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01	Initial release	
A	Release to Production	ECO-01281
B	Updating hardware	ECO-01350
C	Updating instructions	ECO-01440

## Tri-Sector Pole-Mount Antenna Bracket

Instructions for  
MX04FFPX65-01 Antennas

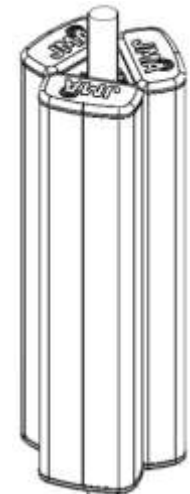
P/N 81900527-01



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3.5" Pole Diameter with  
4' antennas shown

# Tri-Sector Pole-Mount Antenna Bracket

Instructions for MX04FFPX65-01 Antennas



This is the installation guide for the Tri-Sector Pole-Mount Antenna Bracket. Below are the parts included with each kit.

Bracket kit needed per antenna model				
Antenna	Length	Antenna QTY	Kit	Kit QTY
<b>MX04FFP465-01</b>	4 ft	3	91900339-01	1
<b>MX04FFP665-01</b>	6 ft	3	91900339-01	1
<b>MX04FFP865-01</b>	8 ft	3	91900339-02	1

Table 1: Bracket kit use

91900339-01		
Item #	Description	Qty. in kit
<b>1</b>	Top pole bracket	3
<b>2</b>	Bottom pole bracket	3
<b>3</b>	5/16-18 hex nut	26
<b>4</b>	5/16 flat washer	14
<b>5</b>	5/16 lock washer	14
<b>6</b>	5/16 x 0.4in spacer	14
<b>7</b>	5/16-18 x 0.7in bolt	12
<b>8</b>	5/16-18 x 1.4in bolt	12
<b>9</b>	5/16-18 x 2.3in bolt	12
<b>10</b>	5/16-18 x 3.2in bolt	12
<b>11</b>	5/16-18 x 4.1in bolt	12
<b>12</b>	5/16-18 x 5.0in bolt	12

**NOTE: These item numbers refer to Figures 6, 7, 11, 12, and 15.**

Table 2: 91900339-01 bracket kit

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91900339-02		
Item #	Description	Qty. in kit
<b>1</b>	Top pole bracket	3
<b>2</b>	Bottom pole bracket	3
<b>3</b>	5/16-18 hex nut	38
<b>4</b>	5/16 flat washer	20
<b>5</b>	5/16 lock washer	20
<b>6</b>	5/16 x 0.4in spacer	20
<b>7</b>	5/16-18 x 0.7in bolt	18
<b>8</b>	5/16-18 x 1.4in bolt	18
<b>9</b>	5/16-18 x 2.3in bolt	18
<b>10</b>	5/16-18 x 3.2in bolt	18
<b>11</b>	5/16-18 x 4.1in bolt	18
<b>12</b>	5/16-18 x 5.0in bolt	18
<b>13</b>	Middle pole bracket	3

**NOTE: These item numbers refer to Figures 6, 7, 11, 12, 13, 14, and 15.**

Table 3: 91900339-02 bracket kit

### Other key details:

Top, bottom, and middle (8' only) antenna brackets are preinstalled on antennas.

