

# U6-C Kit

*utility + UPS  
Monitoring System*

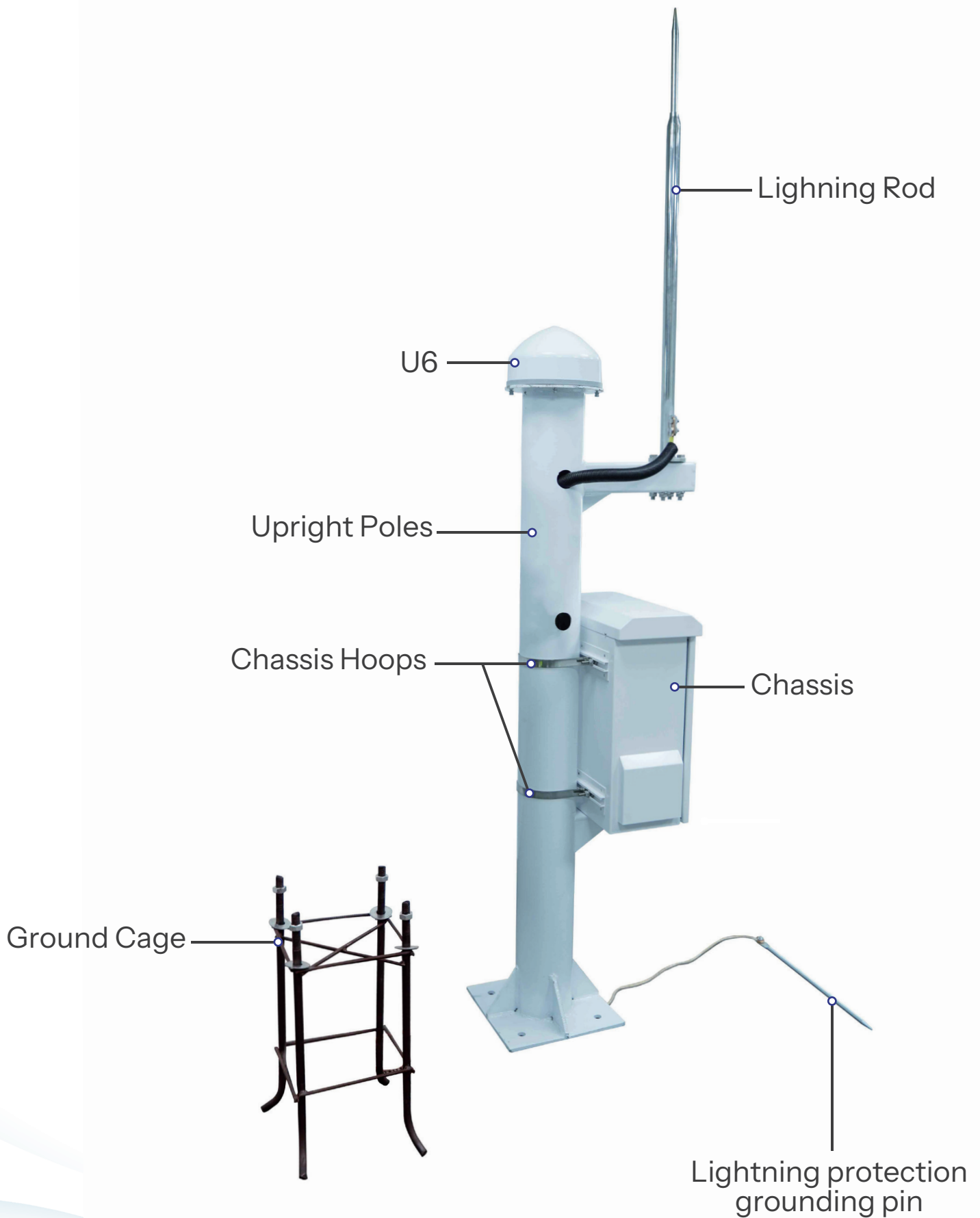


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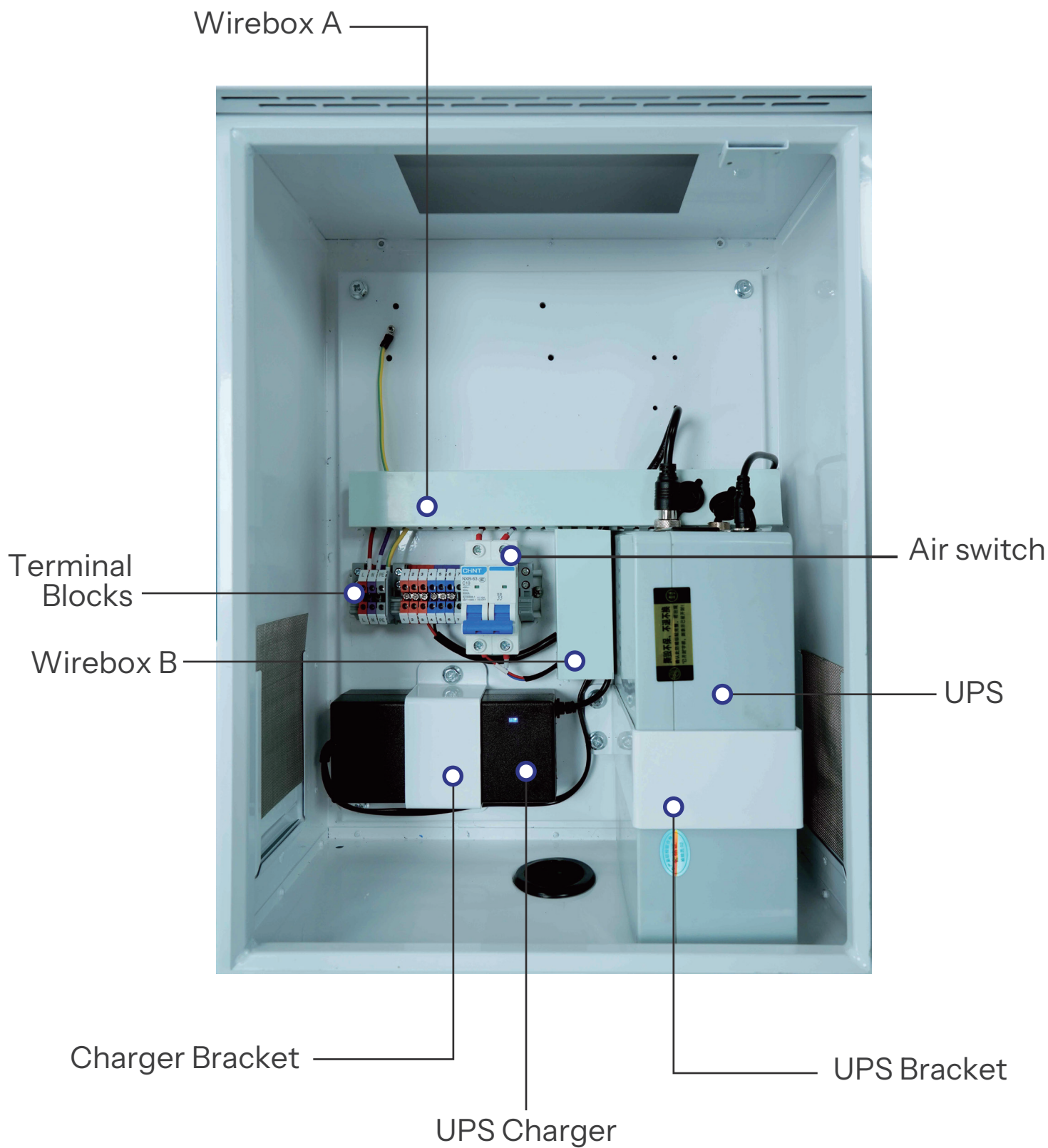
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# I. Monitoring System Assembly Drawing








