

Floors	☐ 1 ☐ 2 ☐ 3 ☐ Basement	Roof type	☐ Asphalt Shingle ☐ Metal ☐ Cedar ☐ Flat ☐ Other	Orientation	☐ South ☐ E/W ☐ Other:
Line Rise		Roof pitch	☐ Low ☐ Med. ☐ High ☐ Tie-Offs ☐ Hi Risk	New	☐ Yes ☐ Retrofit
Line Run		Attic Space	☐ Yes ☐ No	Distribution temps?	☐ Water ☐ Air
Fall Arrest - Safety plan: Any installed Tie-offs? Any incompatible high-temp emitters over 120 F.? Heating Permit: Heat Loss Calc? Hydronic Plan?					

# Installer's Guide – 3 Steps Summary

### Prepare

- ☐ Marshall SunPump, balance of system supplies, and tools checklist. Read Manual.
- ☐ Unpack, discuss Safety plan, ladders up, tie-offs secure, vest, helmet and harness on

#### 1. Install Line Set

- ☐ Select location layout. Attach backing in Attic between trusses, 4" x 4" x 22.4"
- ☐ One length from roof flashing to Mechanical room. Rough-in conduit, or stapled to studs ☐ Install roof flashing above panels so Line-Set seals better from rain penetration

1

Panel Manifold

Photon Panels

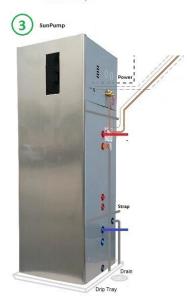
Air Sensor

#### 2. Install Panels

- ☐ Use Template or Measure and mark 3 rows of 6 drill locations at 0, 3', 6' | 8', 11'. 14'
- ☐ Drill 3/16" x 4" deep pilot holes into backing or trusses, sweep debris, then caulk
- ☐ Fasten disc Shoes using Drill with 9/16" socket on 5" S/S lag or 1.5" sheathing screws
- ☐ Open Panel box, use lid as clean surface to assemble L + U feet tight & square on panels
- Attach Thermistor sensor by liquid line at panel, using screw and 4-5 mm cable clamp
- Hoist panels with L-feet fastened, using harness or rope. No one stands underneath.
- ☐ Position panels in horizontal mirror image pairs, liquid line down (smaller 1/4" tube)
- ☐ Fasten 1 1/8" hex caps to secure Panels. Snug but not too tight
- ☐ Connect flared Tees to ¼" and ¾" lines. Alternatively cut off tubes and braze Tees on
- Connect Manifold Distributor with one ¼" tube to furthest/lowest Tee first, then shorter
- ☐ Connect Manifolds to Line-Set supply + return insulated copper pipes

#### **3 KEY ELEMENTS**

Line Set Panels SunPump



## 3. Install SunPump

- ☐ Dolly in, attach seismic straps to wall, place on square drip tray
- ☐ Flare Line-Sets, form a Dog-leg bend, attach to Service Valves
- ☐ Nitrogen Pressure Test Line-Set, Manifold & Panels 150-200 PSI.
- ☐ Inspect carefully for leaks using soap spray. Leave 24 hours.
- ☐ Plugin Air and Panel thermistor sensors.
- ☐ Attach tank fittings, fill tank with potable water, purge air
- ☐ Connect Electrical power.
- ☐ HVAC Tech to Evacuate and start SunPump
- ☐ Customer gets walk-through on Controller. Service Agreement.