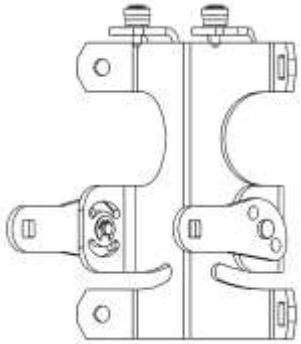
3

# Tri-Sector Pole-Mount Antenna Bracket

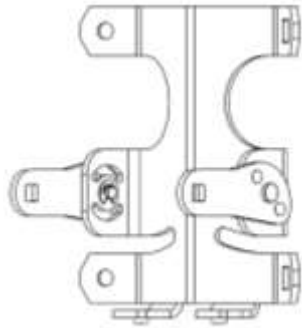
Instructions for MX04FFPX65-01 Antennas



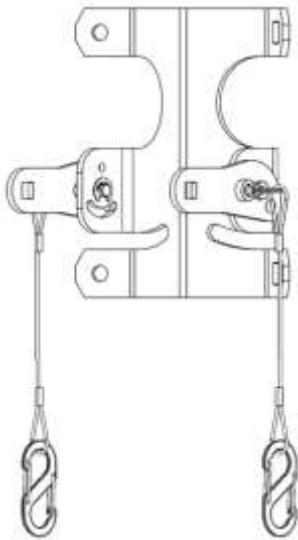
## Bracket details



**Figure 1: Item 1 - Top pole bracket**



**Figure 2: Item 2 - Bottom pole bracket**



**Figure 3: Item 13 - Middle pole bracket**

4



Middle bracket only needed for 8' model

**Figure 4: Brackets on pole (8' model for example)**

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## Tools and hardware

Tool List		
Tool	Hardware	Torque
Torx Driver, T25	10-32 captive screw	2.5 lbf·ft
Socket, 1/2 in.	5/16-18 Hex Nut	13 lbf·ft
Level		
Plumb line		
Tape measure		
Marker		

Table 4: Tool list

Hardware selection			
Pole diameter [in.]	Bolt item no.	Bolt length [in.]	Spacer item no.
3.5 ≤ $\phi$ < 4	8	1.4	N/A
4 ≤ $\phi$ < 4.5	8	1.4	6
4.5 ≤ $\phi$ < 5	9	2.3	N/A
5 ≤ $\phi$ < 5.5	9	2.3	6
5.5 ≤ $\phi$ < 6	10	3.2	N/A
6 ≤ $\phi$ < 6.5	10	3.2	6
6.5 ≤ $\phi$ < 7	11	4.1	N/A
7 ≤ $\phi$ < 7.5	11	4.1	6
7.5 ≤ $\phi$ < 8	12	5.2	N/A
8	12	5.2	6

Table 5: Hardware selection **6**

## Bolts, chosen by pole diameter. See Table 5.

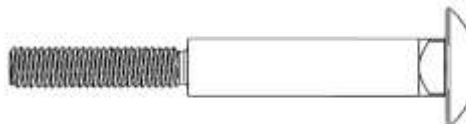
Item 8: 5/16-18 x 1.4in bolt



Item 9: 5/16-18 x 2.3in bolt



Item 10: 5/16-18 x 3.2in bolt



Item 11: 5/16-18 x 4.1in bolt



Item 12: 5/16-18 x 5.2in bolt



Figure 5: Bolts

# Tri-Sector Pole-Mount Antenna Bracket

Instructions for MX04FFPX65-01 Antennas

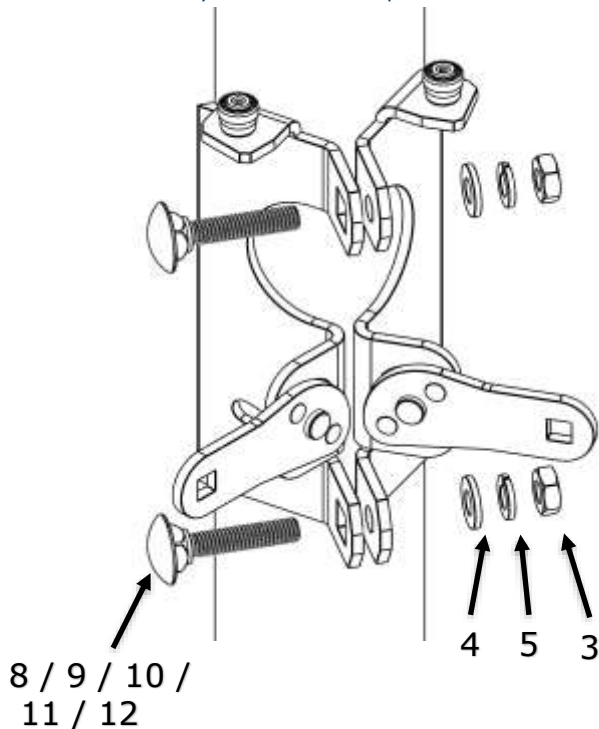


## Select hardware

- Using *Table 5* and *Figure 5*, select the correct hardware for the pole diameter.