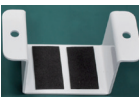










## II.Chassis assembly drawing







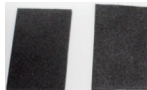
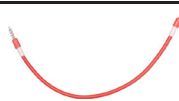




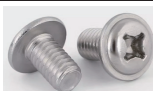







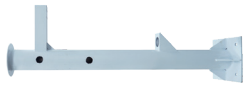











### III. Chassis Accessories Table

No.	Name	Specification	QTY	Picture
1	UPS chassis	white	1	
2	UPS chassis baseplate	white	1	
3	UPS wirebox A	PVC off-white 40X30X300mm	1	
4	UPS Wire Box B	PVC off-white 40X30X110mm	1	
5	UPS battery (with charger)	DC5V/12V 6000omAh, with two-core aviation head, charger output 12.6V/5A	1	
6	UPS battery holder	Metallic white	1	
7	Inner cross groove hexagon locking screw	SS304 Natural M6X8	10	
8	UPS Charger Bracket	Metallic white	1	
9	Cross Groove™ Large Flat Head Screws	SS304 Natural M4X8	9	
	Standard spring washers	SS304 Natural M4	2	
10	Air switch NXB-63	NXB-63,10A, 2P	1	
11	Terminal partitions	UK-2 . 5B Grey	2	
12	Terminal block (orange)	UK-2 . 5B Nylon Orange-red	4	
	Terminal Strip (Grey)	UK-2 . 5B Nylon Grey	1	
	Terminal Block (Blue)	UK-2 . 5B Nylon Blue	4	
13	Terminal block connection strip FBI-3-6	FBI-3 -6 Silver with Phillips slotted screws	2	

### III. Chassis Accessories Table

No.	Name	Specification	QTY	Picture
14	Marker Bar (Letter)	UK series, white, 10 digits/piece, letters: N P E L N P E L N P E	1	
	Marker Bar (numeric)	UK series, white, 10 bits/piece, 1 2 3 4 5 6 7 8 9 10	2	
15	EUK fixtures for terminal blocks	UK-2 . 5B Grey	3	
16	C45U rail	1.3mm thickness, oxidized round hole, hole spacing 17mm, length 144.5mm	1	
17	Crimp terminal E1508	Red 1.5 mm <sup>2</sup>	8	
18	Adhesive-backed foam	EVA, black T1XW15XL150mm	2	
19	Adhesive-backed foam	EVA, black T1XW15XL40mm	2	
20	18AWG electronic wire	Red 1015, length 200mm	1	
21	18AWG electronic wire	Blue 1015, length 200mm	1	
22	1.5m <sup>2</sup> stranded electronic wire (mains ground wire)	Yellow-green , 0 . 25 meters	1	
23	Bellow Tube	d25, PP black, incision, 1 m	2	
24	Cable Marker Tube	White Heat Shrink Tubing , Content : + -	4	
25	Cross- recessed Pan Head Self-tapping Screw	Carbon steel, silvery-white, nickel-plated M3X8	1	

## IV.Column assembly parts table

No.	Name	Specification	QTY	Picture
1	UPS top lightning rod	Stainless steel, 1 meter, D32, H1000	1	
2	Hexagon locknut	SS304 Natural M12	4	
	Hexagon bolts	SS304 Natural M12X100	4	
3	UPS pole	Hot-dip galvanized , white , 1.5 meters	1	
4	UPS chassis	Galvanized, white, V4520-V1	1	
5	Lightning rod ground wire	5 meters, 16 square meters	1	
6	UPS grounding pin	0.5 m galvanized	1	
7	Ground cage	Steel, supplier with M16 nuts and gaskets	1	
8	U-shaped pipe hoop	SS304, Hole 8.5 140mm	2	
	T-bolts	SS304 M8X25	4	
	Hexagon locknut	SS304 M8	4	
	gasket	SUS304, Specification: M8*17*1.5	4	
9	Bellows	d25, PP black, incision, 1 m	1	
10	U6 host	/	1	
11	U6 data cable	/	1	

