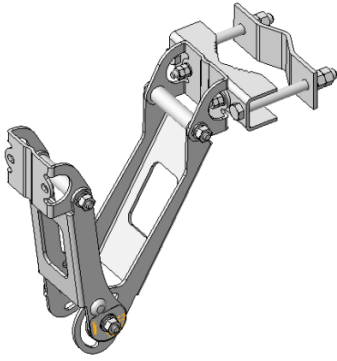
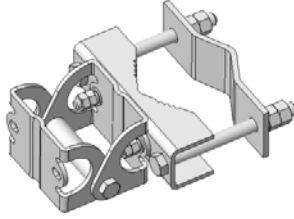


### Clamps 夹具



Upper bracket  
上支架组件

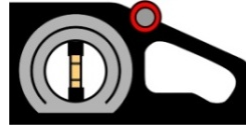


Lower bracket  
下支架组件

### Installation Tools 安装工具

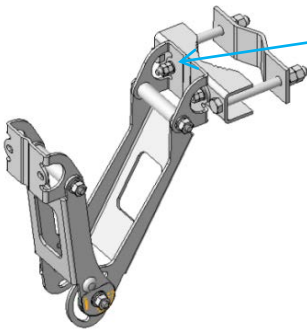


18 mm combination wrench(2PCS)  
16 mm combination wrench(2PCS)  
13mm combination wrench(2PCS)  
两用扳手

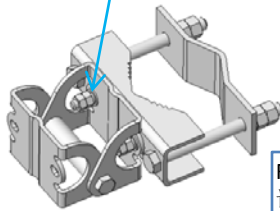


Inclinometer 倾角仪

### Step 1: Assemble the bracket 第一步：组装支架

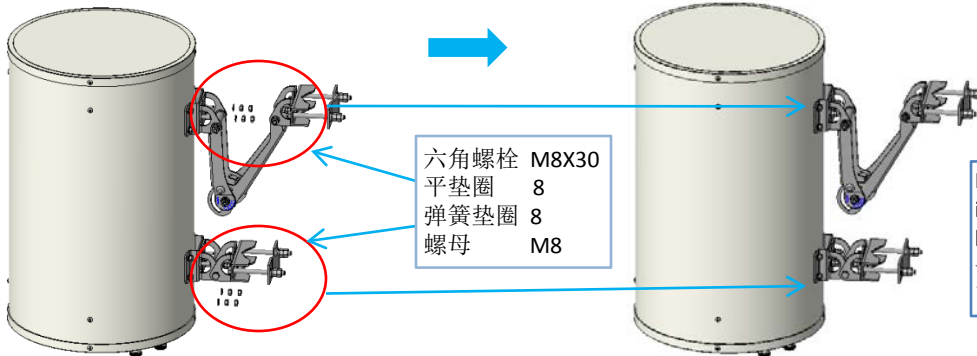


六角螺栓 M8X30  
平垫圈 8  
弹簧垫圈 8  
螺母 M8



Follow the directions shown in the picture to install brackets.  
请按图中所示安装好上支架、下支架。

### Step 2: Install the bracket 第二步：安装支架



六角螺栓 M8X30  
平垫圈 8  
弹簧垫圈 8  
螺母 M8

Follow the directions shown in the picture to install brackets.  
请按图中所示将上支架、下支架安装到天线。

