

### Solar Powered High Liquid Alarm

The Solar Knight® liquid level alarm will notify maintenance personnel in the event of a high liquid condition. Models containing Pump Portal® provide remote monitoring via cellular connection. All alarms are UL Listed for the United States and Canada and come with a five-year warranty.

Model	Solar Panel Size
CP1003	10W
CP1003-PX	50W

### Enclosure Mounting: NEMA 4X RATED

**Mounting Brackets** - A mounting bracket and screw pack are provided with the premium enclosures. To assemble, turn the enclosure upside down on a flat surface, place the mounting bracket over the square boss either horizontally or vertically, and fasten the mounting bracket with the 1/4"-20 x 0.5 SS, countersunk phillips drive screws or vertically, with the mounting brackets in any config., using any acceptable fastening technique.

**Covers/Doors** - Covers/doors have a gasket pre-assembled to seal against the base.

**Note:** The alarm should not be mounted in a location that may be subject to submersion.

### Installation:

1. Caution: To maintain the enclosure's NEMA 4X rating, make all wiring connections with seal tight cable grips or conduit connections.
2. Mount the float at the desired level. The float shall have free range of motion without contact to other equipment.
3. Mount the solar panel using the provided hardware. For optimal performance, position the solar panel facing due south with a pitch of 30° to 45°.
4. Route the float cable to the control panel. Make field connections as shown on wiring schematic.
5. Route solar panel cable to the control panel. Wire to terminals per enclosed schematic.
6. Mount the float at the desired level. The float shall have free range of motion without contact to other equipment.



www.seewaterinc.com  
951.487.8073 • 888.733.9283 • info@seewaterinc.com  
22220 Opportunity Way, Suite 101 • Riverside, CA 92518

### Sequence of Operation:

An alarm activates when the liquid level raises the High Level Alarm Float. This illuminates a 360-degree visible beacon and sounds a buzzer (85 dB at 10').

### Remote Monitoring Dry Contacts:

- Normally Open dry contacts for high level.  
**Note:** Refer to wiring schematic for proper termination.

### Service Life:

#### Battery:

- The battery has a float/standby service life of up to five (5) years.
- One component of battery life is operating cycles, which will vary depending on the depth of discharge (DoD). At 100% DoD, the battery is capable of up to 260 cycles. At 50% DoD, the battery is capable of up to 500 cycles.

#### Solar Panel:

- The solar panel has an electrical life expectancy of 25 years. After that point, a 10-15% reduction in voltage generation can be expected.

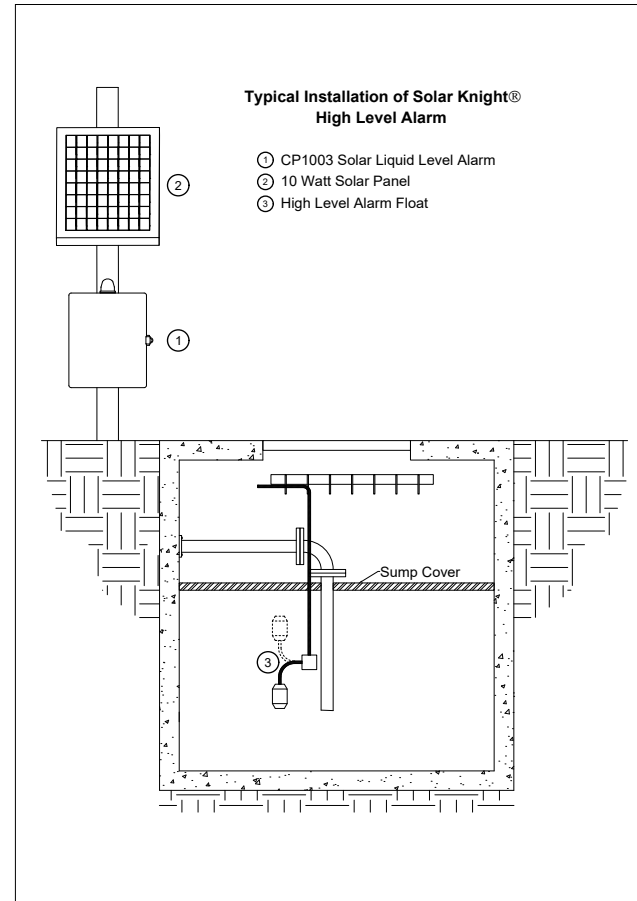
### Preventative Maintenance:

#### Battery:

- The battery is sealed and generally maintenance-free. Periodic voltage checks can be performed. The typical float (standby) voltage is 11.5-13.5VDC.
- If the battery will not be in use (panel completely powered down) for a month or longer, it is recommended that the battery be removed from the panel and stored in a cool, dry and clean place. Always store the battery in a charged condition. Apply a top charge every six months while it is in storage. A charged battery will eventually lose its charge if unused. It may therefore be necessary to recharge the battery after a storage period.

#### Solar Panel:

- If the panel is installed with an angle greater than 45 degrees it is generally self-cleaning from rain. If the panel becomes coated with dust or debris, then it can be washed with water as needed.



### Additional Panel Options:

28	=	Power On Dry Contact
3R	=	Painted Steel Enclosure
50W	=	50W Solar Panel with Larger Battery
AF	=	Alarm Flasher
C	=	Additional Cable Length Greater Than 20'*
LL	=	Low Level Alarm
PX	=	Pump Portal® - Wireless Remote Communication
S3	=	No Sensors Included
ST	=	Upgraded Enclosure (Stainless Steel)

\*Specify cable length following C. Example:  
(CP1003-C50). Indicates 50' cable length for all components.



www.seewaterinc.com  
951.487.8073 • 888.733.9283 • info@seewaterinc.com  
22220 Opportunity Way, Suite 101 • Riverside, CA 92518

## This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.