

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.

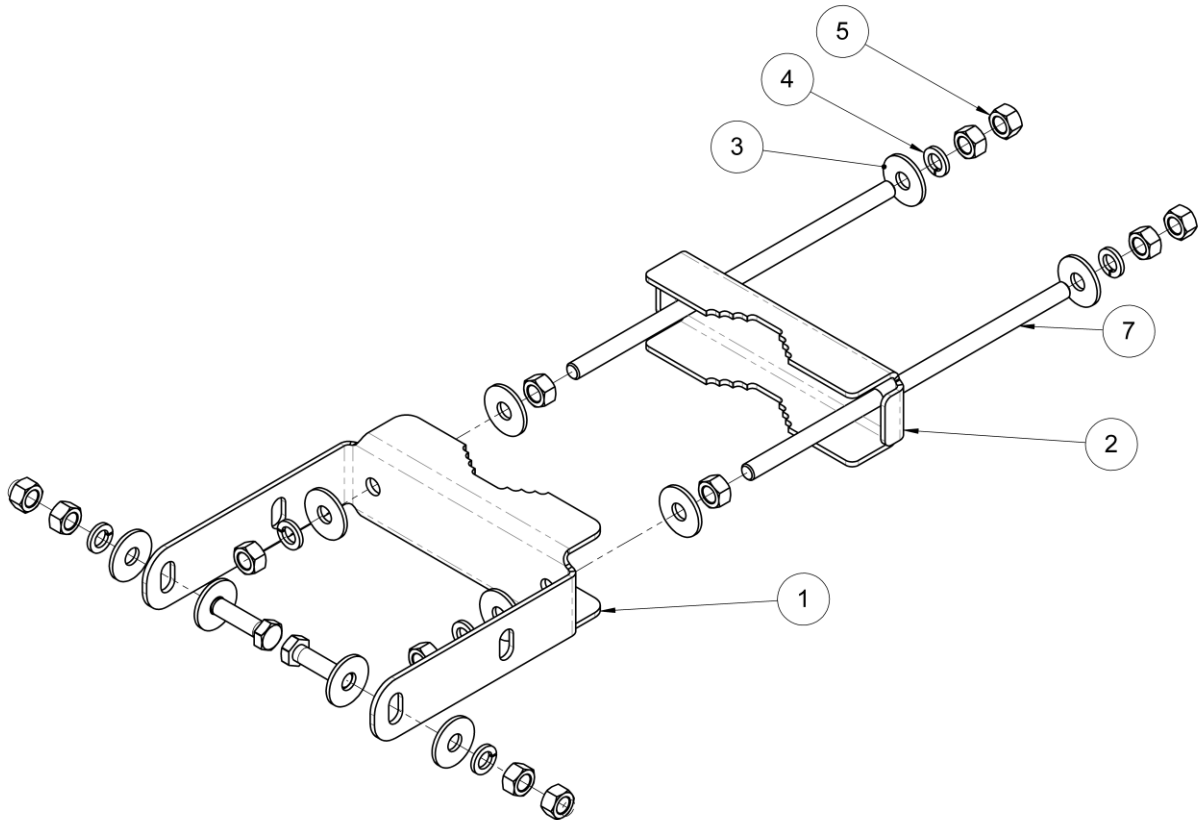


Fig. 1: Dual Position Mast Bracket Kit BOM

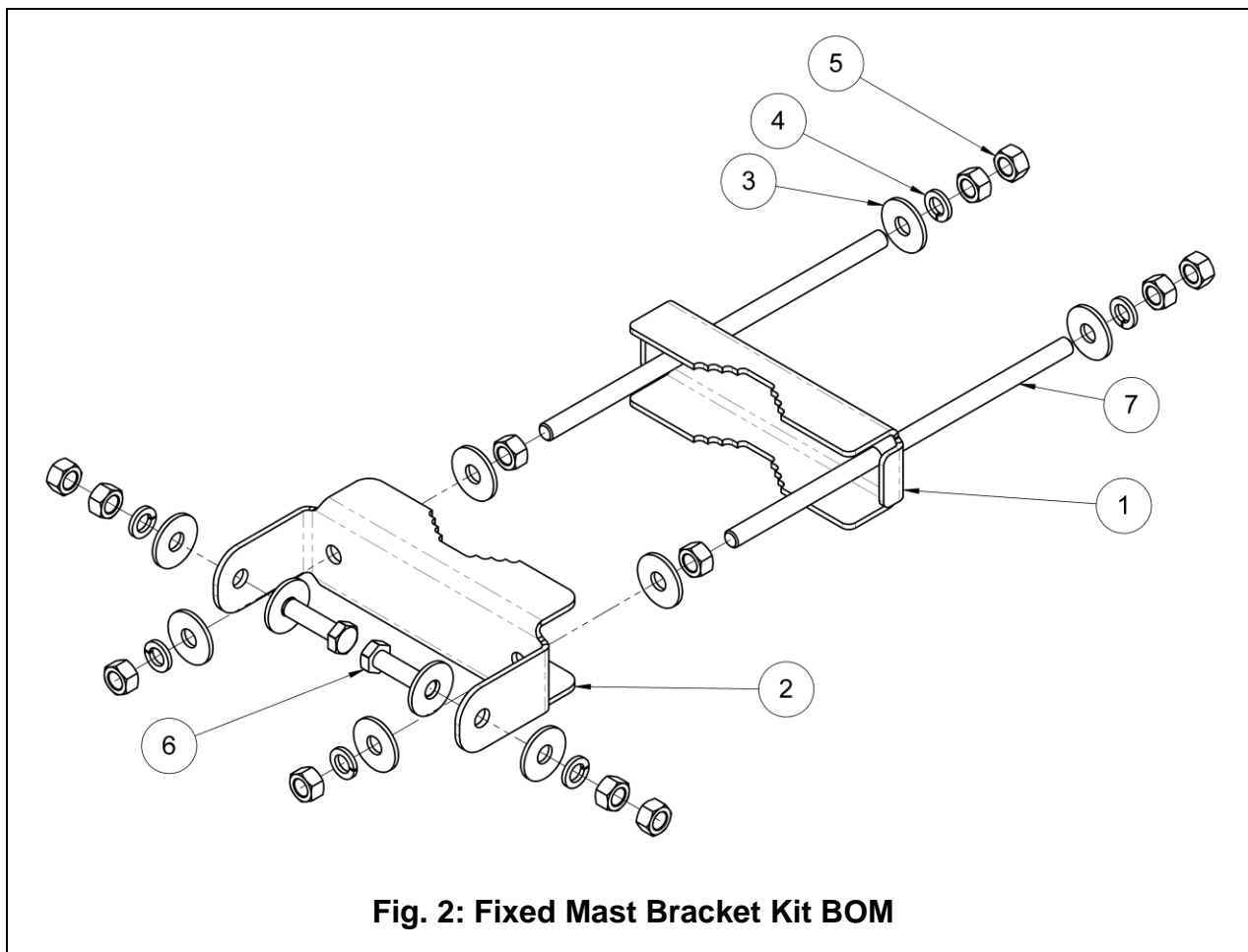
ITEM	QTY	DESCRIPTION
1	1	CLAMP BRACKET, ANTENNA, TILTED, MBK-32
2	1	CLAMP BRACKET, MBK-32
3	10	WASHER, FLAT, M12, 37 OD, MIN 2.3 THK, DIN 9021, STEEL, ROHS HOT DIP GALV
4	6	WASHER, SPLIT LOCK, M12, DIN 127B, STEEL, ROHS HOT DIP GALV
5	12	NUT, HEX, M12X1.75, DIN 934, CLASS 8, STEEL, ROHS HOT DIP GALV
6	2	SCREW, HEX, CAP, M12X1.75, 45L, DIN 933, CLASS 8.8, ROHS HOT DIP GALV
7	2	THREADED ROD, M12X1.75, 300L, DIN 975, CLASS 8.8, ROHS HOT DIP GALV

Step	Task
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|---|---|
| 1 | To achieve 5° of downtilt, attach the dual position mast bracket, illustrated in Fig. 1, to the top hinge bracket of the antenna, as illustrated in Fig. 3 and 5. Refer to the materials list shown in Fig. 1, to properly identify the required items. |
|---|---|

Note 1 Use the location on the mounting bracket shown in Fig. 4 to achieve 0° of down tilt.

Note 2 If 5° of uptilt is desired, the order of attachment of the mounting brackets can be reversed, as is shown in Fig. 8.



