## How to use the Sol\*Saver Water Pasteurizer

- Microbiological research has proven that solar heat can be employed to thermally disinfect drinking water.
- Bacteria and viruses can be destroyed simply by heating drinking water up to 150°F (degrees Fahrenheit or 66°C), the point at which pasteurization occurs, making the water safe to drink.



Each Sol\*Saver unit comes with the following internal components:

**I** • Eight stainless steel 23 oz / 680 ml water bottles. Each bottle is equipped with a push-pull cap.

**2.** Eight thermal indicators positioned within eight rubber holders inside of the Sol\*Saver. These thermal indicators (similar to a thermometer) made out of glass are the most important components to make sure that the water has been pasteurized and is safe to drink. Do **NOT** drink the water if the thermal indicator under the bottle has not changed by reaching  $150^{\circ}F / 66^{\circ}C$  and achieve pasteurization.



## Instructions for the Sol\*Saver water pasteurizer

A. Lay the unit down, snap the fasteners open and lift the glass lid. Lock the opener arm for the lid by pulling it forward until it locks. Pull all eight Sol\*Saver water bottles from the unit.

**B**• Unscrew the entire cap and fill each bottle with contaminated water.

Leave one inch / 2.5 cm of air in the top of the bottle. Screw the caps back on each bottle. Then pull the white nipple up on each bottle cap so that the bottles are





"open". Open nipples prevents internal pressure from building up inside the bottle when solar heating begins.

**C**• Inside the unit, position each glass indicator so that the end containing the colored wax is positioned upward, facing the carrying handle. This position assures that the wax is covered-up later by the bottle. Please slide the glass thermal indicators along the channel in the holders and do not pull or force the indicators out of its form holders.

of its foam holders.

Slide thermal indicators into the foam holder







Colored indicator wax (covered by bottle)

**D.** Push Sol\*Saver bottles back into the unit holders, checking that the colored wax end of the thermal indicators is hidden from view. Make sure that the bottles cover each indicator by making contact. Please double check that the indicators are still covered and in place when the unit is positioned into the sun.

**E**. Close the glass lid of the unit by pushing the opener arm back and re-close the buckle fasteners.





F. Place the unit so that the orientation (east, south or west) is the same as the sun, and make sure the el-

evation angle of the unit is equal to that of the sun. This will maximize the amount of solar rays entering the unit and speed the heating process. Please keep in mind that a minimum angle of the unit is necessary for the wax to flow down in the glass indicators, after 150°F/65°C is reached.



**G**• The unit will now heat the water bottles up to 150°F / 66°C and achieve pasteurization in approximately 2 hours. During this heating cycle the unit can be repositioned again to further maximize the solar input. The thermal indicators will reach this temperature when the wax melts and falls to the bottom of each glass tube. Now the colored wax can be seen below the bottom of the bottles, indicating that the water has been successfully disinfected.



(ot) Caution: The bottles are **hot** and should be removed from the unit with a hot pad. Otherwise remove the unit from the direct sunlight, open the lid and allow the bottles to cool down for approximately one hour before removing the bottles. Please watch out for children so they don't burn their little fingers.

• The next batch can be disinfected using the same procedure. However before using the unit again, the thermal indicators always will need to be turned around with the colored wax facing towards the unit's carrying handle. Slide the indicators out of their foam holders, then reverse their position and re-slide them into their holders. Please slide the indicator along the channel in the holders and do not pull or force it out. The wax should once again be positioned facing up towards the carrying handle. It is recommended to let the wax cool for a little while if the unit is to be used again a second time.

Visit: www.blazingtubesolar.com for more information or email: info@blazingtubesolar.com Sol\*Saver water pa