

Rev.	Description	ECO number
A	Release	
B	Updated the installation kits to add SX antenna views and instructions for 91900313 and 9190055 bracket kits	75289 ECR00708
C	Added the revised 91900313 exploded view	75775 ECR00873
D	Added weep hole information	76110 ECR00950
E	Update logos and HQ address	ECO-00407 ECR02611

# Stadium Mounting Bracket Kit - Rotational

## Instructions for Mounting Kits 91900324 & 91900325

P/N 81900511



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**91900324:** DX/SX Antenna Mounting Bracket Kit (included in antenna)

**91900325:** Replacement bracket kit (sold separately)

**919055:** Optional bracket kit (sold separately). Refer to P/N 81900510 for instructions

**91900313:** Optional bracket kit (sold separately). Only for SX230 model, to be used with kits 91900324 & 91900325.

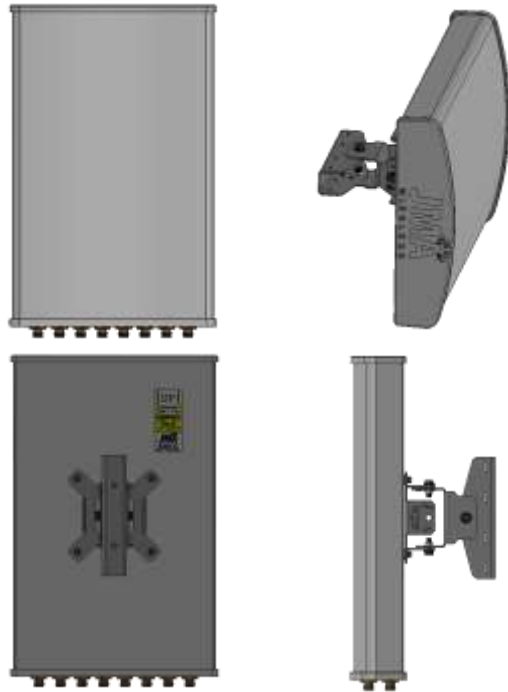
# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324



**This is the installation guide for the Stadium Mounting Bracket - Rotational. Note that bracket 45700440-01 comes pre-installed on the antenna.**

Antenna DX10FRO260-00/06 pictured for reference.



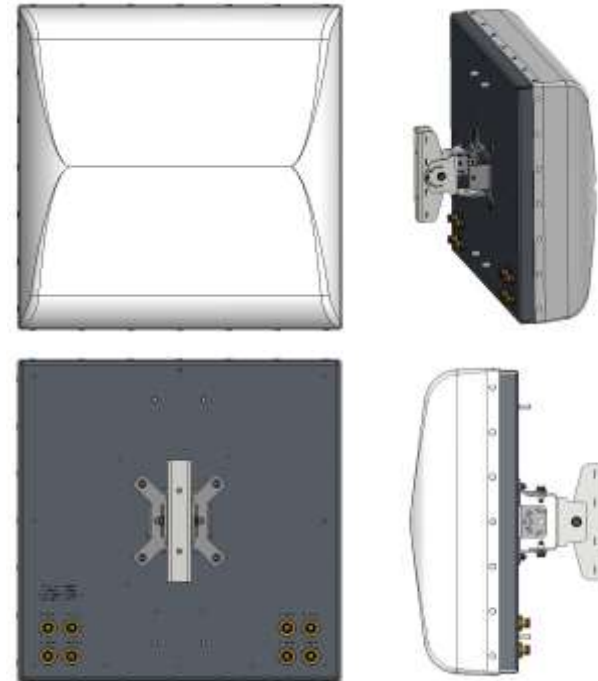
**Figure 1: Bracket installed on DX antenna**

**The bracket can be repositioned depending upon use in the field.**

When mounting the antenna, always follow the arrows and the word "top" for correct placement. When the bracket is in horizontal mount, the word "top" marked on the bracket will match the top of the antenna. But in vertical mount, the bracket can be turned either way. Torque 1/4" SS hardware to 75 lbf·in (8.47 N·m).

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Antenna SX08FRO230-01 pictured for reference.



**Figure 2: Bracket installed on SX antenna**

**Weep hole drilling instructions:** Weep holes to be drilled prior to installation. Please refer to "JMA Stadium Antenna, Weep Hole Modification Guide" at link below.

[https://jmawireless.com/stadium\\_antenna\\_weep\\_hole\\_addition\\_guide](https://jmawireless.com/stadium_antenna_weep_hole_addition_guide)



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# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324

