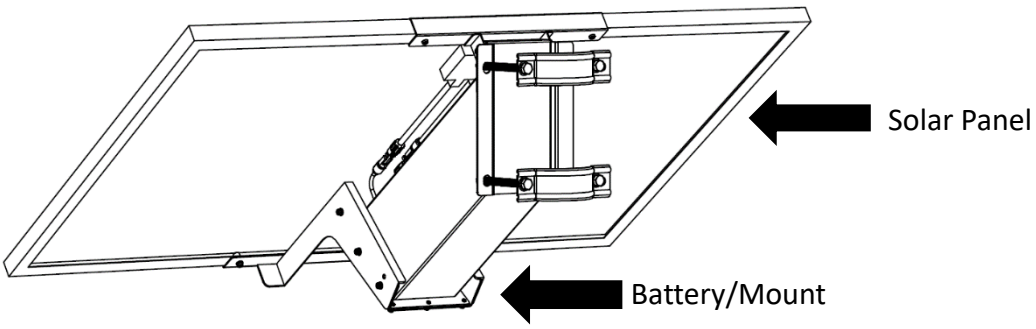
INVID-ISSS180/360W8POE
Solar Power Box Kit
Installation Manual

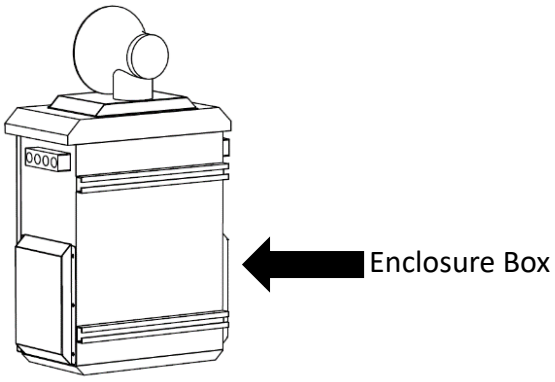
Product Introduction

1.1 Product Introduction

The integrated solar power supply kit consists of three main parts: solar panel, battery, and enclosure box.

1.2 Product Appearance





1.3 Specifications

Model	LT-SB	
Solar System		
Solar Panel	Mono-crystalline silicon	
Rate Power	180W x 1	
Open Circuit Voltage (VOC)	40.8V	
Efficiency	18.4%	
Angle	15º, 25º, 35º, Manual Adjustment	
Dimension	1290*760*30mm	
Battery System		
Type	LFP	
Capacity	DC25.6V 50Ah x 1pc, 1.28kW·h	
Power output	DC24V, 10A	
Estimated Daily Power Generation	780W with sunlight, 100W without sunlight (take Los Angeles for example)	570W with sunlight, 73W without sunlight (take New York for example)
Estimated Hours of Continuous Work Without Sunlight	9.2 days (take device power consumption at 10w for example)	7.7 days (take device power consumption at 10w for example)
Estimated Fully Charged Time in Sunlight Under Load	2.4 days (take Los Angeles & device power consumption at 10w for example)	4 days (take New York & device power consumption at 10w for example)
BMS	Yes, support RS485 for remote monitroing	
Built-in MPPT	20A, Efficiency at 96-98%	
Heater	Intelligent Control	
IP Level	IP67	
Life	Cycle 2000 at 100% DOD, 25℃	
Ambient Temperature	Charging: 0℃ - 55℃ / 32℉ - 131℉ Discharging: -20℃ - 55℃/ -4℉ - 131℉	
Mounting Bracket	Pole, Wall (optional)	
Dimension	685*400*523mm	
Distribution Box		
Power Input	Solar Battery, AC90-264V (optional)	
Power Output	5CH DC24V, 4CH DC12V (48v Used for PoE Switch)	
Alarm Input	YES, to trigger the strobe light (Uses IPC Alarm Output on Event Trigger)	
Mounting Plate	Top, Bottom, Left & Right side for IPC, PTZ, IP speaker etc	
Built-in Strobe Light	Front Top, Left & Right side Top	
Cooling System	Electric Fan	
Mounting Bracket	Pole, Wall	
Material	SGCC Galvanized Steel	

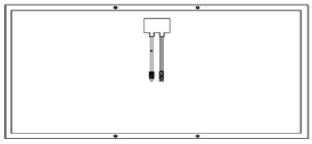
Installation Guide

2.1. Grounding

- The pole must have an independent grounding system with a grounding resistance of ⩽4Ω.
- The incoming and outgoing lines of the distribution box casing should have reliable grounding measures, and the grounding resistance should be⩽8Ω.

