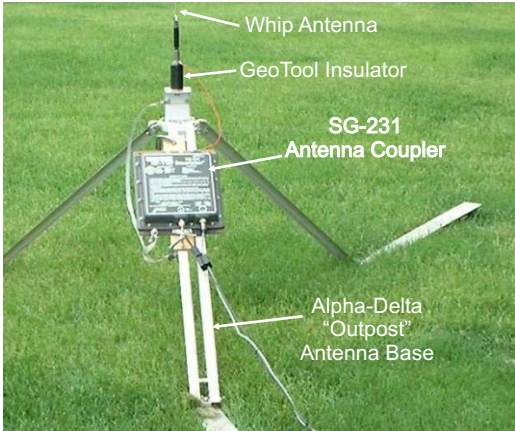
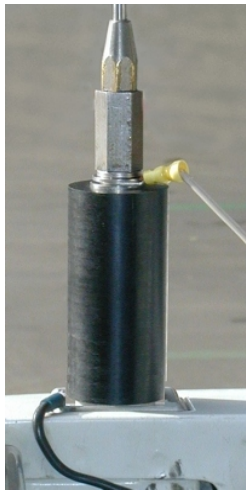


GeoTool HF Antenna Insulator

Based on a design by AA4PB presented in March 2004 QST (www.ham-kits.com)
 Maker of the Intelligent Interface for the Icom and SG-237 (and other) tuners.

Mobile - Fixed - Portable

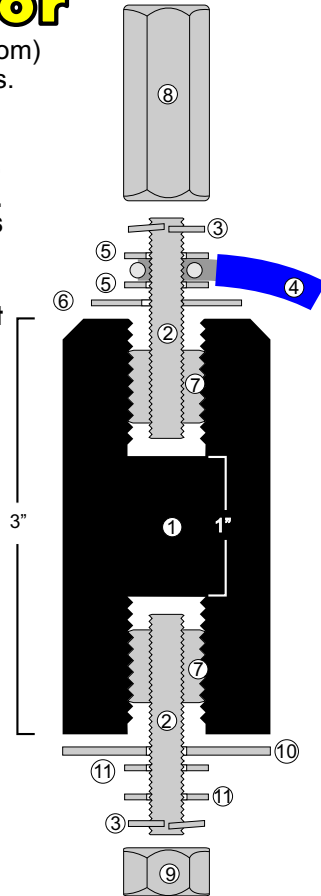
- Designed for use with any antenna coupler such as SGC's SG-237, SG231, etc.
- Greatly reduces power robbing shunt capacitance at the antenna base. Works great with mobile, portable, and base station applications. Allows tuning lower frequencies than with typical 3/8"-24 antenna mounts.
- Prevents Arcing, a leading cause of antenna coupler failure.
- Works great with our GeoTool Pickup Truck Stake Pocket Antenna Mount shown at left, and SGC or other antenna coupler and a stainless CB whip.
- Use with your own homebrew antenna designs.
- Custom designs available for reasonable prices.



Shown above with SGC's SG-231, Alpha Delta Portable Antenna Base, and CB Whip Antenna.

PARTS & SPECIFICATIONS: (Refer to diagram at right)

1. Delrin Insulator Block. 1.5" diameter - 3" Long - Drilled and tapped (9/16"-24) for stainless steel insert which accepts the 3/8"-24 stud. This design eliminates potential for stripping.
2. Stainless steel stud - 3/8"-24 by 1.5"
3. Stainless steel lock washer
4. Antenna wire - Stainless Steel wire (1/8" dia) recommended (optional extra). Solderless connector is included with mount.
5. Stainless steel 3/8" flat washers - Install antenna connector between these washers
6. Stainless steel 1" flat washer for added support
7. Stainless steel threaded adaptor - 9/16"-12 to 3/8"-24 - Allows installing and removing stud without stripping Delrin.
8. Stainless steel coupling nut 1.2" long 5/8" flutes 3/8"-24
9. Stainless steel 3/8"-24 standard nut, or use 3/8"-24 x 1.25" bolt to anchor base
10. Stainless steel 1.5" diameter 3/8" ID flat washer
11. Stainless steel 1" diameter 3/8" ID flat washer



Please check out the AA4PB Web Site (www.ham-kits.com) and SGC (www.sgcworld.com)

GEOTOOL ANTENNA INSULATOR MAIL/FAX ORDER FORM

NAME: _____ TODAY'S DATE: _____

CARD BILLING ADDRESS: _____

SHIPPING ADDRESS: _____

CREDIT CARD NUMBER: (Visa,MC,AMEX) _____ EXPIRATION DATE: ___/___/___

Please send me ___ Antenna Insulator(s) (at \$24.95 each. Add \$4.00 shipping for 1-2 insulators), and ___ 18"x1/8" Stainless Steel Wire for connecting Ant. Coupler Hot Lead. California Residents add 7.75% sales tax.

