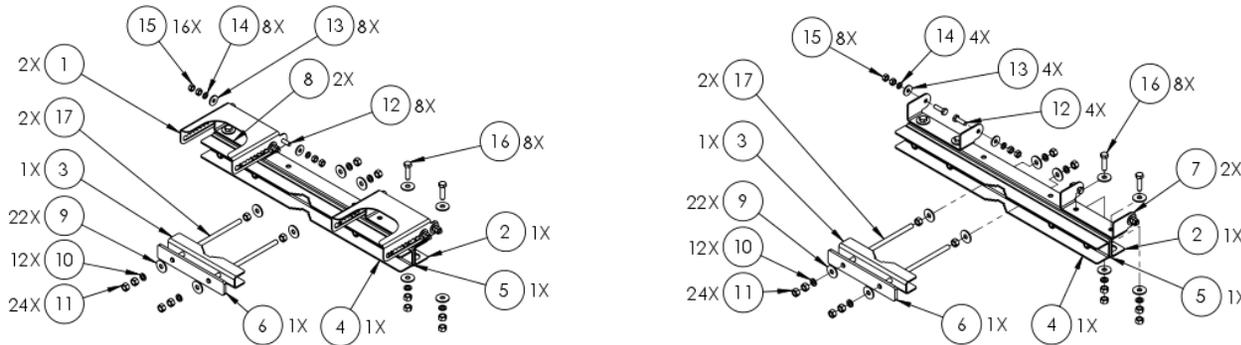
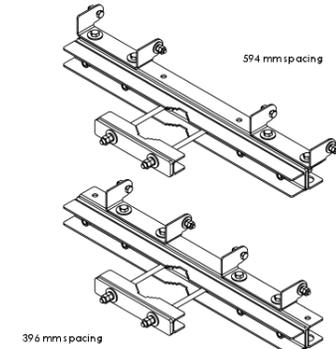


**Fig. 1: Adjustable Dual Antenna Mast Bracket BOM Balloon Callout**



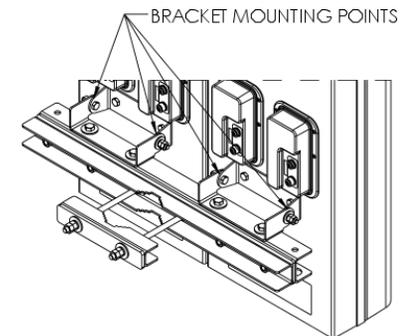
**Fig. 2: Fixed Mast Bracket**



**Dual Antenna Mast Bracket BOM**

ITEM	QTY	DESCRIPTION
1	2	MAST BRACKET, TILT, ADJUSTABLE, MBK-02
2	2	MAST BRACKET, SUPPORT DM-02
3	2	MAST BRACKET, CLAMP, DM-02
4	2	MAST BRACKET, SUPPORT CLAMP, DM-02
5	2	STIFFENER, MAST BRACKET, DM-02
6	2	STIFFENER, MAST BRACKET CLAMP, DM-02
7	2	MAST BRACKET, HINGE, FIXED, DM-01
8	2	MAST BRACKET, HINGE, ADJUSTABLE, DM-01
9	44	WASHER, FLAT, M12, 37 OD, MIN 2.3 THK, DIN 9021, STEEL, ROHS HOT DIP GALV
10	24	WASHER, SPLIT LOCK, M12, DIN 127B, STEEL, ROHS HOT DIP GALV
11	48	NUT, HEX, M12X1.75, DIN 934, CLASS 8, STEEL, ROHS HOT DIP GALV
12	12	SCREW, HEX, CAP, M10X1.5, 35L, DIN 933, CLASS 8.8, ROHS HOT DIP GALV
13	12	WASHER, FLAT, M10, 30 OD, MIN 2.3 THK, DIN 9021, STEEL, ROHS HOT DIP GALV
14	12	WASHER, SPLIT LOCK, M10, DIN 127B, STEEL, ROHS HOT DIP GALV
15	24	NUT, HEX, M10X1.5, DIN 934, CLASS 8, STEEL, ROHS HOT DIP GALV
16	16	SCREW, HEX, CAP, M12X1.75, 45L, DIN 933, CLASS 8.8, ROHS HOT DIP GALV
17	4	THREADED ROD, M12X1.75, 270L, DIN 975, CLASS 8.8, ROHS HOT DIP GALV

