

Installation Manual

Integrated Modular Intelligent Solar Power Supply System.

SolarShield ONE



SCAN FOR LATEST

Contents

1. List of Accessories

- 1.1 Waterresistant Case
- 1.2 100W Solar Panel Racking
- 1.3 200W Solar Panel Racking
- 1.4 Solar Photovoltaic Panels
- 1.5 Lithium Battery

2. Product Appearance

- 2.1 Intelligent Controller

3. Installation

Step 1: How to Setup Your Cameras

- 3.1 Mounting Router
- 3.2 Mounting the Battery
- 3.3 Mounting Cameras
- 3.4 Install Antennas
- 3.5 Wiring

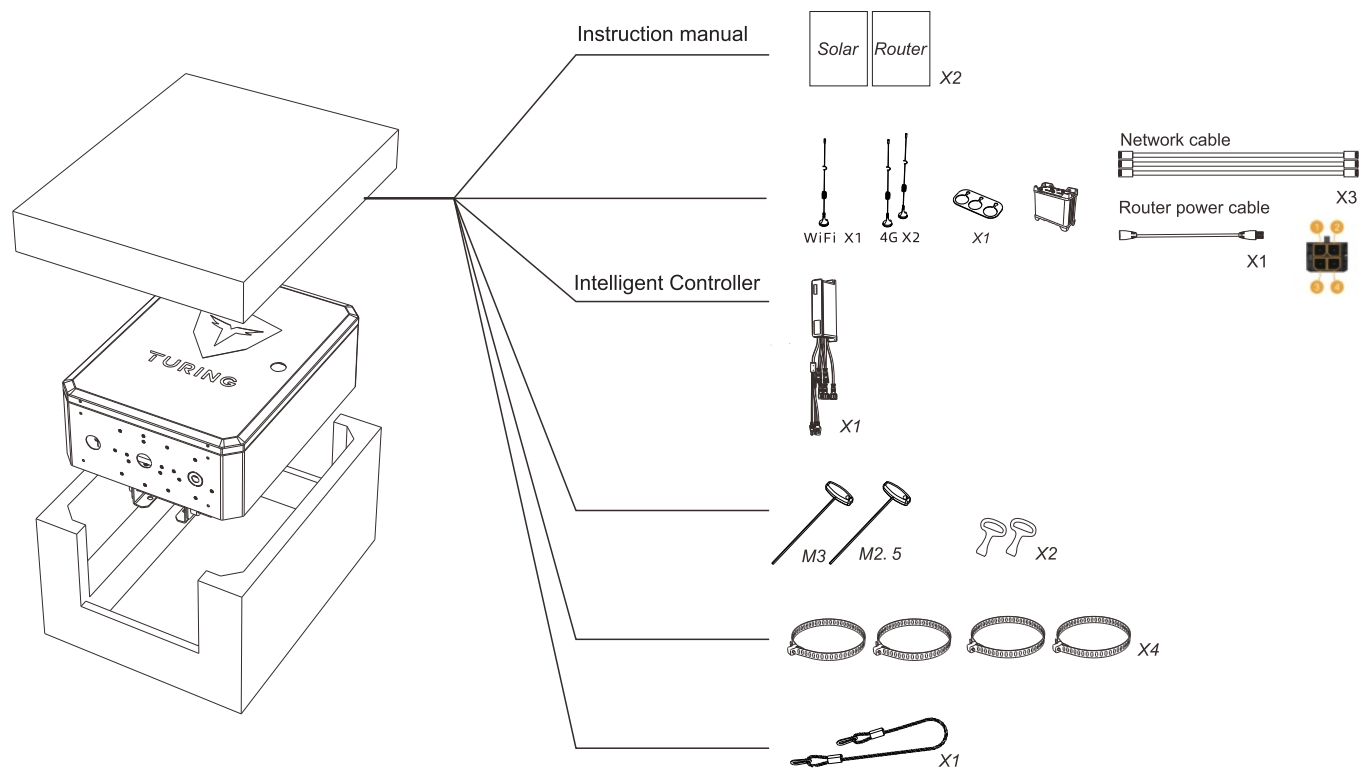
4. Installation

Step 2: How to Setup Your System

- 4.1 Mounting Backplane
- 4.2 100W Solar Rack Mounting
- 4.3 200W Solar Rack Mounting
- 4.4 Mounting Water-resistant case
- 4.5 Wiring

List of Accessories

1.1 Water-resistant Case



List of Screws

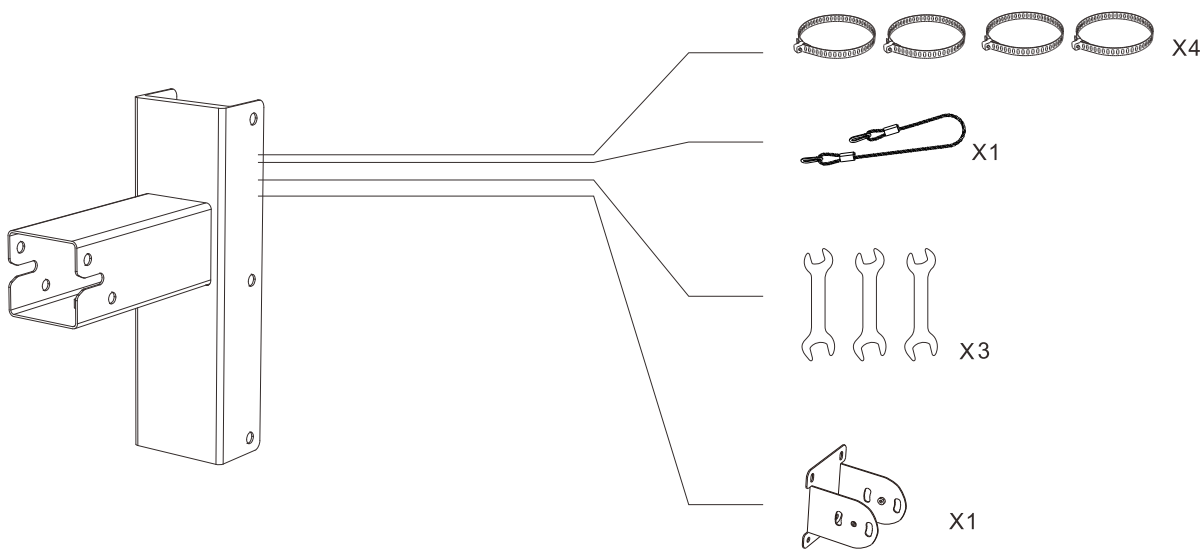
M3×10 mm		10
M3×10 mm (Without spacer)		10
M4×25 mm		10
M4×10 mm (Without spacer)		10
M4×10 mm (Round head)		10