# V.Chassis Installation Holes and Corresponding Screw Specifications

A-4pcs M6X8 inner cross groove  
hexagon locking screws

Fix the bottom plate

B-7pcs M4X8 Cross Slot™ Big Flat  
Head Screws + Washers

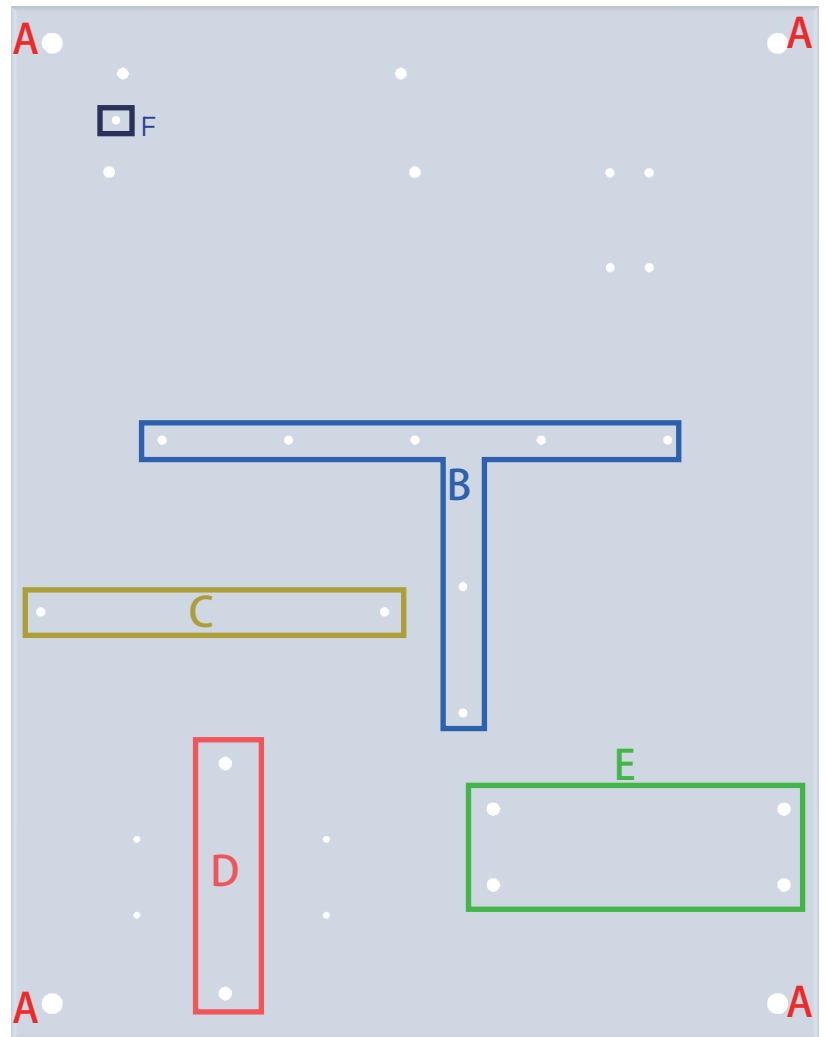
Fixed wire box

C-2pcs M4X8 Cross Groove™ Big  
Flat Head Screws + Washers  
Fixed terminal strip rails





D-2 M6X8 inner cross groove  
hexagon locking screws  
Fixed solar controller

E-4pcs M6X8 inner cross groove  
hexagon locking screws  
Fixed UPS power supply

F- 1pcs M3X8 cross groove disc  
headband with mesoscrews  
Mains grounding



# VI.List of Tools Required for Installation

List of Tools Required for Installation		
Specification	Compatible with screws and terminals	photo
Phillips #0 screwdriver	M3X8 M4X8 Connecting Strip Screws	
Phillips #1 screwdriver	M5X8	
11 screwdrivers in a hexagonal socket	M6X8	
Slotted #0 screwdriver	Terminal screws	
0.25 - 2.5 mm <sup>2</sup> Wire Cap Crimping Pliers	Antenna feeder lightning protection grounding wire	
0-25mm adjustable wrench	Antenna connector, lightning rod hexagonal screw, chassis hoop	
0.25 - 6mm <sup>2</sup> tubular terminal crimping pliers	All crimped terminals	
5mm hex wrench	M6 hexagon socket screws	



# VII.Chassis Installation Diagram

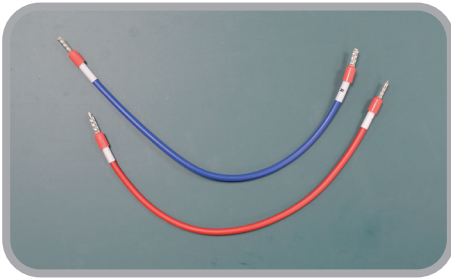


Figure 1

## ① Make an LN cable

As shown in Figure 1, the red and blue wires with a wire diameter of 18AWG are cut into 200mm respectively, and the core is 8mm, and the wire number L N is set to the red and blue wires (both ends) respectively, and the red cold-pressed terminal E1508 is sleeved (both ends) and pressed with wire pliers.

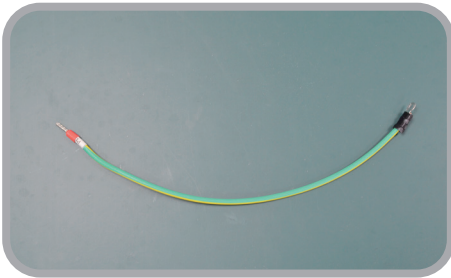


Figure 2

## ② Make PE cables

As shown in Figure 2, the wire diameter 1. The yellow-green wire of 5mm<sup>2</sup> is cut into 200mm, the core wire of the two ends is 8mm, the head is covered with the wire number PE, blown and retracted with a hot gun, and then the red cold-pressed terminal E1508 is sleeved and pressed with wire pliers. The other end is pressed tightly with RV2-3 ear connectors.



Figure 3

## ③ Modified charger power input terminal line

As shown in Figure 3, cut the plug, keep the length of 450mm, cut the outer skin 30mm, cut the core wire 8mm, put the wire number L N to the red (L) blue (N) line respectively, put the red cold-pressed terminal E1508 on, and press it with a wire plier.

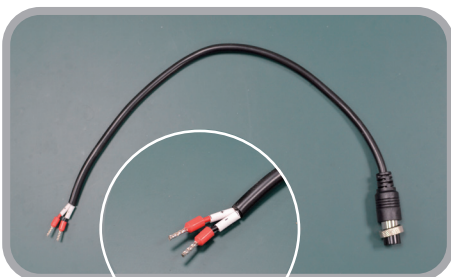


Figure 4

## ④ Modified battery output line

As shown in Figure 4, the wire number + - is set into the red (+) and black (-) wire, and the red cold-pressed terminal E1508 is put on and pressed with a wire plier.



Figure 5

## ⑤ Cut the terminal strip rails

C45U type guide rail, as shown in Figure 5 cut into 144.5mm strips.

## VII.Chassis Installation Diagram

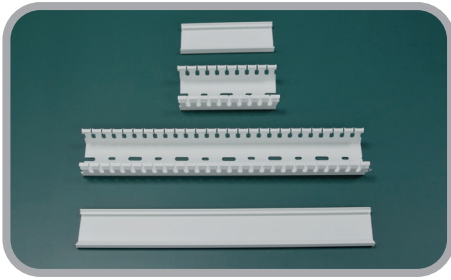


Figure 6

### ⑥ Cutting wire boxes

As shown in Figure 6, UPS wire box A, cut into 300mm strips, UPS wire box B, cut into 110mm strips.



Figure 7

### ⑦ Corrugated pipes

Cut the D25 corrugated pipe into one meter strips as shown in Figure 7.

