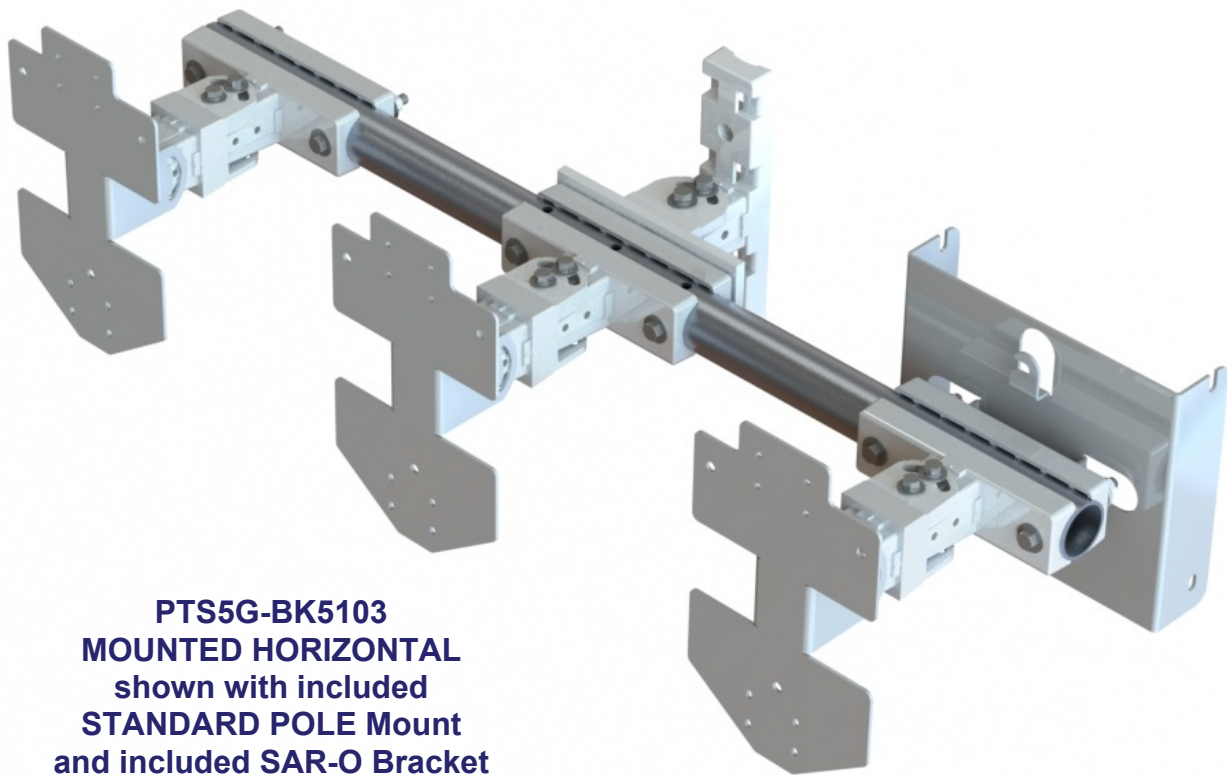# PTS5G-BK5100 Series

Small Cell Radio and Antenna Pole Mount Bracketing Solutions

INSTALLATION GUIDE

**PTS5G-BK5103
MOUNTED HORIZONTAL
shown with included
STANDARD POLE Mount
and included SAR-O Bracket
SAP.33869**

www.pactechsol.com   888-820-3508

Table of Contents

1.0 Model Overview

PTS5G-BK5100 Series of Small Cell Radio and Antenna Bracketing Solutions

The PTS5G-BK5100 Series of Small Cell Radio and Antenna Bracketing Solutions is designed to facilitate the mounting of Radios and Antennas in multiple deployment scenarios.

The standard Single Radio and Triple Radio mounts share common componenets such as the pole bracket and radio brackets.
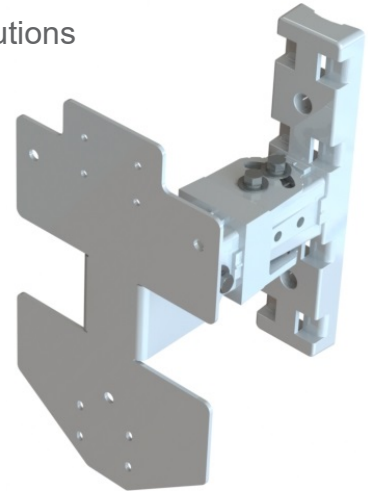
**PTS5G-BK5101
SINGLE MOUNT
SAP.33868**

**PTS5G-BK5103
MOUNTED HORIZONTAL
shown with included
STANDARD POLE Mount
and included SAR-O Bracket
SAP.33869**

2.0 Pole Side Mounting Bracket Overview

The Pole Bracket allows for Horizontal or Vertical mounting scenarios.