• Specification and Parameters

Parameters	LS-KG2-ONEN-01
Dimensions (L * W * H)	20.7*16.14*13.78 inch
Weight	Net Wt: 19.84 lbs / Gross Wt: 22.05 lbs
Material	Cold-rolled steel/electro-coating/powder coating

List of Accessories

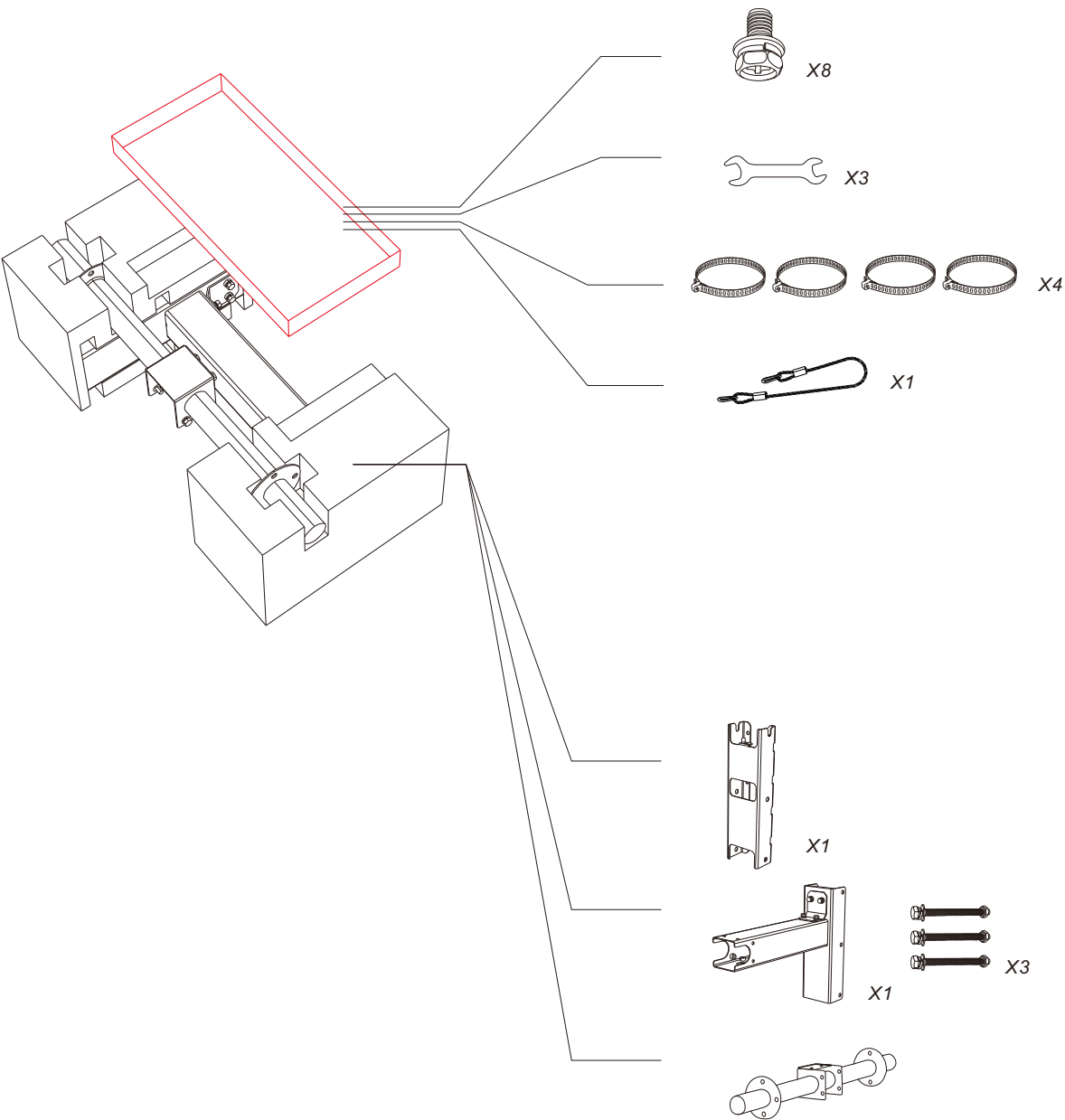
1.2 100W Solar Panel Racking



• **Specification and Parameters**

Parameters	LS-KG2-ONEBR-02
Dimensions (L * W * H)	20.7*16.14*7.48 inch
Weight	Net Wt:8.82 lbs / Gross Wt:11.02 lbs
Material	Cold-rolled steel/electro-coating/powder coating

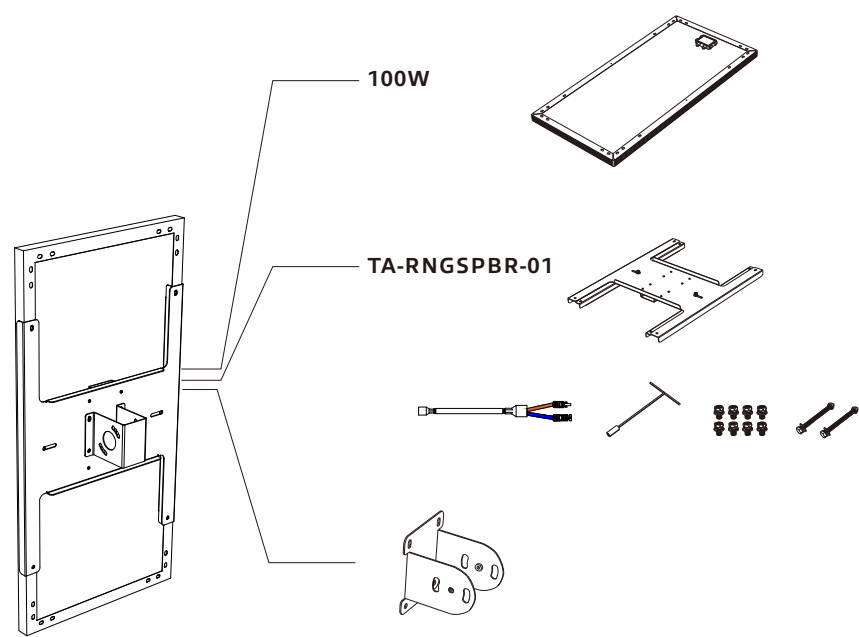
1.3 200W Solar Panel Racking



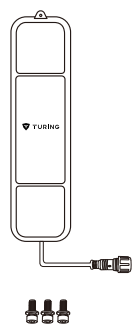
• Specification and Parameters

Parameters	LS-KG2-SPBR-02
Dimensions (L * W * H)	30.71*16.14*10.43 inch
Weight	Net Wt:18.74 lbs / Gross Wt:22.05 lbs
Material	Cold-rolled steel/electro-coating/powder coating