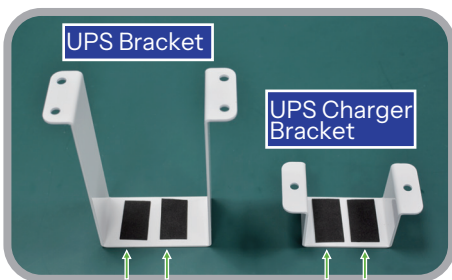


Figure 8

### ⑧ UPS charger bracket/UPS bracket

As shown in Figure 8, attach double strips of adhesive foam T1XW15XL40 to the back of the UPS charger bracket and UPS bracket respectively.

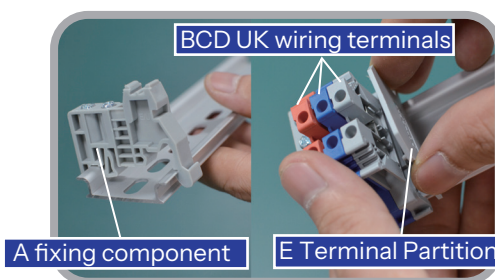


Figure 9-1

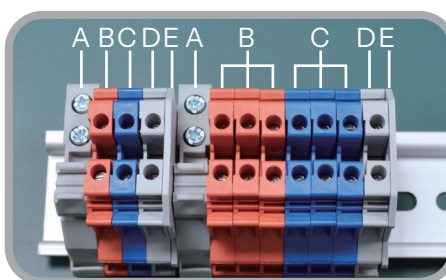


Figure 9-2

### ⑨ Install wiring terminal block

As shown in Figure 9-1, fasten the fixing components, UK wiring terminals, and terminal partitions. Among them, the terminal partition needs to be pressed onto the wiring terminal.

A-2, B-4, C-4, D-2, E-2, as shown in Figure 9-2

# VII.Chassis Installation Diagram

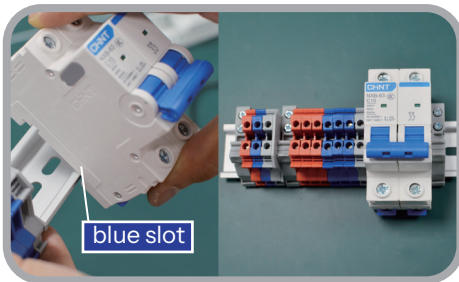


Figure 10

## ⑩ Install air switch

As shown in Figure 10, then fasten the air switch. First, fasten the blue slot of the air switch onto the guide rail, and then push it upwards with force to enter the position.

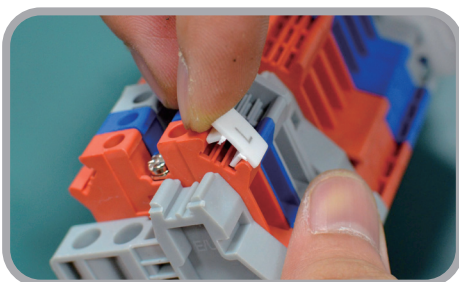


Figure 11-1

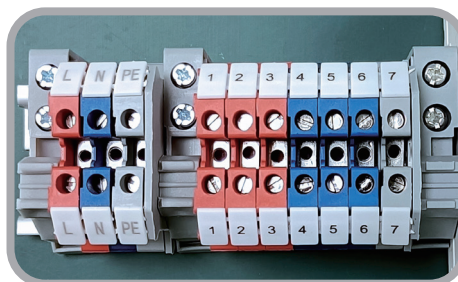


Figure 11-2

## ⑪ Tag number

According to the method shown in Figure 11-1, fasten the marking numbers into the terminal block. From left to right, they are L N PE 1 2 3 4 5 6 7, As shown in Figure 11-2.

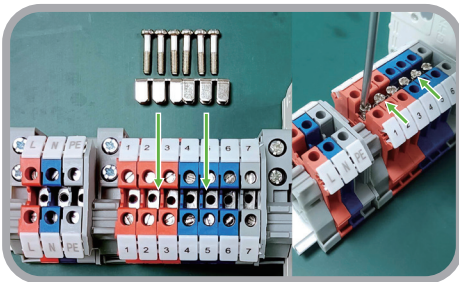


Figure 12

## ⑫ Install the connecting strip

As shown in Figure 12, insert two sets of FBI-3-6 connection strips into the fixing holes of terminals 123 and 456 respectively, and tighten the six fixing screws.

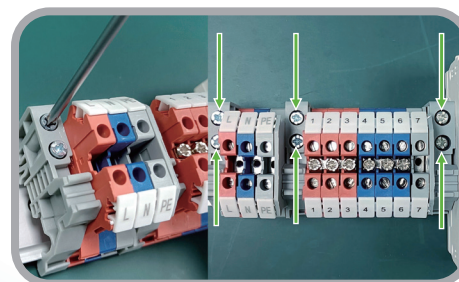


Figure 13

## ⑬ Tightening fasteners

Hand hold all UK-2 as shown in Figure 13 Counter the 5B terminal block and use a screwdriver to tighten the 6 screws on the EUK fixture, ensuring that there are no gaps between the terminal blocks.



# VII.Chassis Installation Diagram

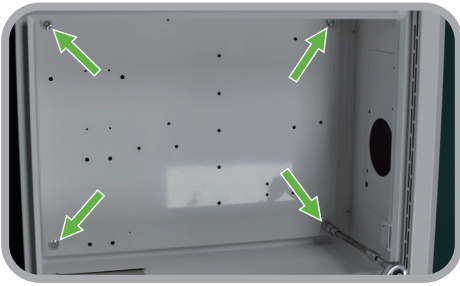


Figure 14

## ⑭ Remove the motherboard from the chassis

As shown in Figure 14, remove the 4 internal cross groove and external hexagonal anti loosening screws, and take out the bottom plate from the chassis.

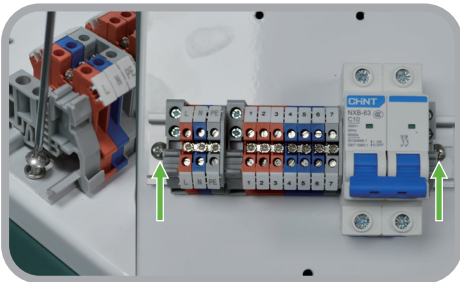


Figure 15

## ⑮ Fixed terminal blocks to the base plate

As shown in Figure 15, refer to the overall assembly diagram of the chassis, place the terminals in the corresponding positions on the bottom board, and tighten them with 2 M4 cross screws and M4 spring washers.

