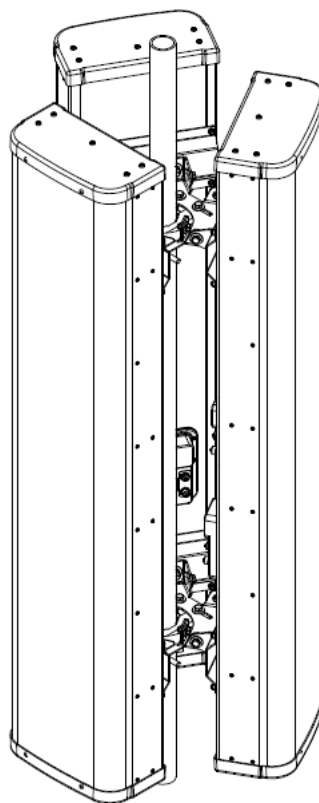


Triple Mount Mast Bracket Installation Guide (TM-01)



DISCLAIMER:

The installation, maintenance, or removal of an antenna requires qualified, experienced personnel. You must refer to the appropriate local safety codes and ensure proper electrical and electromagnetic compatibility before proceeding with the installation. All local codes shall take precedence over information in this document. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment. Communication Components Antennas Inc. disclaims any liability or responsibility for the results of improper or unsafe installation.

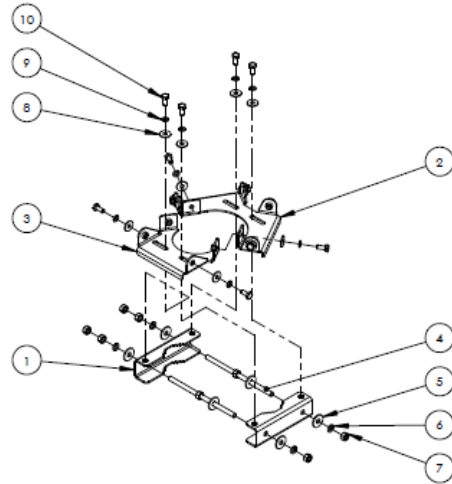


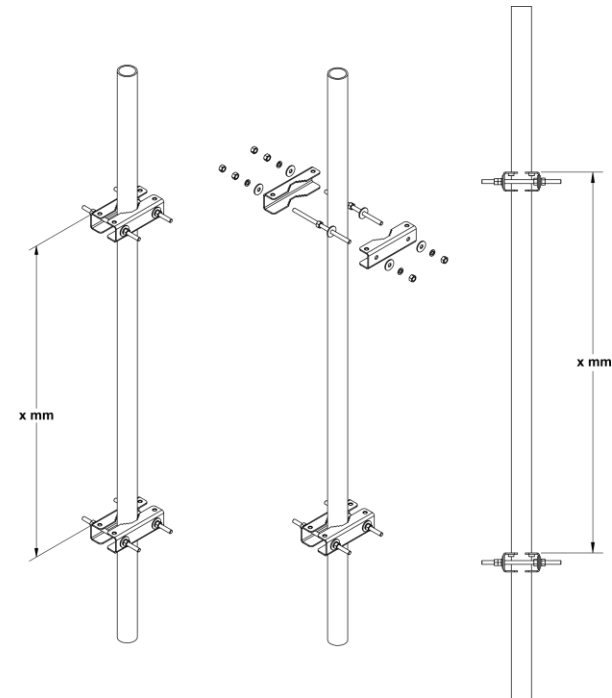
Fig. 1: Triple Mount Mast Bracket BOM

ITEM	QTY	DESCRIPTION
1	4	MAST BRACKET, CLAMP, TRIPLE MOUNT, TM-01
2	2	MAST BRACKET, DUAL HINGE, TRIPLE MOUNT, TM-01
3	2	MAST BRACKET, SINGLE HINGE, TRIPLE MOUNT, TM-01
4	4	THREADED ROD, M12X1.75, 250L, DIN 975, CLASS 8.8
5	12	WASHER, FLAT, M12, 37 OD, MIN 2.3 THK, DIN 9021, STEEL
6	8	WASHER, SPLIT LOCK, M12, DIN 127B, STEEL
7	16	NUT, HEX, M12X1.75, DIN 934, CLASS 8, STEEL
8	24	WASHER, FLAT, M10, 30OD, MIN 2.3 THK, DIN 9021, STEEL
9	24	WASHER, SPLIT LOCK, M10, DIN 127B, STEEL
10	24	SCREW, HEX, CAP, M10X1.5, 25L, DIN 933, CLASS 8.8

Step Task

- 1 The Triple Mount Mast Bracket can be pole mounted using the Mast Bracket Clamp, Dual Hinge Mast Bracket and the Single Hinge Mast Bracket. See Fig. 1 for the Triple Mount Mast Bracket BOM. Each TM-01 Triple Mount Mast Bracket Kit includes two Triple Mount Mast Brackets.
- 2 Attach first pair of Mast Bracket Clamps (Item 1) to mast using M12 hardware (Items 4, 5, 6 and 7) as shown.

