

Amphenol Antenna Solutions



APM40-2/E10 MOUNTING KIT INSTALLATION INSTRUCTIONS

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Mounting Instructions for APM40-2/E10 Kit

SUMMARY

1. Application	3
2. Features	3
3. Mechanical Specifications	3
4. Tools required for installation	3
5. Item numbers for the Mount Kit Hardware	3
6. Assembly of components to antenna	3
7. Adjusting the tilt with short beam assembly	5
8. Tightening torque values	5
9. Antenna mechanical downtilt range	6
10. Maintenance	6

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1. APPLICATION

The APM40-2/E10 are mounting hardware to be used for Base Station antennas up to 2.6 meters length.

2. FEATURES

- Beam sliding tilt mount for mechanical tilt.
- Pipe diameter: 60-120mm.
- Mechanical down tilt, depending of antennas.
For other size, Subject to the actual assembly.

3. MECHANICAL SPECIFICATIONS

Weight of Kit (kg)	4.4
Mounting Kit Material	Aluminum, Carbon Steel Sheet
Packaging Dimensions, H x W x D (mm)	345 x 195 x 160
Packaging Material	CARTON

Please contact technical support for more information.

4. TOOLS REQUIRED FOR INSTALLATION

- 13mm, 18mm and 19mm (3/4") AF Spanner or Socket (3/8" drive recommended)
- Torque wrench

5. ITEM NUMBERS FOR THE MOUNT KIT HARDWARE

Item	Description	Qty.	Item	Description	Qty.
1	Bolt Hex M12 x 110	7	7	Washer Flat M12 diameter 31.5	4
2	Bolt Hex M12 x 125	1	8	Top Mounting Interface	1
3	Assembled Screw M8 x 20	8	9	Bottom Mounting Interface	1
4	Nut Hex M12	8	10	Clamp front (Die Casting)	2
5	Washer Flat M12	6	11	Clamp rear (Die Casting)	2
6	Washer Spring M12	8	12	Strengthen Arm (Die Casting)	1

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

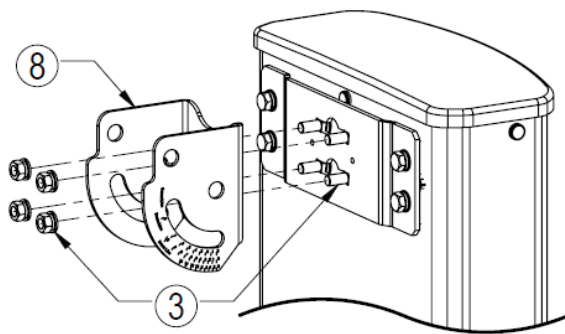
Mounting Instructions for APM40-2/E10 Kit

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.

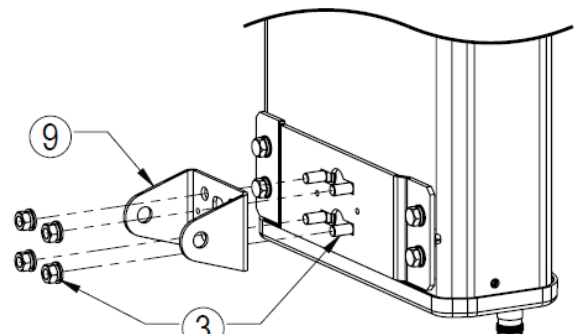
For the lifting point's selection, item 8 & 9 on the top and bottom is the right part to use. The operator can put the lifting tool on these two parts to lift the antenna.