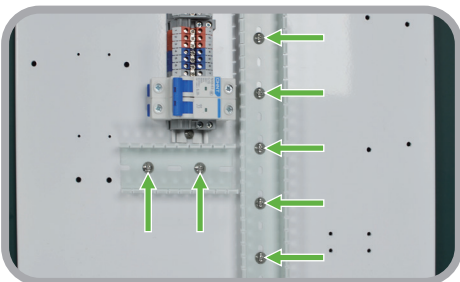


Figure 16

## ⑯ Fixed wire box

Refer to the chassis assembly diagram and use M4 cross screws to tighten wire box A and wire box B to the corresponding positions on the bottom plate, as shown in Figure 16.

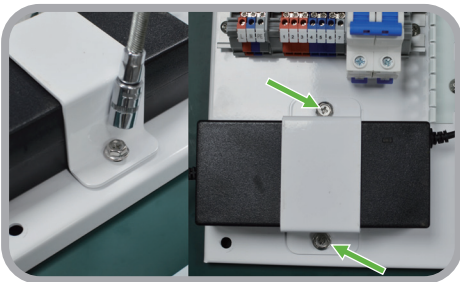


Figure 17

## ⑰ Fixed chargers

Refer to the overall assembly diagram of the chassis, place the M66L host in the corresponding position on the bottom plate, align the charger input end with the flat bottom plate, cover the charger bracket, and tighten it with 2 M6 hex screws, as shown in Figure 17.

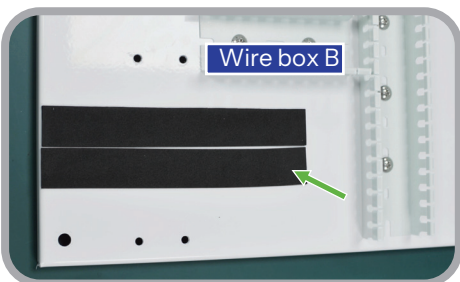


Figure 18-1

## ⑱ Fixed UPS

As shown in the left figure 18-1, two long strips of T1XW15XL150 foam are first pasted on the right side of the online box B

# VII.Chassis Installation Diagram

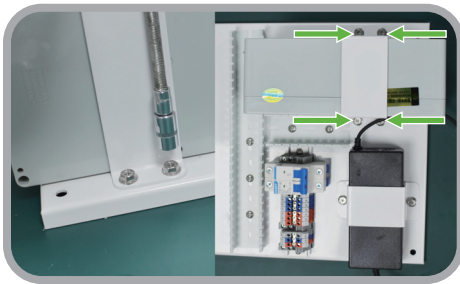


Figure 18-2

As shown in Figure 18-2, place the UPS on the base plate and attach the bracket, then tighten it with 4 M6 hex screws

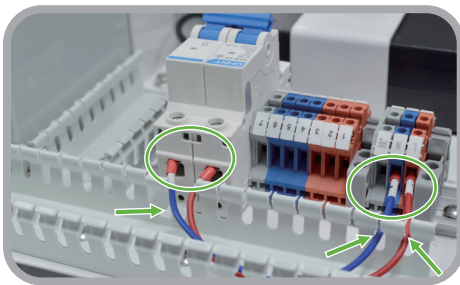


Figure 19

## ⑲ Input terminal wiring

As shown in Figure 19, fix one end of the L (red) and N (blue) wires to the terminal block L. On the N interface, fix the other end to the upper terminal of the air switch, as shown in the left figure, at the left N (blue) and right L (red) positions, and press the wire into the corresponding position of the wire box.

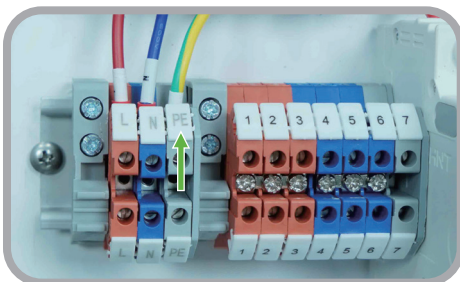


Figure 20-1

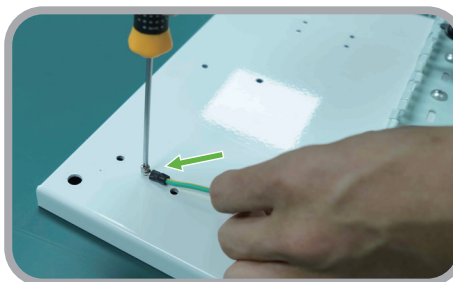


Figure 20-2

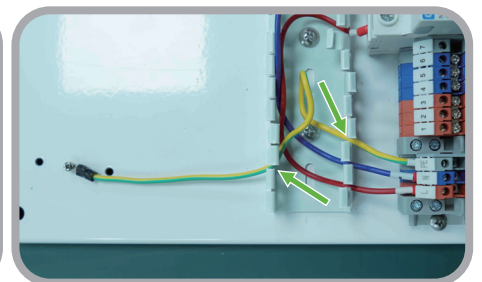


Figure 20-3

## ⑳ PE end grounding

Connect the red terminal of the mains grounding wire to the PE hole of the terminal block as shown in Figure 20-1, and tighten the screw;

On the other end. The type terminal is fixed to the mains grounding hole of the base plate with M3X8 screws, as shown in Figure 20-2; The wiring of online box A is shown in Figure 20-3.

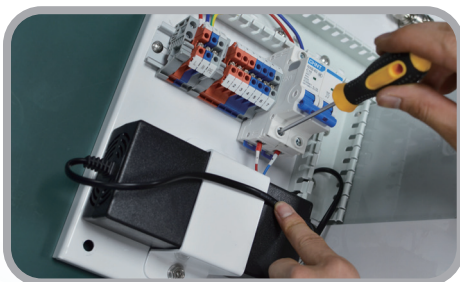


Figure 21

## ㉑ Charger input terminal

As shown in Figure 21, connect the L (red) N (blue) corresponding to the input terminal of the charger to the LN socket of the circuit breaker, and tighten the screws to fix it.