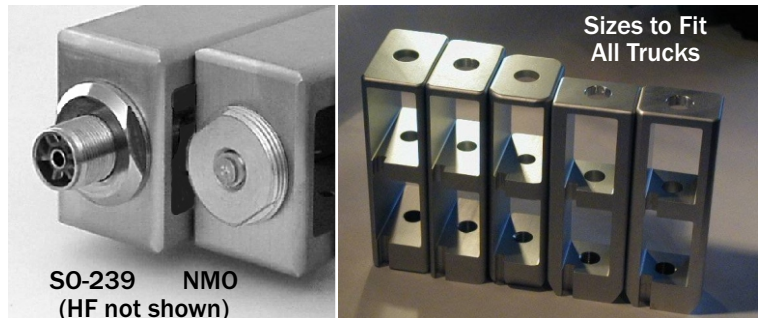
MAIL TO: GEOTOOL - Rick Curtis
 2375 Elden Ave A-2
 Costa Mesa, CA 92627

Insulators = \$ _____
 SS Wire = \$ _____
 Tax = \$ _____
 Shipping = \$ _____
 TOTAL = \$ _____

FAX TO: (949) 548-8885 PHONE: (714) 403-2026 EMail: info@geotool.com

**We Also Make
 Stake Pocket Pick-Up
 Truck Antenna Mounts**

GeoTool
WA6JKH



STAKE POCKET ANTENNA MOUNTS

The strongest antenna mount available for your pickup truck stake pocket. Our patented design anchors securely in the stake pocket, and puts the antenna up where every inch of it will radiate! Holds all UHF, VHF, and HF antennas, including Bug Catchers easily. Small screwdriver antennas such as the ATAS-100 and 120, and the Mini-Tarheel work well with the stake pocket antenna mounts. Visit our Web Site at <http://www.geotool.com>, or EMail: info@geotool.com for more information on our Mounts and other products.

Delrin Insulator Installation Notes

Read instructions completely before installing insulator!

Your Delrin insulator is shipped with the parts connected in the recommended position for use. The optional 1/8" stainless steel wire (4), or other corrosion resistant wire, is intended to mount where the 3/8" solderless connector (not shown) is located when the insulator is shipped, between the two small washers (5) on the top of the mount. The solderless connector is not intended as a long term solution, since it will corrode sufficiently to make tuning difficult in a relatively short time.

TIGHTEN BOLTS CAREFULLY - Using a socket or end wrench, tighten the top 3/8"-24 coupling nut (8) until the lock washer (3) compresses and resistance increases. **REMEMBER!** Delrin is plastic! The metal inserts(7) minimize the potential for cross-threading of the stud (if it were screwed directly into a threaded Delrin block), they do not significantly increase the strength of the coupling. You can tighten the bolts a little farther, but the Delrin, though very strong for plastic, will still strip fairly easily. The system is strong enough to easily handle a stainless steel CB whip or a small fiberglass whip. I have not tried larger antennas like Hustlers and such, so use them at your own risk. Guying is strongly recommended.

