

TOTEM™

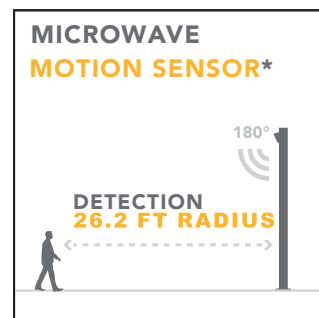
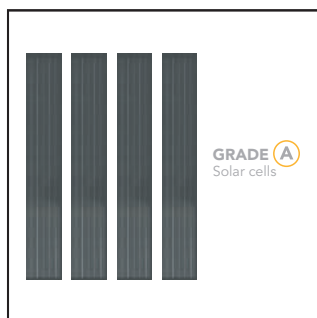
Solar Urban Light

SOLAR PATHWAY LIGHT



Our Totem Solar Urban Light features a smart and unique design with built-in solar panels for a discreet integration in metropolitan environments. It is constructed with the best components available on the market, using LiFePo4 Batteries, MPPT controller with remote, and also made with aluminum. This makes it the most powerful and reliable solution for your lighting project.

- Economical, easy to install
- Philips LumiLEDs luxeon chips
- The light automatically switches on at dusk and switches off at dawn
- All in one built in solar panel, battery and LEDs
- Grade A Mono Crystalline solar cells to maximize solar energy and ensure fast charging
- Certified by CE and ROHS with LED chips that provide qualifying lighting and 50000+ hours lifespan with super bright illumination
- Smart power management for rainy days, automatic day and night detection
- 0 carbon dioxide emissions
- Lithium LifePo4 with lifetime over 10 years
- 150 Lumens per watt and IP65 rated
- 5 Years limited warranty in all components



** Beyond Solar offers a Limited Warranty that the TOTEM Series luminaire shall be free from defects in material and workmanship. This limited warranty covers all components when installed and operated according to Beyond Solar instructions. Fixture suitable for ambient temperature from 14°F to 122°F. PV Panels - 20 year performance warranty Controller & Batteries : 1 years*



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Solar Urban Light

| | |
|--|---|
| LED POWER | 40 WATT |
| LUMINOUS FLUX | 6000 LUMENS |
| LIGHTING | |
| Efficiency | 150 LUMENS / WATT |
| Chips | PHILIPS LUXEON |
| LED Lifetime | OVER 50000 HOURS LM80 |
| Lighting Angle | 120 DEGREE |
| Light Height | 11.811 FT |
| STORAGE | |
| Technology | LITHIUM IRON PHOSPHATE LIFEPO4 - 26650 |
| Capacity | 57 AH 12.8 VOLTS |
| Autonomy | OVER 24 HOURS AT FULL CHARGE - 4 RAINY DAYS BACK UP |
| Charging time | 6-7 HOURS |
| Lifespan | OVER 4000 CYCLES @ 80% DOD OVER 10 YEARS LIFETIME |
| Working Temp. | 14°F to 158°F |
| ENERGY | |
| Solar panel | 195 WATTS /18V |
| Cells type | MONOCRYSTALLINE PANEL GRADE A 25 YEARS |
| Certificates | IEC 61215 ; IEC 61730 I AND II ; IEC 60904 |
| ELECTRONIC | |
| Controller | MPPT SMART CONTROLLER (REMOTE MONITORING OPTIONAL) |
| Sensor | MICROWAVE 360 DEGREE MOTION SENSOR |
| Cabling | WATERPROOF CONNECTOR, PLUG AND PLAY |
| Protection | OVER LOAD/CURRENT/TEMP°/VOLTAGE/CHARGE/DISCHARGE |
| Certificates | EN 55015 ; EN 61000 |
| MECHANICAL | |
| EPA (m2/ ft2) | 0,428 / 4,6 |
| Wind Load Rate | 111.847 MPH |
| Base plate | 12.5984 X 10.6299 IN |
| DIMENSIONS | |
| Unit size L x W x H | 145.6693 X 16.9291 X 14.9606 IN |
| Carton size | 150.7874 X 18.1102 X 16.1417 IN |
| Net weight | 121.254 LB |
| Gross weight | 143.3 LB |
| QTY per container 20" / 40" / 40"HQ | 25 / 75 / 90 |

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TOTEM™ Solar Urban Light

OVER
10
YEARS
LIFE SPAN

BATTERY LITHIUM LIFEPO4

The TOTEM Series is equipped with Iron Phosphate Lithium LiFePo4 battery. This technology is proved to be **the best chemical technology for solar** application on the market.