There are two methods for mounting the bracket

1. Band Mounting
2. Bolt / Lag Mounting

Depending on the type of pole being mounted on, installer shall review any special attachment procedures. Considerations should be taken to address the following pole materials:

1. Wood
2. Aluminum / Steel
3. Concrete Filled
4. Composite

Review the pole manufacturer's suggested mounting recommendations.

The Pole Bracket provides both bolt and band mounting options in the same bracket.

Installer to provide the necessary attachment hardware for the pole itself.

All other bracketing hardware is provided in the kit.

Standard Pivot Adjustment methodology is: moving away from the Pole or Wall is Horizontal Adjustment first, Horizontal Adjustment past the Cross Bar System second, and Vertical Adjustment at the Radio Plate third.

This is field changeable depending on installation considerations and coverage objectives.
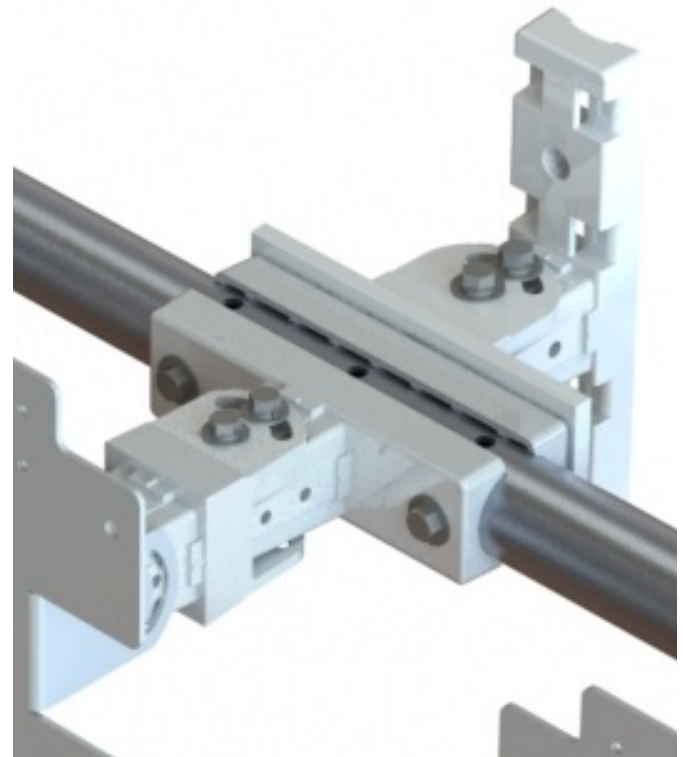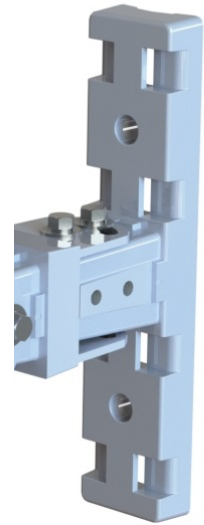
3.0 Cross Bar Sytem Overview

The PTS5G-BK5103 model is designed to support multiple radio and accessory mounting scenarios, and is supplied with the CROSS BAR SYSTEM

The CROSS BAR SYSTEM supports 3 attachment positions, and due to its design, can accommodate multiple attachments per position.

The middle position is the typical position for attachment of the pivot joint facing the pole. This typically is set up to allow for any horizontal positioning.

The front facing positions are typically where the radio plates mount, although they can be mounted on the pole facing side as long as side clearance is maintained.