1.4 Solar Photovoltaic Panels



1.5 Lithium Battery

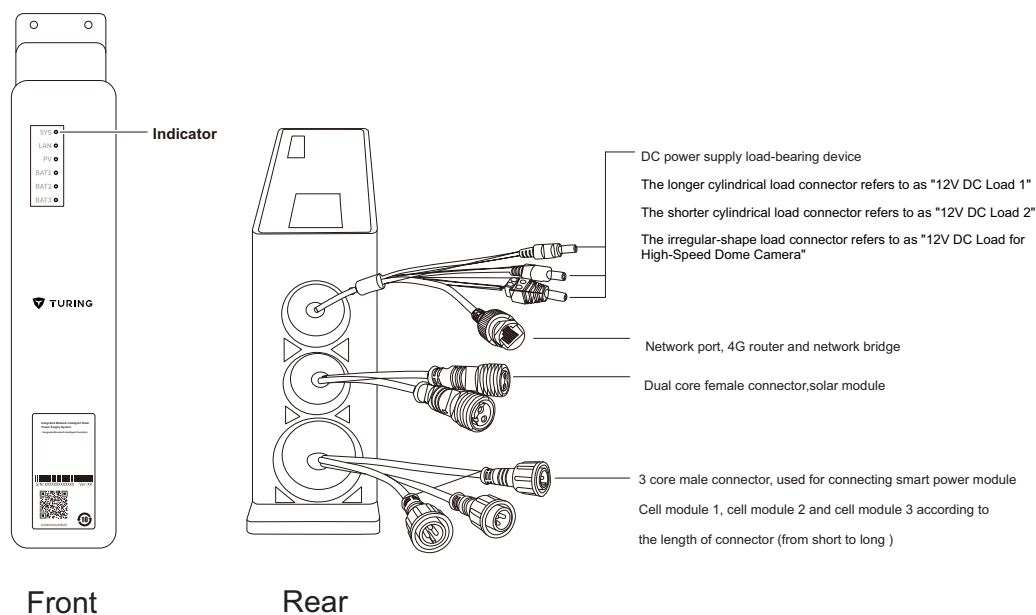


• Specification and Parameters

Parameters	TA-C26AH
Dimensions (L * W * H)	14.17*4.72*5.91 inch
Weight	Net Wt:3.57 lbs / Gross Wt:4.06 lbs

2. Product Appearance

2.1 Intelligent Controller

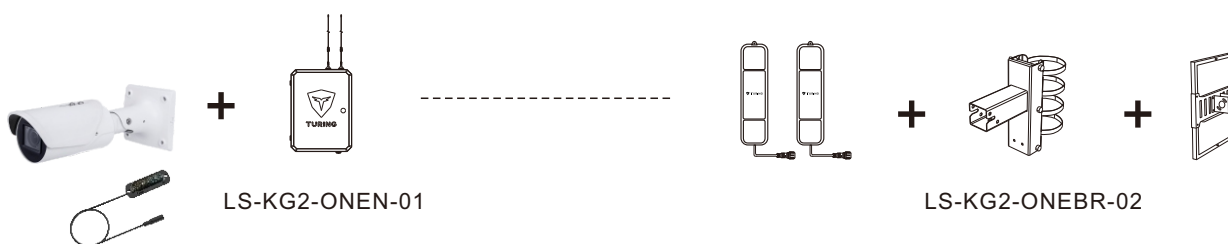
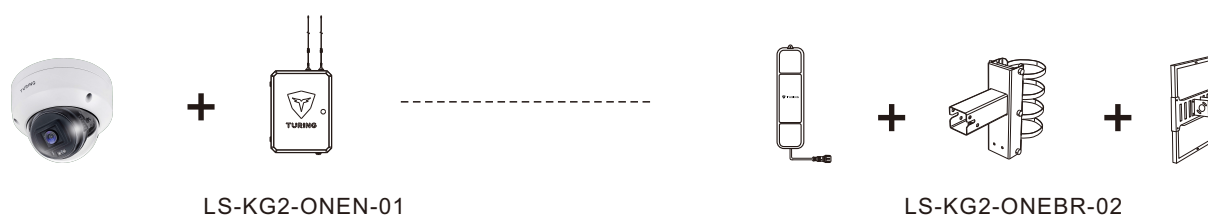
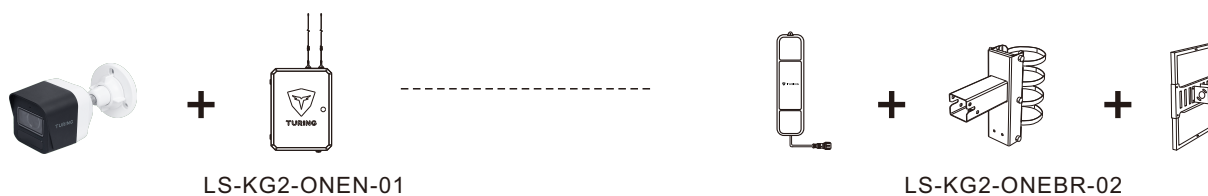


• Indicator Description

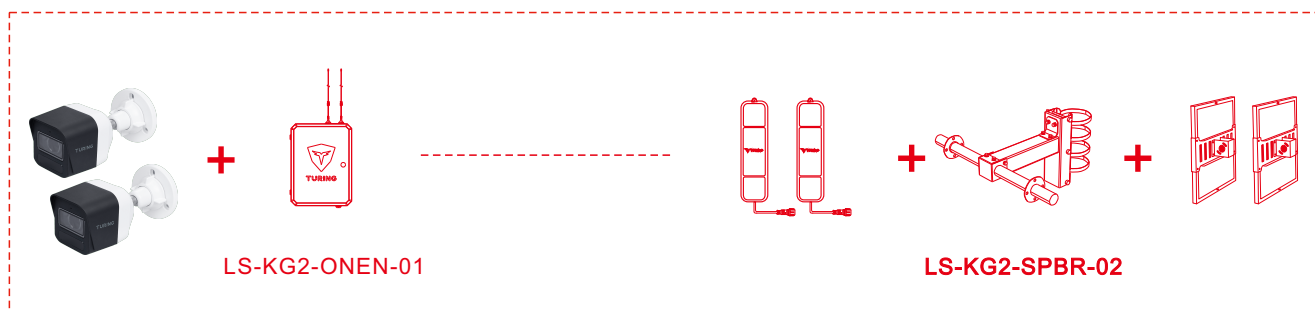
Indicator		Working Status	Description
SYS	System indicator	NO	The system is working and the load is on
		Flash	The system is working and the load is off
		Off	The system is not working
LAN	LAN indicator	NO	Cloud connection is normal
		Flash	Network connection is normal but without cloud connection
		Off	Network disconnected
PV	PV panel indicator	NO	Solar panel is connected and supplies voltage
		Off	No voltage
BAT1~3	BAT 1-3 indicator	NO	Battery level is above 5%
		Slow flash	Battery level is below 5%
		Quick flash	Intelligent heating is in progress
		Off	Battery is disconnected or invalid