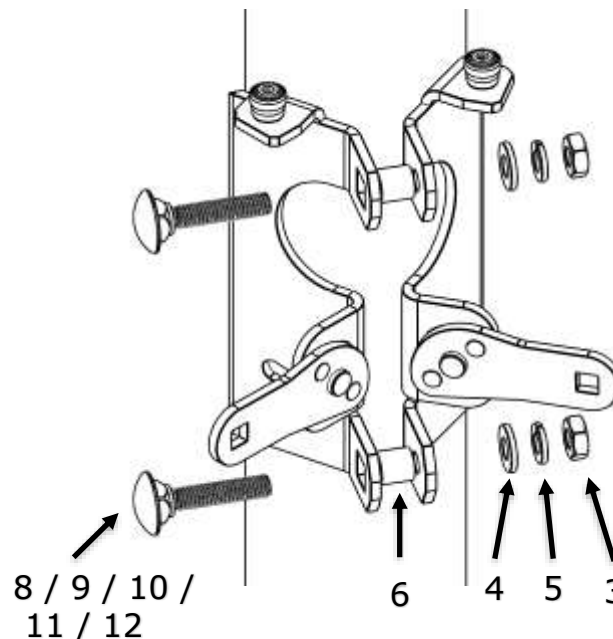
## Attach top brackets to pole

- Install three top brackets around pole with selected hardware as shown in *Figure 6* (example 3.5" pole diameter) and *Figure 7* (example 4" pole diameter).
- Ensure assembly is level and torque each hex nut to 13 lbf-ft.

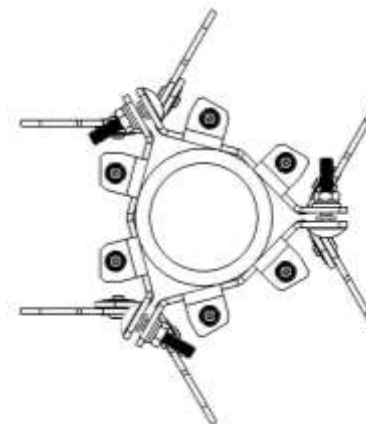


**Figure 6: Attach top brackets to pole – 3.5" diameter shown as example**

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**Figure 7: Attach top brackets to pole – 4" diameter shown as example**



**Figure 8: Three top brackets mounted on pole (top view)**

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# Tri-Sector Pole-Mount Antenna Bracket

Instructions for MX04FFPX65-01 Antennas



## Attach bottom brackets to pole

- Using Figures 9 and 10 and Table 6, measure "C" in. from top edge of top bracket to top edge of bottom bracket, and mark placement for bottom brackets along the circumference of the pole.