# VII.Chassis Installation Diagram

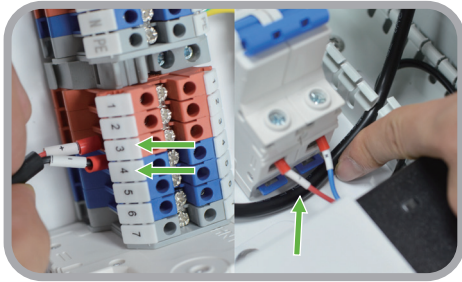


Figure 22-1

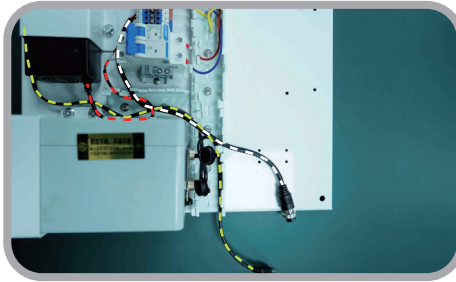


Figure 22-2

## ②② UPS output terminal wiring

As shown in Figure 22-1, connect one end of the battery output line to interfaces 3 and 4 of the terminal block (the line should pass under the input terminal of the charger), The input terminal of the charger (red dashed line), the output terminal of the charger (yellow dashed line), and the output terminal of the UPS (white dashed line) are wired in boxes A and B as shown in Figure 22-2

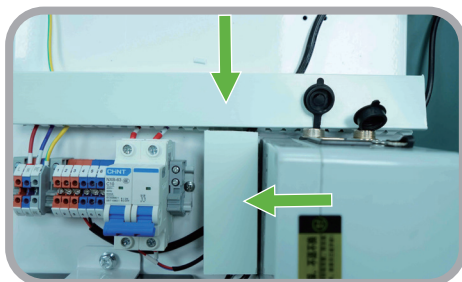


Figure 23

## ②③ lid online box cover plate

Cover the cover plates of boxes A and B respectively as shown in Figure 23.

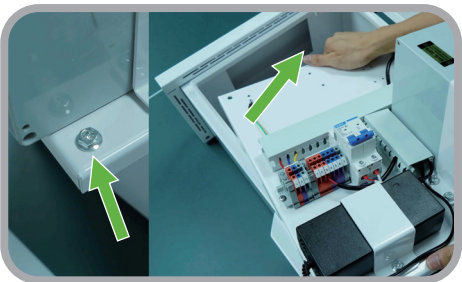


Figure 24-1

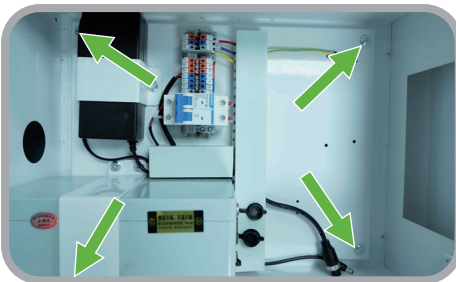


Figure 24-2

## ②④ Bottom plate installation

As shown in Figure 24-1, tilt the assembled base plate and install it into the chassis (the outer hexagonal anti loosening screw indicated by the arrow in Figure 24-1 needs to be inserted into the hole in the lower right corner of the base plate in advance), and then tighten the four M6 outer hexagonal anti loosening screws, as shown in Figure 24-2.

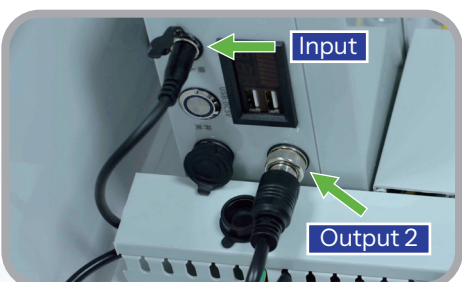


Figure 25

## ②⑤ UPS input/output wiring

As shown in Figure 25, insert the power plug into the input end of the UPS and the aviation plug into output 2, and tighten the nut.

## VIII.Column Installation Diagram

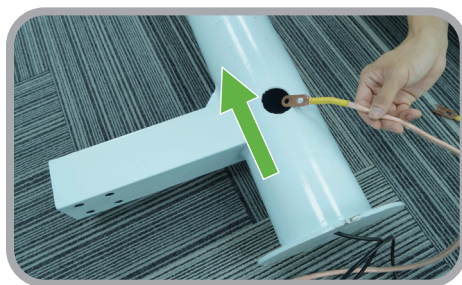
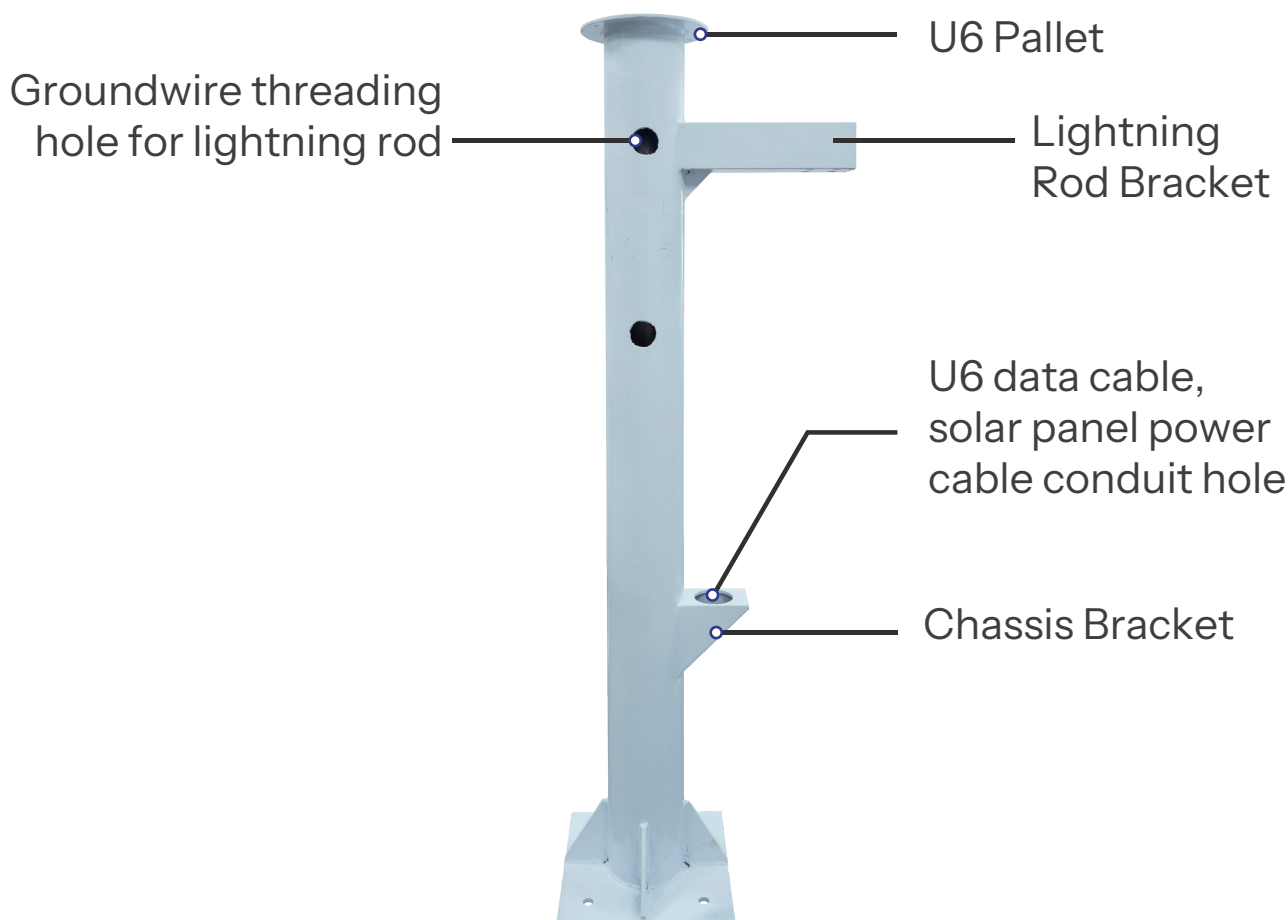