3. Installation

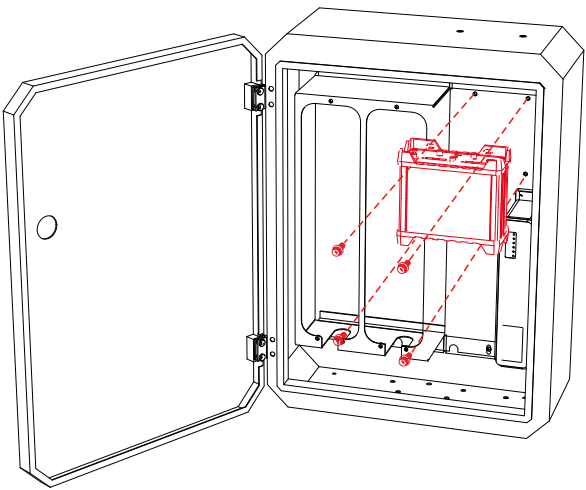
Step 1: How to Setup Your Cameras



Optional installation



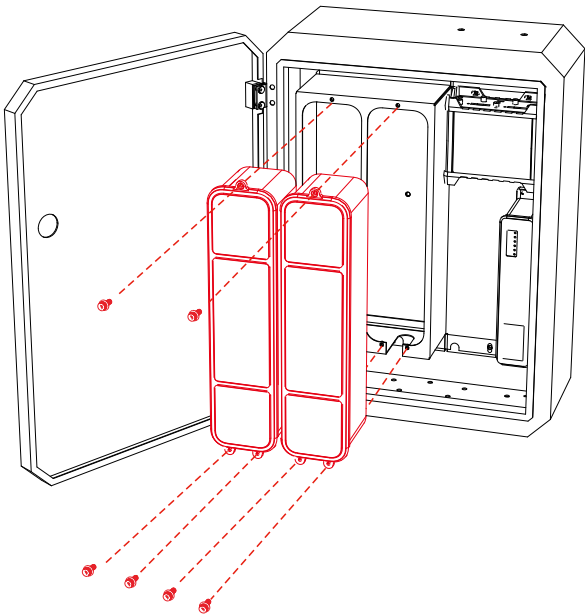
3.1 Mounting The Router



M3*10mm *4



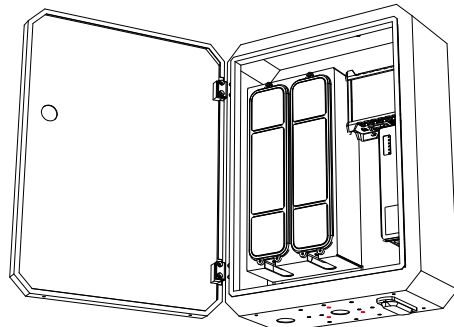
3.2 Mounting the Battery



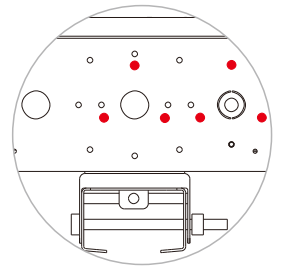
M3*10mm *6
(Without Padding)



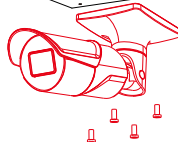
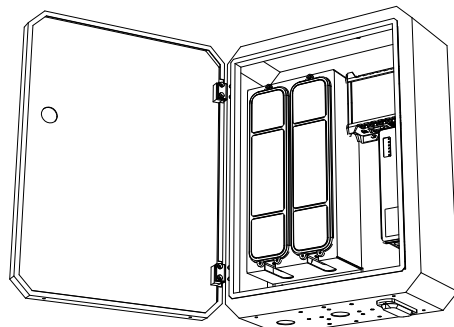
3.3: Mounting Cameras



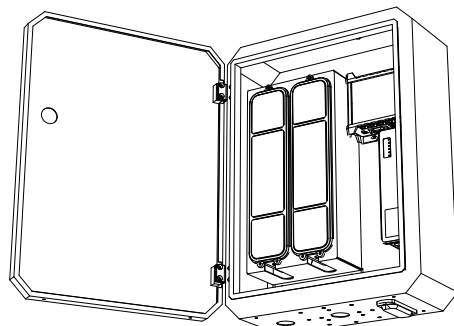
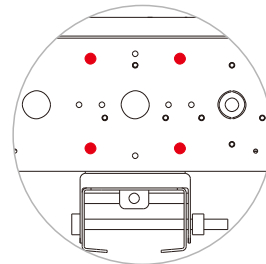
M4*10mm *3



Dual camera installation requires removing the LED light and knocking out the pre-punched hole.