With a cycle life of **over 4000 Cycles @ 80% DOD**, the battery enjoys **over 10 years lifetime**.

EASY MAINTENANCE & ANTI THEFT SCREWS



Easy and direct access to the battery casing for maintenance. The enclosure is sealed with **anti theft screws**, which request special tooling to unscrew.

ELECTRONIC PROTECTION BATTERY MANAGEMENT SYSTEM (BMS)



The electronic algorithm **protects the battery** from operating outside its safe area. Monitoring its state, calculating secondary data, reporting that data, controlling its environment, authenticating it and / or balancing it.

The BMS offers **MULTI PROTECTION** :

- OVER/UNDER LOAD
- OVER/UNDER CURRENT
- OVER/UNDER VOLTAGE
- OVER CHARGE & DISCHARGE
- TEMPERATURE MANAGEMENT

* EXTREME TEMPERATURE DOWN TO 14°F. ❄️

Standard Lithium LiFePo4 batteries enjoy a working temperature range from 14°F to 158°F *



ALUMINUM WATERPROOF CASING

High temperatures greatly affect the battery's lifetime. This is why our batteries are encapsulated in an aluminum waterproof casing for a **perfect heat dissipation**.

SOLAR PANEL 195 WATTS

For best performance and Design TOTEM are equipped with **advance SHINGLED technology**. Offering a higher power per square meter but also :

LESS ENERGY LOSS DUE TO SHADING

POWER LOSS DUE TO SHADING

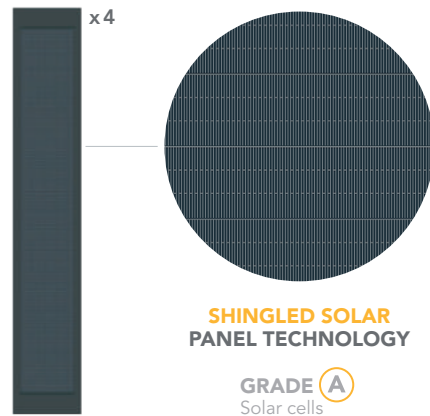
| | |
|--------------------|-------|
| Conventional panel | - 40% |
| Beyond Solar panel | - 6% |

BETTER RELIABILITY

Low busbar failures & **Better mechanical performance**

MORE ATTRACTIVE

Without any busbar and no visible circuitry, most people won't notice that TOTEM is solar powered. Which allows an even **better integration in his urban environment**.



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LUMINAIRE HOUSING & LEDS

40 WATTS - 6000 LUMENS - 5000K

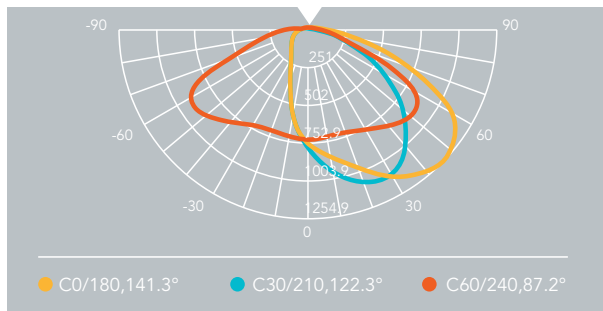
An UV resistant thick Polycarbonate Fixture over a die-cast low-copper aluminum base. Protection class (IP66). It provides an excellent salt and humidity resistance as well as ultra violet resistance for color retention.

Our Luminaire is equipped with **PHILIPS LUXEON** High efficiency Chips offering and overall **150 Lumens per Watt efficacy**.

Our Luminaire comes with heat dissipation design, pure aluminum lamp base with sealed lens for **an optimal lighting and life Span**.

