

# Installation instruction

Instruction Number: 10000001055

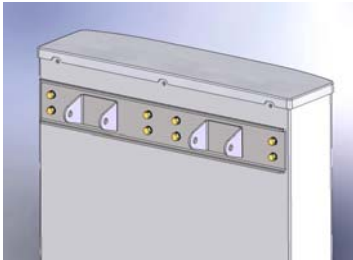
Rev.: F

DRN/ECO No.: \_\_\_\_\_

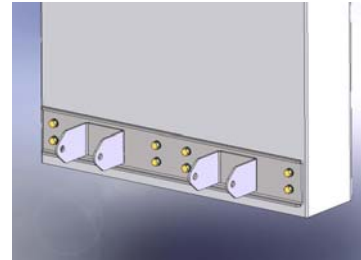
## Installation Instructions for APM40-5 Mounting Kit

### 1 – Application

The APM40-5 Mounting Kit is a mounting hardware option to be used for Base Station Antennas Dual Band Side by Side 2.0m in length, which uses mounting interface brackets as shown below.



Top



Bottom

### 2 – Features

- Beam sliding tilt mount for mechanical tilt
- Pipe diameter: 60-120mm
- Mechanical downtilt: 0~9.5° for 2.0m antennas

### 3 – Mechanical Specifications

Tilt adjustment range	0~9.5°@2.0m
Weight of kit (kg)	13 Kg
Mounting kit material	Aluminum, Galvanized steel
Packaging dims. H x W x D (mm)	710 x 530 x 90

Please contact technical support for more information.

### 4 – Tools required for installation

- 18 and 19mm (3/4") AF Spanner or Socket (3/8" drive recommended)
- Torque wrench

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## 5 – Item numbers for the Mount Kit Hardware

Item Number	Description	Quantity
1	Clamp front	2
2	Clamp rear	2
3	M12-200, Galvanized, ISO8677 class 4.8	4
4	HM12-110 Hot dip Galva ISO4017 class 4.8	8
5	FLAT WASHER M12N HOT GALVA STEEL	12
6	SPRING LOCK WASHER W12 HOT GALVA STEEL	12
7	HEX. NUT M12 HOT GALVA STEEL	12
8	Stub for scissor	4
9	Downtilt scissor	2
10	Downtilt beam	2
11	Mechanical downtilt indicator 2.0m	2
12	Stub Spacer bracket DB D9	2
13	M8-100, Galvanized, ISO8677, class 4.8	4
14	SPRING LOCK WASHER A8 DIN127 A2	4
15	FLAT WASHER DIN125 8.4 A2 (FRTR)	4
16	M8X1,25 HEX NUT STL GALV	4
17	Spacer for bottom interface	4