**Fig. 3: Fixed Mast Bracket Attached To Antennas**



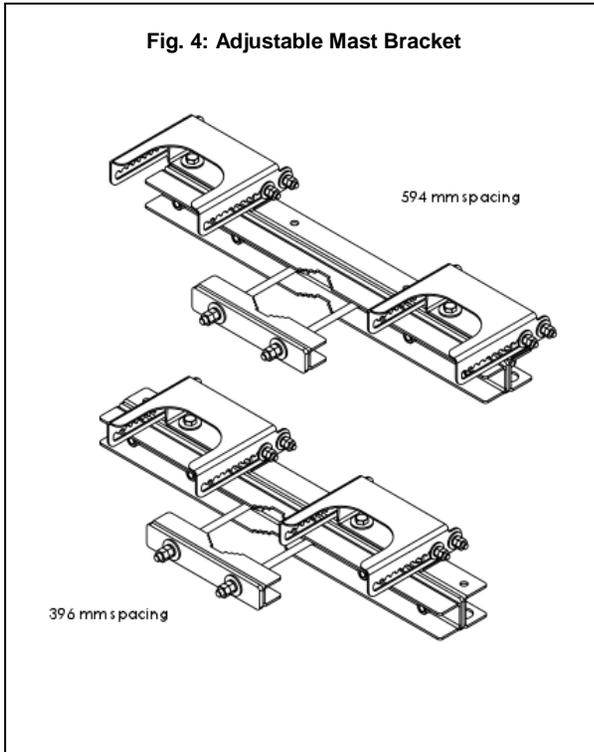
**Step Task**

- 1 Adjust the fixed and adjustable mast brackets for either 15.6 inches (396 mm) or 23.4 inches (594 mm) center-to-center antenna spacing, as shown in Fig. 2 and Fig. 4. Refer to the materials list shown in Fig. 1 to properly identify the required items for all steps.
- 2 Attach the fixed mast bracket to the top mounting braces for downtilt, or top mounting braces for uptilt, as shown in Fig. 2 and Fig.3.

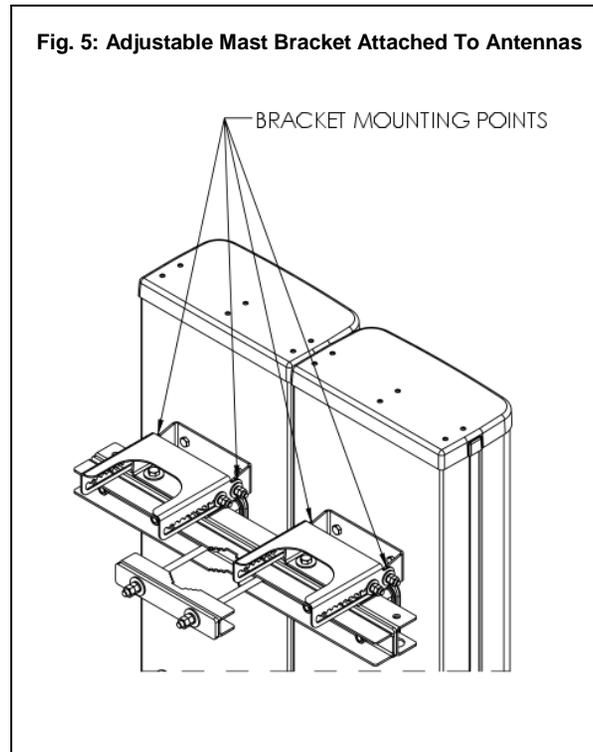
**DISCLAIMER:**

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.

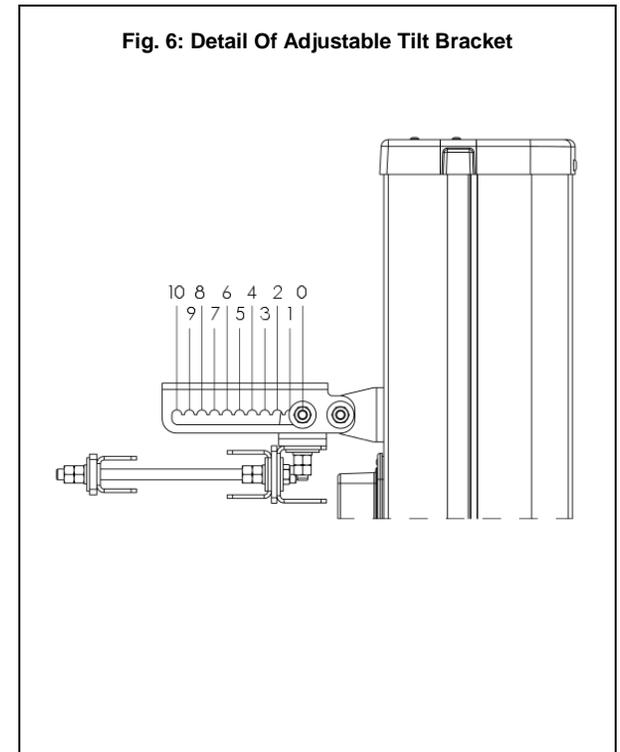
**Fig. 4: Adjustable Mast Bracket**



**Fig. 5: Adjustable Mast Bracket Attached To Antennas**



**Fig. 6: Detail Of Adjustable Tilt Bracket**



Step	Task
3	Attach the adjustable mast bracket to the top mounting brace for downtilt, or bottom mounting brace for uptilt, as shown in Fig. 4 and 5. Refer to the materials list shown in Fig. 1 to properly identify the required items for all steps.
4	Adjust the position of the threaded rod on the antenna side of brackets as required. Torque nuts to 54 N·m (40 ft-lbs).
5	For ease of assembly, set the adjustable bracket to the desired tilt angles and hand tighten fasteners while antennas are on the ground (before lifting and fastening the antenna to the mast).

Step	Task
6	Lift the antennas up to the mast location to continue assembly. Refer to Antenna Installation Guide for additional instructions and precautions.
7	Align the antennas in the direction specified by the site engineer. The orientation of the antennas are normal to the sector unless specifically required otherwise. The antennas are vertical at a 0° tilt setting. Increments 0 through 10 correspond to degrees of mechanical tilt as shown in Fig. 6. For the mechanical tilt angle to be accurate, ensure that the clamps on the mast are spaced 31.49" (80 cm) center-to-center.
8	Secure the antenna to the mast and torque all M10 mounting fasteners to 20 N·m (15 ft-lbs), and torque all M12 mounting fasteners to 54 N·m (40 ft-lbs).

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