISPLAY</th>
<th>INDICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Signals</td>
<td></td>
</tr>
<tr>
<td>Green, slow blinking: 1 second on, 1 second off</td>
<td>0.5 liter (16 fl. oz.) dose in progress.</td>
</tr>
<tr>
<td>Red, slow blinking: 1 second on, 1 second off</td>
<td>(1) Dose incomplete. Dry water sensors and repeat treatment. (2) Low battery warning, recharge your SteriPEN® Freedom</td>
</tr>
<tr>
<td>Green slow blink with Red blink</td>
<td>0.5 liters (16 fl. oz.) dose completed; low battery</td>
</tr>
<tr>
<td>Green, steady</td>
<td>Dose complete</td>
</tr>
</tbody>
</table>

Battery Signals During Charge
Red, steady Battery charging
Green, steady Unit fully charged

Lamp Warnings
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 (1) Charge unit (2) Lamp failure. Do not consume water. Follow warranty procedure.

Video available at www.steripen.com/freedomvideos/
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 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 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. Warranty will be voided if SteriPEN® is used with water that is not clear:

- Discolored or opaque, as clogged in a toilet or murky in 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.
- If SteriPEN® is used in water that is not clear: the product's intended function, or (c) if product instructions and warnings are not followed.

Treated 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 33 ntu 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.

- 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.
- Do not allow impact to the lamp end. If lamp assembly (lamp or quartz sleeve) is cracked, chipped or damaged, do not operate.
- 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 for repair guidance.
- 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

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