M4*10mm *4



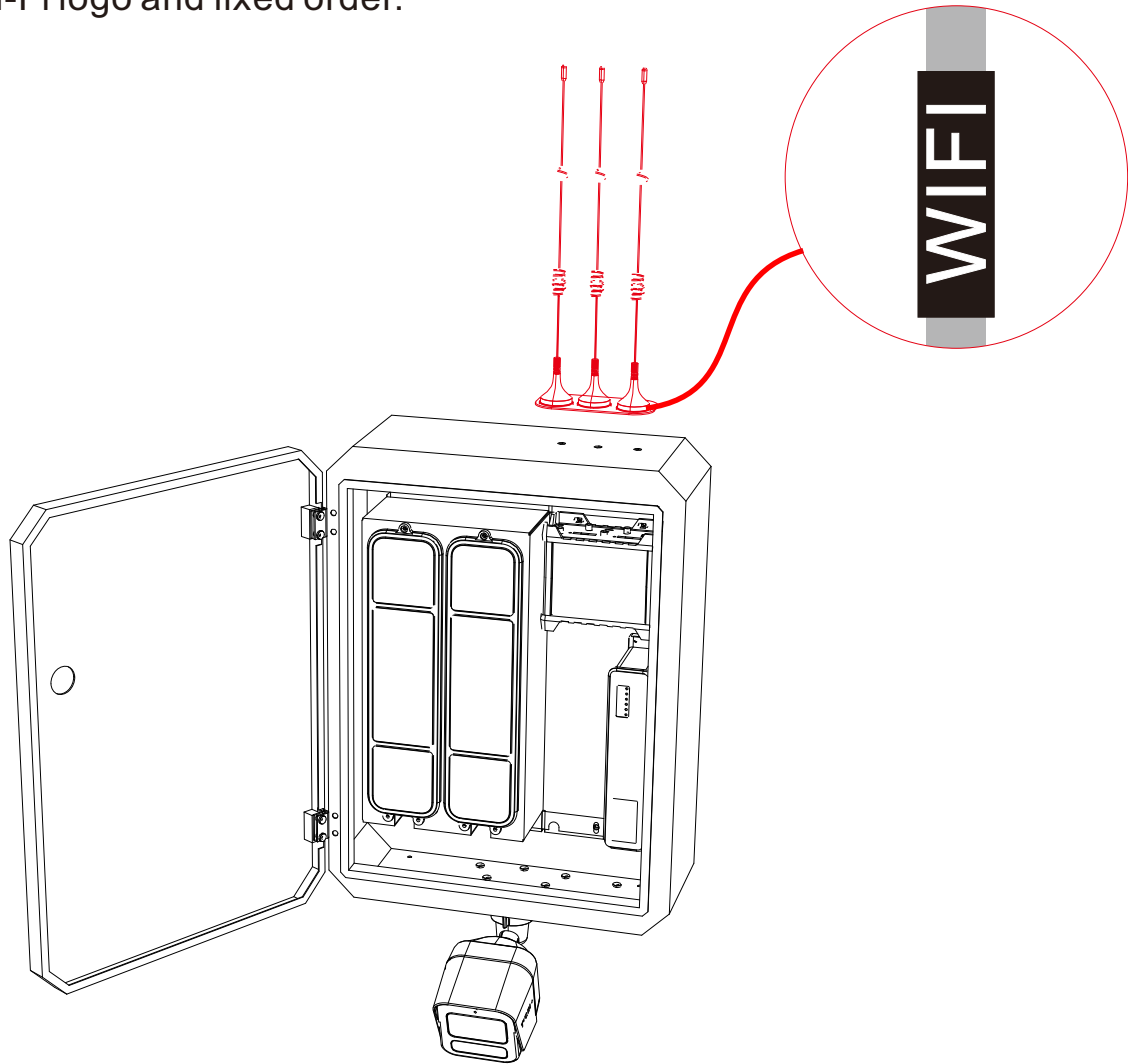
M4*10mm *3
(Round head)



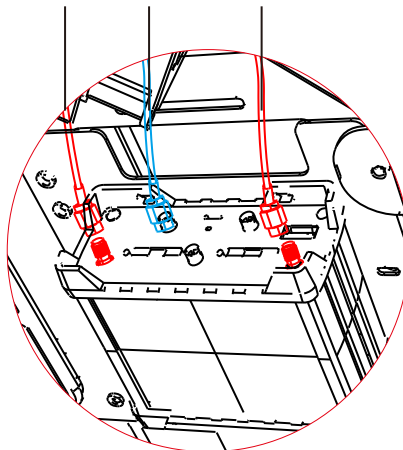
3.4 Install Antennas

Note: Antennas are required otherwise router network signals would be blocked by the metal box.

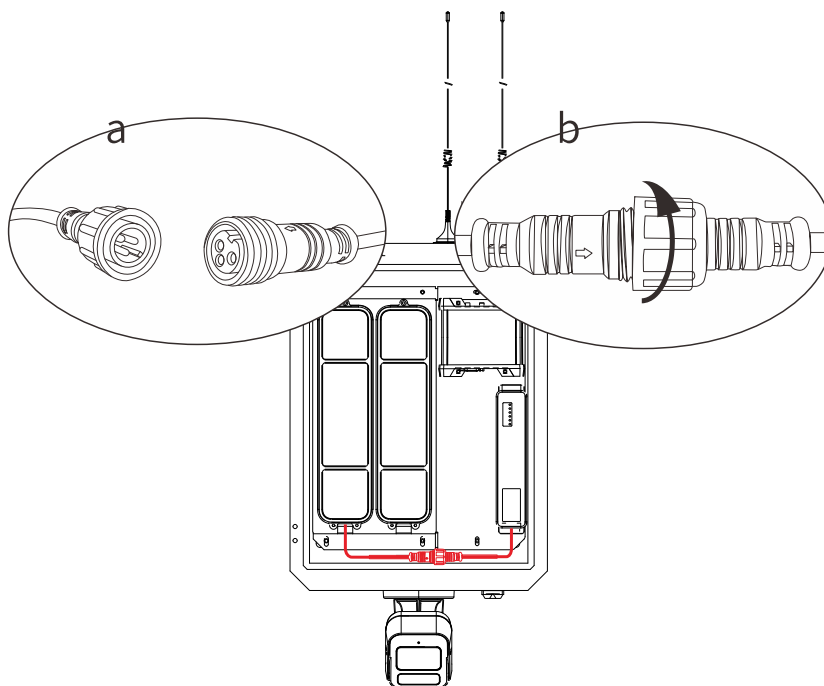
Note: Wi-Fi logo and fixed order.



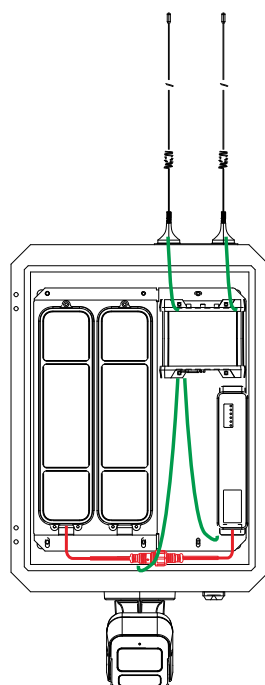
4G WIFI 4G



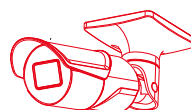
3.5 Wiring



Connect the 3-pin male connector of the controller to the 3-pin female connector of the cell module and then tighten the waterproof cap.