The included SAR-O bracket typically mounts on the pole facing side at one of the end positions.
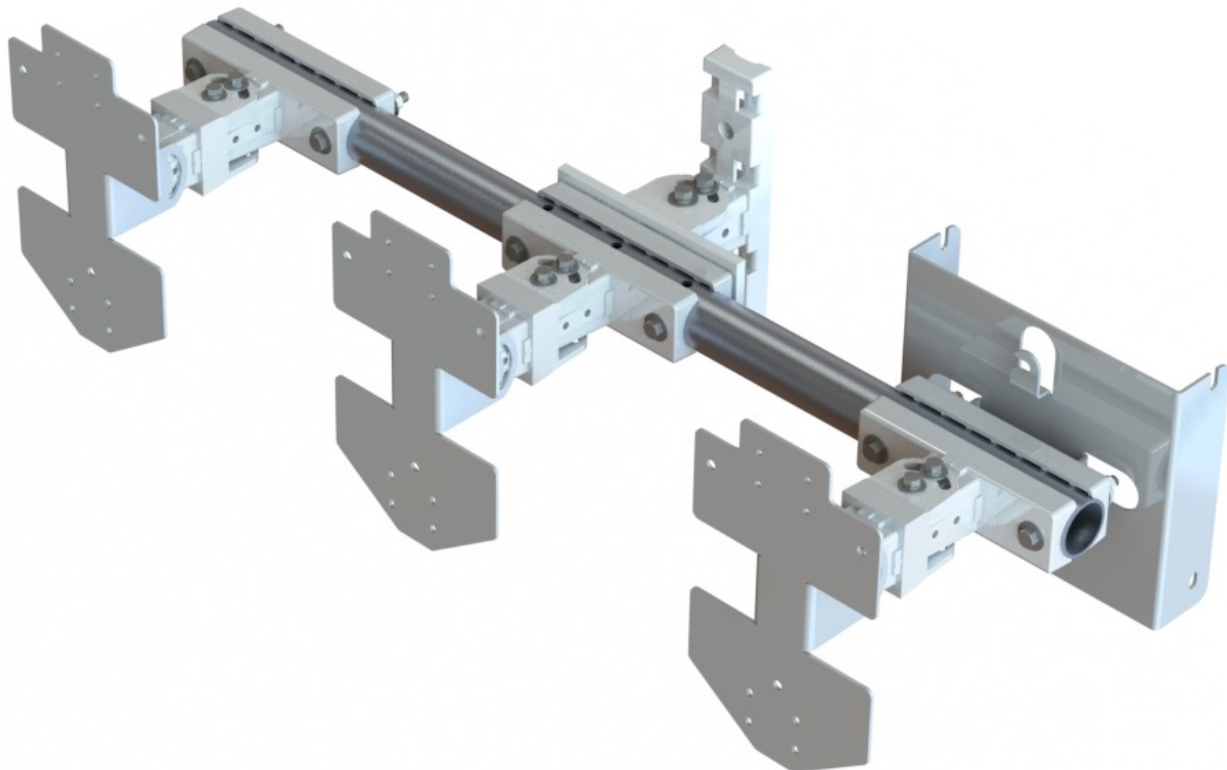
4.0 Radio Bracket Overview

4.1 Standard DIRECTIONAL Radio Plate included with System

The PTS5G-BK5100 Series of Small Cell Radio and Antenna Brackets are designed as a universal mounting plate that supports most Ericsson and Nokia radio models.

The DIRECTIONAL Radio Plate is supplied in each kit. It supports both Ericsson and Nokia radio modules.

It comes complete will all the mounting hardware to attach the radio to the plate. The plate mounts to the adjustment pivot provided in the kit.

4.2 Optional OMNI Radio Plate

There are different individual OMNI radio bracket kits specific to Ericsson and Nokia with the only difference being the RF cable assemblies as a result of Radio and Antenna connector variations.

Each comes complete will all the mounting hardware to attach the radio to the plate.

Each comes with the RF bulkhead mounting cable assembly, with the matching radio side RF connector.

The plate mounts to the adjustment pivot provided in the kit.
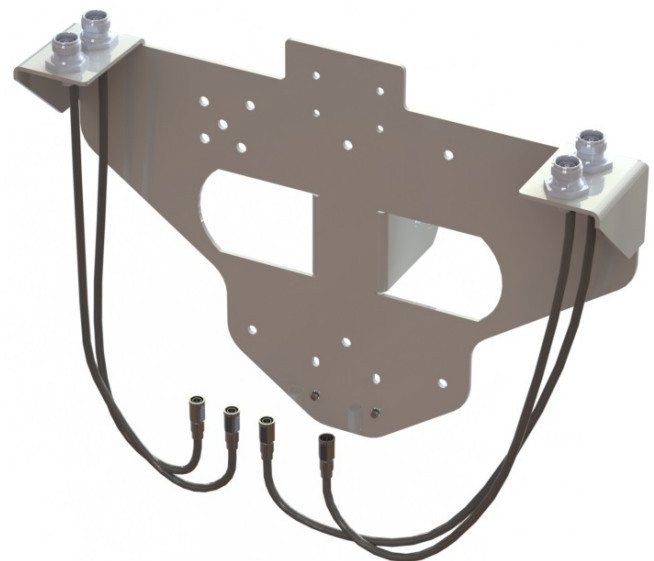
**PTS5G-BK5111 (NOKIA OMNI) SAP.33871
PTS5G-BK5112 (ERICCSON OMNI) SAP.33872
PTS5G-BK5114 (Nokia LAA Omni) SAP TBD
PTS5G-BK5115 (ERICSSON LAA Omni) SAP TBD**