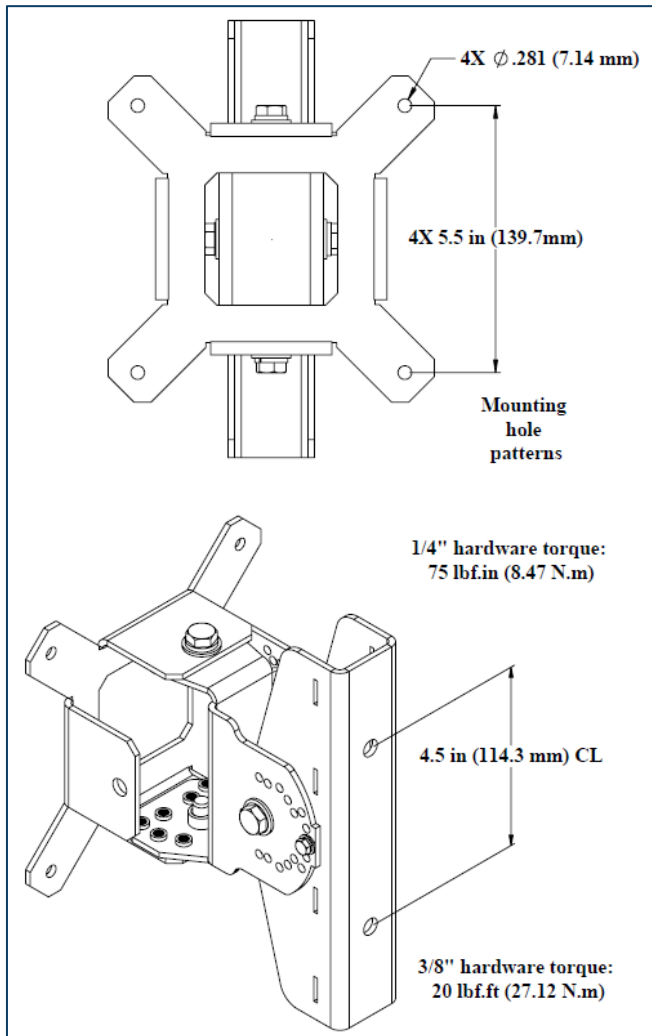


Figure 3: 91900324 kit

Below is the bracket kit included with the antenna.

Kit #91900324			
Item #	JMA part #	Description	Qty. in kit
1	457217-PF	Center Mount Stadium Bracket	1
2	457216-PF	Wall / Pipe Mount Stadium Bracket	1
3	413-011-2421-VS	3/8" FLAT WASHER SS (OD 13/16)	4
4	411-144-1348-VS	3/8"-16 x 1.000" HEX HEAD BOLT FULL THRE	4
5	413-012-2489-VS	3/8 SPLIT LOCK WASHER SS	4
6	411-144-0732-VS	10-32 x 1/2" HEX Head Bolt SS	2
7	413-012-6789-VS	#10 SPLIT LOCK WASHER SS	2
8	413-011-8518-VS	#10 FLAT WASHER SS	2
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# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324



## Other key details:

- The brackets were designed to handle pole diameters ranging from 2.5 to 4.5 inches.
- All 10-32 hardware to be torqued to 30 lbf·in (3.39 N·m).
- All 3/8" hardware to be torqued to 20 lbf·ft (27.12 N·m).
- All 1/4" hardware to be torqued to 75 lbf·in (8.47 N·m).
- Fasteners / hose clamps for wall mount and pole mount not included in 91900324 bracket kit. (Sold separately)

## Note:

- Parts 2-10 can be rotated 90° if needed, to rotate the antenna. For example, Bracket ① has two mounting positions on pre-installed Bracket 45700440-01.
- When rotating the antenna, additional weep holes must be drilled to properly drain antenna. Refer to JMA weep hole modification guide at [jmwireless.com](http://jmwireless.com)

## Venue bracket details (Figure 4):

Bracket ① can be re-oriented 90° to support vertical mounting configurations. Keep the word "top" on the antenna facing top, and the weep hole facing down. Use Screw ⑥ for locking bracket into specific angle positions. Torque to 30 lbf·in (3.39 N·m). Use the holes in Bracket ② (4.50" [114.3 mm] apart @ CL) and 3/8" hardware for wall mounts.