LPR Camera Power Supply



Intelligent Controller DC
Power Supply Removal



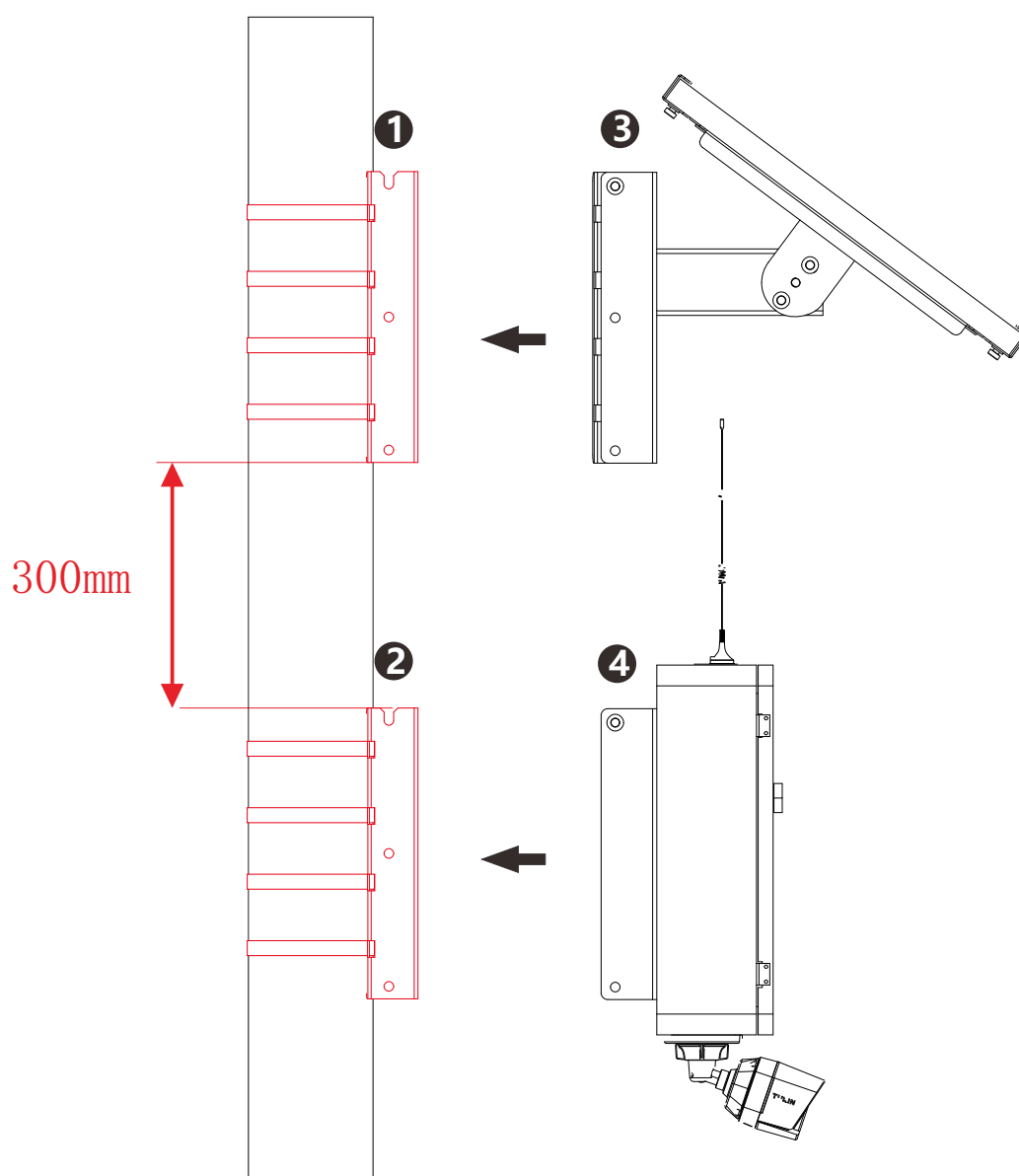
LPR Power Supply
Installation

Connect the load-bearing device to the relevant connector of the controller.

4. Installation

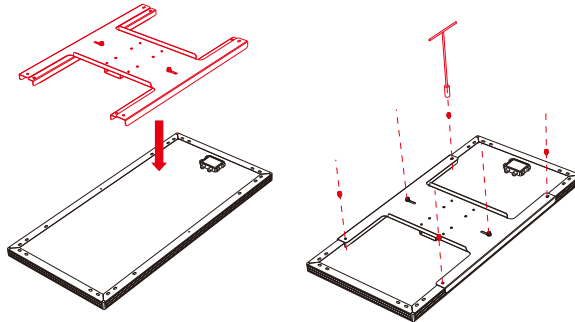
Step 2: How to Setup Your System

4.1 Mounting Backplane



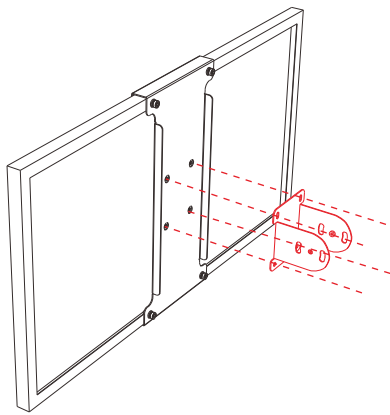
4.2-1 100W Solar Rack Mounting

One set of solar panels



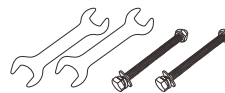
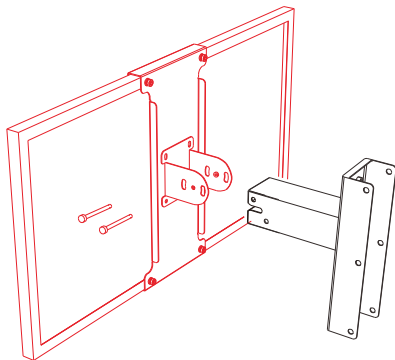
TA-RNGSPBR-01