2.2. Installation Steps

2.2.1. Product accessories:



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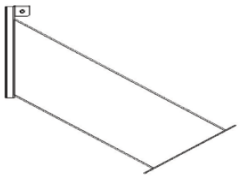

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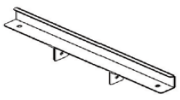

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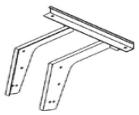

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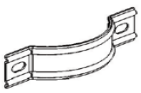


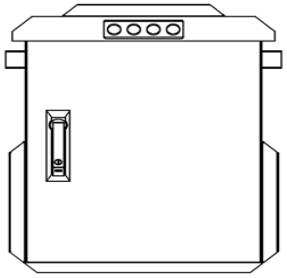
⑤ =2

⑥ =2

⑦ =4
(M12*130)

⑧ =12
(M6*25)

⑨ =1

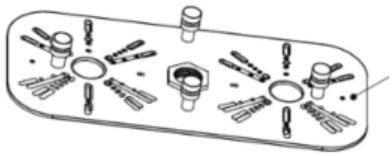


⑩ =1

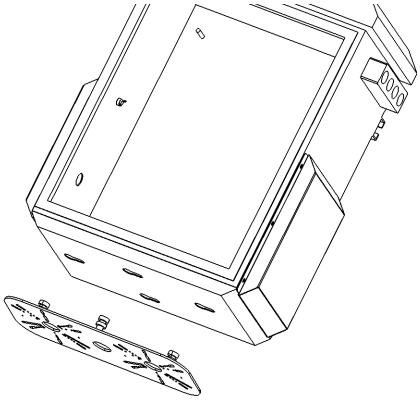
①	Solar Panel	②	Battery	③	Battery Bracket 1
④	Battery Bracket 2	⑤	Clamp Pole Mount for Battery	⑥	Steel Zip Tie Pole Mount for Power Box
⑦	M12*130	⑧	M6*25	⑨	Wrench
⑩	Power Box				

2.2.2. Distribution box installation

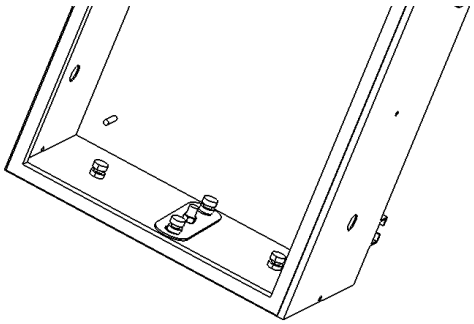
Mounting plate for camera at bottom



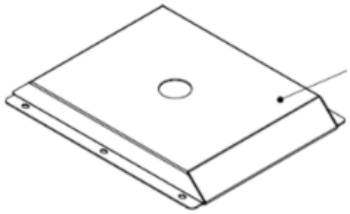
- Install the camera on the plate first, then insert the plate into the corresponding hole at the bottom of the enclosure.