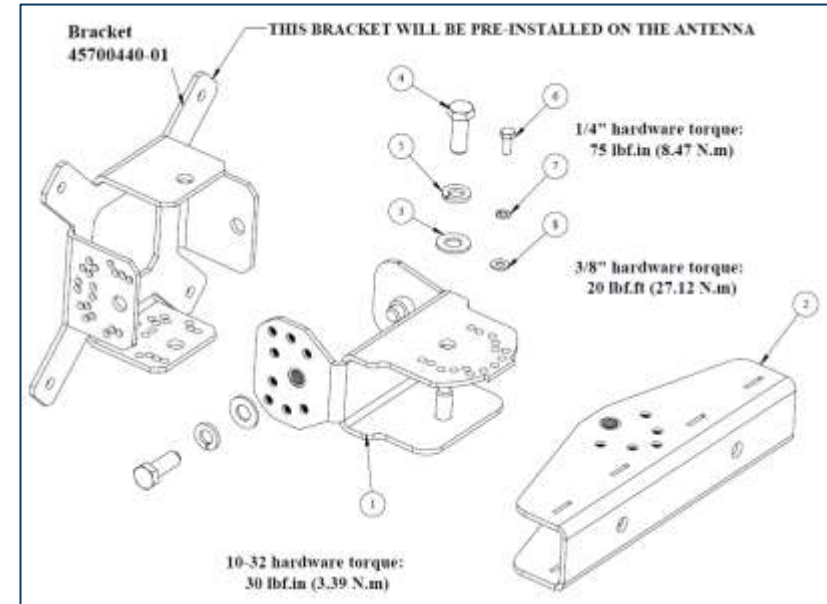


Figure 4: Bracket kit details

# Stadium Mounting Bracket - Rotational

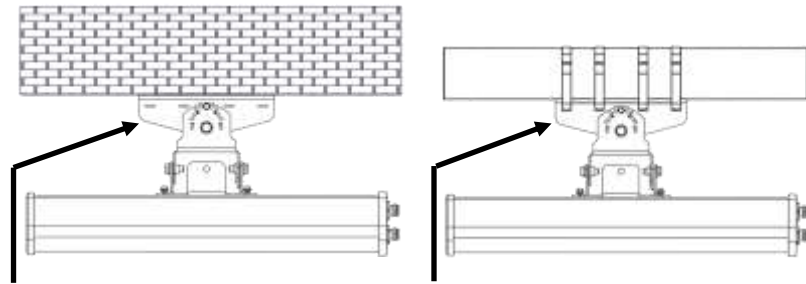
Instructions for Mounting Kit 91900324



## Wall-mounted bracket

## Pole-mounted bracket

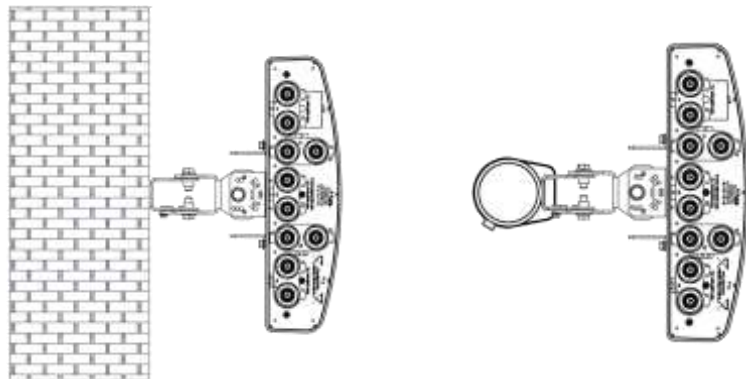
See *Figure 3*, the bracket drawing, for the hole layout dimensions. All 3/8" hardware to be torqued to 20 lbf·ft (27.12 N·m).



Bracket attaches to wall using appropriate 3/8" fasteners suitable for wall structure (2 places each)  
Torque to 20 lbf·ft (27.12 N·m)

Bracket attaches to pole using appropriate pole straps (4 places each)

Plan view



Side view

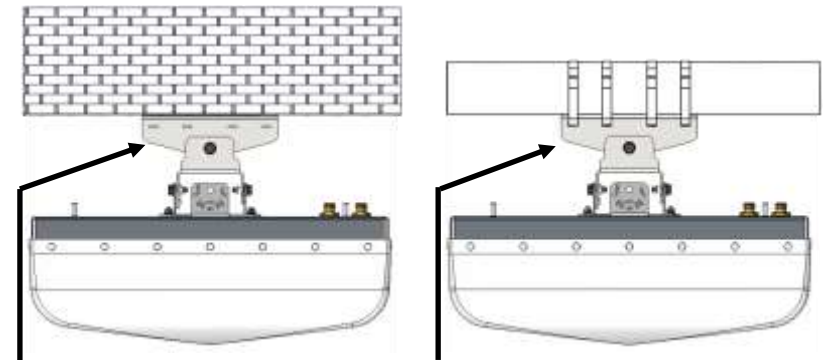
**Figure 5: DX model wall mount and pole mount**

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## Wall-mounted bracket

## Pole-mounted bracket

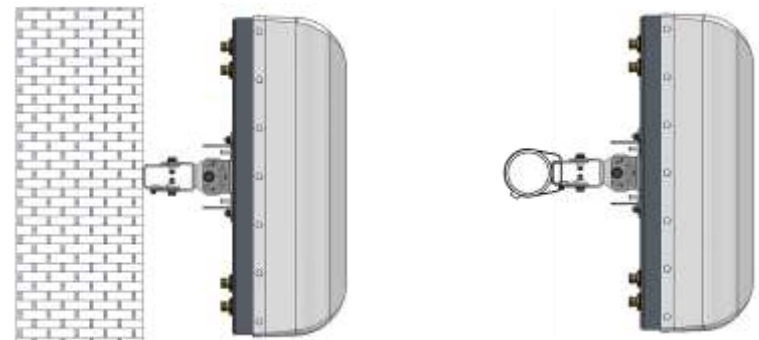
See *Figure 3*, the bracket drawing, for the hole layout dimensions. All 3/8" hardware to be torqued to 20 lbf·ft (27.12 N·m).



