

# M650 SOLAR MARINE LIGHT

## INSTALLATION AND BEACON CONFIGURATION

**Note:** Install the M650 beacon and other top-side mounts before installing the solar tower on the buoy.



**Figure 1:** NexSens M650H 4-Nautical Mile Solar Marine Light

### Overview



The NexSens M650H solar marine lights are designed for mounting to the larger CB-Series data buoys per USCG requirements. The beacons are programmed using an IR remote and a set of commands to check power and set the flash code.

### What's Included

#### Beacon equipment

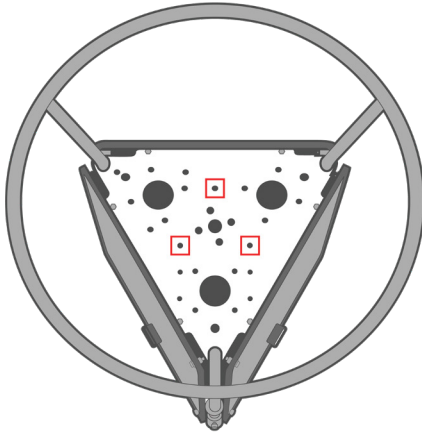
- (1) IR remote programmer
- (3) 1/4" Flat washers
- (3) 1/4" Split lock washers
- (3) 1/4-20 Nylon hex nuts
- (3) 1/4-20 x 1-1/4" Hex head cap bolts

### IR Remote Programming

- 1 Point the IR remote at the side of the M650 and hold down the power button for approximately three seconds.
  - a. The right-most decimal point on the bottom screen will illuminate.
- 2 Activate the beacon by entering the passcode sequence 
  - a. The main LED will flash once with each registered keypress.
    - The bottom screen will display "l r Pr" followed by "l r X" where X indicates the number pressed on the IR remote.
  - b. Three quick flashes following a sequence indicates that the command was accepted.
  - c. Two slow flashes indicate that the command was refused. Carefully re-enter the command.
- 3 Once the passcode is accepted, check the battery charge by entering the sequence 
  - a. Once the sequence is entered, the beacon will quickly flash 3 times to acknowledge the command. Observe the flash pattern that follows.
    - 4 flashes indicate a bad battery
    - 5 flashes indicate a low battery
    - 7 flashes indicate a battery that needs charged
    - 10 flashes indicate a good battery
- 4 Turn on the beacon by setting a flash code.
  - a. Flash codes are available following Appendix E of the M650 user manual.
    - [nexsens.com/m650hman](https://nexsens.com/m650hman)
  - b. The beacon will flash with the designated pattern for 60 seconds after the code is accepted. It will resume flashing when low ambient light is detected.

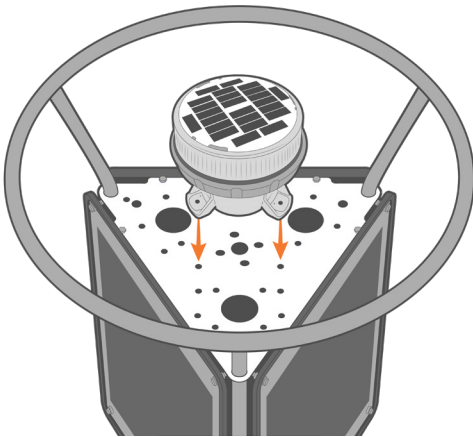
## Installation on NexSens Solar Tower

- 1 Follow the included M650 illustration guide to install the bird spike kit.
- 2 Locate the (3) threaded inserts on top of the CB-Series solar tower outlined by the red squares in the schematic below.



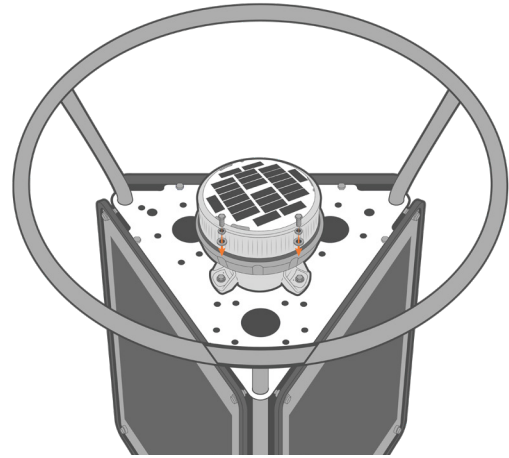
**Figure 2:** M650 mounting points on the CB-Series solar tower.

- 3 Align the (3) holes at the base of the marine light with the mounting points.



**Figure 3:** M650 mounting alignment.

- 4 Place a bolt with a lockwasher and flat washer into each mounting point.
  - a. Tighten down the bolts with a 7/16" socket wrench.



**Figure 4:** Securing the M650 solar marine light.

## Powering Off The Beacon

- 1 Whenever a beacon will be stored indoors for more than a day, it should be turned off to preserve battery.
  - a. Enter the passcode sequence from step 2.
  - b. Send the following command:



- When successful, the main LED will flash quickly 3 times to acknowledge the command.