Fig. 2: Mast Bracket Clamp Mounting

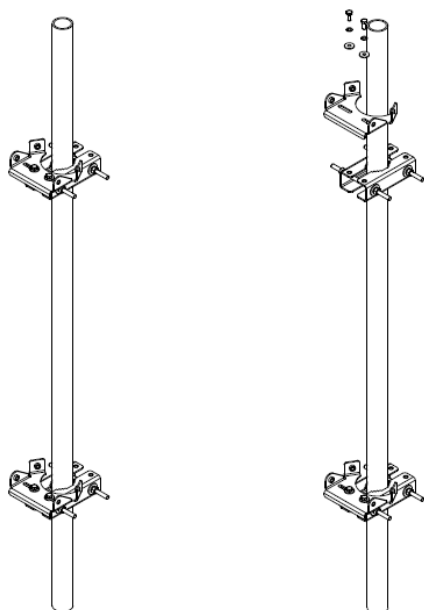


Step Task

- 3 Attach second pair of Clamps (Item 1) Mast Bracket to mast such that they are spaced (top to top) 1200mm for 6' antennas, 800 mm for 4' antennas and 330mm for 2' antennas aligned to the first set.
- 4 Ensure that the M10 threaded inserts are facing up on all clamps. Adjust M12 threaded rods as required so that approximately equal amounts stick out past each clamp. This should ensure no interference with the antennas to be installed.

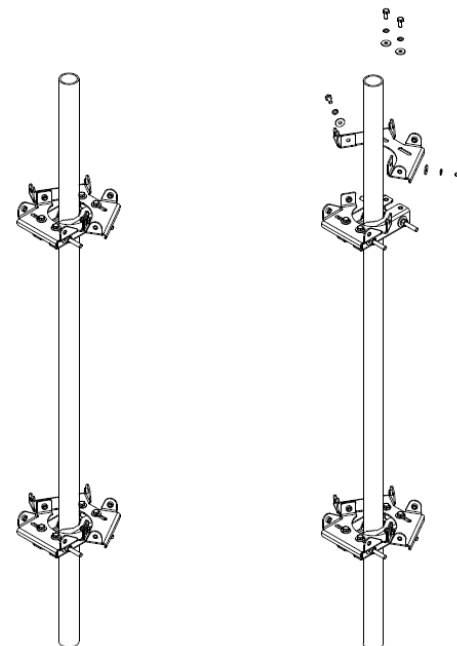
Triple Mount Mast Bracket Installation Guide (TM-01)

Fig. 3: Single Hinge Bracket Mounting to Clamps



Step	Task
5	Attach a Single Hinge Bracket (Item 3) to each pair of clamps using M10 hardware (Items 8, 9, and 10) as shown in Fig. 3.

Fig. 4: Dual Hinge Bracket Mounting to Clamps



Step	Task
6	Fasten a Dual Hinge Bracket (Item 2) to each Single Hinge Bracket (Item 3) using M10 hardware (Items 8, 9, and 10) as shown and torque to 54 N·m (40 ft·lbs). Attach Dual Hinge Brackets (Item 2) to Clamps (Item 1) using M10 hardware (Items 8, 9, and 10) as shown in Fig. 4.

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Fig.5: Antenna #1 Alignment

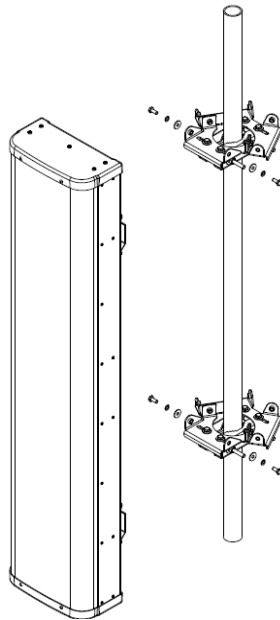
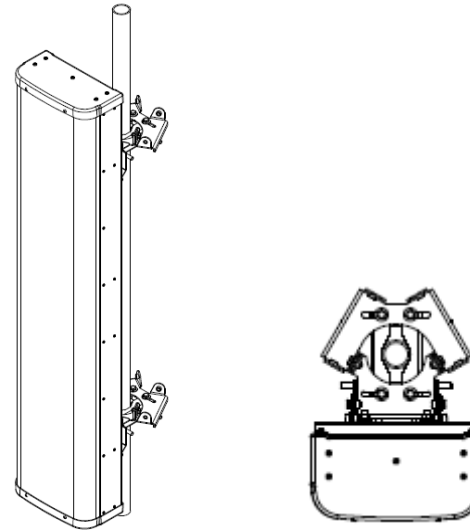