Bracket attaches to wall using appropriate 3/8" fasteners suitable for wall structure (2 places each)  
Torque to 20 lbf·ft (27.12 N·m)

Bracket attaches to pole using appropriate pole straps (4 places each)

Plan view



Side view

**Figure 6: SX model wall mount and pole mount**

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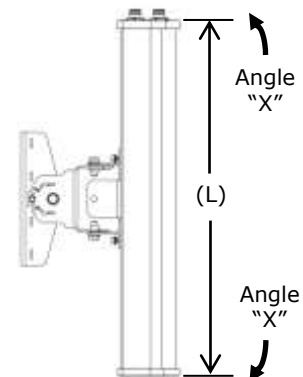
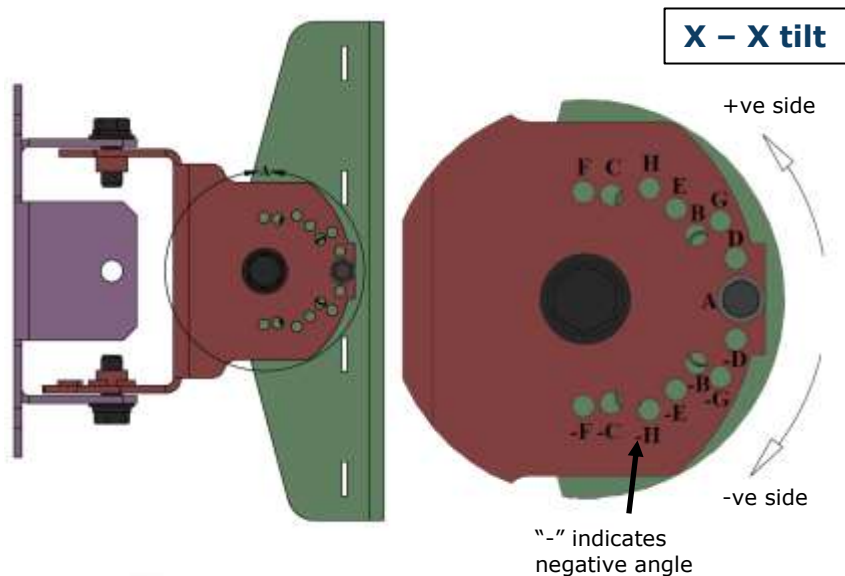
# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324



## Vertical and horizontal mounting positions tables

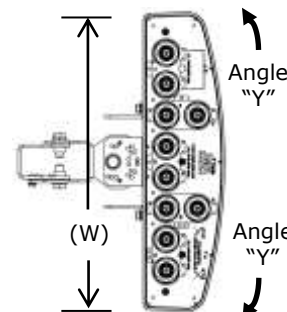
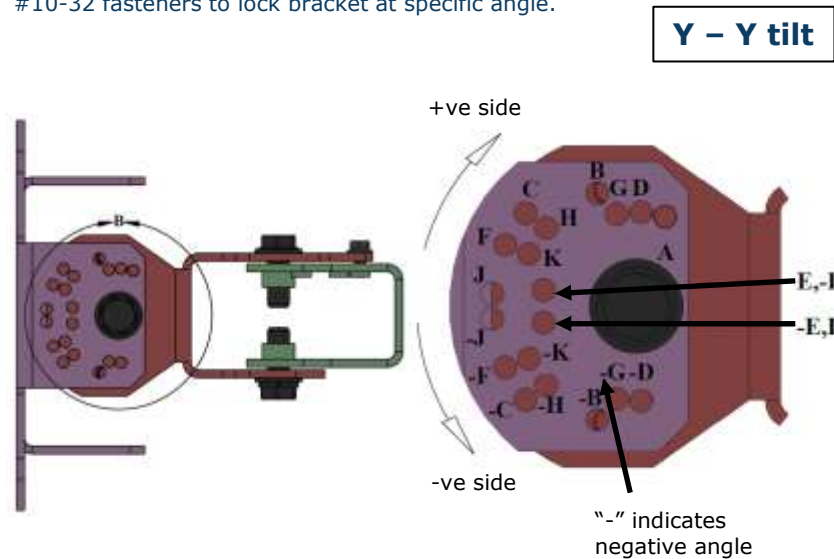
Azimuth rotation for specific locking position. Use supplied #10-32 fasteners to lock bracket at specific angle.



Azimuth Rotation Table: Max angle (degrees) pole/wall mount					
Legend	Azimuth Rotation (Deg)	Antenna (L) x (W)			
		1'x1'	1'x2'	1'x3'	2'x2'
A	0	✓	✓	✓	✓
B	5	✓	✓	✓	✓
C	10	✓	✓	✓	✓
D	15	✓	✓	✓	✓
E	20	✓	✓	✓	✓
F	25	✓	✓	✓	✓
G	30	✓	✓	✓	✓
H	35	✓	✓	✓	✓

Figure 7: Bracket azimuth rotation in vertical position

Mechanical downtilt rotation for specific locking position. Use supplied #10-32 fasteners to lock bracket at specific angle.



