HILLBILLY (For Amateur Radio)

WARNING! INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS. BEFORE YOU START INSTALLATION, LET US WARN YOU OF THE DANGER OF LETTING ANY PART OF YOUR ANTENNA SYSTEM TOUCH ELECTRICAL POWER LINES — YOU MAY BE KILLED. IT HAPPENS MORE OFTEN THAN YOU REALIZE! SOMEONE FALLS OFF A ROOF OR GETS THE SHOCK OF HIS LIFE. UNFORTUNATELY, A GOOD ANTENNA SITE IS OFTEN NEAR ELECTRICAL POWER LINES. IF ANY METAL ANTENNA PART TOUCHES A POWER LINE IT COMPLETES AN ELECTRICAL PATH THROUGH THE ANTENNA AND THE INSTALLER (THAT'S YOU).

FOLLOW THESE RULES AND LIVE:

- 1. Perform as much antenna assembly on the ground as possible.
- Watch out for overhead power lines. Check the distance to the power lines before you start installing WE RECOMMEND YOU STAY A MINIMUM OF TWICE THE MAXIMUM LENGTH OF THE ANTENNA ASSEMBLY AWAY FROM ALL POWER LINES.
- 3. Do not use a metal ladder.
- 4. Remember, even the slightest touch of an antenna to a power line can cause a fatal shock.
- 5. Don"t try to do the job on a windy day.
- 6. Have a friend as a spotter when you're on the roof. They can see things you can't.
- 7. If you start to drop an antenna, get away from it and let it fall.
- If any part of the antenna should come in contact with a power line CALL YOUR LOCAL POWER COMPANY; DON'T TRY TO REMOVE IT YOURSELF! They will remove it safely.
- Mast, lead-in and metal guy wires are all excellent conductors of electrical current keep them away from power lines too.
- 10. Be sure your family and friends understand the danger of touching an overhead power line. Tell them never to try to remove any object in contact with a power line CB, TV antenna or anything else.
- 11. Make sure that the antenna mast assembly is properly grounded.

WHERE TO INSTALL YOUR ANTENNA:

Before attempting to install your antenna, think where you can best place your antenna for safety and performance. To determine a safe distance from wire, power lines, and trees: (1) Measure the height of your antenna, (2) Add this length to the length of your tower or mast, and then (3) Double this total for the minimum recommended safe distance. If you are unable to maintain this safe distance, STOP, GET PROFESSIONAL HELP. Generally, the higher the antenna is above the ground, the better it performs. Good practice is to install your antenna about 5 to 10 feet above the roof line and as far away as possible from power lines and obstructions.





HILLBILLY (26.000 - 29.500 mhz)

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Assembly & Tuning Instructions

- 1. Take pieces #3, #4, and #5 and assemble by locking down with Tip Screws. (Note: When assembled, all elements will be the same length.)
- 2. Slide 8 inch spokes (No. 2) in mast (No.1) and lock in place with Spoke Lock Screws.
- 3. Slide assembled pieces 3, 4, and 5 into spokes (No. 2) and lock in place with Main Element Screws.
- 4. Take one gamma bar and mount on vertical element #3. The metal strap will be placed 27 inches from the top of the mast (No. 1) and the Plastic Strap is mounted 8 inches from the top of the mast (No. 1). Note: The end of the gamma bar is 3 inches from the top of the mast (No. 1).
- 5. Next, take the horizontal gamma bar and mount at a right angle from the vertical gamma on horizontal element No. 3. The Metal Strap should be set at 38 inches from the edge of mast (No.1), and the Plastic Strap is mounted 8 inches from the edge of mast (No. 1). Note: The end of gamma bar on horizontal is also 3 inches from the edge of mast.
- 6. The antenna is now assembled and can now be mounted on a round pipe, (1¹/2" O.D. pipe). Holes are provided on mast for Mast Bolts to pass through. Holes must be drilled through the supporting pipe.
- 7. Next, the coax will need to be prepared for hook-up: (Refer to Coax & Coax Hook-Up Preparation.) Note: This antenna uses two SEPARATE feed lines in that two SEPARATE coax hook-ups will have to be prepared.
- 8. Once Step 7 is completed, the coax can now be connected to the antenna. EACH Hot Lead needs to be hooked to the wing nut at the bottom of each gamma bar. Coax ground will be locked down with a Coax Ground Screw to the extra hole marked GROUND on the spoke for both horizontal and vertical.
- 9. At this point SWR adjustments can be made. Remember, as a starting point, the vertical metal strap will be at 27 inches and the horizontal metal strap will be at 38 inches. Horizontal gamma adjustments should be made first. Then make Vertical adjustments. All main SWR adjustments are made by sliding the metal strap 1/2" at a time up or down. Each time reading is taken, make sure good contact is being made between the metal strap and gamma bar, and metal strap and element. Failure to make good contact will result in a false indication of high SWR. SOME fine tune adjustments can be made with the gamma stinger after completing the strap adjustments. Note: Do not reverse the above steps on setting SWR.
- 10. Once all adjustments are made, COMPLETE SEALING needs to be done to the following connections:

(b) Where gamma stinger works in and out of gamma bar on horizontal and vertical.

- (c) The end of the gamma bar on horizontal only.
- (d) COMPLETELY where coax hot lead and shield separate and hook to the antenna on horizontal and vertical.
- NOTE: Coax Seal is included with antenna or can be purchased through Jo Gunn Enterprises.

Failure to seal correctly will result in unstable SWR and poor performance of the antenna.

ALL Jo Gunns SWR get lower the longer they are run.

COAX HOOK-UP PREPARATION

First, cut the outer jacket 3 inches all the way around from the end of coax. Remove from cable to make visible shield. Next, pick a hole in the shield or braid just above the jacket. Then, carefully fish the center of the coax back through the hole that was picked. This will complete the pigtail and be ready for hook-up. Ring terminals can be installed on ends of shield and center conductor of pigtail. If these terminals are used, they need to be soldered and crimped very well for a good connection.

EXAMPLE: STA-KON Ring Terminals or equivalent.