How to use (6 watts) solar panel with spray pump

- 1. On the back of the solar panel, there is a black square box where the panel connectors and wires meet. There are two wires, a positive red female pullet and a negative blue male end.
- 2. There is a stand attachment on the back of the solar panel (**6watt model only**). Pull it out so the solar panel is standing like a picture frame at a 45 degree angle. The solar panel can be laid flat on the ground or laid against some objects. Make sure to place it in a non-windy/shady area.
- 3. Connect the red & blue connectors of the panel with the red & blue connectors of the pump.
- 4. There are 4 small extension tubes which can be used to raise the spray head to the desired height : one short spray head (shaped like a nipple, about ½'' long), which creates a small straight spray, one cone adapter with 3 different spray head patterns is connected directly to the extension tube.
- NOTE: On the outside pond, the pump should be kept **midstream** (in the middle of the water height by using a flat piece of plastic or glass and attaching the pump to it ; there are 4 small suction cups at the bottom of the pump, which can be used to attach to objects). Put a brick or rock under the piece of plastic or glass in order to lift the pump up from the bottom of the pond. This prevents the pump from taking in all the leaves and debris from the bottom of the pond, which can clog the filter.

NOTE: The height of the spray patterns will depend on the intensification of the sun

- 5. There are 2 alligator clips different applications, such as charging a battery or other DC devices. Do not overcharge, as this does not come with a regulator.
- IMPORTANT NOTE: A battery pack or a small 12 volt battery can be purchased at a local store so that it will work at night.

Troubleshooting:

- 2W Pump: If the pump does not work slide out (hold the top part and slide the bottom part out) the bottom part of the pump housing and clean out any debris that may cause the product to malfunction. If it still does not work, use a screwdriver to turn the impellor through the front center hole. Make sure to connect the pump to the panel so that it is powered at the same time. The impellor should start to spin. If not, the pump is defective.
- 2)5W Pump: Hold the bottom plate of the pump with one hand and push downward on the tab, one a at a time. Make sure to simultaneously apply an upward force on the plate while pushing downward on the tab. Repeat until all 4 tabs have been released. Slide the cover up and clean out any debris. Next, open the front cover of the impeller. Use a screwdriver or your finger to turn the impeller. Make sure to connect the pump to the panel so that it is powered at the same time. Afterwards, the impeller should start spinning. If not, the pump is defective.