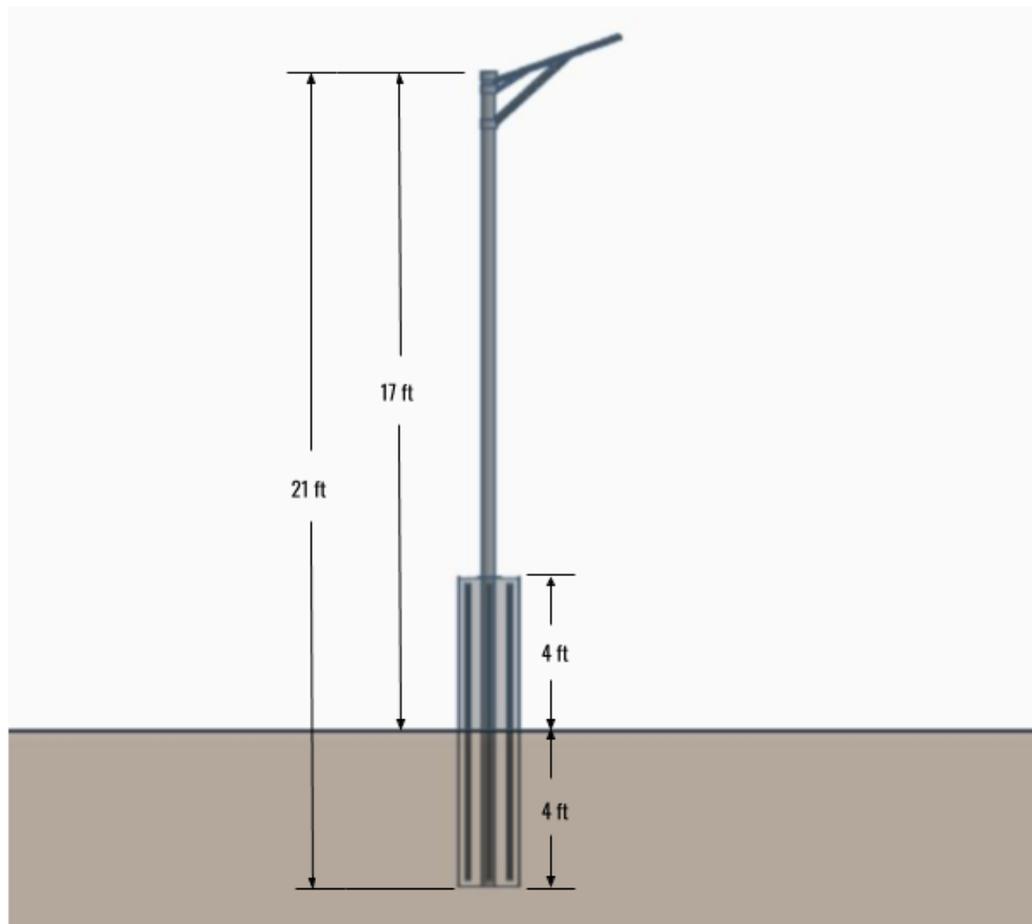




COMMUNITIES
Welcome home. Bienvenido a casa.

Solar Street Light Installation Manual



SKU: LA037W

T - Series Plus 80W | Solar Street Light

TECHNICAL SPECIFICATIONS

LEDs	192
Power	80W
Luminous Flux	6000lm
Dimensions	45 x 16.7 x 5.5 inch
Weight	38.1lbs (17.28kg)
Emitted Color	6000k Daylight White
WaterProof	IP65
Install Height	23ft (7m)
Lighting Mode	DIM/Bright (Motion Sensor)
Working Temperature	32°F-140°F (0°C-60°C)
Lighting area@27ft/8m	36x36 ft ² / 11x11 m ²
Warranty	3-YEAR Limited Warranty
Pole Diameter Required	2.4 to 4 inches
Solar charging time	6 hours by bright sunlight
Material	Aluminum alloy and PC
Color Rendering Index	80



MORSEN Lighting Technology Inc.