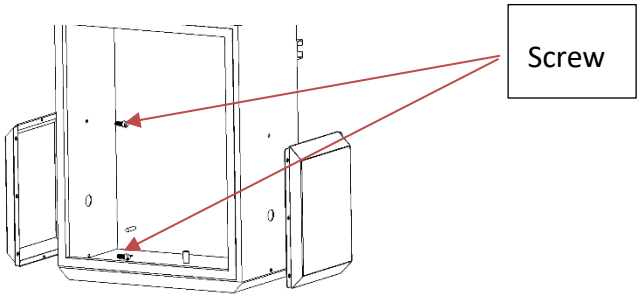
- Secure the plate with the stop block and nut



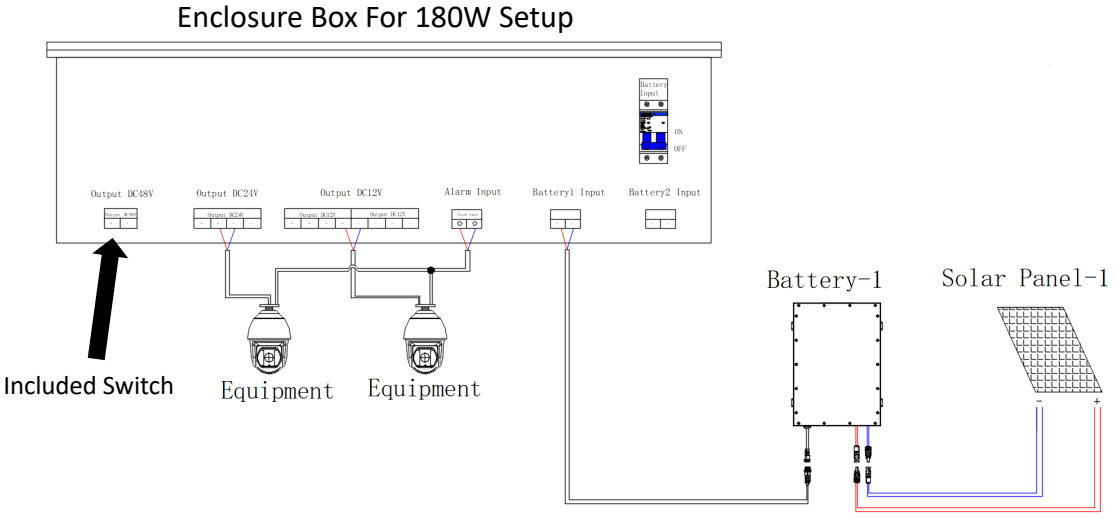
Mounting plate for camera at the left & right side



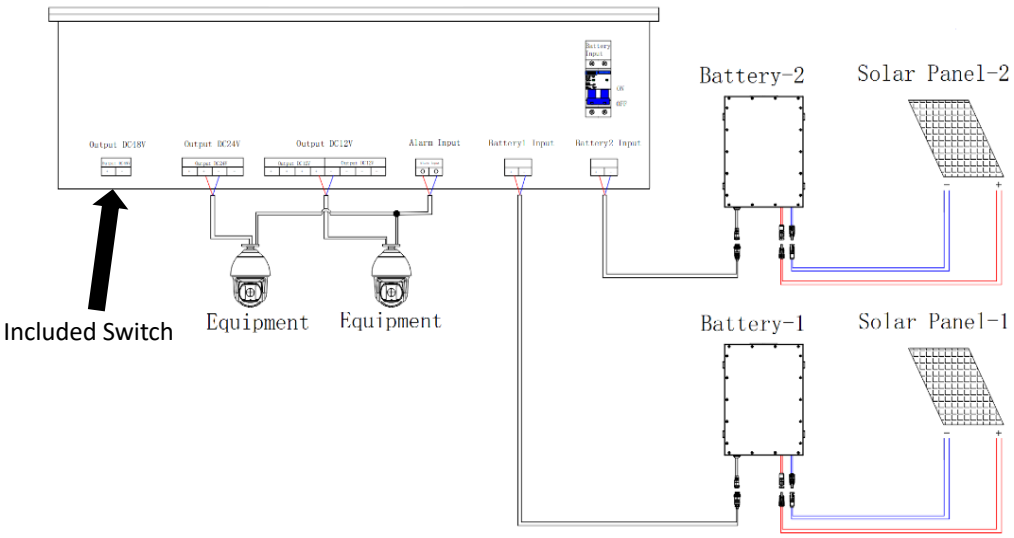
- loosen the screws and remove the side case, install the camera, then reinstall the side case and tighten the screws to secure it.