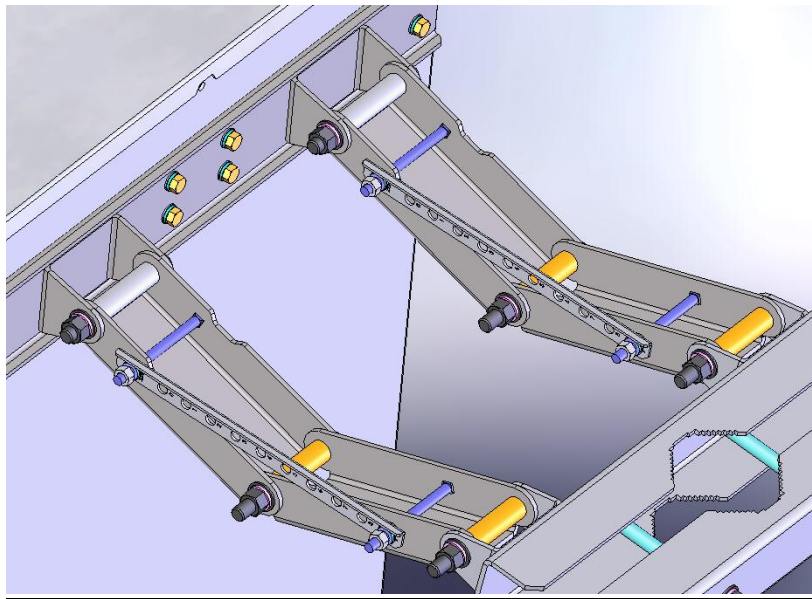


## **6 – Assembly of components to antenna**

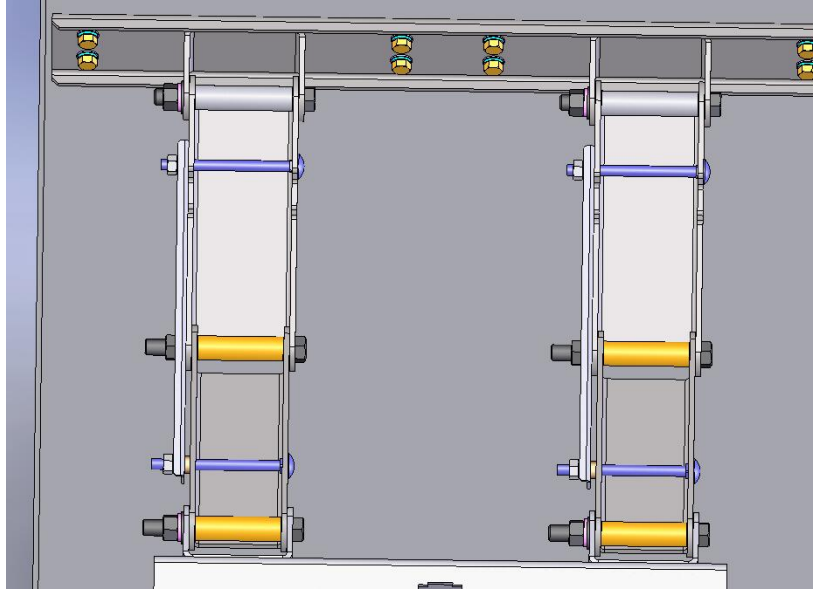
Due to the heavy weight of the antenna and in order to have better, safer and easier assembly, the operator can preassemble all the parts together on the ground according to the detailed view below. During the preassembly, all the fixations shall be assembled but not fully tightened, extreme caution to be used that all nuts bolt and washers are fitted according to the assembly diagram before lifting can take place. Then use lifter to lift the antenna to the correct pole side, this will enable ease of installation.

For the lifting points selection, item 1 on the top and bottom is the right part to use. The operator can put the lifting tool on these two parts to lift the antenna.

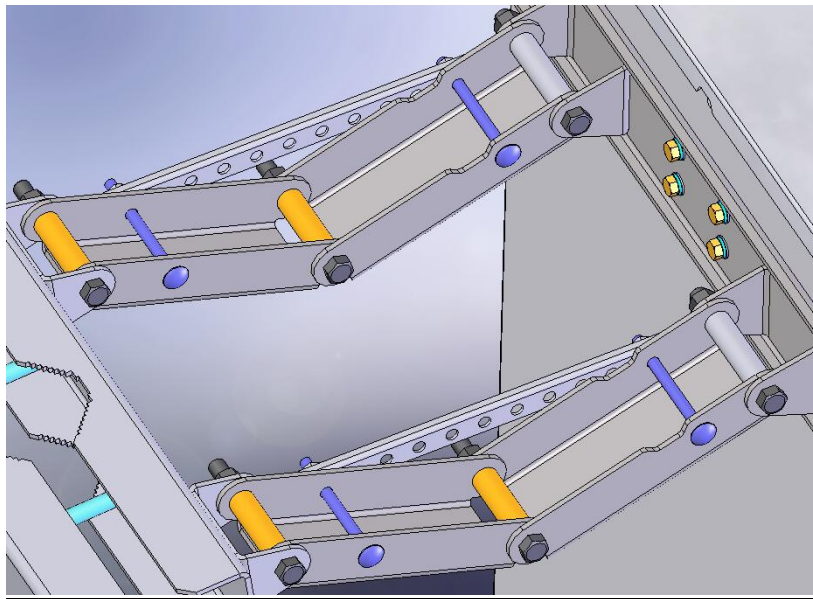
After attached the antenna with the pole, all the fixation should be locked tightly according to the required torque specification [refer torque table].