4.3 Optional Accesory Mounting Brackets

The PTS5G-BK5100 Series of Small Cell Radio and Antenna Brackets also support mounting to:

FLAT Surfaces - Flat Mount allows for mounting to flat walls and flat pole structures,

CORNER Surfaces - Corner Mount allows for mounting on the corner of a building or square

stanchion.

SAR-O Mount for use with Single Radio Installations.

Accessory Mounting Brackets
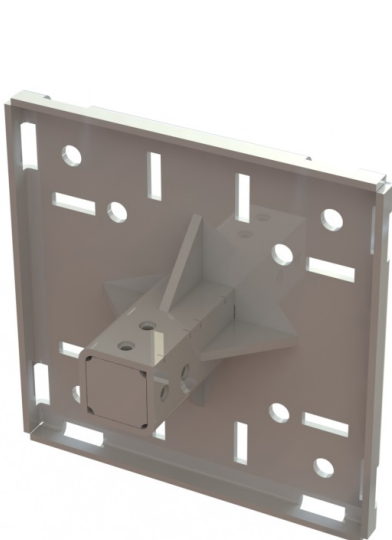
PTS5G-BK5130
FLAT MOUNT
SAP.33873

PTS5G-BK5131
CORNER MOUNT
SAP.33874

PTS5G-BK5132
SAR-O MOUNT

5.0 Packaging Overview and Assembly Specifications

HARDWARE PRE-BAGGED & INCLUDED
(ITEMS:11,12,13,14)

PLACE BAGGED HARDWARE
IN OPEN SPACE

6 OPTIONAL

8.000

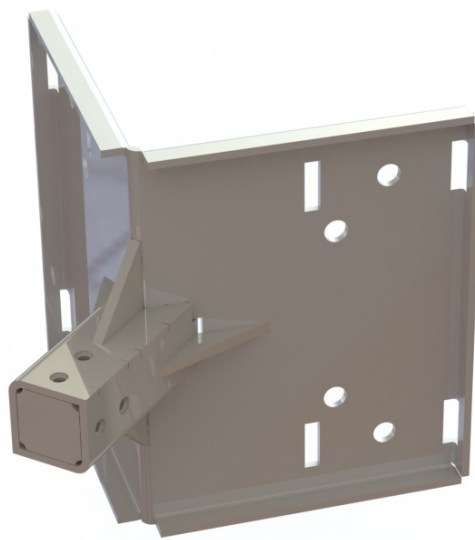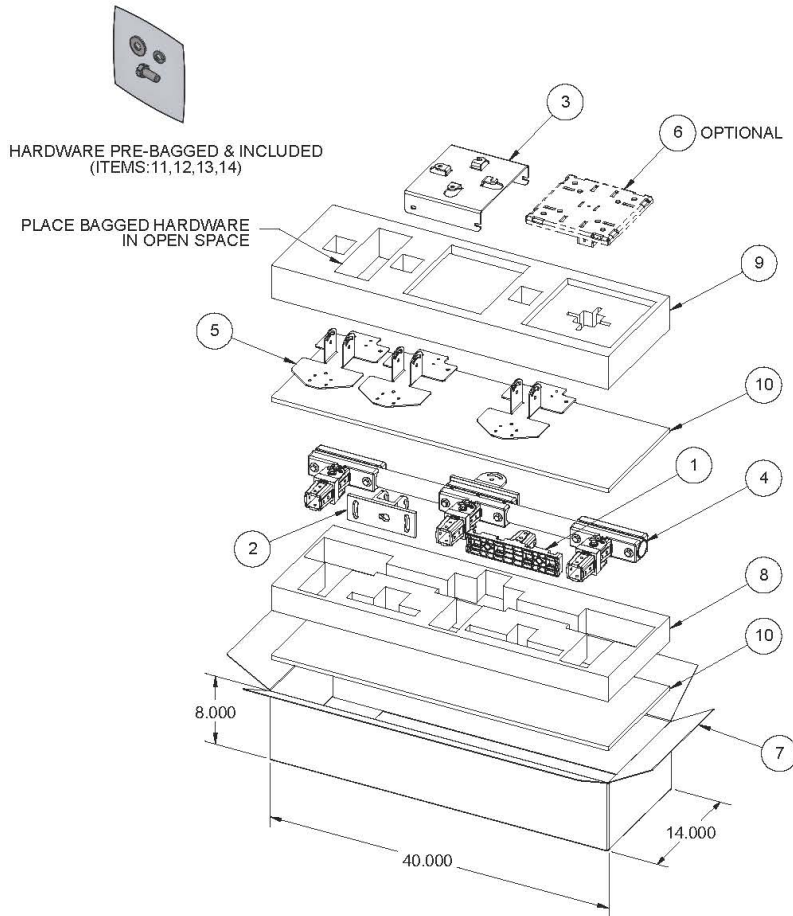14.000