2.2.3. Wiring Instruction



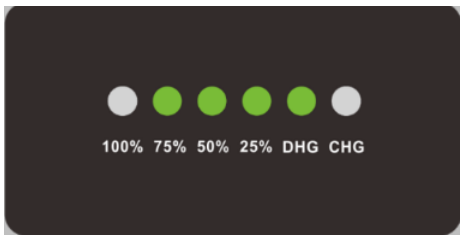
Enclosure Box For 360W Setup



- Battery power cable wire to the battery input in the power box
- Devices power cable wire to the DC 48V (Powers Switch) DC 24V or DC 12V accordingly
- Alarm cables from each camera connect to the alarm input in the power box in parallel

2.2.4. Power on for Battery

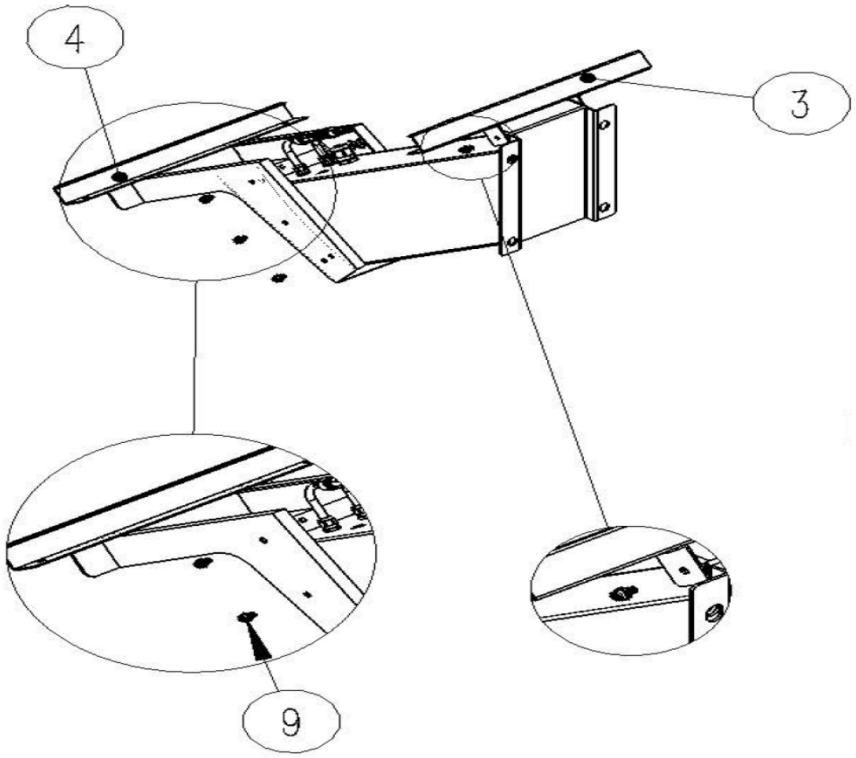
- Press the battery power button on battery and check the battery status