### 附件清单(Attachment list)

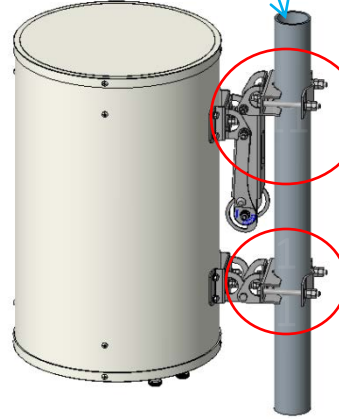
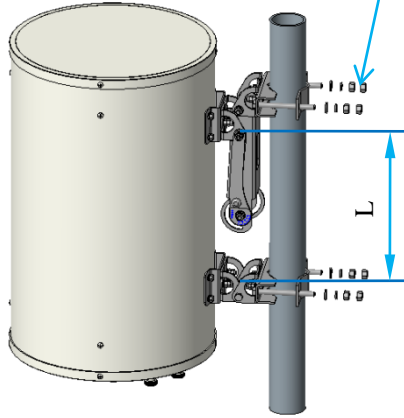
名称name	编号code	数量Quantity
上角臂 Scale arm upper	12S13301	1
下角臂 Scale arm lower	12S13302	1
连接固定件 Joint	12S13303	4
夹板 Lock board 1	12S13304	2
压板 Lock board 2	12S13305	2
隔离管 Pipe separator	12S13306	4
螺栓Bolt GB/T5783 M12X180		4
螺栓Bolt GB/T5783 M10X110		4
半圆头方颈螺栓Bolt GB/T12 M10X25		2
六角螺栓Bolt GB/T5783 M8X30		8
螺母Nut GB/T6170 M12		8
螺母Nut GB/T6170 M10		6
螺母Nut GB/T6170 M8		16
平垫圈 Flat washer GB/T97.1 12		4
弹簧垫圈Spring washer GB/T93 12		4
平垫圈 Flat washer GB/T97.1 10		6
弹簧垫圈Spring washer GB/T93 10		6
平垫圈 Flat washer GB/T97.1 8		8
弹簧垫圈 Spring washer GB/T93 8		8
Appearance of the actual antenna may differ from the pictures. — 请以实物为准。		

Step 3: Install the antenna

第三步：安装天线

六角螺栓 M12X180  
平垫圈 12  
弹簧垫圈 12  
螺母 M12

Pole diameter (mm)  
抱杆直径  
Φ 50~Φ110



Tighten all the nuts before lifting the antenna onto the tower. Ensure the bracket is fully folded.

上塔前确保此支架在0° 完全折起并锁紧所有螺母。

Install the antenna on the pole as shown in the figure.

The same installation method applies to both upper and lower brackets.

按图所示安装天线在抱杆上，上支架和下支架安装方式相同。

Check and tighten all the nuts when the installation is complete. The operating torques are given in the following figures.

安装完后，要检查并拧紧所有螺母。

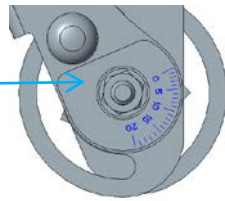
The recommended

螺栓参考力矩：

M8=20 N·m; M10=35 N·m; M12=62 N·m

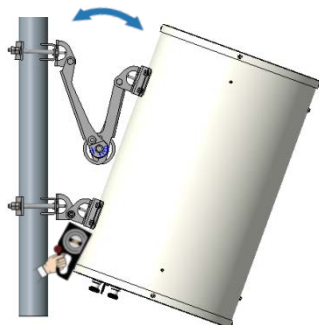
Step 4: Adjust the mechanical downtilt angle

第四步：调节天线的机械下倾角



Method 1  
方法1

Precise reference  
参考测量  
Scale of bracket (the actual scale prevails)  
支架刻度尺（实际刻度请以实物为准）



Method 2  
方法2

Precise measurement  
精确测量  
Before adjustment, adjust the inclinometer to the desired downtilt angle. After adjustment, locate the bead in the middle of the inclinometer.  
调节前，将倾角仪调到所需的下倾角度。调节后，倾角仪的水珠水平居中。

SL12S172

Mounting plate distance  
安装板距离L(mm)

Down tilt angle  
下倾角调节范围

1000±5

0-20°

After the adjustment is complete, tighten all the nuts.

角度调整完成后，拧紧所有螺母。

Only qualified personnel are allowed to install the antenna.

天线的安装需由合格的安装人员操作。