40.000

Item NO	Description	QTY
1	Main Pole Support Bracket	1
2	Main Pivot Tee Bracket VERTICAL application	1
3	SAR-O Bracket	1
4	3 Radio Cross Bar Assembly w/ HORIZONTAL Pivot Installed	1
5	Directional Small Cell Radio Mount Plate	3
6	Flat Surface Main support Bracket (optional)	N/A
7	Carton 40x14x8"	1
8,9	Foam Packaging pieces	2
10	Carton Flat Packing pieces	2
11	3/8" Main Support Hardware Kit	1
12	5/16" Radio Mount Hardware kit	3
13	Nokia Radio Hardware kit	3
14	Ericsson Radio Hardware kit	3
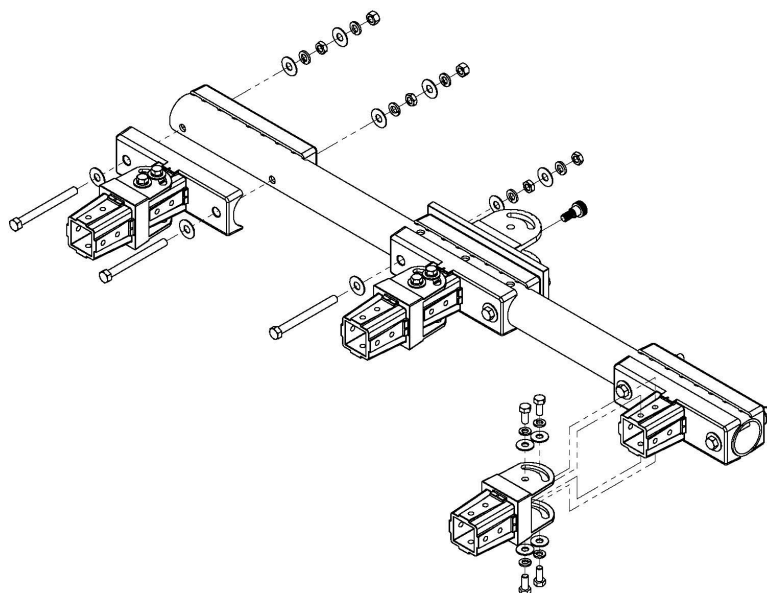
Hardware Torque Specifications	
3/8"	157 in-lb
5/16"	86 in-lb

6.0 Bracket and System Mounting Overview

6.1.0 Pole Mounting - with Included Bracket

6.1.1 Locate Pole Mounting Bracket #1

6.1.2. Identify Mounting Location and Orientation

6.1.3 Measure location for proper adjustment clearances

6.1.4 Mark Bracket attachment location

6.1.5 Verify Mounting Hardware meets pole manufacturers and local building code specifications

6.1.6 Mount Bracket with Bolts, Lags or Steel Banding hardware as per requirement

6.1.7 Tighten and Recheck attachment hardware as per manufacturers specifications

Depending on installation ease, the radio modules can be mounted to the Radio Plate and Cross Bar System in advance of moving the system into place. Additional caution should be taken to secure and manage the additional weight while positioning, securing and bolting the loaded Cross Bar System to the Pole or Wall Mount

