

**Screwdriver Antenna Adaptor Installation Notes**  
***For Use with Tarheel, Hi-Q, and Other Screwdriver Antennas***

THESE INSTRUCTIONS ARE IN REVISION. THE PHOTOS ON THE FOLLOWING PAGE ARE TO BE CHANGED, and THESE INSTRUCTIONS HAVE BEEN MODIFIED FROM THE VERSION THAT FITS THE OLD PHOTOS.

Most of the antenna mount block installation steps are outlined on the attached HF-1 instruction sheet. However, the top mounting hardware is different for use with Screwdriver Antennas. In addition, the inside hardware includes only the items as shipped with the mounts. Remember the order and direction that the parts are installed.

If your antenna has tuning coils or capacitors that need tuning prior to permanent installation, you should do this with the antenna mount body secured into the stake pocket. Be sure you clean off the bottom outside area of the stake pocket where the internal-tooth lock-washer is held against the metal by the 9/16"-12 anchor bolt. Follow the attached HF-1&2 instructions to prepare the anchor bolt and stake pocket for this installation. For testing, a snug fit is all that is required, but be sure to check for a good ground connection to the mount block. Remember the anodized portion of the mount will not conduct electricity. You will need to check the ground using the coax braid after it is installed. For initial checking, be sure the hex head of the 9/16" bolt shows a good connection to the truck body or frame. This will ensure that the lock-washer is making good connection to the bottom of the stake pocket. Since the threads of the mount block are not anodized, there will be a high probability that a good ground connection exists at the mount block.

Finally, if your antenna was supplied with a top insulator, you may wish to use that one instead of the black Delrin insulating washer provided with your GeoTool antenna mount. However, remember that the Delrin washer, holds the 3/8"-24 bolt from falling into the mount block when the antenna is removed. Other top hardware must do the same. You can use as much of the hardware supplied by the antenna manufacturer as you like, but some insulating washers that are intended to be mounted below the mounting bracket (i.e., inside our mount block) may be too large to fit the GeoTool mount. These can be trimmed to size, or you could simply use our hardware. Contact your antenna manufacturer or GeoTool for further information.

**Assembly guidelines:**

- The 3/8" bolt and hardware are packaged on the mount in the correct installation order. Be sure to note this before installing the coax cable. However, it will be described in the text below if you forget.
- Installing the coax with one connector on each side of the mount may minimize the potential for shorting of the hot lead from the coax. When installing the coax in the steps below, consider this when cutting the coax to length. When tightening the 3/8" bolt, keep the solderless connectors away from the mount body. If necessary, bend the solderless connectors down to allow the mount to slip into the stake pocket. Be sure that the ground connector does not come into contact with the bolt or washers. Keep it as far as possible from the bolt to minimize the potential for arcing.
- Make any necessary adjustments to the routing of your coax, and install any shunt coils, series coils or capacitance as recommended by the screwdriver antenna manufacturer. If there are adjustments to be made on the coils, you should do them before installing the nylon insert in the top of the mount.
- Assemble the coax, and shunt or capacitor tuning elements to the solderless connectors by **SOLDERING** them in place. **DON'T CRIMP** them since this may damage the insulation and the connection will be prone to corrosion. The yellow insulation is important to prevent shorting against the mount block. Keep soldering time to a minimum to prevent melting of the yellow insulation.
- After the coax is soldered, assemble the following on the 3/8" bolt. Beginning at the Hex head of the bolt, install the lock-washer, the 3/8" I.D. solderless connector (hot lead, or center conductor of the coax), 1 small washer, and the nylon shoulder washer, with the extended side up.
- Next, it is important when you install the 1/2" I.D. that the solderless connector (coax ground lead) drops over the extruded portion of the nylon shoulder washer. This will ensure that the ground lead will not contact the center conductor.

- If you need to adjust any tuning device that came with the antenna, install the coax and 3/8" bolt assembly into the mount block, and screw the Delrin insulating washer down over the assembly until it is just snug enough to hold the antenna while tuning. Finally be sure that the mount block is secured to the bottom of the stake pocket using the 9/16" anchor bolt and internal-tooth lock-washer.
- Once the tuning device is properly adjusted, and positioning of the tuning elements and coax are finalized, you can remove the antenna, remove the anchor bolt, and remove the mount block from the truck. Also, remove the antenna quick disconnect, if any, the Delrin insulating washer, and the temporary Extruded Washer.
- Permanently install the 3/8" bolt and coax assembly by placing it into position through the opening at the top of the mount. Finally, screw the GeoTool Delrin insulating washer in place, tightening it until the 3/8" lock-washer is just closed.
- Tightening of the 3/8"-24 bolt and coax assembly should stop when the lock-washer is just compressed. Delrin is a strong plastic, but it probably will not take much more than the load of the lock-washer. The Delrin insulating washer provides insulation, and holds the 3/8"/24 bolt in place when the antenna is not present.
- Finally, attach your quick disconnect and tighten firmly. If you need to tighten the Delrin insulating washer a little to make the assembly more solid, and less prone to rotation, be careful.

Note: The strength of the Delrin compares to soft brass, so be careful tightening.

If you have any questions on the installation, please call me at 714-403-2026. Rick Curtis - WA6JKH - GeoTool

### Installation Photos

Note: The photos below show 2 extra washers above the 3/8" Hot Lead Connector. These are no longer necessary. Install hardware as on the mount when delivered. The text to the left of the top left photo has been changed and is correct. The other pictures show various views of the mount for reference.