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

1. Attach top and bottom interface brackets to antenna with M8 screw sets (item 3) as below pictures.

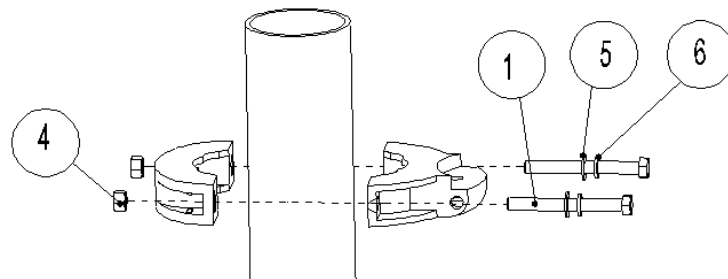


View for top mounting interface



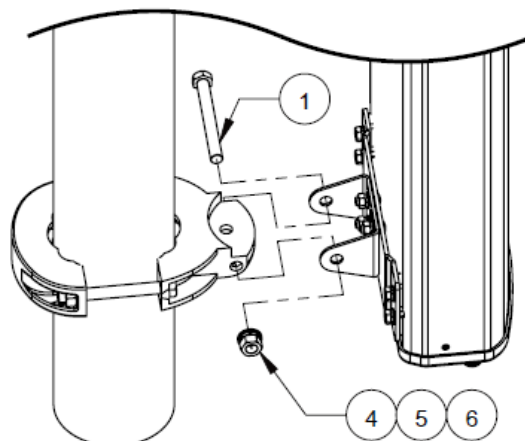
View for bottom mounting interface

2. Mount front and rear clamps (both top and bottom points) to pipe as below picture.



View for clamps mounting

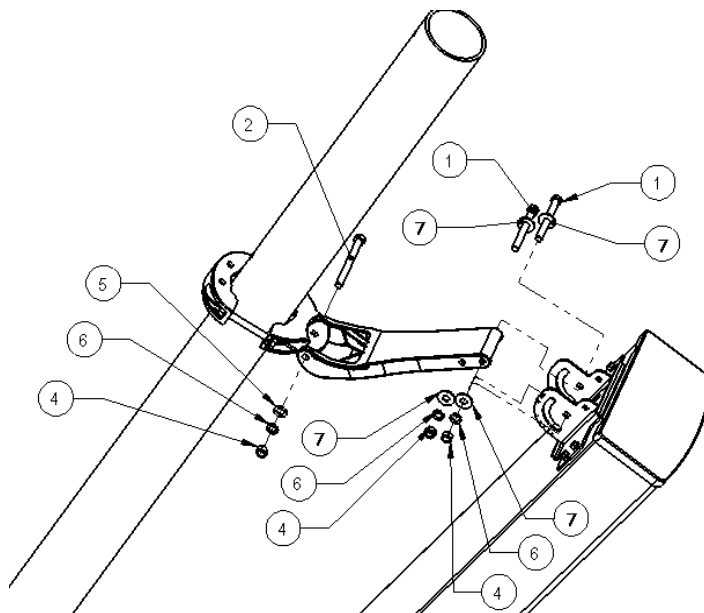
3. Mount bottom interface to bottom clamp as below picture.



Mounting Instructions for APM40-2/E10 Kit

View for bottom mounting of antenna

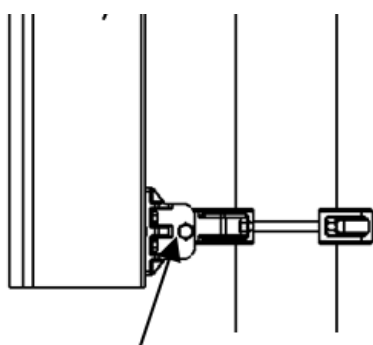
4. Mount top interface to top clamp with arm as below picture.



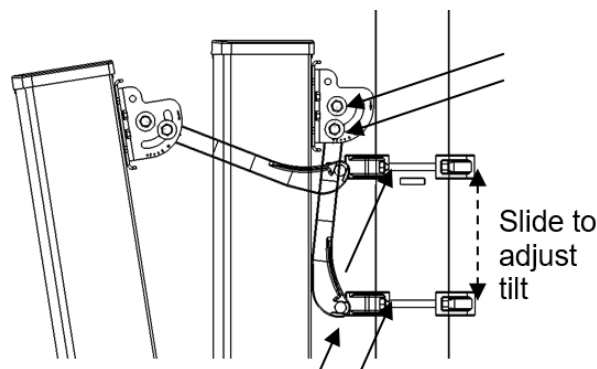
View for top mounting of antenna

7. ADJUSTING THE 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 to achieve tilt. Align mark with indicator angle. Tighten nuts to lock in position.



View for bottom side



View for top side

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 8.8.

Diameter	Pitch (mm)	Bolt Tension (kN)	Torque (Nm)
M12	1.75	23.8	60

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M8	1.25	9.5	16
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9. ANTENNA MECHANICAL DOWNTILT RANGE

Antenna Length: 'L' (mm)	Mechanical Downtilt Range (°)
L > 2600	0 ~ 5
2200 ≤ L < 2600	0 ~ 7
1800 ≤ L < 2200	0 ~ 9
1400 ≤ L < 1800	0 ~ 11
1000 ≤ L < 1400	0 ~ 15
500 ≤ L < 1000	0 ~ 23
L < 500	0 ~ 30

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.

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