Commercial & Residential Lighting | Morsen
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Fixture Overview & Troubleshooting Guide:

Installation:

1. Please turn on (pushed in) the switch, then charge under direct sunlight at least 6-8 hours before use.
2. Mount on the wall or pole with the bolts, then fasten the screws with tools, and make sure the switch is on.
3. Please choose a position without any shelter for enough sunshine and fully exposure.

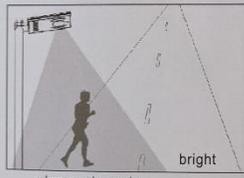


Working Theory

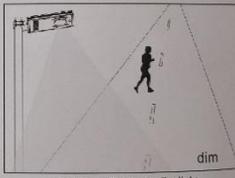
Automatically turns on at dusk, and remains on dim light to preserve power. ONLY when motion is detected, it switches to bright light for around 30 seconds.

It reverts back to dim light if motion is not detected. Automatically turns off the light at dawn.

The light charges in daytime and does not turn on during daytime.



when people pass by, the lamp will remain on around 30s



the lamp will turn to dim light, when people left

The lighting characteristics of solar street lights

Automatic turn on at dusk, turn off dawn. When motion is detected, it becomes brighter; if the movement leaves, it will turn back to dusky mode again.

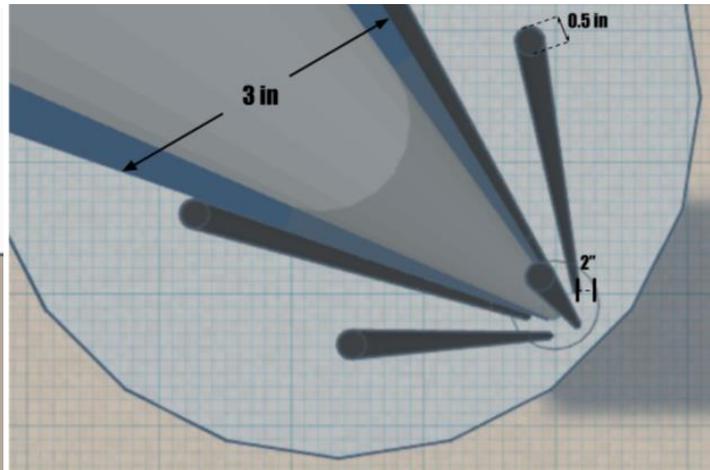
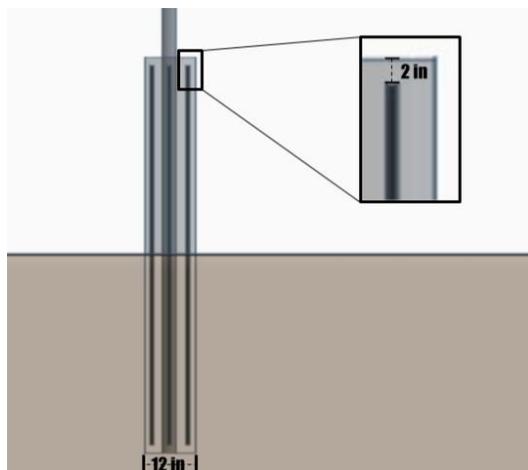
In order to save electricity, at dusk, counting from begin lighting:

- 1-6H: motion (bright) mode 100% brightness, dim mode 20% brightness;
- 7-18H: motion (bright) mode 70% brightness, dim mode 20% brightness;