ITEM	QTY	DESCRIPTION
1	1	CLAMP BRACKET, MBK-32
2	1	CLAMP BRACKET, HINGE, FIXED, MBK-32
3	10	WASHER, FLAT, M12, 37 OD, MIN 2.3 THK, DIN 9021, STEEL, ROHS HOT DIP GALV
4	6	WASHER, SPLIT LOCK, M12, DIN 127B, STEEL, ROHS HOT DIP GALV
5	12	NUT, HEX, M12X1.75, DIN 934, CLASS 8, STEEL, ROHS HOT DIP GALV
6	2	SCREW, HEX, CAP, M12X1,75, 45L, DIN 933, CLASS 8.8, ROHS HOT DIP GALV
7	2	THREADED ROD, M12X1.75, 300L, DIN 975, CLASS 8.8, ROHS HOT DIP GALV

Step Task

- 2 Attach the fixed mast bracket, illustrated in Fig 2, to the bottom hinge bracket of the antenna, as illustrated in Fig 3 and Fig 5. Refer to the materials list shown in Fig. 2 to properly identify the required items.

Fig. 3: Dual Position Mast Bracket Hardware Location (at +5° or -5° Tilt)

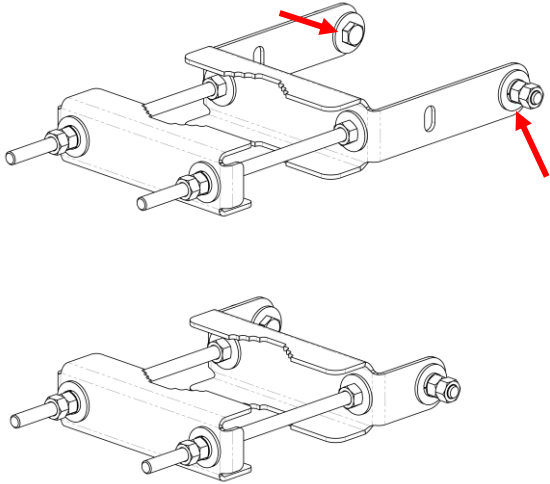


Fig. 4: Dual Position Mast Brackets Hardware Location (at 0° Downtilt)

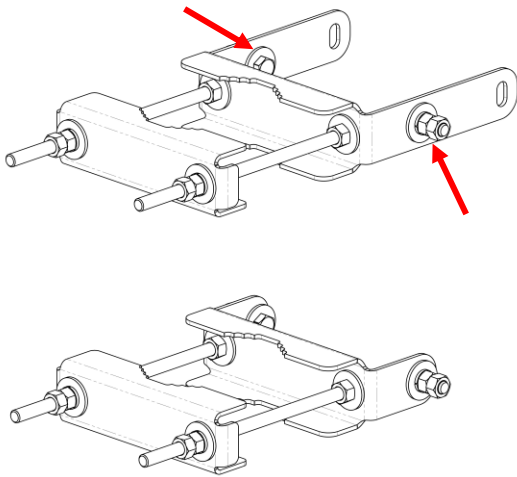
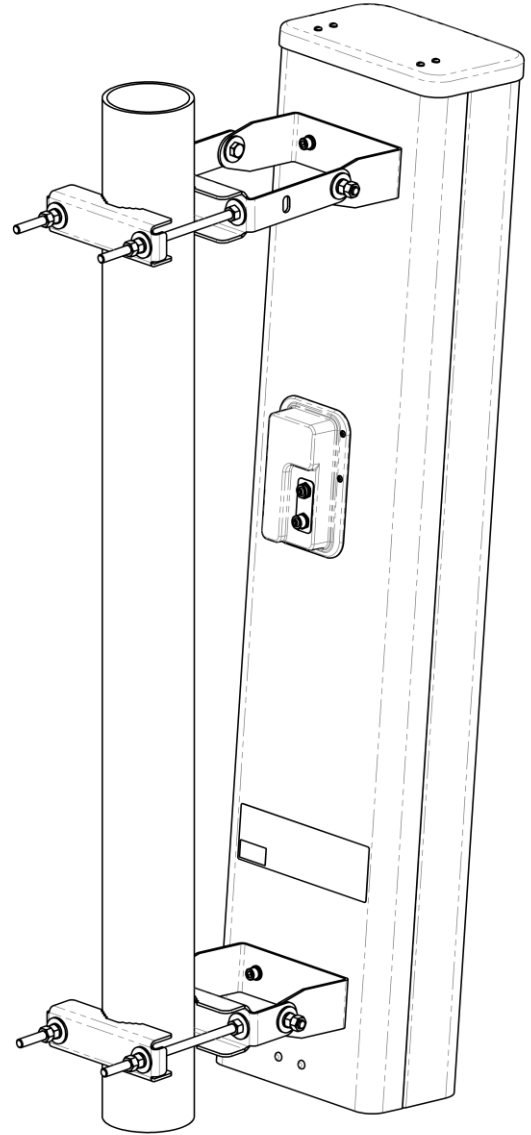