Figure 1-1

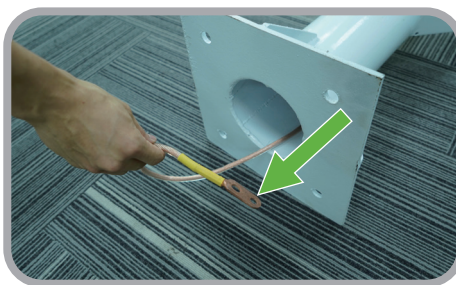


Figure 1-2

### ① Wear lightning rod and ground wire

As shown in Figure 1-1, thread the grounding wire of the lightning rod downwards from the grounding hole of the lightning rod (it will be easier to thread the wire by erecting the pole), as shown in Figure 1-2, and then thread it out from the bottom of the column.

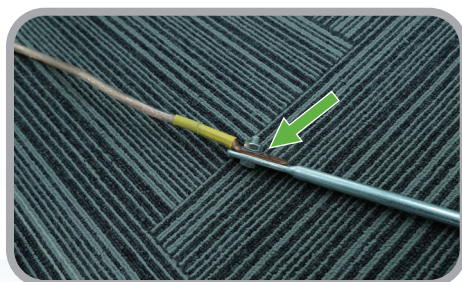


Figure 2

### ② District ground plug-in line

As shown in Figure 2, fix the lightning rod and ground wire to the ground plug with screws provided by the ground plug.

## VIII.Column Installation Diagram



Figure 3-1

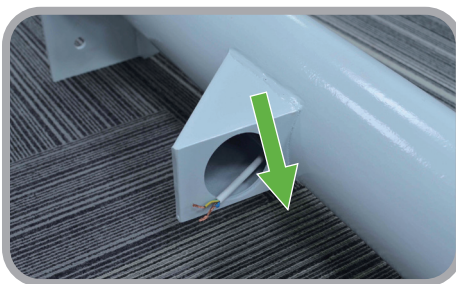


Figure 3-2

### ③ Connect the mains power cord

As shown in Figure 3-1, thread the mains power cord upwards from the bottom of the column and exit through the hole of the chassis bracket as shown in Figure 3-2.

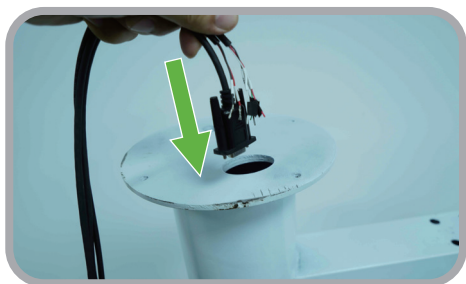


Figure 4-1

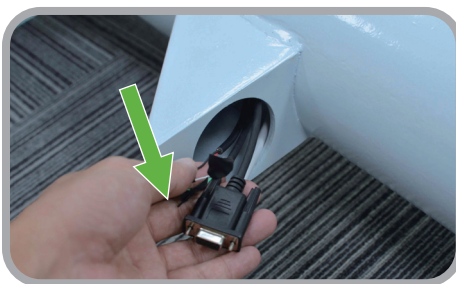


Figure 4-2

### ④ Fixed U6 host

As shown in Figure 6-1, use a 5mm hex wrench to tighten and secure the 4 screws that come with the host. After installation, as shown in Figure 6-2.



Figure 5-1



Figure 5-2

### ⑤ Connect the data cable to the U6 host

As shown in Figure 5-1, insert the 12 core plug with a red core to a red core into the U6 host socket, and then level the host at the corresponding threading hole position, as shown in Figure 5-2.



## VIII.Column Installation Diagram



Figure 6-1

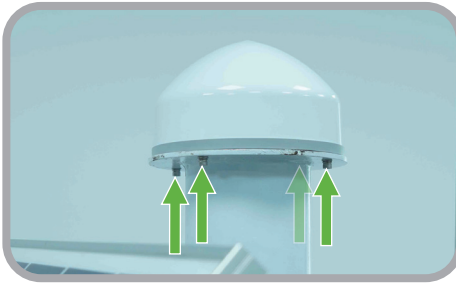


Figure 6-2

### ⑥ Fixed U6 host

As shown in Figure 6-1, use a 5mm hex wrench to tighten and secure the 4 screws that come with the host. After installation, as shown in Figure 6-2.



Figure 7-1

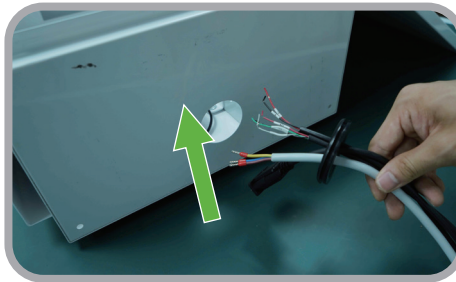


Figure 7-2



Figure 7-3

### ⑦ Install the chassis cover and thread the power cord and U6 data cable

Cut open the adhesive sleeve with scissors as shown in Figure 7-1. Thread the power cable and U6 data cable through the adhesive sleeve as shown in Figure 7-2 and pull them into the inside of the chassis. Press the wires into the corrugated tube and insert the corrugated tube into the adhesive sleeve, as shown in Figure 7-3.