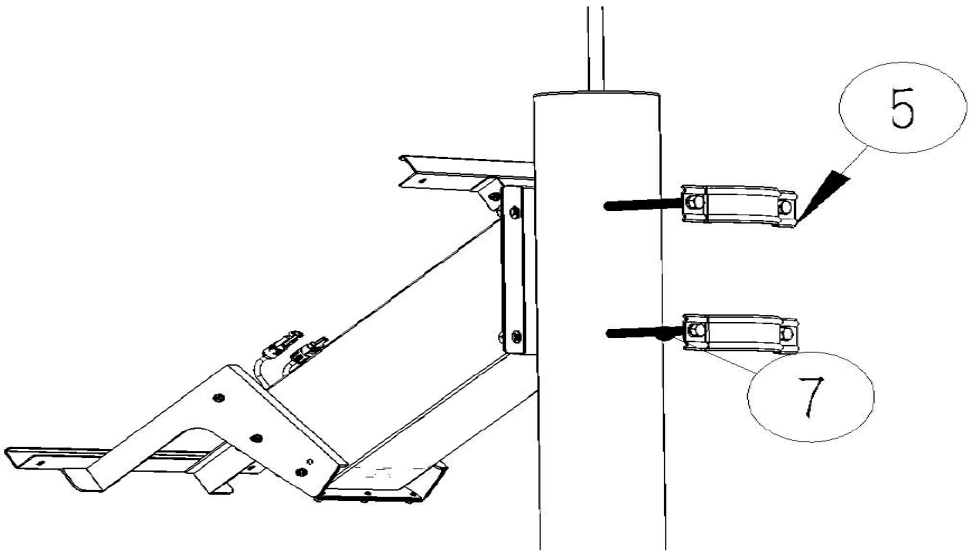
- Open the "Battery Input " breaker

2.2.5. Battery Pole Installation

- Fix the battery bracket 1 & 2 on the battery using M6 screws



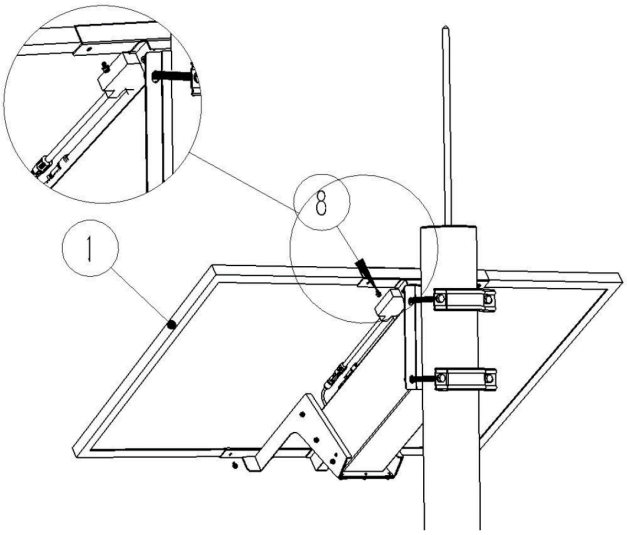
- Fix the battery to the pole using clamps pole mount and M12 screws ;