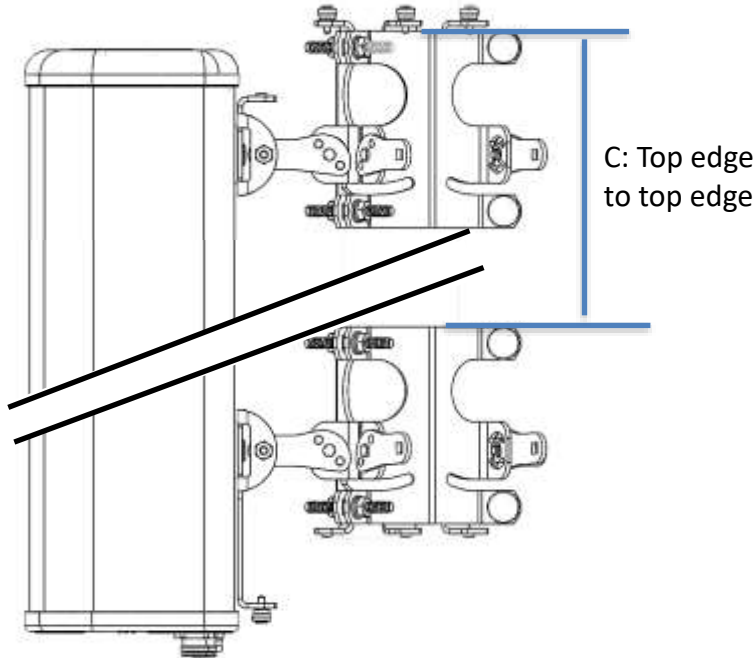


Figure 9: Attach top brackets to pole – 3.5" diameter shown as example

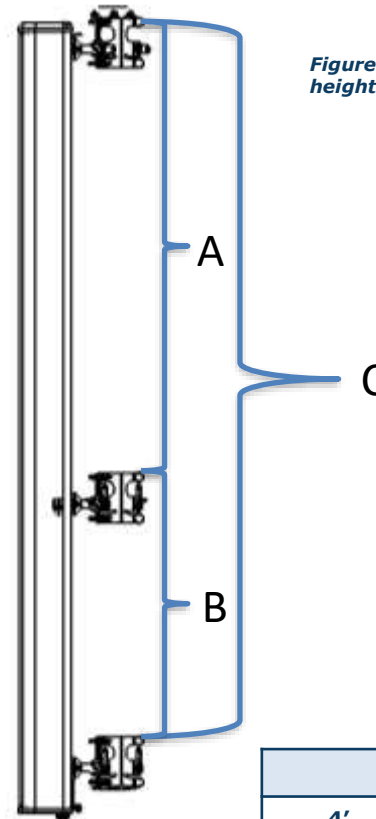


Figure 10: Bracket heights

	A	B	C
<b>4' antennas</b>	N/A	N/A	42.75"
<b>6' antennas</b>	N/A	N/A	63.25"
<b>8' antennas</b>	55.25"	32.0"	87.25"