Integral into the solar panel
set screw
M8 x 20mm x 6



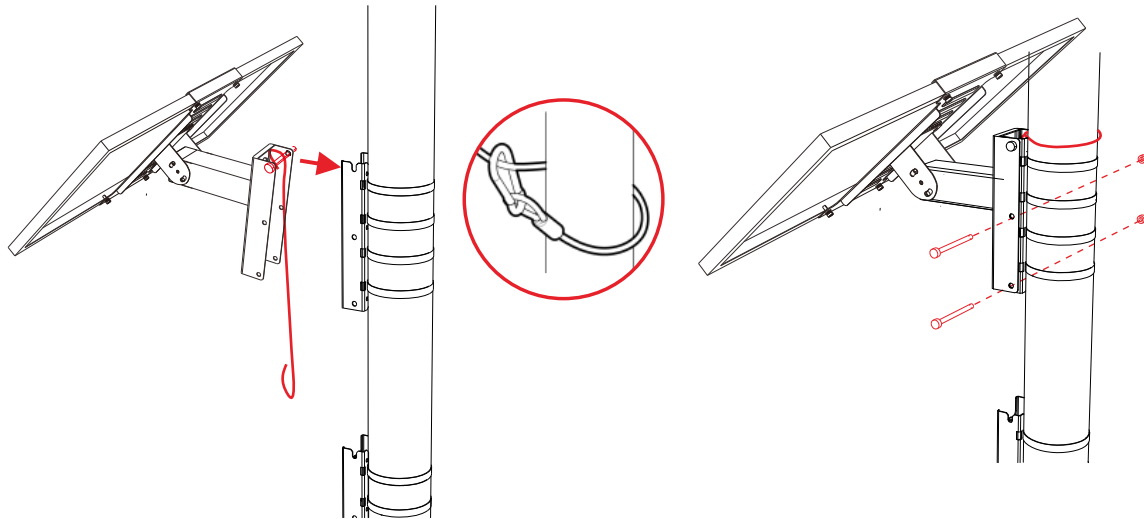
the single solar panel fixing parts

set screw
M8 x 20mm x 4



4.2-2 100W Solar Rack Mounting

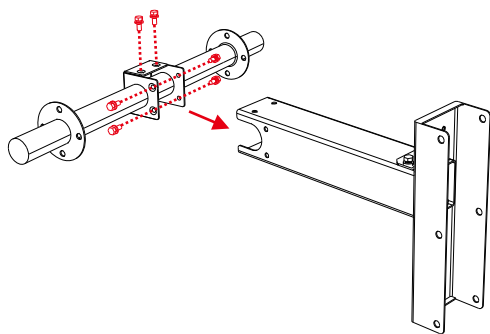
One set of solar panels



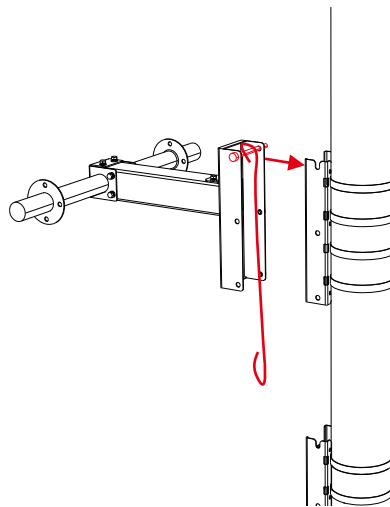
U.S. City	Longitude (W)	Latitude (N)	Recommended Tilt Angle
New York	74.0°	40.7°	45°
Chicago	87.6°	41.8°	55°
Houston	95.4°	29.8°	20°
Dallas	96.8°	32.8°	20°
St. Louis	90.2°	38.6°	20°
Denver	104.9°	39.7°	55°
Orlando	81.4°	28.5°	30°
Miami	80.2°	25.8°	20°
New Orleans	90.1°	29.95°	55°
Minneapolis	93.3°	44.9°	55°
Honolulu	157.8°	21.3°	20°
Atlanta	84.4°	33.7°	30°
Nashville	86.8°	36.2°	30°
Kansas City	94.6°	39.1°	45°
San Antonio	98.5°	29.4°	30°
Los Angeles	118.2°	34.05°	30°
Detroit	83.0°	42.3°	55°
Philadelphia	75.2°	39.9°	45°
Seattle	122.3°	47.6°	55°

4.3 200W Solar Rack Mounting

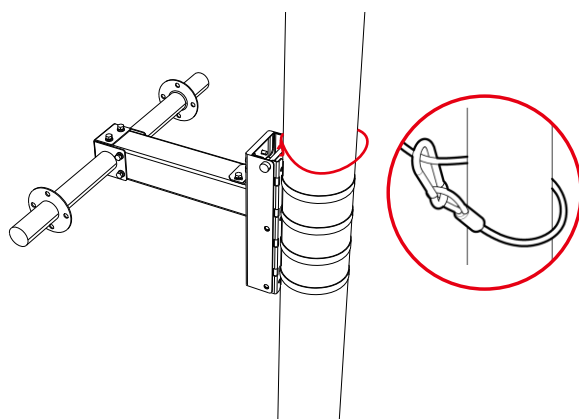
Two sets of solar panels



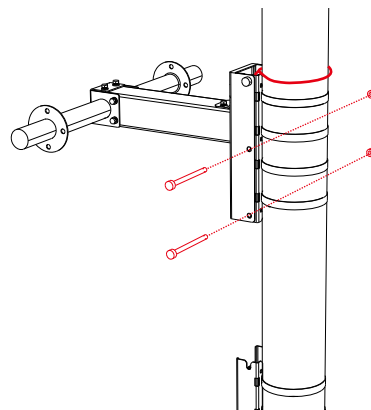
4.3-1



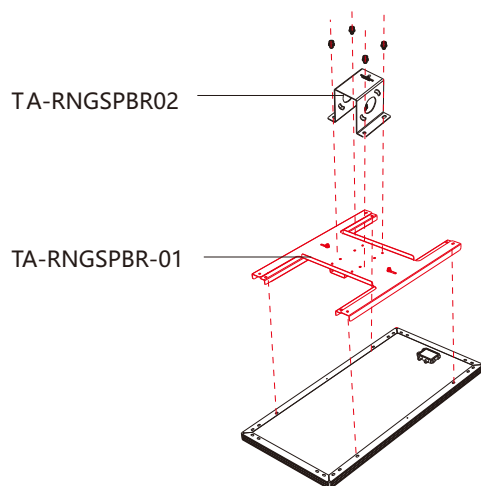
4.3-2



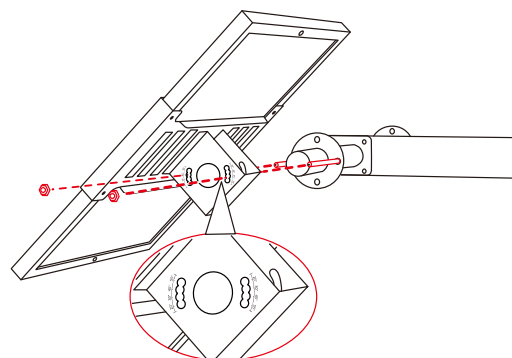
4.3-3



4.3-4

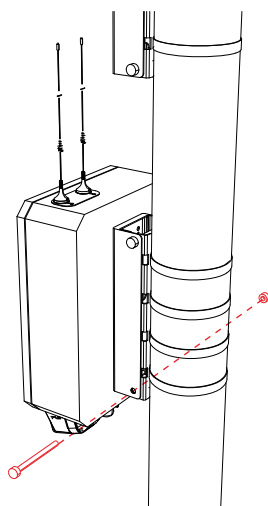
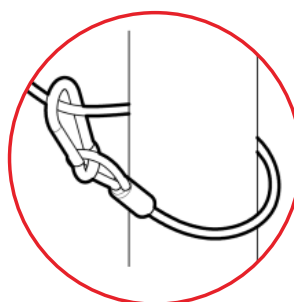
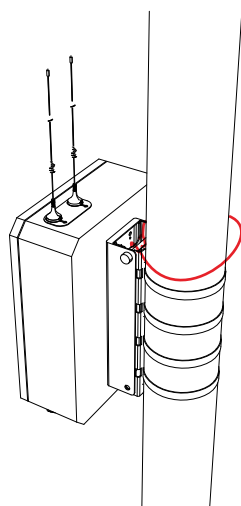
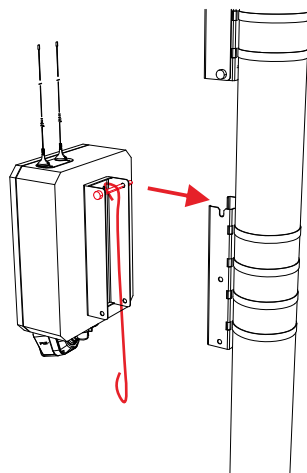