6.2.0 Optional Wall or Corner Mounting

6.2.1 Locate Wall or Corner Bracket (Ordered separately)

6.2.2. Identify Mounting Location and Orientation

6.2.3 Measure location for proper adjustment clearances

6.2.4 Mark Bracket attachment location

6.2.5 Verify Mounting Hardware meets local building code specifications

6.2.6 Mount Bracket with Bolts, Lags or Expansion hardware as per requirement

6.2.7 Tighten and Recheck attachment hardware as per manufacturers specifications

PTS5G-BK5130
FLAT MOUNT
SAP.33873

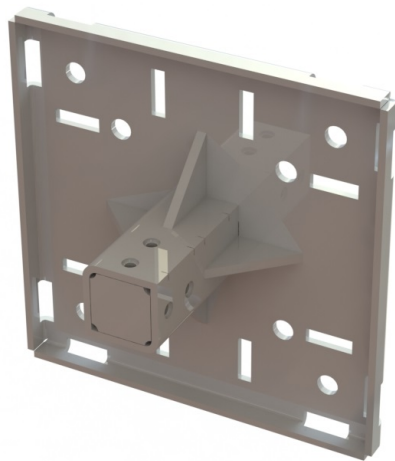**PTS5G-BK5131**
CORNER MOUNT
SAP.33874

Depending on installation ease, the radio modules can be mounted to the Radio Plate and Cross Bar System in advance of moving the system into place. Additional caution should be taken to secure and manage the additional weight while positioning, securing and bolting the loaded Cross Bar System to the Pole or Wall Mount
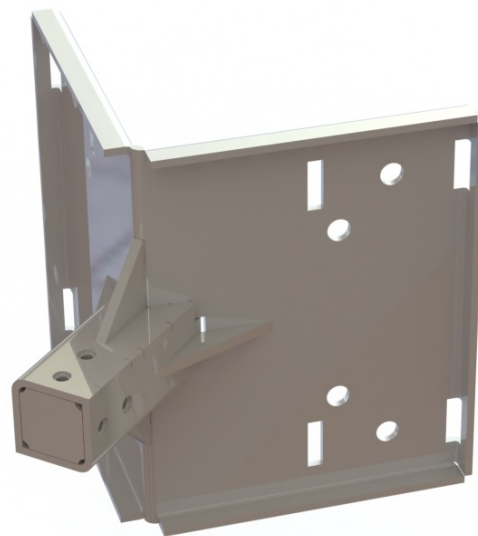
6.3.0 Horizontal or Vertical Orientation Selection

Cross Bar System is supplied with installed Pivot Tee for Horizontal Cross Bar Installation.

The kit ships with a additional Pivot Tee for Vertical Cross Bar Mounting.

