

PRODUCT WARRANTY

GENERAL WARRANTY. PCTEL, Inc. ("PCTEL") warrants that the PCTEL antenna products furnished herewith shall be free from defects in material and workmanship for a period of two (2) years from the date of shipment by PCTEL under normal use and operation; provided, however, that (a) MPRC and MPRD parabolic reflector antennas, Bluewave series antennas, and PCTEL bulk cable products are similarly warranted for five (5) years from the date of shipment by PCTEL; (b) PCTEL enclosure and coaxial cable assembly products are similarly warranted for one (1) year from the date of shipment by PCTEL; and (c) PCTEL data line surge and PCT series coaxial surge products are similarly warranted for ten (10) years from the date of shipment by PCTEL. PCTEL's sole and exclusive obligation under the foregoing warranty shall be, at its option, to repair or replace any defective product that fails during the warranty period. The expense of removal and reinstallation of any item is not included in this warranty. THE FOREGOING WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OR TRADE PRACTICE WITH RESPECT TO THE PRODUCTS. Repair or replacement in the manner provided herein shall be the sole and exclusive remedy of the buyer for breach of warranty and shall constitute fulfillment of all liabilities of PCTEL with respect to the quality and performance of the product.

EXCEPTIONS. PCTEL DOES NOT WARRANT THAT THE OPERATION OF THE PRODUCTS IS ERROR-FREE OR THAT OPERATION WILL BE UNINTERRUPTED. IN NO EVENT SHALL PCTEL BE LIABLE FOR: (i) ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES TO THE BUYER OR ANY THIRD PARTY ARISING OUT OF THESE TERMS AND CONDITIONS OR ANY DEFECTIVE PRODUCT WHETHER THE DEFECT IS WARRANTED AGAINST OR NOT, WHETHER THE CLAIM IS BASED UPON CONTRACT, TORT, STRICT LIABILITY OR OTHERWISE, (ii) ANY AMOUNT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT, (iii) SYSTEM PERFORMANCE, INCLUDING COVERAGE, (iv) THE BUYER'S SELECTION OF PRODUCTS FOR THE BUYER'S APPLICATION, AND/OR (iv) FAILURE OF PRODUCTS TO MEET GOVERNMENT OR REGULATORY REQUIREMENTS. The foregoing general warranty shall apply only if: (a) the product has been properly installed and used at all times in accordance, in all material respects, with the applicable product documentation; (b) no modification, alteration or addition has been made to the product by persons other than PCTEL or PCTEL's authorized representatives or otherwise approved by PCTEL in writing; and (c) the product has not been subjected to abuse, misuse, neglect or unusual physical, electrical or electromagnetic stress, or some other type of accident.

WARRANTY PROCEDURES: In the event of a warranty claim, the buyer must contact PCTEL to arrange for product return. No product will be accepted for replacement or repair without first obtaining a Return Material Authorization (RMA) number from PCTEL Customer Service by telephone to 630.372.6800 or by email to antenna.techsupport@pctel.com. PCTEL reserves the right to inspect all defective products. Products returned without an RMA number will not be processed and will be returned to the buyer freight collect. The warranty period of any repaired or replaced product shall not extend beyond its original term.

Equipment to be repaired or replaced under warranty is to be returned, freight prepaid, to the following address with the assigned RMA number displayed on the box:

PCTEL, Inc.
Attention: RMA Coordinator
471 Brighton Drive
Bloomington, Illinois 60108 U.S.A.



**471 Brighton Drive
Bloomington, IL 60108**



**GNSS+ Combination GNSS Antenna and
Mobile Antenna Mount**

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MIS-GNSSPLUS Rev A

GNSS+ Combination Antenna/Mount Recommended Installation Instructions:

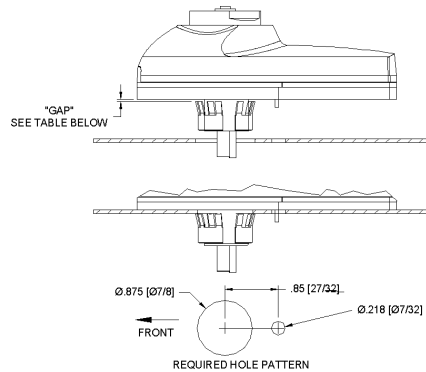
General:

The GNSS+ combination antenna/mount includes an active GNSS antenna and a mobile antenna mount in a single installation.