Mech. Downtilt Table: Max angle (degrees) pole/wall mount					
Legend	Azimuth Rotation (Deg)	Antenna (L) x (W)			
		1'x1'	1'x2'	1'x3'	2'x2'
A	0	✓	✓	✓	✓
B	5	✓	✓	✓	✓
C	10	✓	✓	✓	✓
D	15	✓	✓	✓	✓
E	20	✓	✓	✓	✓
F	25	✓	✓	✓	✓
G	30	✓	✓	✓	✓
H	35	✓	✓	✓	✓
I	40	✓	✓	✓	✓
J	45	✓	✓	✓	✓
K	50	✓	✓	✓	✓

Figure 8: Bracket mechanical downtilt rotation in horizontal position

# Stadium Mounting Bracket - Rotational

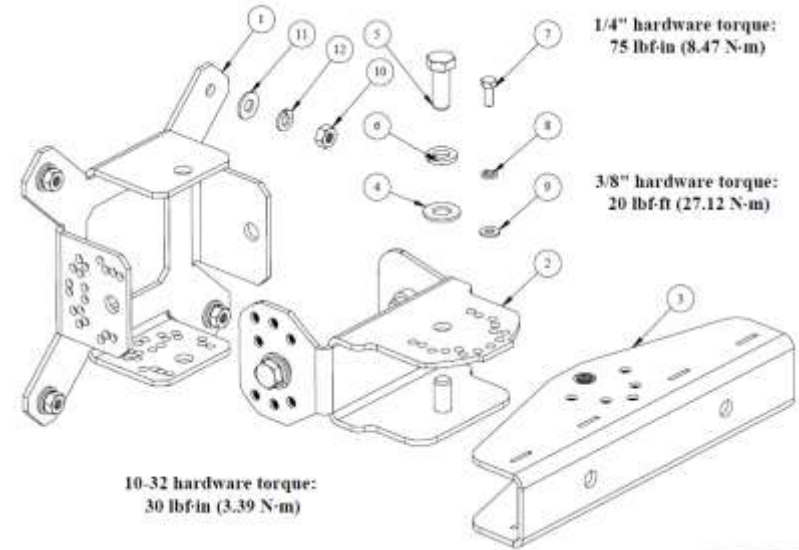
Instructions for Mounting Kit 91900324



## Replacement bracket kit (91900325).

Kit 91900325 (*Figure 9*) is sold separately and can be used instead of 919050. Kit 91900325 is identical to 91900324-01, except 45700440-01 is included in this kit; consequently, some extra hardware is provided, i.e., **10**, **11**, and **12**.

Kit #91900325			
Item #	JMA part #	Description	Qty. in kit
<b>1</b>	45700440-01	Antenna Mount Stadium Bracket	1
<b>2</b>	457217-PF	Center Mount Stadium Bracket	1
<b>3</b>	457216-PF	Wall/Pipe Mount Stadium Bracket	1
<b>4</b>	413-011-2421-VS	3/8" FLAT WASHER SS (OD 13/16)	4
<b>5</b>	411-144-1348-VS	3/8"-16 x 1.000" HEX HEAD BOLT FULL THRE	4
<b>6</b>	413-012-2489-VS	3/8 SPLIT LOCK WASHER SS	4
<b>7</b>	411-144-0732-VS	10-32 x 1/2" HEX Head Bolt SS	2
<b>8</b>	413-012-6789-VS	#10 SPLIT LOCK WASHER SS	2
<b>9</b>	413-011-8518-VS	#10 FLAT WASHER SS	2
<b>10</b>	412-105-0907-VS	NUT, HEX, 1/4-20,UNC,SS	4
<b>11</b>	413-011-1699-VS	FLAT WASHER, 1/4 STAINLESS STEEL	4
<b>12</b>	413-012-1659-VS	WASHER, LOCK, 1/4,SS	4
<b>13</b>	81900511	Assembly instructions	1



**Figure 9: 91900325 bracket details**



# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324



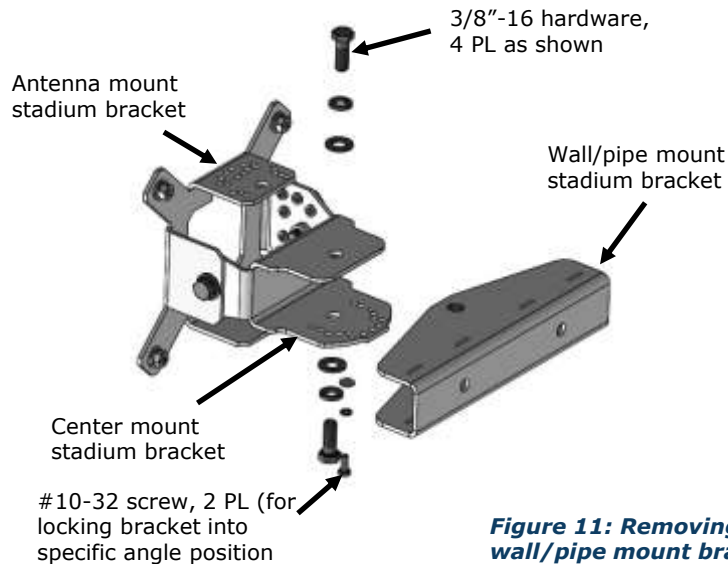
## Below is the optional extension bracket kit 91900313 for inverted mount of larger antennas.