To change from Horizontal to Vertical Orientation

6.3.1 Locate Center adjustment Pivot which faces the Pole or Wall Mount

6.3.2 Undo bolts securing Pivot to backside of Cross Bar System, place aside for re-use

6.3.3 Remove Pivot Tee and replace with supplied Vertical Pivot Tee #2.

6.3.4 Re-install the bolts to secure the Pivot Tee to the backside of the Cross Bar System

6.3.5 Tighten Pivot Tee mounting hardware as per specifications

6.3.6 Tighten and Recheck all attachment hardware as per manufacturers specifications
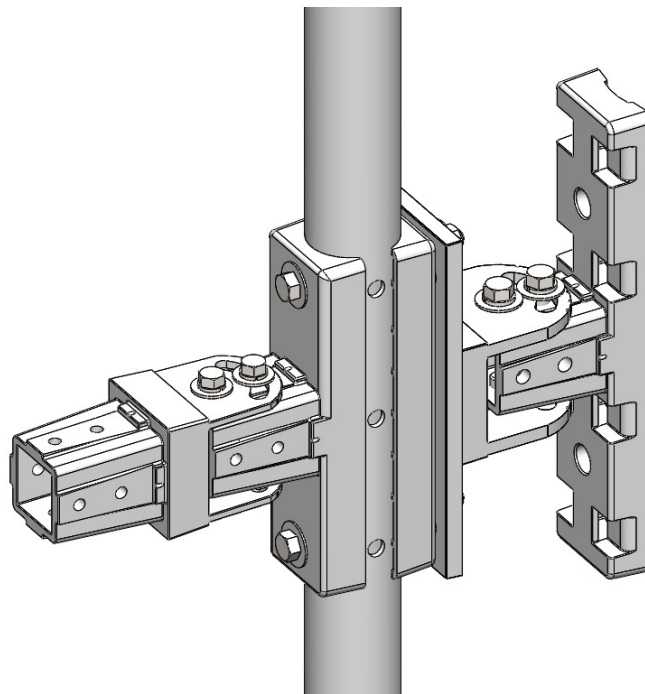
Depending on installation ease, the radio modules can be mounted to the Radio Plate and Cross Bar System in advance of moving the system into place. Additional caution should be taken to secure and manage the additional weight while positioning, securing and bolting the loaded Cross Bar System to the Pole or Wall Mount
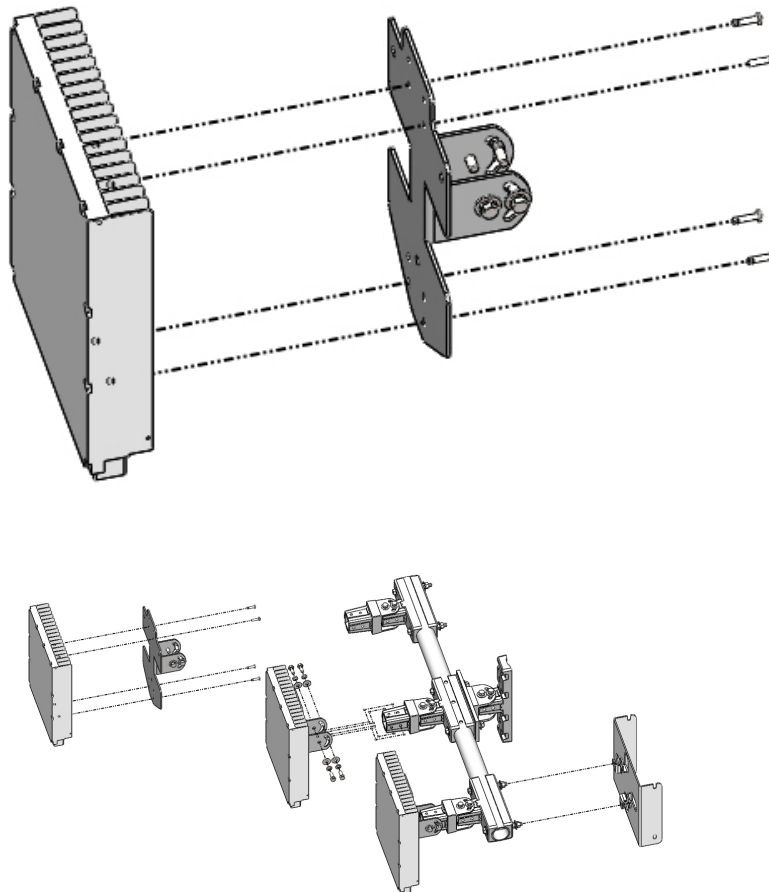
6.4.0 Mount Radio Module to Radio Plate

DIRECTIONAL RADIO PLATES are included in the System Kit.

6.4.1 Locate Radio Modules against the included Radio Plate
6.4.2. Secure Radio to Place with provided Hardware
6.4.3 Perform the same for the SAR-o if used

Depending on installation ease, the radio modules can be mounted to the Radio Plate and Cross Bar System in advance of moving the system into place. Additional caution should be taken to secure and manage the additional weight while positioning, securing and bolting the loaded Cross Bar System to the Pole or Wall Mount

6.5.0 Mount Cross Bar System to Pole or Wall Bracket

6.5.1 Locate installed Pole, Wall or Corner Bracket

6.5.2. Slip Pivot Tee over installed bracket

6.5.3 Insert the (4) Pivot Tee adjustment bolts into Mounting Bracket

6.5.4 Hand Tighten to secure Cross Bar System to Bracket

6.5.5 Align Cross Bar System for desired application

6.5.6 Tighten Pivot Tee mounting hardware as per specifications

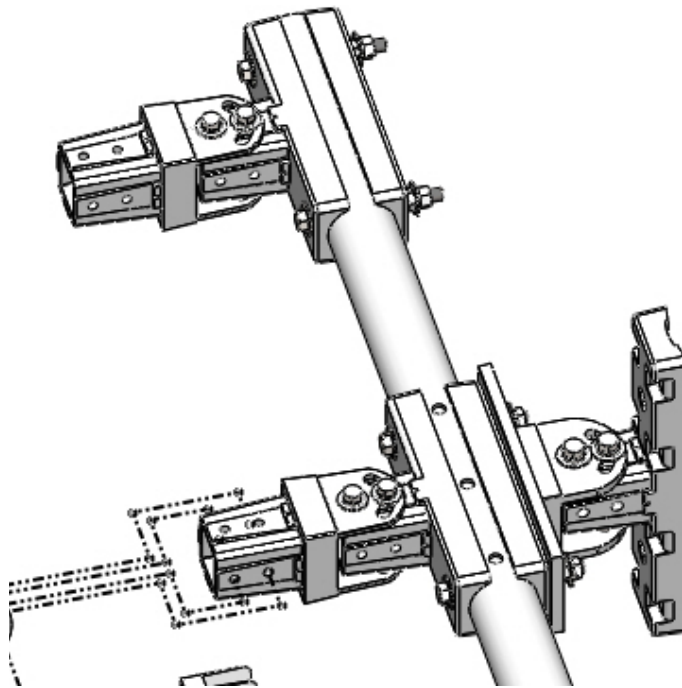6.5.7 Tighten and Recheck all attachment hardware as per manufacturers specifications