▶ LIGHT SOURCE **3030** | LED QTY (PCS) **48** | LENSE MEME STYLE (PCS) **4** | CRI > **70**

AVERAGE BEAM ANGLE (50%) : 106,2 DEG



IP₆₆



CONTROLLER SMART MPPT

TOTEM is equipped with High Quality MPPT Controller, using **top technology semiconductor**.

FEATURES

HIGH TRANSFER EFFICIENCY

Charging efficiency up to 98%

MINIMAL STAND-BY POWER CONSUMPTION

Current consumption ≤ **10mA**

INTELLIGENT BATTERY MANAGEMENT 3 Phases charging : MPPT Charge / Constant Voltage /Floating Voltage.

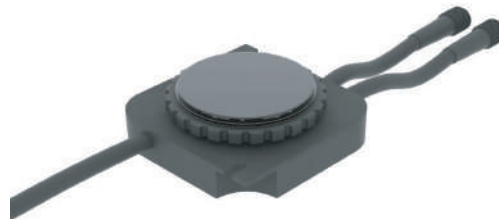
INTELLIGENT LED DRIVER Auto detecting of Dusk and Dawn for automatic operation, 7 Lighting Programs Configuration.

ANTI BLACK OUT : Load adjust according to battery capacity assuring all night long lighting in any weather conditions.

BATTERY & SYSTEM PROTECTION :

- OVER / UNDER LOAD
- OVER / UNDER CURRENT
- OVER / UNDER VOLTAGE
- OVER CHARGE & DISCHARGE
- TEMPERATURE MANAGEMENT

IP₆₈



REMOTE CONTROL MONITORING

- Check the state of the battery
- Check the charging history
- Settle different running time slots
- Issue diagnostic

SOLAR PATHWAY LIGHT

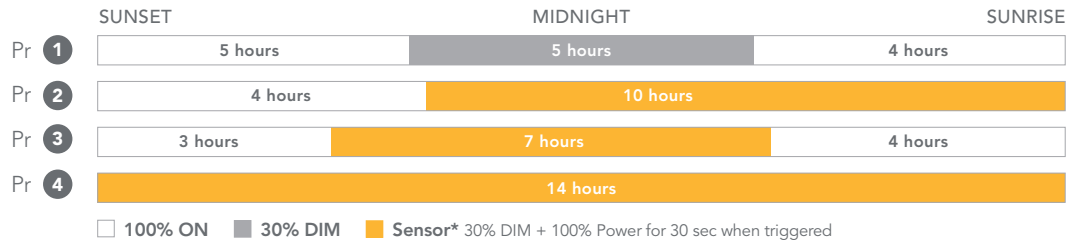


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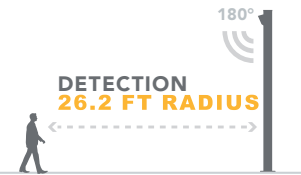
OPERATION MODE

THE PHOTOSENSOR WILL AUTOMATICALLY SWITCH ON & OFF THE LIGHT FROM DUSK TO DAWN.



MICROWAVE MOTION SENSOR*

180° coverage, invisible and integrated to the luminaire housing.
26.2 FT wave radius.



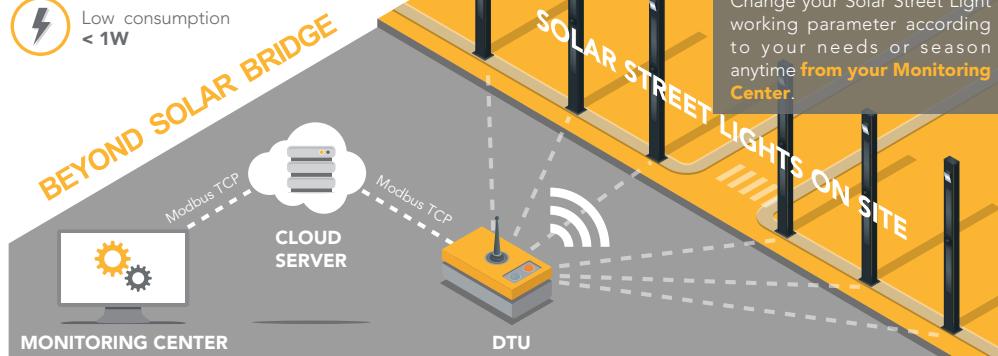
SOLAR PATHWAY LIGHT

+ OPTIONAL

REMOTE MONITORING BEYOND SOLAR BRIDGE

The Beyond Solar team is proud to have developed a special tool for remote monitoring of our solar street lights. Beyond Solar Bridge uses low frequency technology LORA or ZIGBEE to monitor in real time a batch of solar street lights.