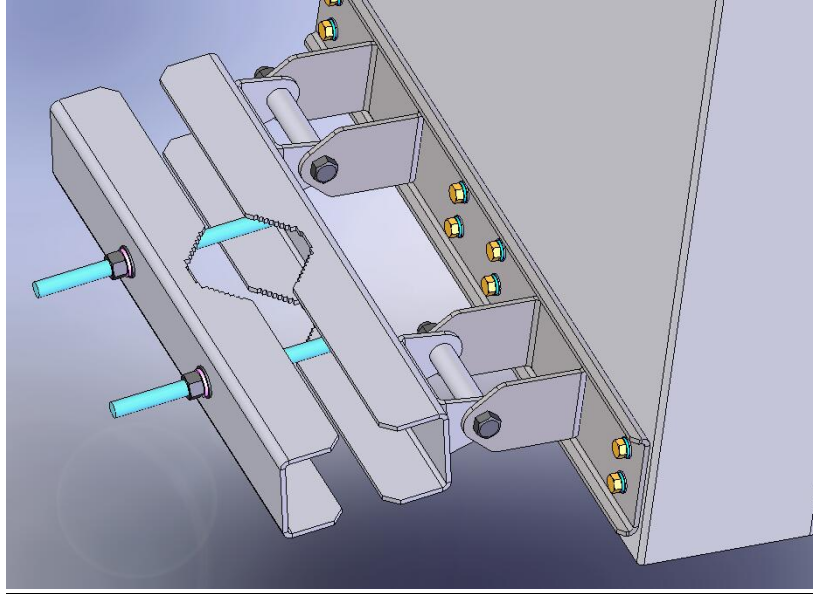
**Detailed left view for top mounting kits**



