

For additional Information:

PCTEL Tech Support

Tel: 1-630-372-6800

Fax: 1-630-372-807

antenna.techsupport@pctel.com

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Illinois 60108
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GPS TIMING WITH INTEGRATED SURGE INSTALLATION BULLETIN

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Installation Instructions

Read these instructions thoroughly before installation or assembly. Follow the sequence for proper assembly and operation.

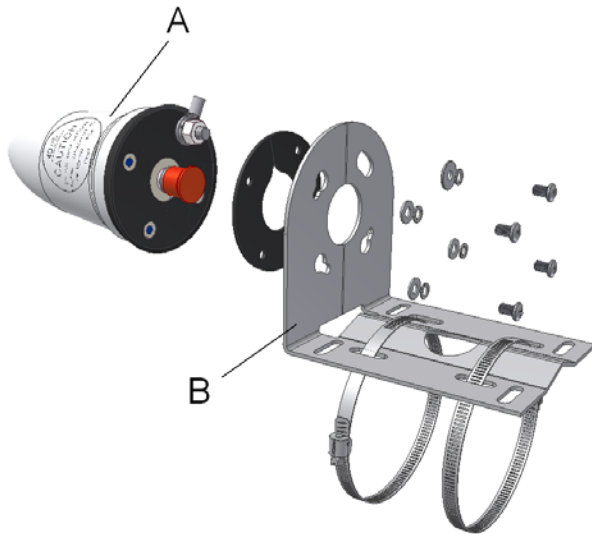
Notice - The installation, maintenance, or removal of antenna systems requires qualified, experienced personnel. Antenna systems should be inspected once a year by qualified personnel to verify proper installation, maintenance, and condition of equipment.

Antenna Description:

GPSXX-TMG-SPI- XXNCB (cover) is a self-contained GPS antenna and mount kit. The kit includes a right hand circularly polarized antenna that incorporates a high performance, low noise amplifier. It also includes a medium duty L mount bracket to attach the antenna to a vertical and horizontal pipe within a range of diameters detailed below.

Contents:

A - 1ea Timing Antenna w/ surge and watershed gasket.
B - 1ea Medium Duty Mount Kit - ** Mount kit may contain extra hardware and gasket depending on product Type installed. Extra components can be discarded.



MOUNTING KIT DESCRIPTIONS

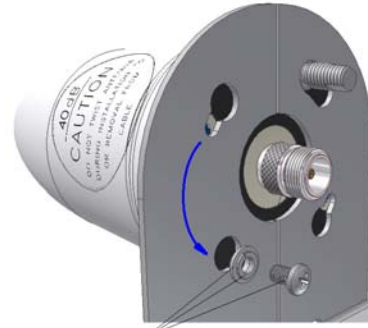
Range of Mounting Pipe Diameters for Medium Duty Bracket Mount Kit.

The L mount Bracket Kit attaches the GPS antenna on vertical or horizontal pipes and beams with a diameter ranging from 2 ½ - 8 ½ in [60mm-215mm] diameter. **Note – installation of antenna requires an unobstructed clear view to the sky.**

TOOLS REQUIRED FOR INSTALLATION

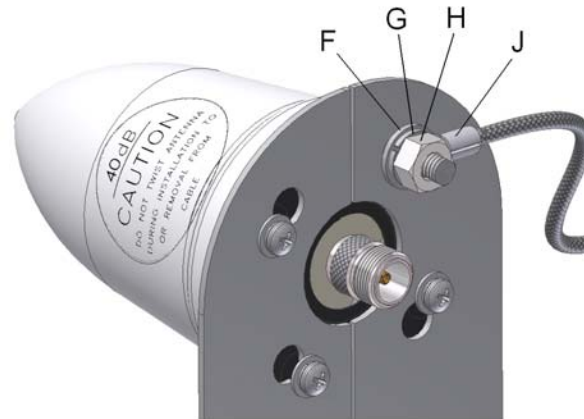
- (1) Type II Crossed Recessed Screw Driver
- (2) Adjustable Wrench or 3/8 wrench.
- (3) Crimping pliers

Antenna/Mount Assy – remove protective cap and grounding hardware from antenna. Align Water Shed Gasket to mounting holes and orient antenna onto bracket – Gasket may distort prior to installation. Install screw hardware [C,D,E] opposite ground stud. Rotate into place and tighten - Recommended torque 5-8lbf*in [1Nm].



[C,D,E]

Repeat for remaining screws 2X. Assemble (AWG-6/16mm² min) Grounding cable to crimp lug [J] fasten with supplied hardware [F,G,H]. Do not over tighten - Recommended torque 5-8lbf*in [1Nm].



Mount to Mast Assy – position antenna onto Mounting structure. Route hose clamps and tighten 2X.



Attach the other end of grounding cable to shortest possible ground connection. Attach coax cable, and Install weatherproofing (not provided with the Mount Kit) extending at least 2" below the bottom of the connector to directly underneath the base plate of the antenna.