Figure 10 shows antenna SX08FRO230-01 (for reference only) pictured after being fitted with extension bracket kit 91900313.



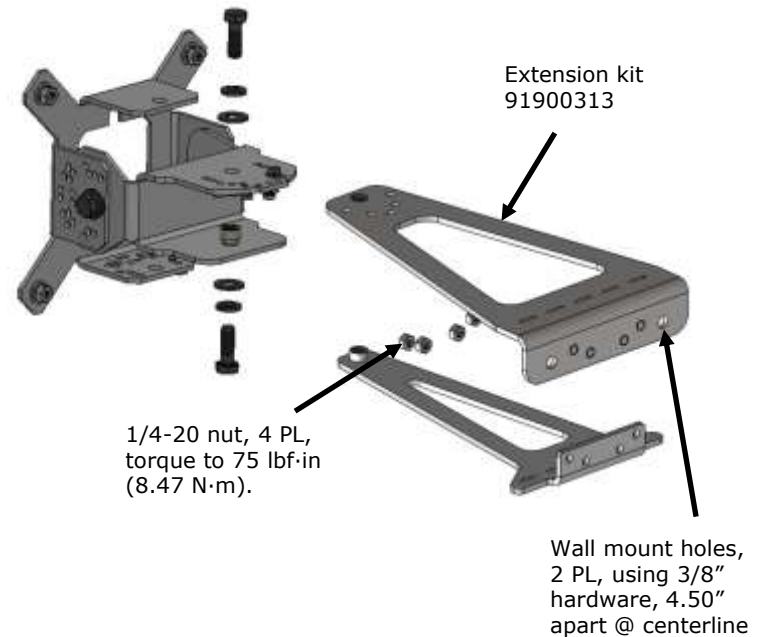
**Figure 10: Inverted mount**

**Step 1: Removing the wall/pipe mount bracket from the antenna mount stadium bracket.** Do not throw away any hardware. Remove 2 sets of 3/8"-16 hardware and the #10-32 screw from the connection of the center mount stadium bracket and wall/pipe mount stadium bracket. Remove the wall/pipe mount bracket from the assembly.



**Figure 11: Removing the wall/pipe mount bracket**

**Step 2: Installing the extension bracket.** Install extension bracket kit 91900313 by securing the extension bracket to the center mount stadium bracket using 3/8" hardware and #10-32 screw from Step 1. All 3/8" hardware to be torqued to 20 lbf·ft (27.12 N·m). See pages 16-17 for horizontal and vertical mounting positions tables.



**Figure 12: Connecting the extension bracket to the antenna mount stadium bracket**



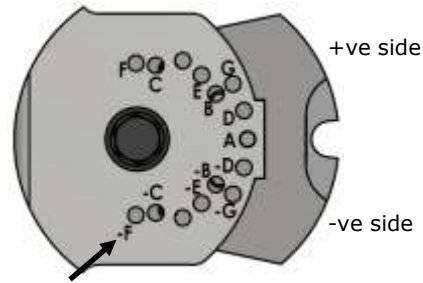
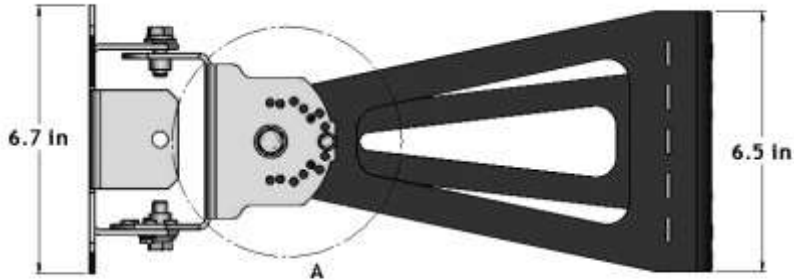
# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324



## Vertical and horizontal mounting positions tables

Azimuth rotation for specific locking position. Use supplied #10-32 fasteners to lock bracket at specific angles, at 5-degree increments, (+) & (-) sides.



"-" indicates negative angle

AZIMUTH ROTATION TABLE	
LEGEND	AZIMUTH ROTATION (DEG)
A	0
B	5
C	10
D	15
E	20
F	25
G	30

Figure 13: Bracket azimuth rotation in vertical position

Mechanical downtilt rotation for specific locking position. Use supplied #10-32 fasteners to lock bracket at specific angle.