After dawn, the light automatically turned off and charging

Phenomenon	Cause	Inspection methods	Solution
Light does not work	Switch does not turn on	check the switch	Turn on the switch
	Switch failure	Short circuit the switch, if lighting up, could judge switch failure.	Contact us
	Battery runs out	Long rainy day or wrong installation site could not charge enough power. Open the Light, disconnect the battery and use multimeter to check the voltage of the battery, if voltage less than 11V, then could judge battery runs out or low power, so system could not work.	Push in the switch and charge under direct sunlight for 2 days, please remember to turn off the switch at night.
Short lighting time	LED Failure	Firstly, adjust the voltage and currents of DC voltage 9V, currents < 1A, then battery, if voltage less than 11V, then could judge battery runs out or low power, so system could not work.	If ensure LED failure, please Contact us, our factory will repair or replace for you.
	Low battery	Wrong installation site, dust, and leaves cover will affect efficiency of the solar panel. 1. Check whether there is dust or leaves covering on the solar panel; 2. Open the system, disconnect the voltage of the battery, if voltage less than 11V, that could judge battery runs out or low power, so system could not work.	Push in the switch and charge under direct sunlight 2 days, please remember to turn off the switch at night.
NO induct	Battery Failure	1. Open the light and check if battery has moved or outer has been damaged or not. 2. Battery maturing, lights used more than 2 years.	If damage caused by transportation, please contact us
	Sensor Failure	Move into the detected area when the light is in dim light working situation, if light did not becomes brighter, then we could judge the sensor is broken or low battery.	Contact us
Flashing light	Controller (timer) setting wrong	Intelligent failure	Contact us

Pole Installation Specifications Overview:



Materials List, Per Light:

From Tenkoo:

1x Tenkoo T-Series Plus 80-watt solar light fixture.

From Local Plumbing Supplier:

1x 21' galvanized steel pole 3" diameter with one end threaded and capped.

From Home Depot:

6x [10' #4 rebar sections ½" diameter](#).

6x [rebar caps](#).

1x [48" x 12" concrete forming tube](#).

8x 50lb bags of concrete mix.

Pre-Installation:

Step 1: Assess existing condition of street lighting throughout the community by driving the streets at night and shooting continuous video and following up by taking photos of all lights during daytime.

Step 2: Print a copy of the community map and use a marker to identify the exact locations of existing street lights and current working status.

Step 3: Work with Project Manager to identify locations for addition of new fixtures – roughly 125' apart on alternating sides of the street – including 5' setback from street and/or any other structures for each specific location. Fixture location should also take into consideration avoiding excessive tree cover and deterring crime.

Step 4: Project Manager will place order for light fixtures to be delivered to the community.

Step 5: Identify 2-3 local plumbing supply stores and obtain quotes for 21' sections of 3" diameter galvanized steel pole with capped end, including any bulk quantity price breaks. Review prices with PM and place order.

Step 6: Purchase or order materials required for number of identified install locations from Home Depot, including cement mix, rebar sections, rebar end caps and cement forming tubes.

Step 7: Review underground utility infrastructure around install locations before digging, call [811](#).

Installation Instructions:

Step 1: At identified location, dig out a 4' deep hole, 12" in diameter.



Step 2: Turn the power switch on the light fixture to 'on' and mount the fixture to the top of the pole so that the upper bracket is just below the cap on the end of the pole.



Step 3: Place the concrete forming tube around the pole, taping it up and out of the way, and lower the pole into the prepared hole. **Plan this step carefully to ensure safety. Minimum of 3 people required.**



Step 4: Prepare concrete mix and pour to fill hole around pole to ground level.



Step 5: Cut the rebar sections down to 7'8" height, place plastic caps on one end of each section and lower the capped ends to place the 6 sections of rebar around the pole, 2" from the sides, so they sit on the bottom of the hole and extend nearly 4' above ground.



Step 6: Ensure that the pole is set perfectly vertically using a level and supports to hold it in place while the concrete sets.



Step 7: Once the below-grade concrete has set, lower the concrete forming tube into place around the exposed rebar, use tape or string to hold the rebar in 2" from the sides of the tube, prepare concrete mix, pour to fill the forming tube to the top, smooth the top and tap the sides with a mallet.



Step 8: Once the above-grade concrete has set, cut the forming tube vertically and remove it.