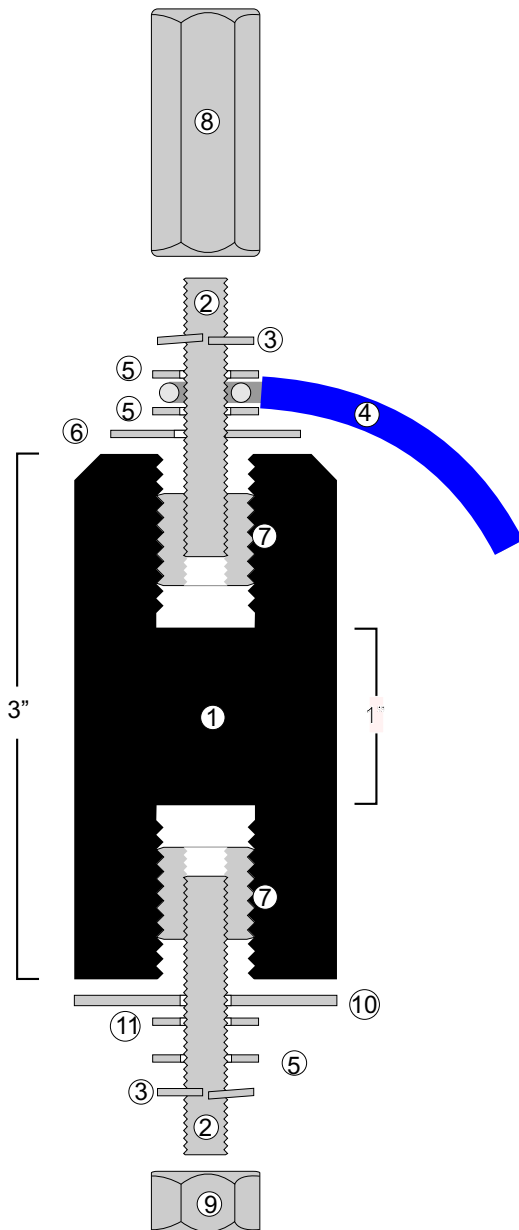
We recommend you hand tighten the Delrin Insulator **firmly** to the GeoTool Antenna Mount, or other mounting surface. The friction between the base of the Delrin and the mount is sufficient to hold it in place. The 1.5" metal washer (10), is typically used in sheet metal installations to spread out loads, and is not intended to be used with the GeoTool mount.

The end of the 1/8" stainless wire (4) is bent to fit the top of the mount. Adjust the length of the wire and bend the other end to fit the antenna coupler connector. Install the wire after installing the mount block. Form the wire in a broad curve, and keep it as far from metal surfaces of the truck as possible. As mentioned above, install the wire between the two smaller washers (5) at the top of the mount.

Grounding is commonly done at the antenna coupler to the body of the truck. A very low resistance connection is required at all connections to the antenna and the body of the truck. The use of moisture resistant grease such as Dow Corning #4 Electrical Insulating Compound with silicone, or even axle grease, will minimize the amount of time between cleaning of contacts. If you have difficulty loading the antenna after a long period of use, the likely culprit is corrosion at the connections between the antenna coupler and the antenna or ground points.

If you are using the GeoTool mount, a small hole can be drilled and tapped in the GeoTool aluminum mount block, and the ground side of the antenna coupler can be connected there. The GeoTool mount anchor bolt then will carry all of the grounding. If this method is used, careful attention should be paid to installing it in a manner that produces good RF conductivity at the bottom of the stake pocket.

****Late Note:** I have included a 3/8"IDx1/2"OD spacer to be used with the GeoTool HF mounts. It installs inside the top hole of the mount block to center the 3/8" stud. You should use only the small washer and lock washer when attaching the Insulator to the GeoTool mounts. The insulator should rest directly on the top of the mount.



PARTS & SPECIFICATIONS: (Refer to diagram above)

1. Delrin Insulator Block. 1.5" diameter - 3" Long - Drilled and tapped (9/16"-24) for stainless steel insert which accepts the 3/8"-24 stud. This design minimizes potential for stripping DELRIN threads.
2. Stainless steel stud - 3/8"-24 by 1.5"
3. Stainless steel lock washer
4. Antenna wire - Should be Insulated for high protection from high (Antenna wire not included. Solderless connector is included with mount)
5. Stainless steel 3/8" flat washers - Install antenna connector between these washers
6. Stainless steel 1" flat washer for added support
7. Stainless steel threaded adaptor - 9/16"-12 to 3/8"-24 - Allows installing and removing stud without stripping DELRIN.
8. Stainless steel coupling nut 1.2" long 5/8" flutes 3/8"-24
9. Stainless steel 3/8"-24 standard nut, or use 3/8"-24 x 1.25" bolt to anchor base
10. Stainless steel 1.5" diameter 3/8" ID flat washer
11. Stainless steel 1" diameter 3/8" ID flat washer



GeoTool - Rick Curtis - WA6JKH
2375 Elden Ave A-2
Costa Mesa, CA 92627
Phone: (714) 403-2026
Fax 949-548-8885