Table 6: Bracket spacing

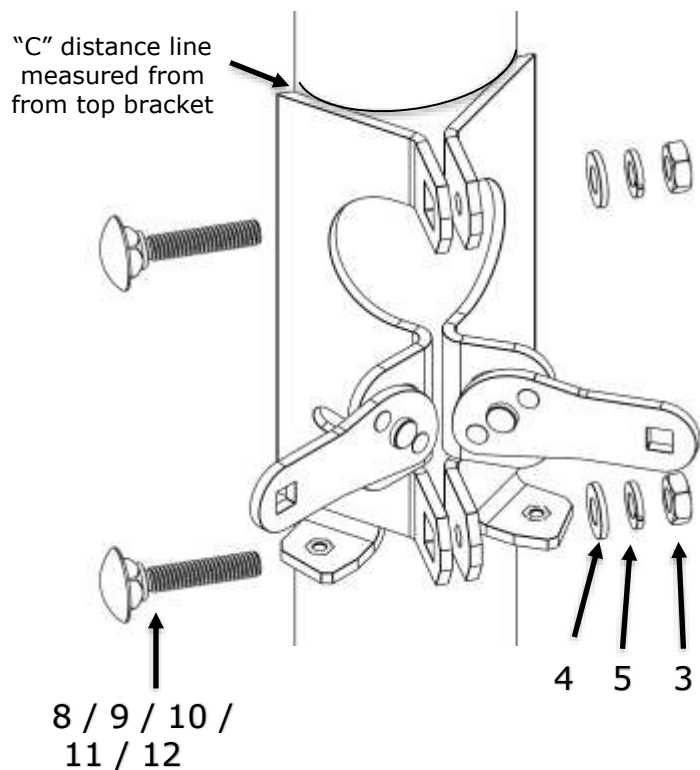
# Tri-Sector Pole-Mount Antenna Bracket

Instructions for MX04FFPX65-01 Antennas



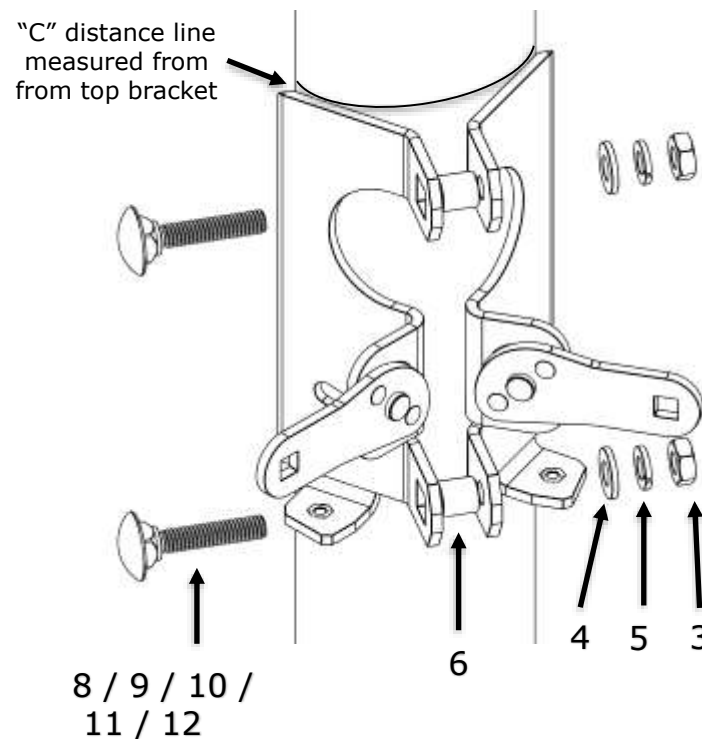
## Attach bottom brackets to pole, continued

5. Install three bottom brackets around the pole with selected hardware. See *Figure 11* (example 3.5" pole diameter) and *Figure 12* (example 4" pole diameter) Align the top edge of the bottom brackets to the mark made in Step 4, *Figures 9 and 10*.
6. Using plumb line, ensure top brackets and bottom brackets are aligned.
7. Ensure bottom brackets are level and torque each hex nut to 13 lbf·ft.



**Figure 11: Attach bottom brackets to pole – 3.5" diameter shown as example**

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**Figure 12: Attach bottom brackets to pole – 4.0" diameter shown as example**

13

# Tri-Sector Pole-Mount Antenna Bracket

Instructions for MX04FFPX65-01 Antennas

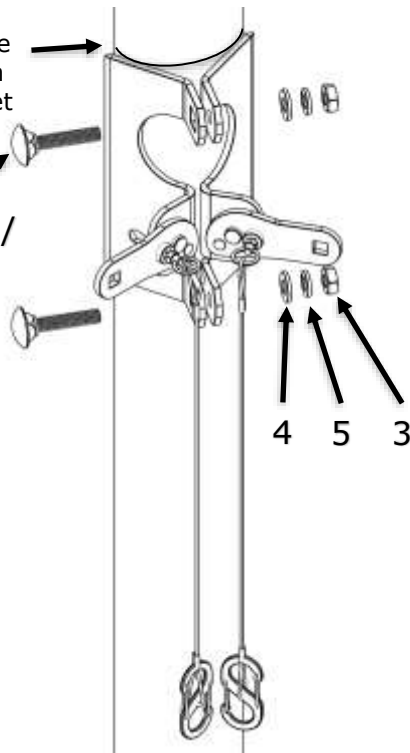


## Install middle brackets to pole (8' antennas only)

8. Measure "A" in. from top edge of top bracket and mark along the circumference of the pole. See *Figure 10* and *Table 6*.
9. Install three middle brackets around the pole with selected hardware. See *Figure 13* (example 3.5" pole diameter) and *Figure 14* (example 4" pole diameter). Align the top edge of the middle brackets to the mark made in Step 8.
10. Using plumb line, ensure top, middle, and bottom brackets are aligned.
11. Ensure middle brackets are level and torque each hex nut to 13 lbf·ft.

"A" distance line  
measured from  
from top bracket

8 / 9 / 10 /  
11 / 12

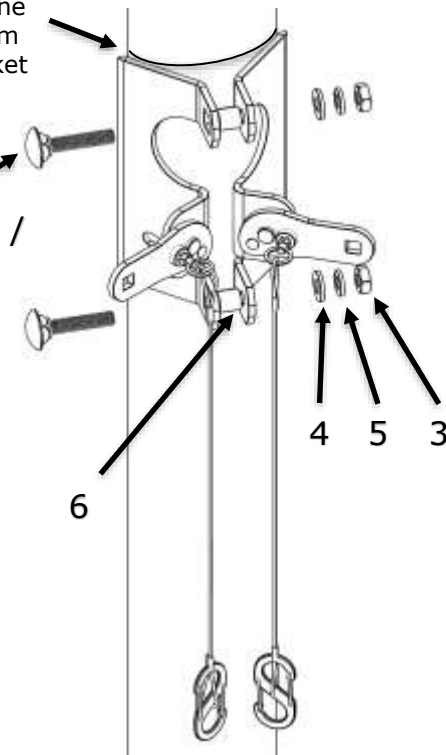


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**Figure 13: Attach middle brackets to pole – 3.5" diameter shown as example**