Fig.6: Antenna #1 Installation



Step	Task
7	Install Antenna #1 on to the Single Hinge Brackets (Item 3) using M10 hardware as shown in Fig. 5. Align Antenna #1 in the direction specified by the site engineer. The orientation of the Antenna is normal to the sector unless specifically required otherwise. Adjust the spacing and alignment of the upper and lower pairs of Clamps (Item 1) as required.
8	Torque M12 clamp hardware to 54 N·m (40 ft·lbs).

Step	Task
9	Tighten M10 hardware holding hinge brackets (Item 2 & Item 3) to clamps (Item 1) and torque to 54 N·m (40 ft·lbs). Completed installation should appear as shown in Fig. 6.

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Fig. 8: Antenna #2 Installation

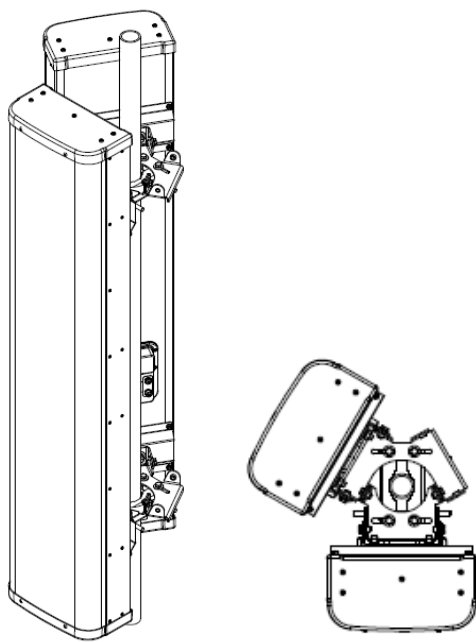
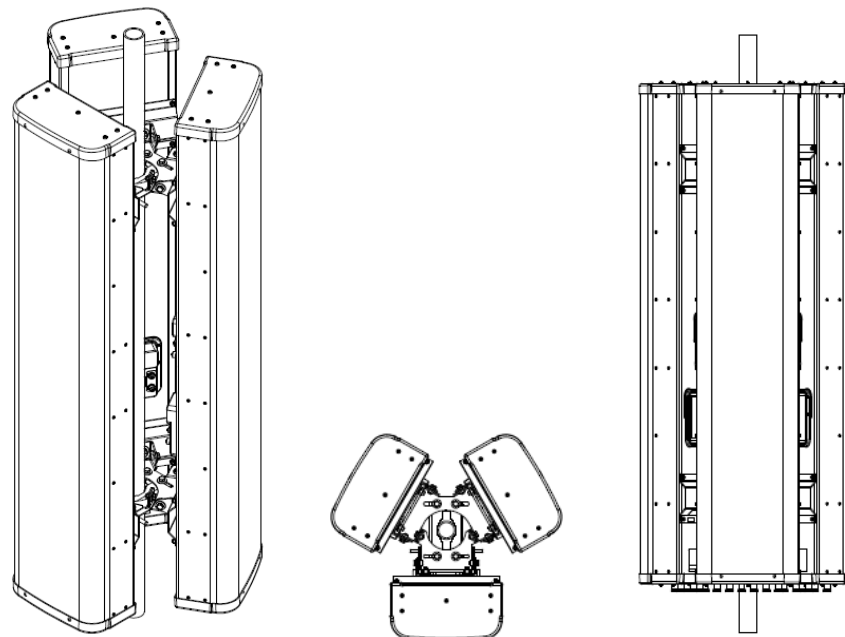


Fig. 9: Antenna #3 Installation



Step	Task
10	Install Antenna #2 on to Dual Hinge Brackets (Item 2) using M10 hardware (Items 8, 9, and 10) as shown in Fig. 8, and torque to 54 N·m (40 ft·lbs).

Step	Task
11	Install Antenna #3 on to Dual Hinge Brackets (Item 2) using M10 hardware (Items 8, 9, and 10) as shown in Fig. 9, and torque to 54 N·m (40 ft·lbs).
12	Refer to Antenna Installation Guide.