

MKS09T02
Wide Extended Scissor, 3 Point Mounting
Downtilt Bracket Instructions

(A copy of these instructions to be included in each mounting kit box at manufacturer)

1. Attach the **antenna**(example shown) to the **interface brackets (7)** using the provided channel runners at the **labeled antenna mounting points** (see Detail "X"). Top and bottom attachment points on the antenna must be 78.75in (2.0M) apart to achieve tilt values shown in chart below. Locate the middle brackets to ensure that they do not interfere with RF connectors.

2. Assemble the **front pipe grips (2)**, **upper scissor brackets (3 & 6)** and **middle scissor brackets (3 & 5)** to the **interface brackets (7)** using 3/8in locking hardware.

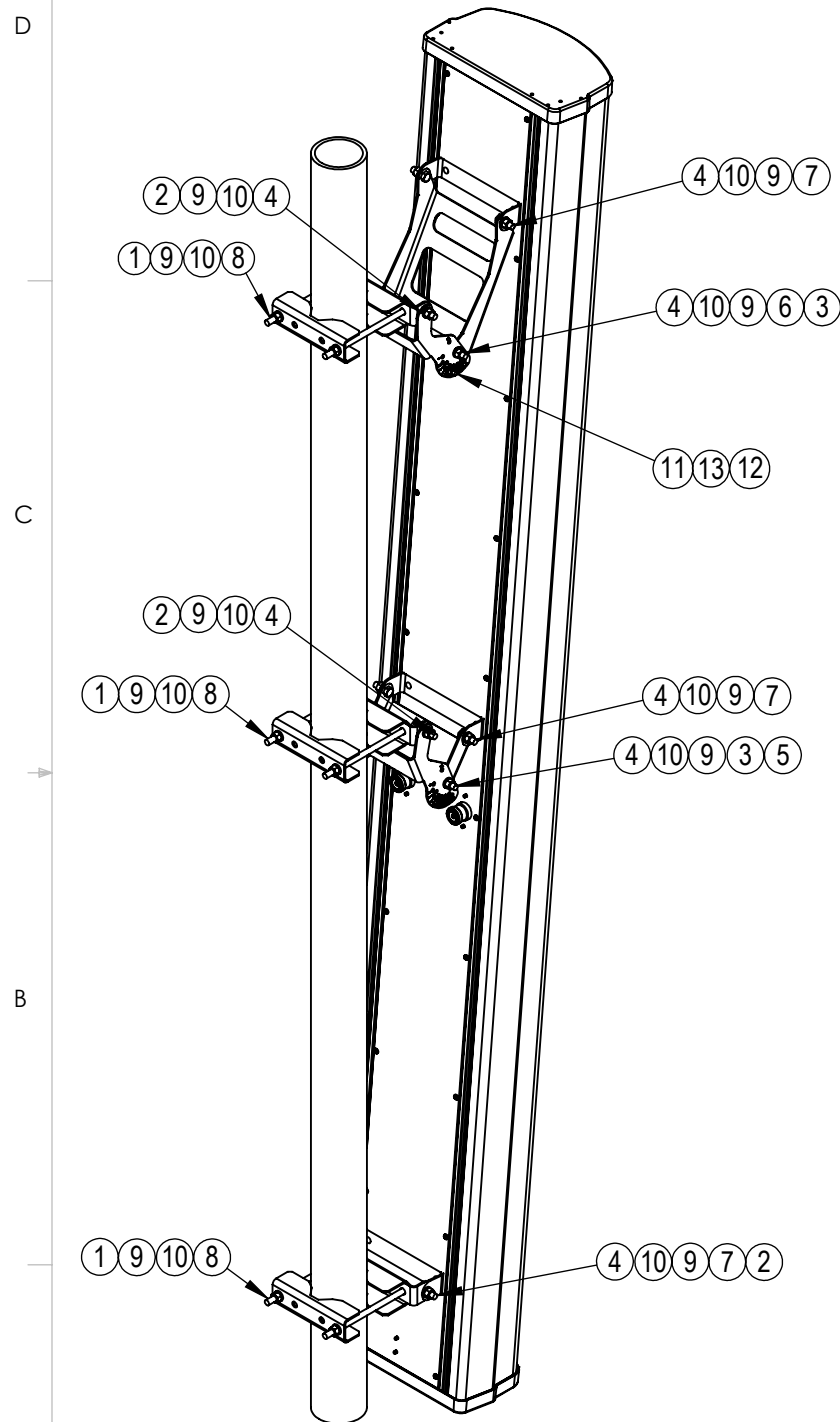
3. Assemble **rear pipe grips (1)** with one 7in bolt (8) to the **front pipe grips (2)** Raise antenna to pipe. Insert second 7in bolt through **front pipe grips (2)** and tighten to pipe.
Tighten the 7in bolts to 11ft lbs (15Nm). Do NOT Overtighten. Excessive torque loading will distort the pipe grip components.

4. Position the antenna in the desired downtilt position (reference tilt chart below). After positioning, find the holes in the **top scissor bracket** that align and install the M6 locking hardware to both sides.
Tighten the 1/4in hardware to 11 ft-lbs (15Nm).
Tighten the 3/8in hardware to 15 ft-lbs (20Nm).