"A" distance line  
measured from  
from top bracket

8 / 9 / 10 /  
11 / 12



15

**Figure 14: Attach middle brackets to pole – 4.0" diameter shown as example**



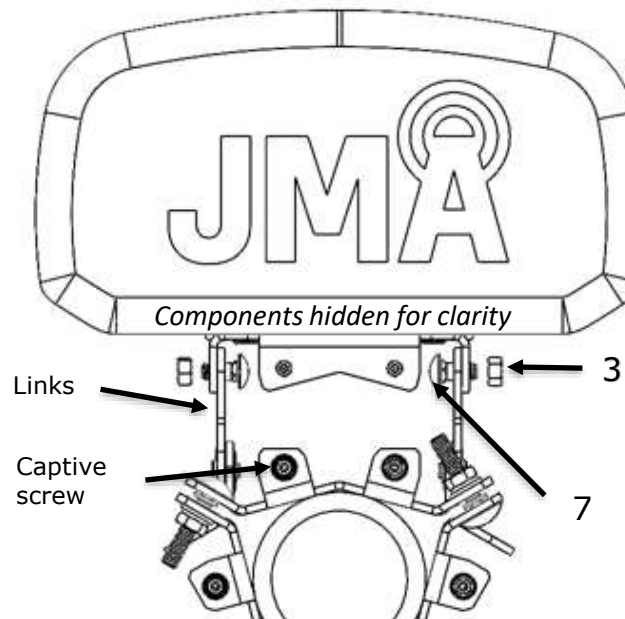
# Tri-Sector Pole-Mount Antenna Bracket

Instructions for MX04FFPX65-01 Antennas



## Mounting antennas to pole

12. Line up antenna brackets with the corresponding pole brackets with links in the extended position. See *Figure 15* below.
13. Install 0.7" bolts, item 7, and hex nuts, item 3, on the top antenna-to-pole bracket attachment points. Install each hex nut until 1 to 2 threads of the bolt extend past the nut. Do not tighten enough to restrict the motion of the links.
14. Repeat Step 13 with the bottom antenna-to-pole bracket attachment points.
15. See "8' antenna additional steps" if installing an 8' antenna.

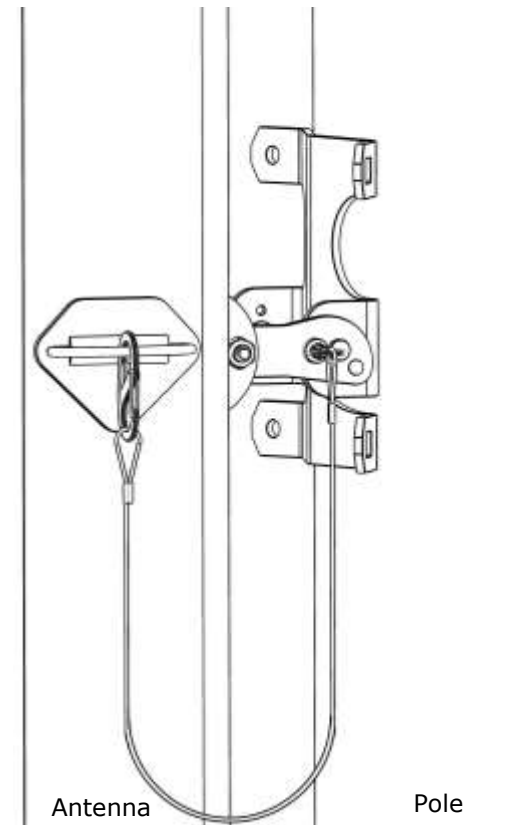


**Figure 15: Mounting antenna to pole – 3.5" diameter shown as example**

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## 8' antenna additional steps

- a. Repeat Step 13 with the middle antenna-to-pole bracket attachment points.
- b. Clasp each S carabiner to corresponding loop on the sides of the antenna. See *Figure 16*.