- 2G/3G/4G Internet
- SECURE connection
- Long range communication **1.86 MI FROM DTU**
- Low consumption **< 1W**



GLOBAL MANAGEMENT

Run diagnosis remotely from the **Monitoring Center** and get real time informations of all of your connected Solar Street Light on your computer screen.

FAULT ALARM

Be informed in case of Lamp failure, charging failure, controller short circuit, open circuit alarm, battery discharge with **real time positioning for your maintenance**.

REMOTE PARAMETER

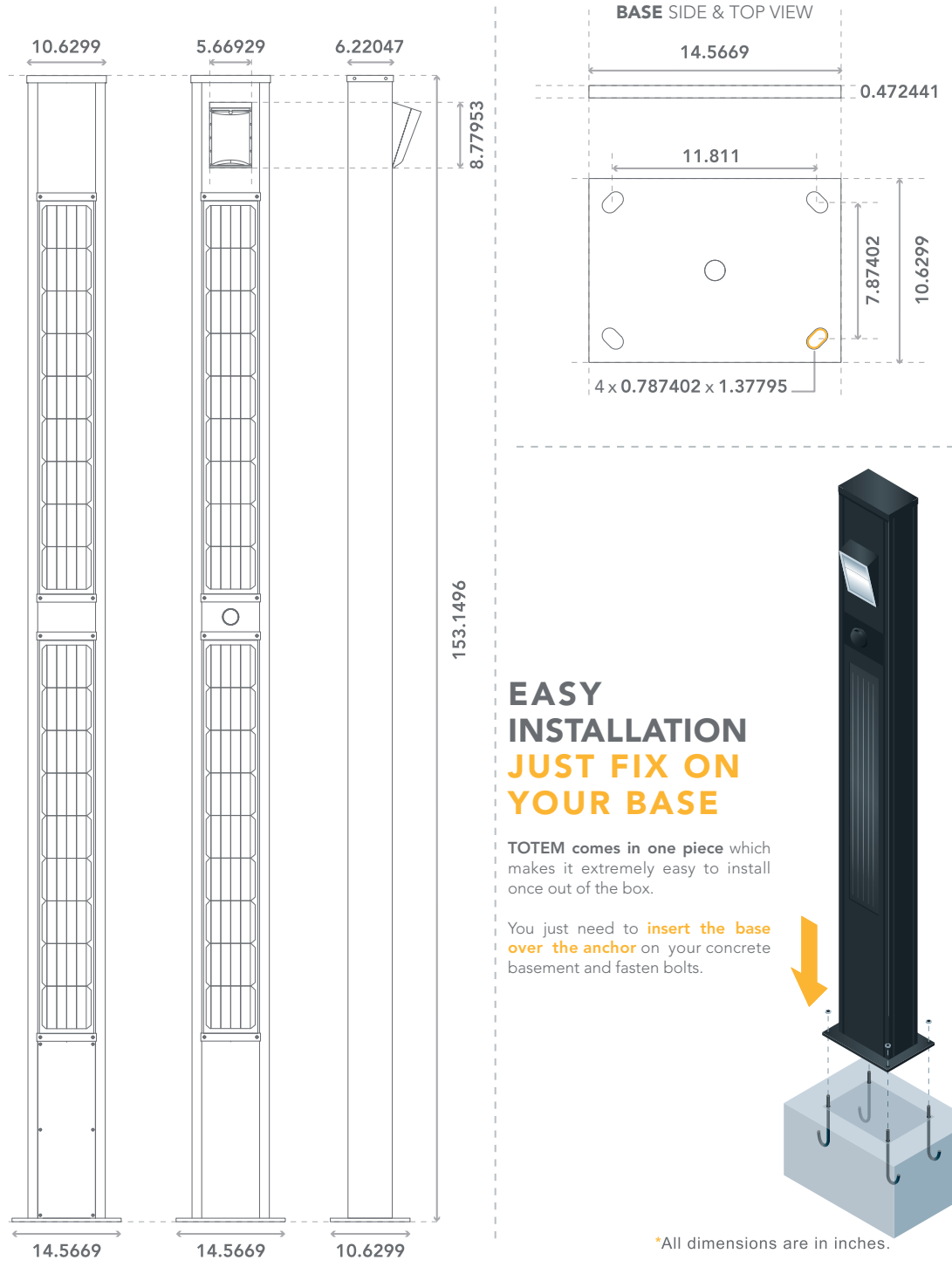
Change your Solar Street Light working parameter according to your needs or season anytime **from your Monitoring Center**.



