

## AquaPartner Electric Filter

Our electric water filter uses a 0.5 micron filter (the first filter for sediment) and a charcoal block (second filter). Tests show that all bacteria is removed when this filter is used properly.

**\*\*Please see NPS regulations for streams that are considered unsafe for pulling drinking water.\*\***

- The internal battery charge is typically good for 6 hours of use. You should either have a solar panel to re-charge the battery or a set of back-up batteries. Your filter will be located either in a large Pelican case or in a 20 MM ammo can. If the filter stops working, first try changing the battery, then try changing the filters. The containers must be put back snugly.
- If you have a solar panel, do NOT leave the power hooked to the battery overnight. When it is dark, the battery will drain itself!
- Make sure you settle your water overnight if the river is silty (see above). If you are filtering clear, non-silty water, you should not need to clean the filter any time during your trip. If you filter silty water, you may need to take your sediment filter off and lightly scrub the silt out and replace it in its container.
- To filter water, simply put the sediment trap (intake hose) into the clear water and put the other hose in the water jug. Hook up the battery terminals (positive then negative) and the filter will turn on. Keep the battery connections detached any time your group is not using the filter.
- Do NOT walk away from the filter and let it run dry!

## Aqua Partner - High Volume Portable Water Purification Unit

This system features carbon block filtration, using a two-step filtration process to eliminate everything from dirt and silt to giardia and microorganisms (viruses, bacteria, fungi, algae, and protozoa). Seventy-five – 100 gallons of water, at a rate of one gallon per minute, can be filtered per battery charge.

### Two Step Purification Process

1. Sediment Filter – this filter removes dirt and silt particles larger than 1 micron.
2. Carbon Block Filter – this filter, made of activated carbon, filters out particles to .5 micron – ensuring the removal of cysts such as Giardia Lamblia. The carbon filter also removes chlorine, bromine, and other organic compounds.

### Operating Instructions

1. Place Aqua Partner on box (do not put directly in the sand).
2. Place the inlet hose, which has the pre-filter, in the **clearest** source water (bucket). Place the outlet hose in a clean container (water jug). River water **MUST** be settled and decanted. **Failure to properly settle water will render the filter inoperable! Do not use alum in the filtration system!**
3. Connect the batter leads (+Red; - Black)

### Disassembly Instructions

1. Remove the inlet hose from the water source and hold it elevated for a few seconds to clear the line of water.

2. Disconnect the battery leads
3. Place the unit and the hoses back in the box.

## Trouble Shooting

PROBLEM	POSSIBLE CAUSE
Water flow is very slow	Low battery or clogged sediment filter
Pump runs, but no water comes out	Sediment filter is clogged – source water is not being settled correctly
Unit will not run for full time	Unit not fully charged or battery damaged
Battery has full charge, does not run	Loose or broken battery connection

## Changing the Sediment Filter

**If you are changing the filters you are not properly settling water!! The cost for the replacement filters, if used, are \$5/sediment and \$30/carbon block**

1. Using the filter wrench, unscrew the sediment filter casing clockwise.
2. Remove the sediment filter and replace with spare filter
3. Replace the filter casing, using the filter wrench; screw in the casing counter clockwise until **hand tight**.