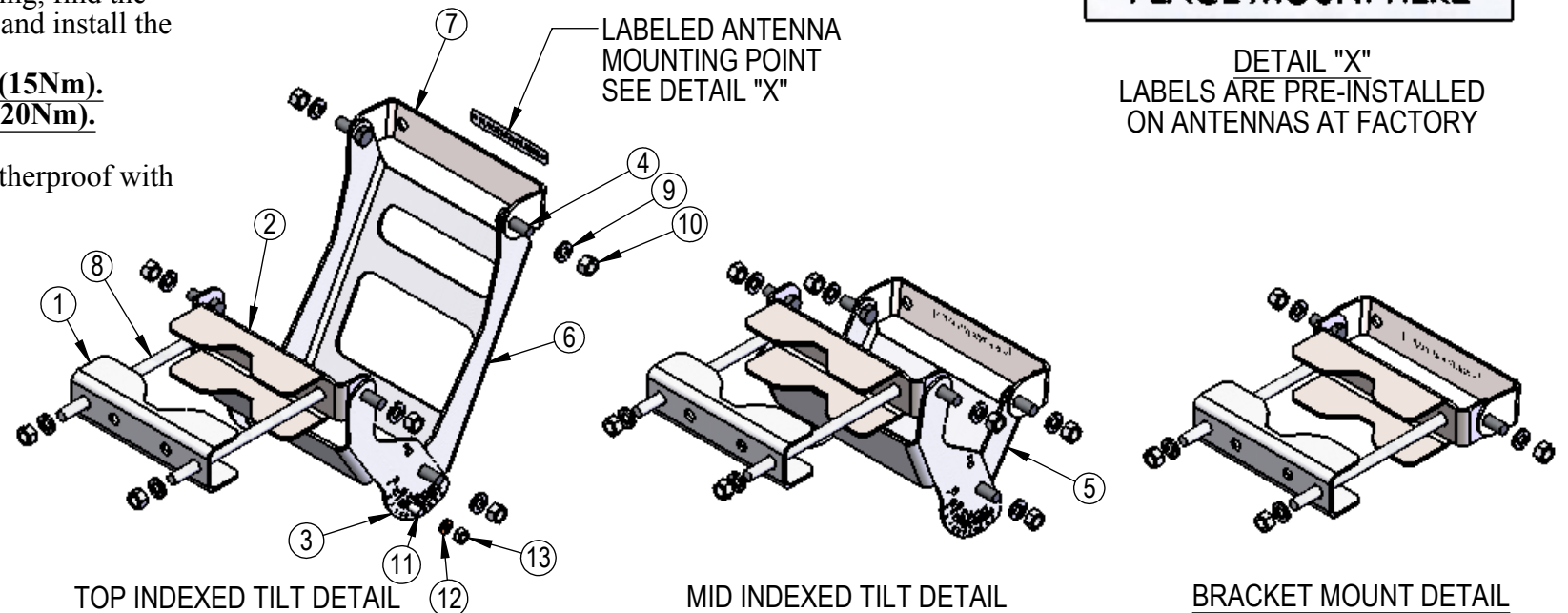
5. Make all electrical connections and weatherproof with self-amalgamating tape.

Letter	Tilt
A	0°
B	0.8°
C	1.7°
D	2.5°
E	3.4°
F	4.2°
G	5.0°
H	5.9°
I	6.7°
J	7.6°
K	8.4°
L	9.2°
M	10.1°

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	251-445-9-029	PIPE GRIP, REAR	3
2	251-445-9-006	PIPE GRIP WITH ELEVATION	3
3	251-445-9-010	INDEXED SCISSOR BRACKET	2
4	665-016-1-602	Screw, 3/8-16 x 1.00, HHCS (Hex), GRADE 307A, Hot Dip Galvanized, Fastenal 91854	14
5	251-445-9-011	BRACKET, SHORT DOWNTILT	1
6	251-445-9-012	BRACKET, LONG DOWNTILT	1
7	22191508	BRACKET ADAPTOR	3
8	665-112-1-612	3/8-16 x 7.0 HHCS HDG	6
9	730-308-1-601	3/8 LW HDG	20
10	684-222-1-623	3/8-16 HEX NUT HDG	20
11	660-017-1-003	SCREW, 1/4-20 X .75, HHCS (HEX)	2
12	660-017-1-002	WASHER, 1/4, (.385 x .680 x .094) SPLIT LOCK WASHER	2
13	660-017-1-004	NUT, 1/4-20, HEX NUT	2



ISOMETRIC VIEW



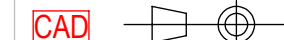
TOP INDEXED TILT DETAIL

MID INDEXED TILT DETAIL

BRACKET MOUNT DETAIL

REVISIONS				
REVISED BY	REV.	DESCRIPTION	DATE	APPROVED
Ron W.	B	ECN-11, CHG MOUNTING HARDWARE TO METRIC	08/28/13	JCC
Ron W.	C	ECN-58, CHG MTG HARDWARE BACK TO ENGLISH	10/30/13	JCC

THIRD ANGLE PROJECTION



DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE
 ANGULAR: ±1
 ONE PLACE ±0.1
 TWO PLACE ±0.05
 THREE PLACE ±0.010

INTERPRET GEOMETRIC TOLERANCING PER: ASME Y14.41-2003

MATERIAL SEE NOTE

FINISH SEE NOTE

DO NOT SCALE DRAWING

NAME	DATE
DRAWN agutierrez	11/13/2012
CHECKED	
ENG APPR.	
MFG APPR.	
Q.A.	

AMPHENOL ANTENNA SOLUTIONS
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TITLE:
3-POINT SPACING MOUNTING KIT, SCISSOR

SIZE DWG. NO. REV
B MKS09T02 **C**

SCALE: NTS SHEET 1 OF 1

DATE: 11/4/2013