4.3-5

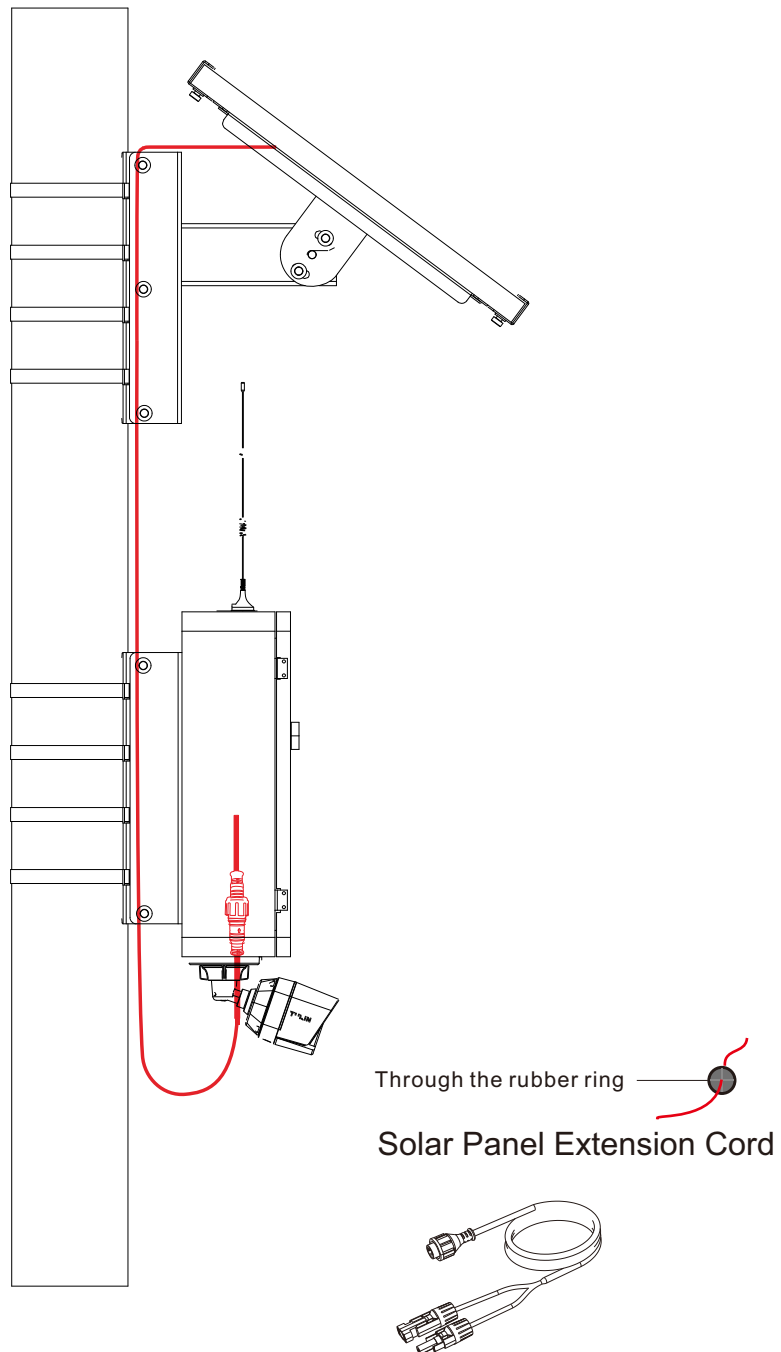


4.3-6

4.4 Mounting Water-resistant case



4.5 Wiring



- The connecting wire of the solar module to the 2-pin female connector of the controller and then tighten the waterproof cap.
- Check the status of the controller indicator and make sure that the controller, smart cell module, solar module and load-bearing device are working properly.

Appendix

Installation Precautions and Common Fault Processing

1. Installation of solar panels

- Please handle gently during the transportation and installation. Collision and knocking are strictly prohibited to avoid product damage;
- Install the solar panel in a manner that the front side is horizontally facing upwards as it may be scratched or damaged by uneven ground;
- Make sure that there is no obstruction around the installation point. If the solar panel is installed around houses or trees, it must be installed higher than the obstacles;
- All solar panel connectors must be properly protected against water to avoid short circuit or leakage.

2. Installation of Li-ion battery

- Please handle the Li-ion battery gently during the transportation as it is very heavy. Be careful not to drop or smash the battery.
- The battery box must be properly protected against water to avoid the failure of the battery and wire due to moisture.

3. Common Fault Processing

a. Abnormal status of controller indicator

- System indicator not ON: The solar module or battery is working abnormally or not connected and there is no power input;
- LAN indicator not ON: There is no network connection;
- PV panel indicator not ON: The PV panel is not connected or working abnormally without power;
- BAT1, BAT2 and BAT3 indicators not ON: The battery is not connected or working abnormally.

b. Short system running time and monitoring time

- Low battery power: Check whether all battery connectors are properly connected and make sure that all batteries are in working condition;
- Solar panel disconnected: Check whether the solar panel connector is properly connected and make sure that the solar panel is in working condition;
- Solar panel blocked: Check whether the solar panel is blocked or whether the front of the panel is dirty. The power generation efficiency will be affected due to blockage or dirt.
- Unreasonable system model: Confirm the power consumption of the equipment. If the consumption is too high, it is recommended to replace it with a higher model of solar power supply system.

c. Camera not online and AP unable to access the internet

- Insufficient power supply: Check the battery connector, solar panel connector and network interface to ensure that all equipment is in normal working condition;
- SIM card error: Check whether the SIM card of the 4G device and 4G transmission device is connected properly, whether it is inserted backwards, whether the 4G signal strength meets the requirements and whether the 4G card is overdue on payment;
- Network bridge blocked: Check the transmission quality of the bridge and resolve the connection problems.



TURING