Depending on installation ease, the radio modules can be mounted to the Radio Plate and Cross Bar System in advance of moving the system into place. Additional caution should be taken to secure and manage the additional weight while positioning, securing and bolting the loaded Cross Bar System to the Pole or Wall Mount

6.6 Mount Radio Module with attached Radio Plate to Cross Bar System

DIRECTIONAL RADIO PLATES are included in the System Kit.

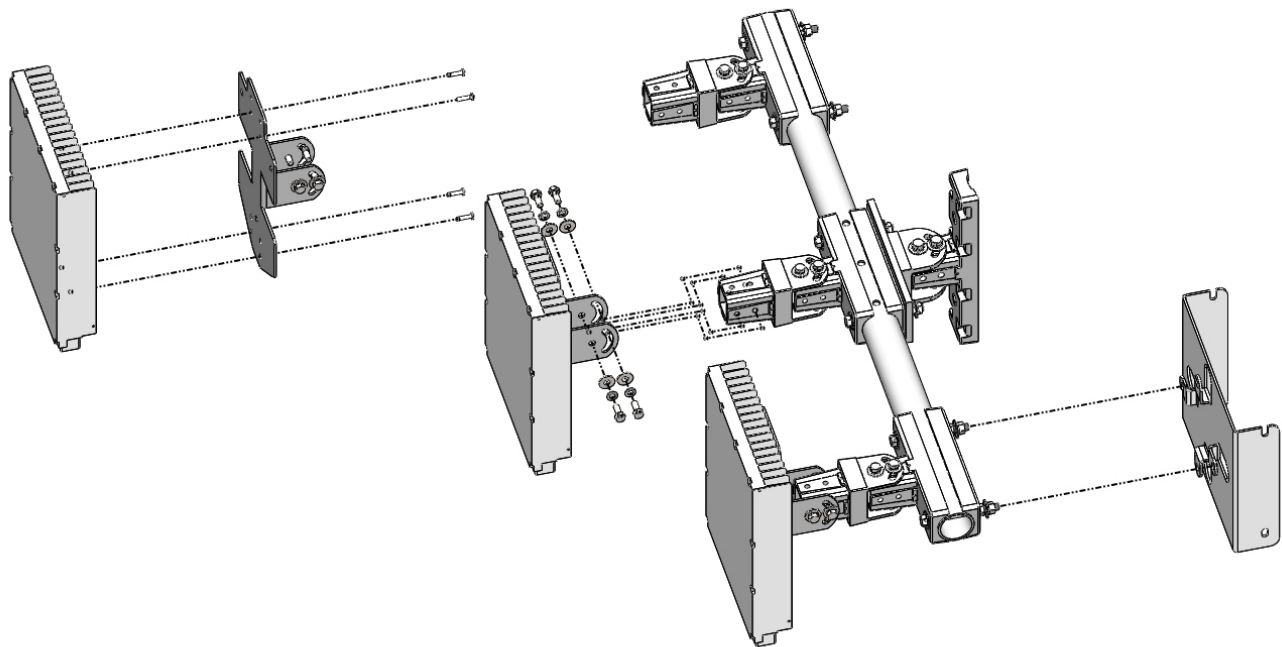6.6.1 Locate Radio Modules with attached Radio Plate
6.4.2 Align Radio Plate against Cross Bar System' Pivot Tee ensuring proper radio orientation.
6.4.3 Tighten Pivot Tee mounting hardware as per specifications
6.4.4 Tighten and Recheck all attachment hardware as per manufacturers specifications
6.4.5 Repeat for the additional Radio Modules
6.4.6 Perform the same for the SAR-o if used

Depending on installation ease, the radio modules can be mounted to the Radio Plate and Cross Bar System in advance of moving the system into place. Additional caution should be taken to secure and manage the additional weight while positioning, securing and bolting the loaded Cross Bar System to the Pole or Wall Mount

7.0 Document and Revision Control

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Department / Responsibility	
Prime Contact 3	
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