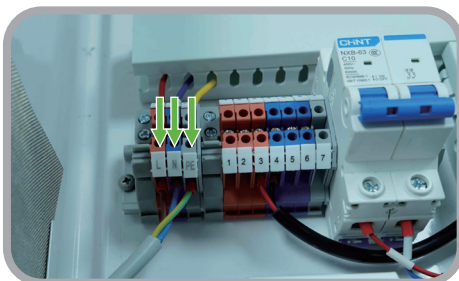


Figure 8-1



Figure 8-2

### ⑧ Connect the power cord

Connect the power supply to the input terminal of the terminal block in order of L (brown), N (blue), PE (yellow green) as shown in Figure 8-1. The power cord is routed through the chassis as shown in Figure 8-2.

## VIII.Column Installation Diagram

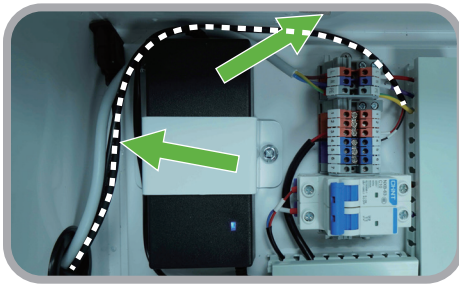


Figure 9-1

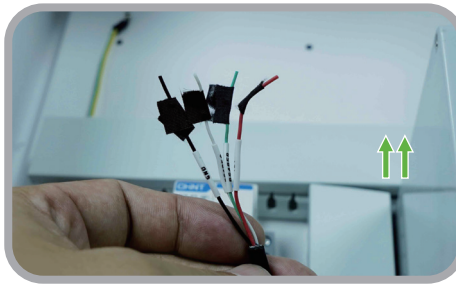


Figure 9-2

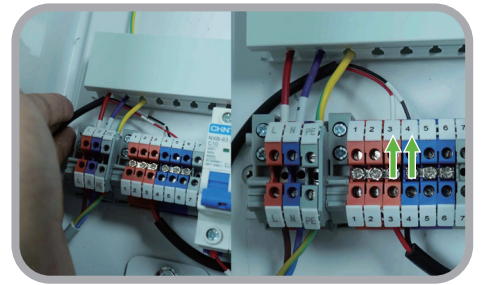


Figure 9-3

### ⑨ Connect U6 power cord

Route the U6 data cable from the bottom of the chassis according to Figure 9-1 (wrap the temporarily unused cable ends with adhesive tape to avoid bare leakage as shown in Figure 9-2), as shown in Figure 9-3. Connect the U6 power cable red (+) and black (-) to the 3 (red) and 4 (black) interfaces of the terminal block and tighten the screws.

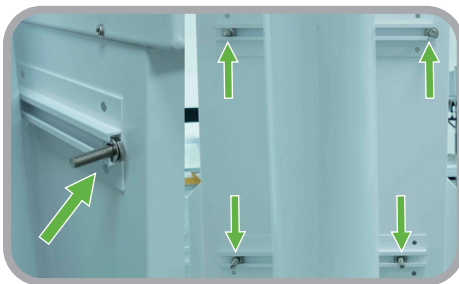


Figure 10-1

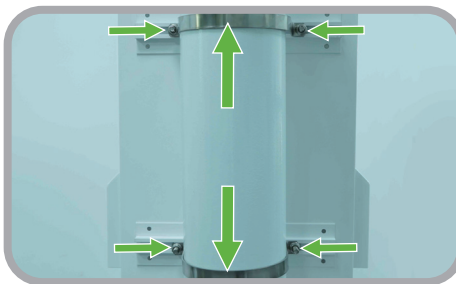


Figure 10-2

### ⑩ Fixed chassis

First, place the chassis on the chassis bracket of the pillar, Insert 4 M8T bolts with washers into the slot of the chassis as shown in Figure 10-1; After aligning the clamps with the 4 T-shaped bolts as shown in Figure 10-2, use M8 anti loosening nuts to fix the chassis to the column.



Figure 11

### ⑪ Fixed lightning rod

As shown in Figure 11, fix the lightning rod on the column support arm with 4 M12 screws.



# VIII.Column Installation Diagram

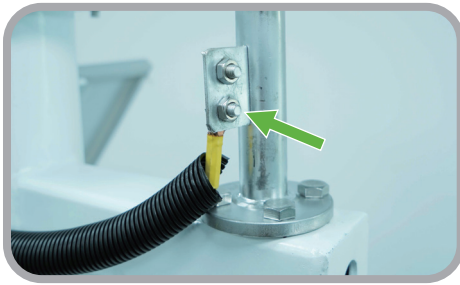


Figure 12

## ⑫ Fixed lightning rod ground wire

As shown in Figure 12, use the screws that come with two lightning rods to lock the copper nose of the lightning rod ground wire to the ear of the lightning rod needle, and then wrap the soft copper wire with a corrugated tube.

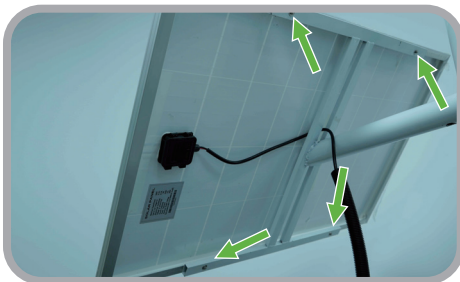


Figure 13

## ⑬ Fix the solar panel to the bracket

As shown in Figure 13, use the four screws provided with the solar panel to fix it to the bracket.

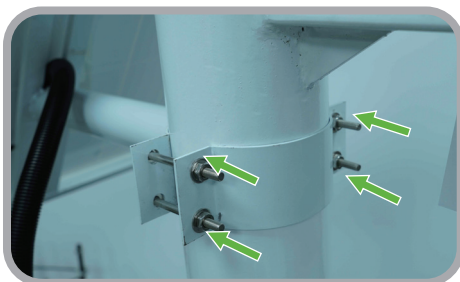


Figure 14

## ⑭ Fixed solar panel bracket

As shown in Figure 14, use the four screws provided with the solar panel bracket to fix it to the pole.



Figure 15

## ⑮ Insert the power cord of the solar panel into the corrugated tube

As shown in Figure 15, the exposed solar panel power cord is threaded into a corrugated tube and inserted into a vertical pole.



Figure 16

## ⑯ Fixed pole

After aligning the upright pole with the ground cage bolt, fix the upright pole with a nut, as shown in Figure 16.

(The threading holes on the column are finally sealed with foam glue to prevent foreign objects from entering)