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SOLAR PANEL & LUMINAIRE DIMENSIONS*

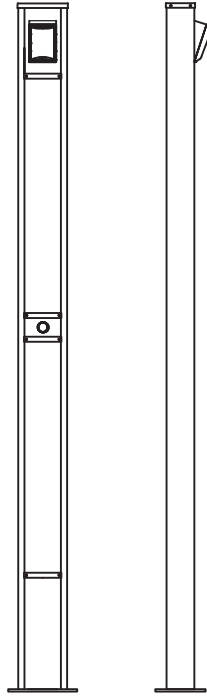


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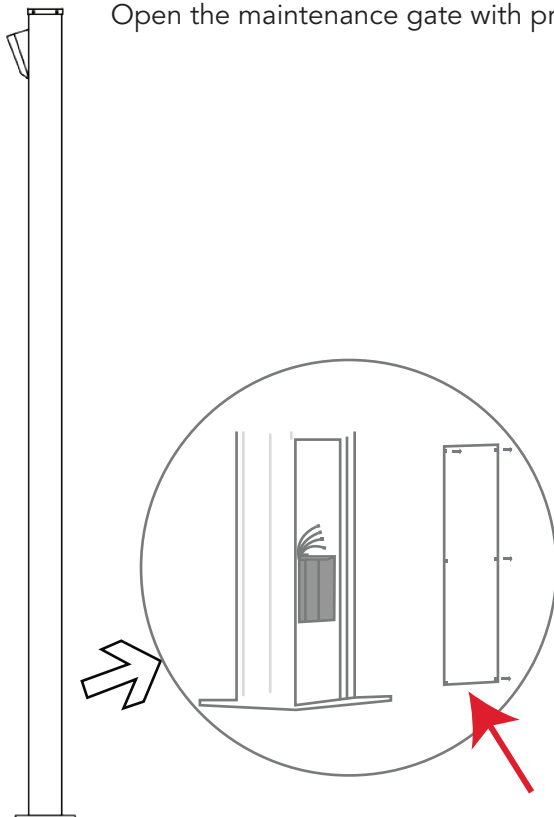


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TOTEM SOLAR LIGHT ASSEMBLY INSTRUCTIONS*

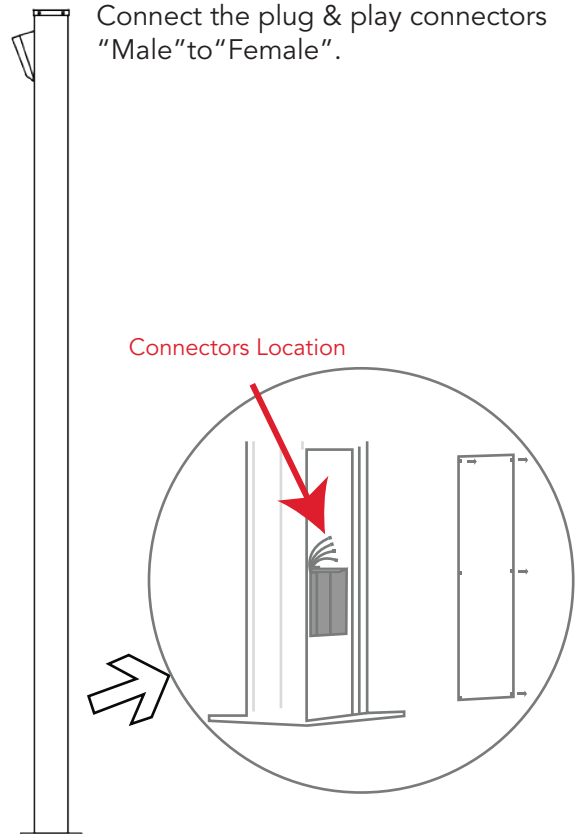


STEP 1:
Open the maintenance gate with provided tool



6 ANTI THEFT SCREWS

STEP 2:
Connect the plug & play connectors
"Male" to "Female".