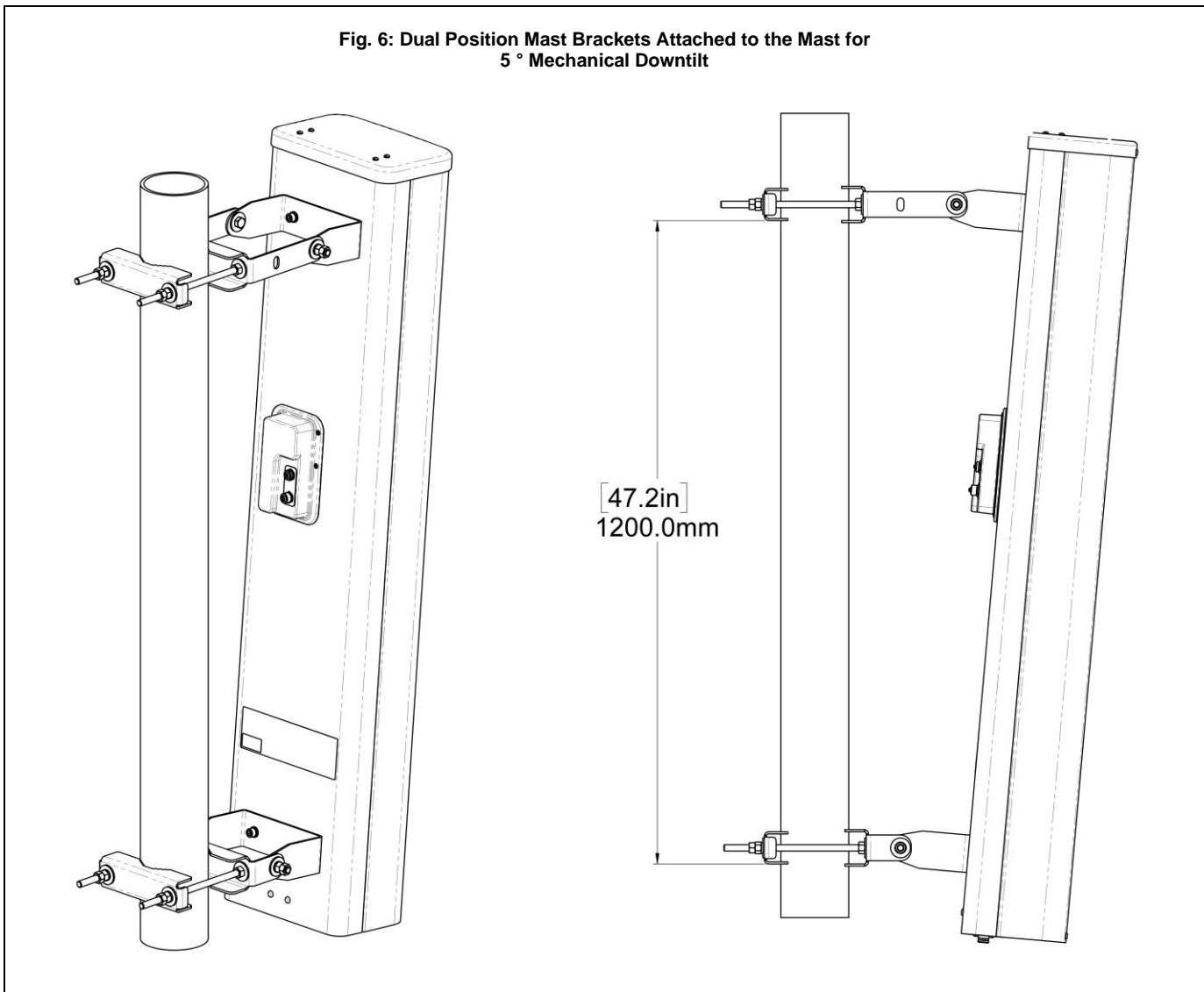
Fig. 5: Fixed Mast Brackets Attached to the Antenna for 5° Downtilt



Step	Task
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|---|---|
| 3 | The bracket comes preconfigured for 5° of tilt, to configure the bracket for 0° tilt, (referring to 'Item List' in Fig. 1) remove items 3, 4, 5 and 6 from the assembly and place in the positions shown on the Dual Position mast bracket, as illustrated in Fig. 4. |
|---|---|

Fig. 6: Dual Position Mast Brackets Attached to the Mast for 5° Mechanical Downtilt



Step	Task
5	Lift the antenna to the mast location to continue the assembly, as shown in Fig.6 for 5° downtilt, Fig. 7 for 0° downtilt, or Fig. 8 for 5° uptilt.
6	Align the antenna in the direction specified by the site engineer, at a pitch of 1200mm as shown in Fig.6, 7 or 8. The orientation of the antenna is normal to the sector unless specifically required otherwise.
7	In order to accommodate multiple OD size pipes, adjustment to the hardware on the threaded rod may be required.
8	Secure the antenna to the mast and torque all mounting fasteners to 54 N·m (40 ft-lbs).