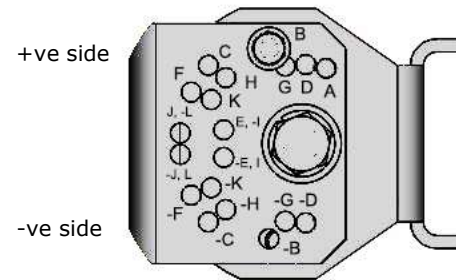
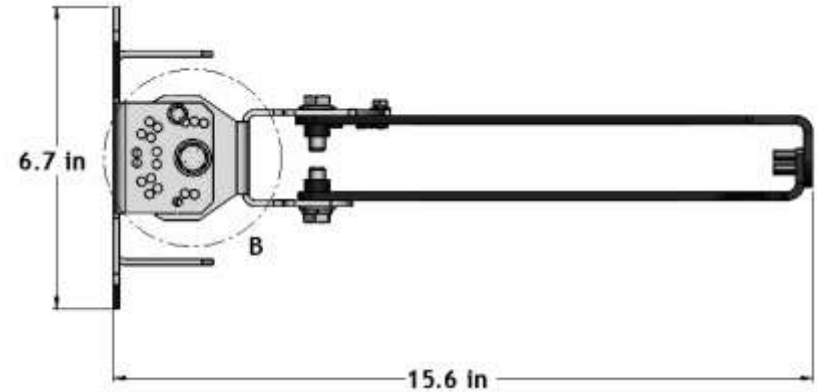


Figure 14: Bracket mechanical downtilt rotation in horizontal position

MECH. DOWNTILT TABLE	
LEGEND	DOWNTILT ROTATION (DEG)
A	0
B	5
C	10
D	15
E	20
F	25
G	30
H	35
I	40
J	45
K	50
L	55

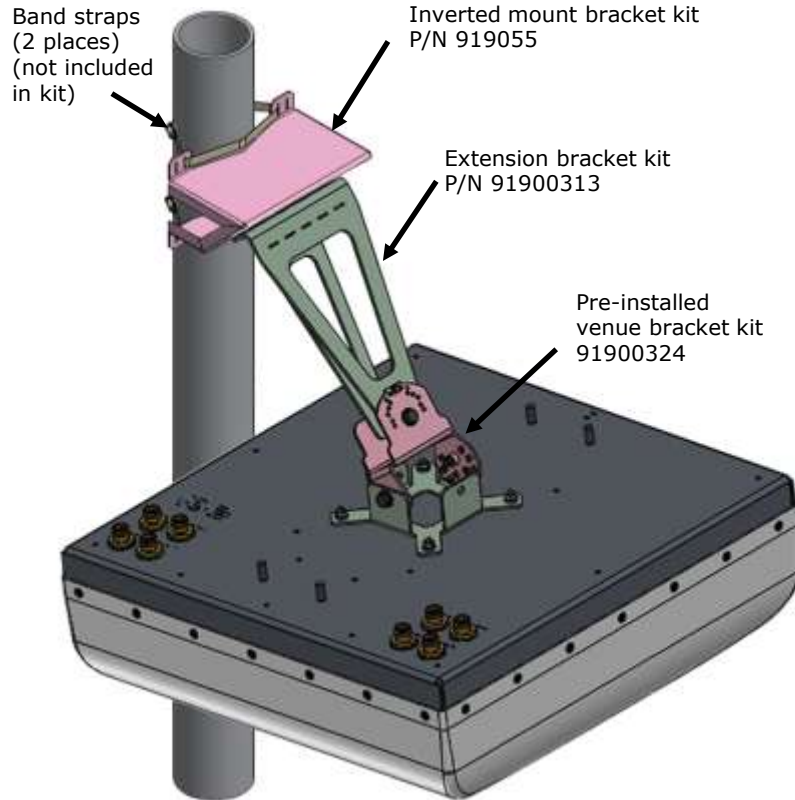
# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324



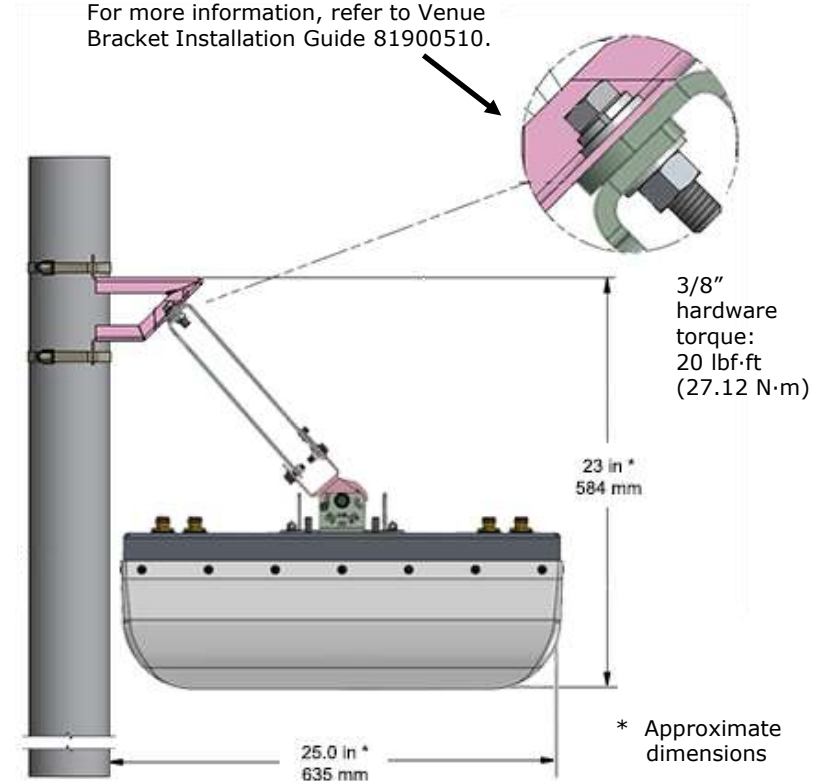
**Below is the optional extension bracket kit 91900313 for inverted mount of larger antennas.**

Figures 15 and 16 show kits 91900324, 91900313, and 919055 together. SX model antenna pictured for reference.