The mobile antenna interface is a standard M-type interface (1 1/8-18 thread) that has been designed to provide performance at low and high frequencies.

Installation guidelines for the specific mobile antenna used with this mount apply as if used with a standard permanent antenna mount, I.E. if the antenna requires a ground plane on a standard mount it will require a ground plane under the GNSS+ antenna/mount.

The optimum location for mounting the GNSS+ is a flat level surface, free of obstruction, offering a clear view of the horizon and above in all directions.



STUD MOUNT (BLIND INSTALLATION):

Determine GNSS+ antenna/mount installation location. Ensure that the mounting surface is as flat as possible. 1.0" minimum is required below mounting surface to allow for sufficient clearance for the mounting stud and cables.

Cut/drill holes through mounting surface (0.13 max thick) sized and positioned as shown in detail above.

Assemble crown nut to mounting stud so that tines are flush with bottom surface of gasket. Adjust the position of the crown nut as described in table below for various material thickness.

CAUTION: This step is critical. Crown nut must be adjusted on mounting stud for applicable mounting surface material thickness. Once antenna is assembled through mounting surface it can not be removed unless access to the crown nut is possible. To remove, press GNSS+ unit towards mounting surface to compress gasket then loosen crown nut.

Clean mounting surface and bottom of GNSS+. To ensure a long-term watertight seal it is recommended that a bead of silicone sealant be applied around both holes.

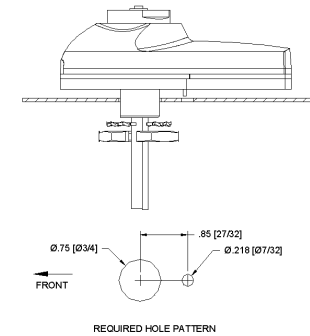
Feed cables through large hole and route to desired location.

Position GNSS+ over mounting surface. Mounting stud shall be located in large hole and locating tab shall be located in small hole.

Press GNSS+ unit towards mounting surface until crown nut snaps through hole and tines lock on bottom side of mounting surface.

Assemble mobile antenna to GNSS+.

| Material Thickness | Turn crown nut, from flush position, for material thickness | Resulting "gap" see figure above |
|--------------------|---|----------------------------------|
| .032 inch | 1 full turn clockwise | -.062 inch (below) |
| .063 inch | 1/2 turn clockwise | -.032 inch (below) |
| .094 inch | No adjustment | 0.0 inch (flush) |
| .125 inch | 1/2 turn counter clockwise | +.032 inch (gap) |



STUD MOUNT (TYPICAL INSTALLATION):

Determine GNSS+ antenna/mount installation location. Ensure that the mounting surface is as flat as possible. 1.0" deep by 2.5" diameter minimum is required below mounting surface to allow for sufficient clearance for the mounting stud, hardware, and cables.

Cut/drill holes through mounting surface (0.5 max thick) sized and positioned as shown in detail above.

Clean mounting surface and bottom of GNSS+.

To ensure a long-term watertight seal it is recommended that a bead of silicone sealant be applied around both holes.

Feed cables through large hole and route to desired location.

Position GNSS+ over mounting surface. Mounting stud shall be located in large hole and locating tab shall be located in small hole.

On bottom side of mounting surface slide slotted lock washer and hex nut around cables and assemble to mounting stud. (Discard crown nut supplied with unit.) Tighten until gasket on base of GNSS+ is compressed to approximately 50% of original thickness. For curved mounting surfaces, gauge compression at crest of curvature.

Assemble mobile antenna to GNSS+.