Fig. 7: Dual Position Mast Brackets Attached to the Mast for 0° Mechanical Tilt

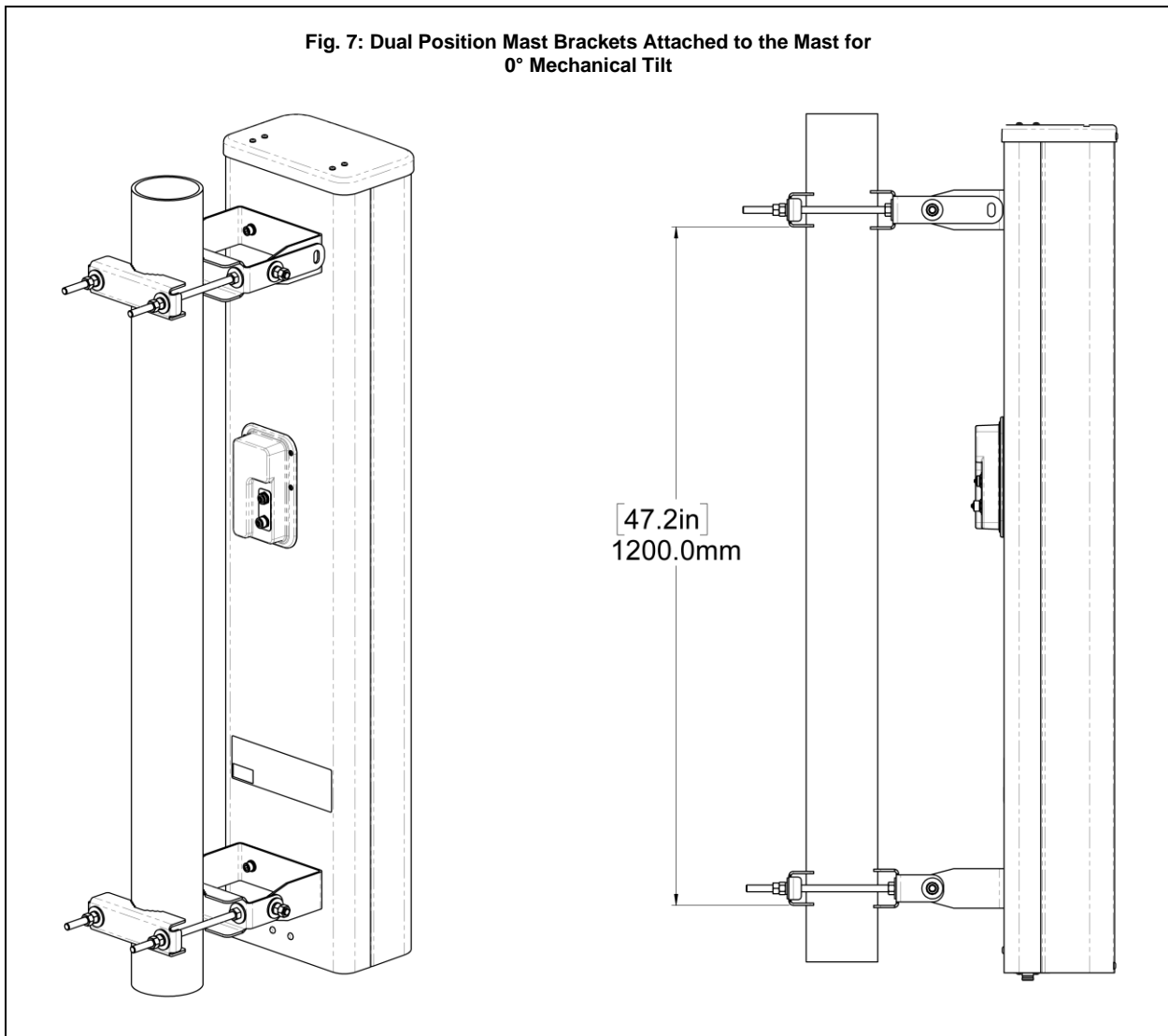


Fig. 8: Dual Position Mast Brackets Attached to the Mast for 5 ° Mechanical Uptilt