Detailed middle view for top mounting kits

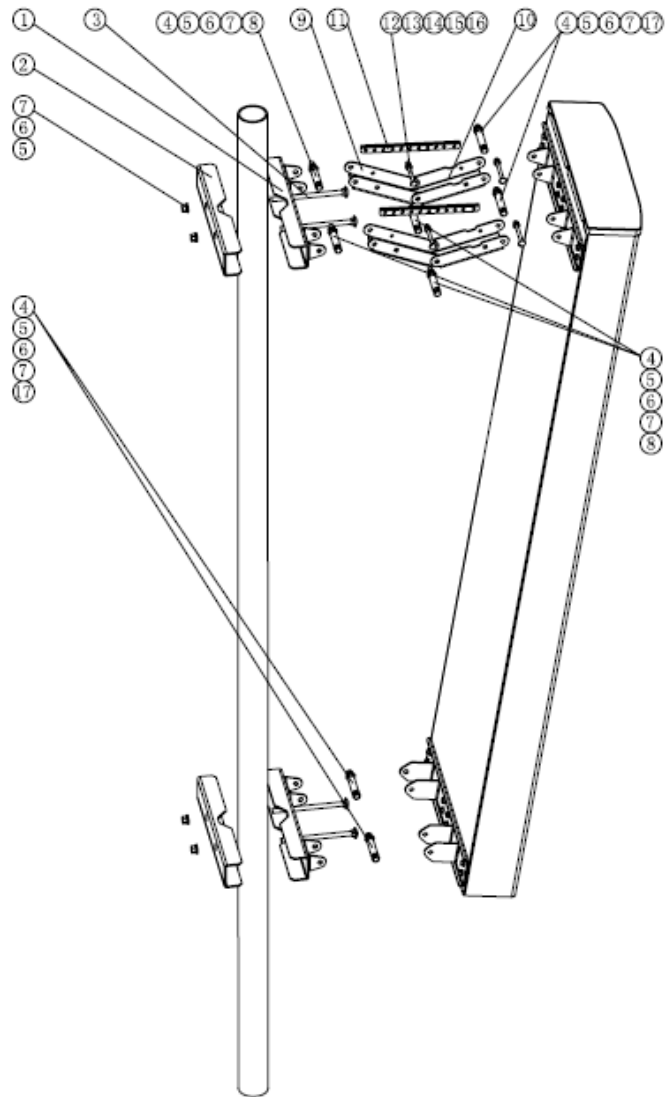


Detailed right view for top mounting kits



Detailed view for bottom mounting kits



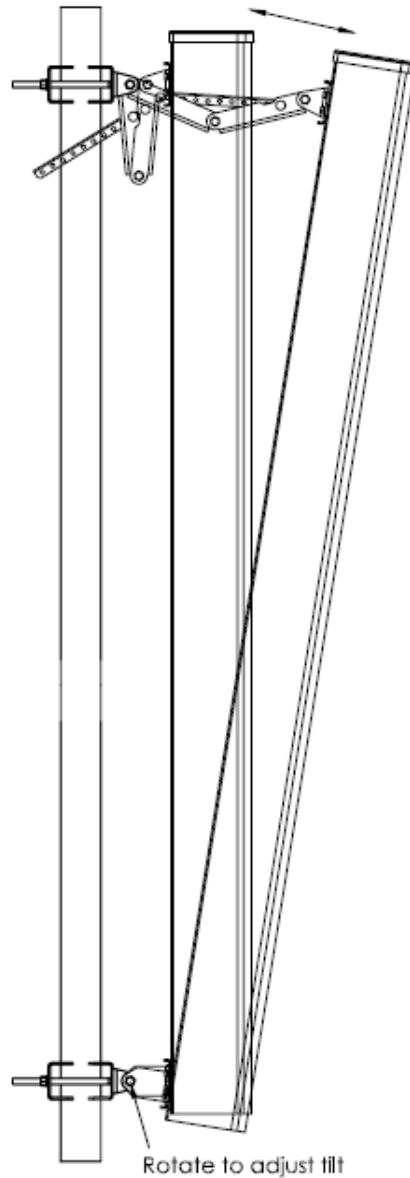


Beam Tilt Assembly for downtilt

This assembly attaches pipe to top of antenna. Ensure tilt indicator has SHORT BEAM tilt markings visible.



## 7 – Adjusting tilt with Short Beam Assembly



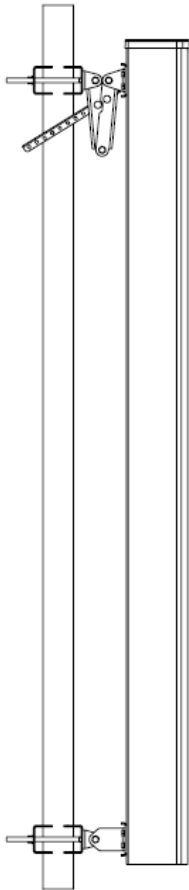
To adjust tilt, loosen pipe clamp bolts, bolts through tilt beams and bolt at antenna bracket base (as shown by arrows). Slide arms up or down pipe to achieve tilt. Align mark with indicator angle. Tighten nuts to lock in position.

## **8 – Tightening Torque Values**

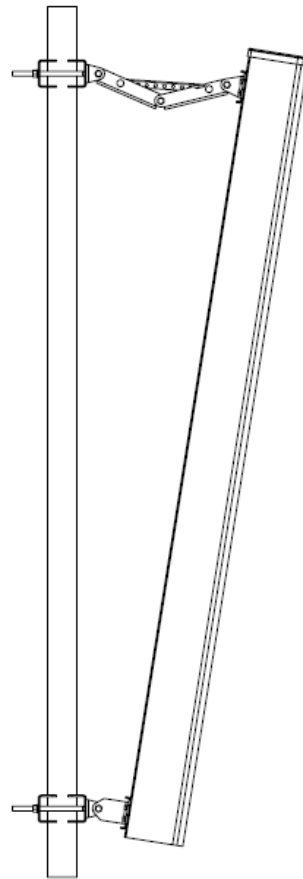
Unless otherwise stated, the following general tightening torque values shall be used for metric hexagon bolts and screws, coarse pitch threads, property class 4.6.

Dia.	Pitch (mm)	Bolt Tension (kN)	Torque (Nm)
M12	1.75	15.9	40

## **9 – Bracket Separation**



**0° Tilt**



**9° Tilt**



## **10 – Maintenance**

Under normal conditions, no maintenance is necessary. However, the antenna should be visually inspected at regular intervals for damage (e.g.: due to lightning strikes, falling ice, etc.). Periodic checks should be performed to verify correct torque and bracket clearance settings.