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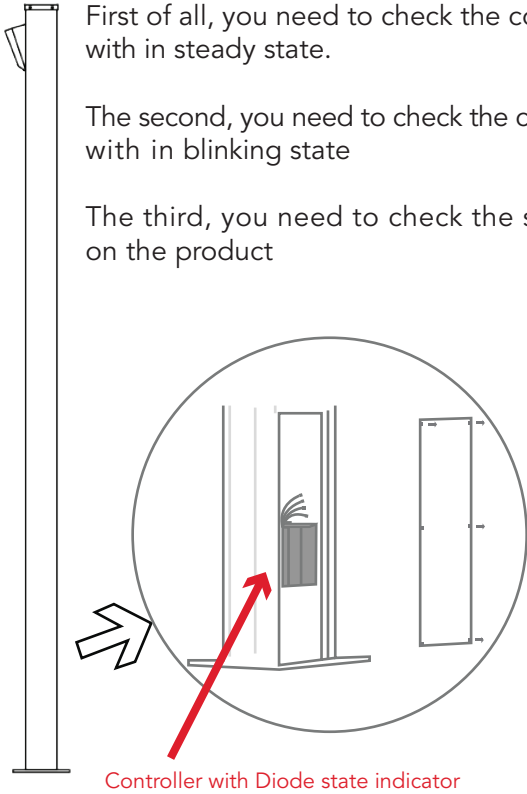
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STEP 3:

First of all, you need to check the controller battery indicator red light shall be on with in steady state.

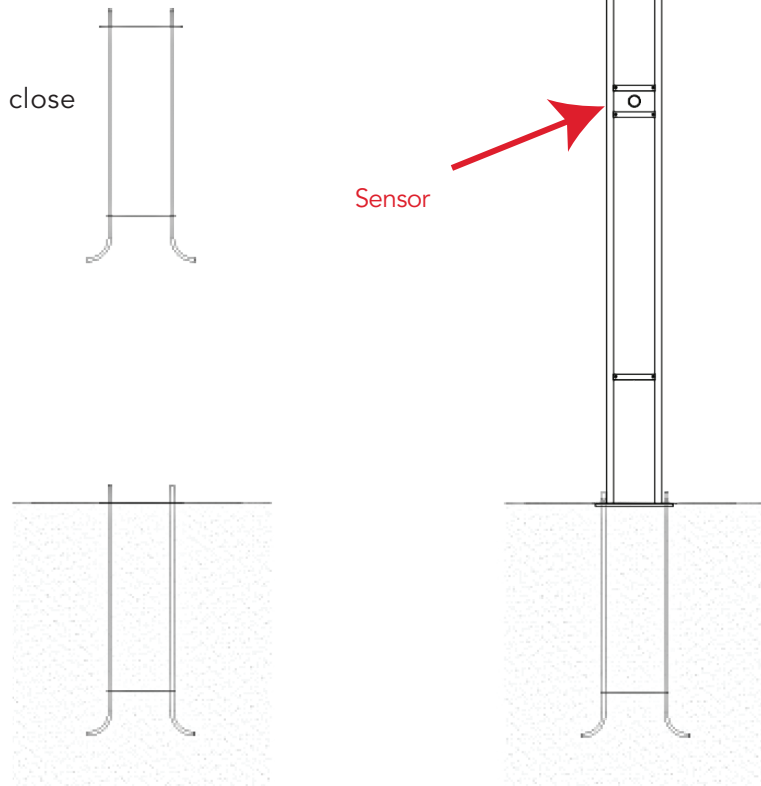
The second, you need to check the controller PV indicator red light shall be on with in blinking state

The third, you need to check the sensor's indicator blue light shall be blinking on the product



STEP 4:

Complete the above steps, please close the maintenance gate with screws.



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