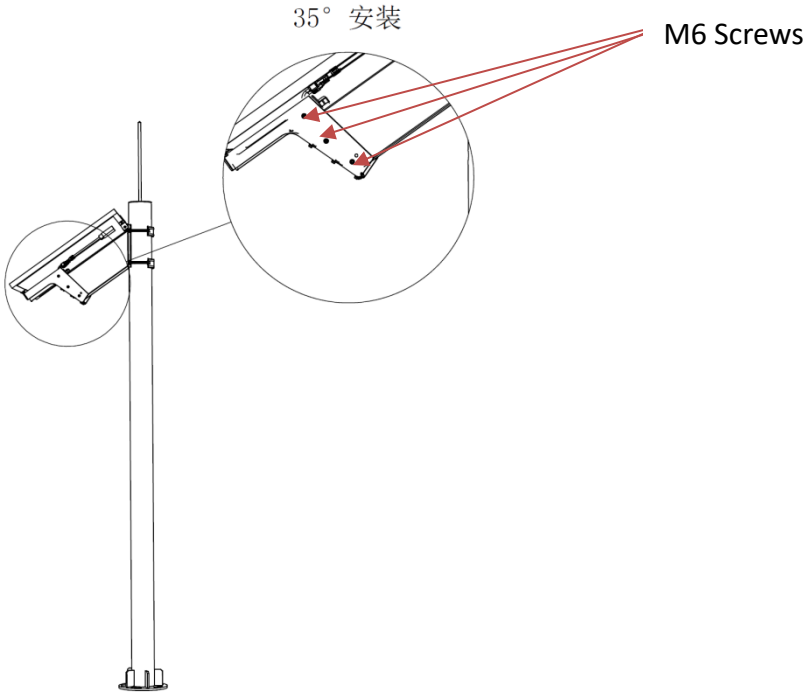
2.2.6. Solar Panel Installation

Note: ALWAYS MAKE SURE TO FACE TO THE SOUTH FOR THE MOST SUN EXPOSURE

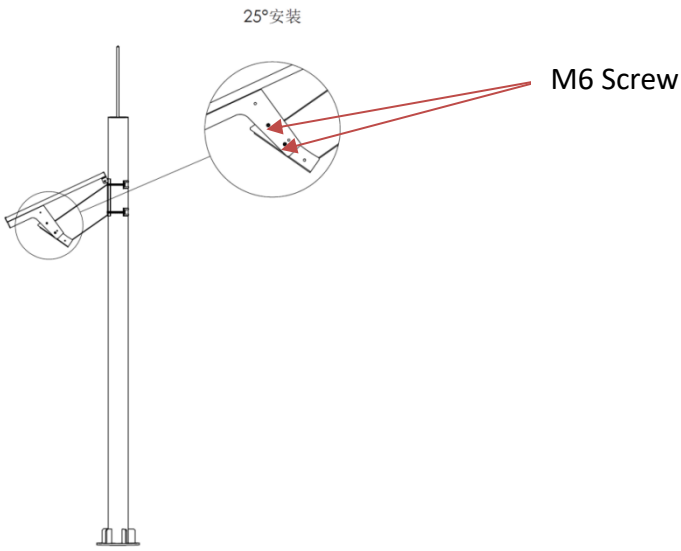
- Secure the solar panel to the battery mount using M6 screws



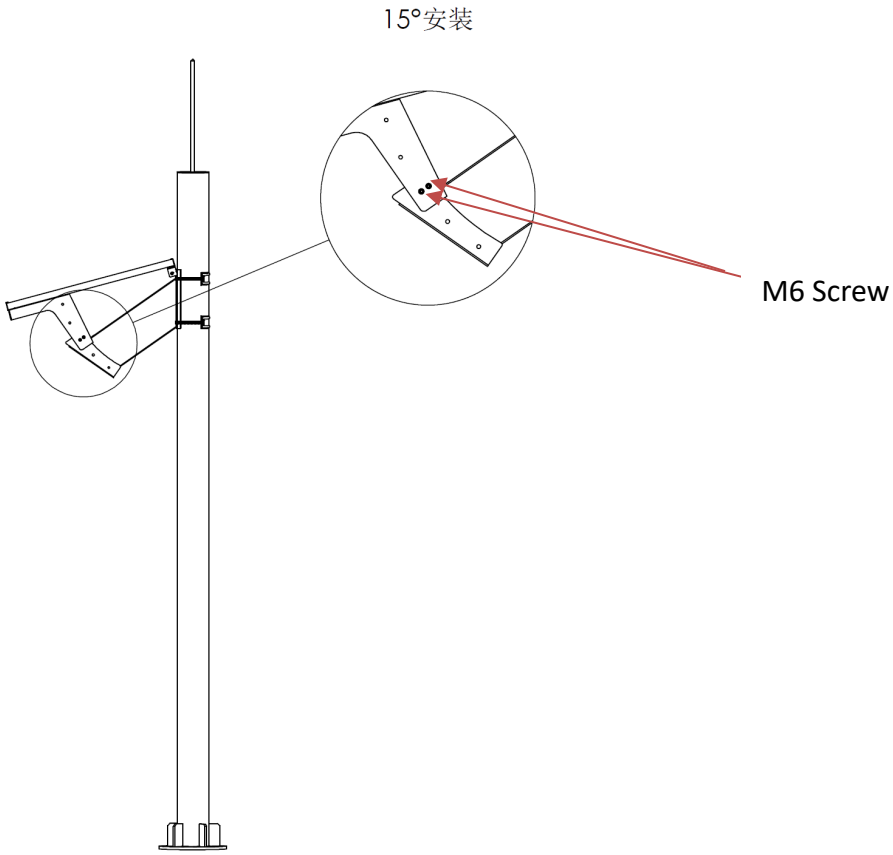
- **35C ° Angle.** Use M6 screws to install them in the corresponding hole positions, as shown in the figure.



