

**General Maintenance Note:**

Inspect the entire solar array system prior to cleaning to detect loose or broken wires, panels, or improperly functioning apparatus. Make necessary repairs before cleaning. Take before-and-after photos and system output readings for presentation to the customer. Schedule quarterly cleaning and maintenance with the customer to keep their system operating at its theoretical maximum output.

**Solar Panel Wash SPW<sup>™</sup> Usage Recommendation:**

Recommended dilution ratio is 1 part Solar Panel Wash SPW<sup>™</sup> to 25 parts water (25-1). For heavily soiled areas, use a higher SPW<sup>™</sup> cleaner concentration, brushing or more rinsing. The catalogue # SPW-35HS hose adapter package has a selector switch atop the sprayer to toggle between the 25-1 and water-only ratios.

**Always schedule panel cleaning early in the morning or at night when it is cool. This will minimize thermal stress on photovoltaic cells and protective glass which could damage the panels.**

- 1) Use 25-1 Solar Panel Wash solution to rinse panels. Rinsing removes loose sand and debris from the panels, and protects the panel from scratching when brushes are used in Step 2 below. In locales known for hard water, deionized water can be used to dilute the SPW<sup>™</sup>. It is okay to rinse with local water only. **Wet only the number of panels that can be brushed and rinsed before the SPW<sup>™</sup> solution dries.** Large arrays may need to be cleaned section by section. Use heavier amounts of SPW<sup>™</sup> on areas with bird droppings or other organic matter.
- 2) Scrub panels with a very soft brush.(Hog's Hair is recommended.) Rinse the brush bristles frequently when cleaning heavily soiled arrays to reduce scratching. The use of brushes also helps agitate the SPW<sup>™</sup>; dirt tends to "carry" or be lifted from the panels better. Water alone--even deionized water--will not lift or carry dirt adequately. SPW<sup>™</sup> is far more effective at removing residue and cleaning panel.
- 3) Allow the contamination and SPW solution to shed from the panel surface. Repeat Steps 1& 2 if hard to remove contamination remains.
- 4) Rinse the panels with a 25-1 SPW<sup>™</sup> solution and let dry; otherwise, rinse with deionized water or local water supply.
- 5) If desired, buff dry, clean panels with blue microfiber cloths followed by white microfiber cloths for a fine finish.