**Figure 15: Inverted mount**

This hardware is included in kit 919055. For more information, refer to Venue Bracket Installation Guide 81900510.



**Figure 16: Inverted mount: side view details**

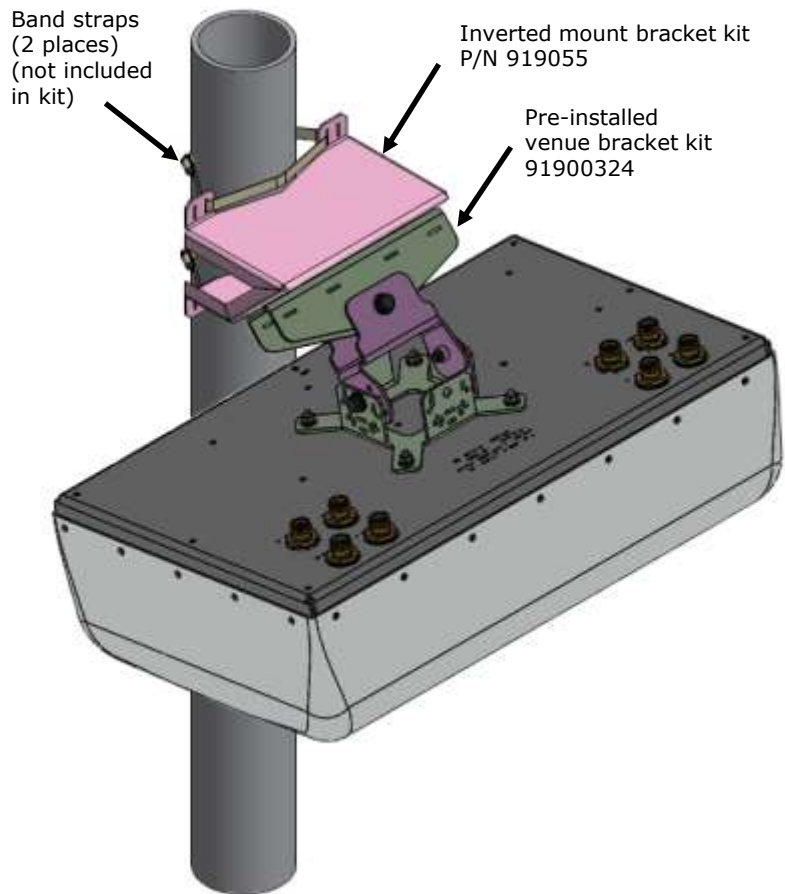
# Stadium Mounting Bracket - Rotational

Instructions for Mounting Kit 91900324

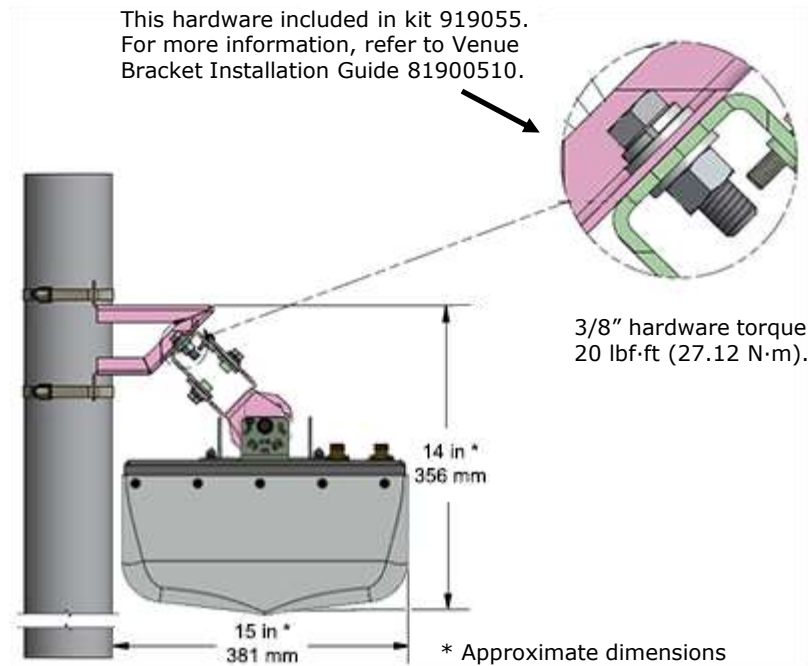


**Below is the optional bracket kit 919055 for inverted mount.**

Figures 17 and 18 show both kits 91900324 and 919055 together. DX model antenna pictured for reference.



**Figure 17: Inverted mount**



**Figure 18: Inverted mount: side view details**