- **25C° Angle.** Use M6 screws to install them in the corresponding hole positions, as shown in the figure.

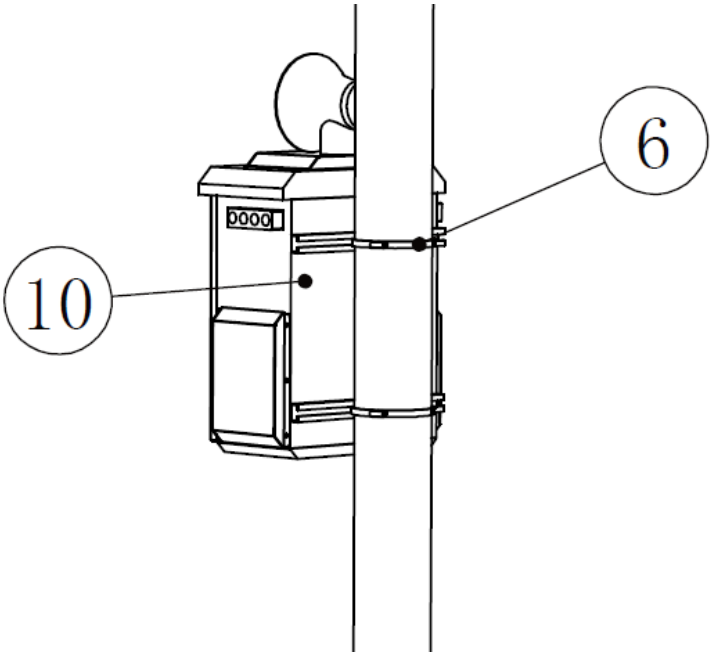


- **15C° Angle.** Use M6 screws to install them in the corresponding hole positions, as shown in the figure.

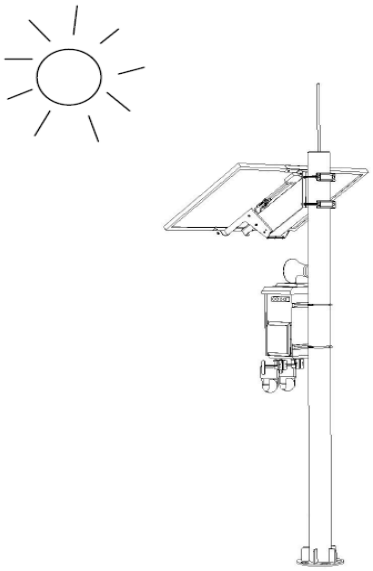


2.2.7. Distribution Box Installation

- Secure the distribution box to the pole using steel tie pole mount



2.2.8. Installation Completed



***Always make sure your panel(s) face south for most sun exposure**

Frequently Asked Questions

3.1. System running time too short

- The integrated solar power kit is not working: Check if the solar panel interfaces are properly connected and ensure that the solar panels are in working condition.
- Solar panels are blocked: Check if the solar panels are blocked by any objects, as this will affect the power generation efficiency of the solar panels.
- Dirt on solar panels: Check the front of the solar panels for dirt, as dirt can affect the power generation efficiency of the solar panels.
- Solar panels not facing south: Check if the front of the solar panels is facing south. If it is not facing south, it will affect the power generation efficiency of the solar panels.
- Inappropriate system selection: Confirm the total power consumption of the equipment. If the power consumption is high, it is recommended to replace it with a system with higher battery capacity & solar panel power

3.2. Low charging efficiency

- Check if the solar panels are dirty, if the sunlight around them is blocked, and if the voltage at both ends of the solar panels is within the normal range

3.3. The device cannot be powered

- Check if the battery voltage or the controller output voltage is within the normal range