**Figure 16: Clasping S carabiner**

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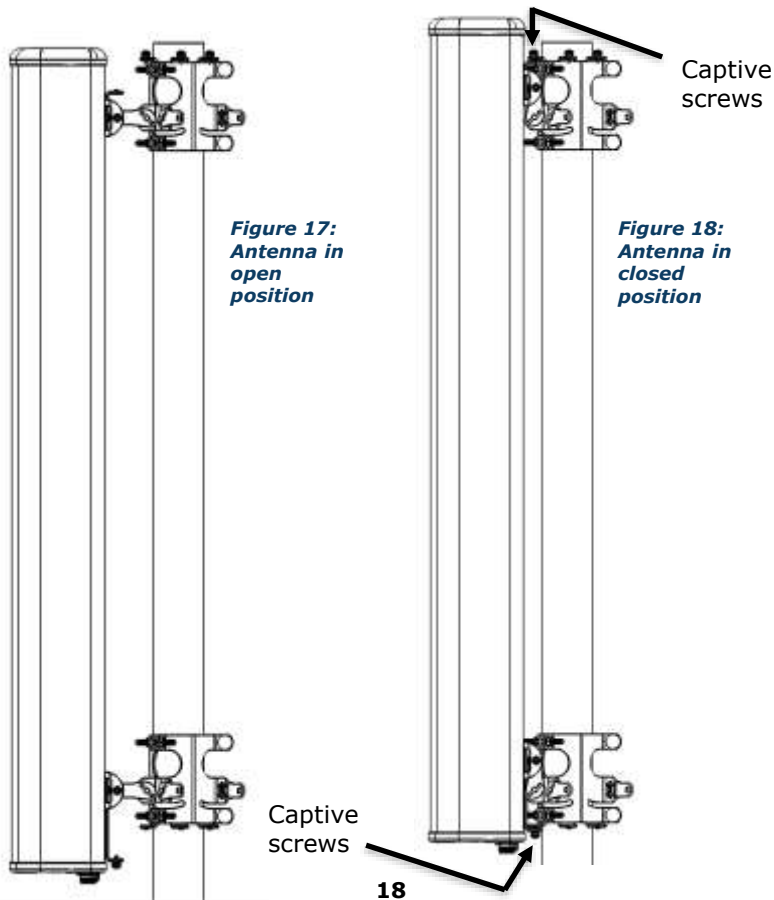
# Tri-Sector Pole-Mount Antenna Bracket

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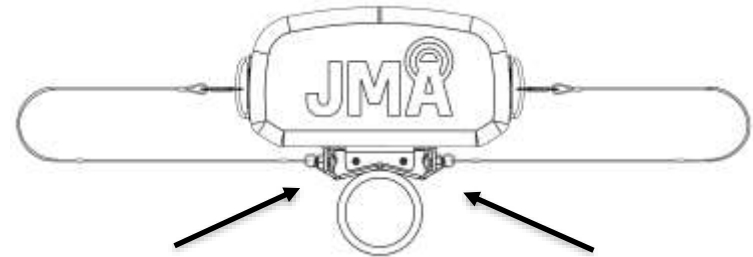
## Mounting antennas to pole, continued

16. Antenna is in open position. See *Figure 17*. Lift up on antenna so that it moves into the closed position. See *Figure 18*.
17. While holding the antenna in the closed position, tighten top captive screws (which come preinstalled on bracket) by hand. Repeat for the bottom captive screws (which come preinstalled on antenna).
18. Torque all captive screws to 2.5 lbf-ft with the T25 Torx bit.
19. Repeat Steps 12-18 with the remaining two antennas.



## Releasing the brackets before removing the antenna

1. While holding the antenna in the upright position, unscrew the bottom captive screws, then the top captive screws.
2. For an 8' antenna, simultaneously pull the wire cables on each side to release the pins that keep the antenna in the closed position. See *Figure 19*.



3. Move the antenna down into the open position. See *Figure 17*. While holding the antenna, remove hex nuts, item 3, and 0.7" bolts, item 7. Remove the antenna.