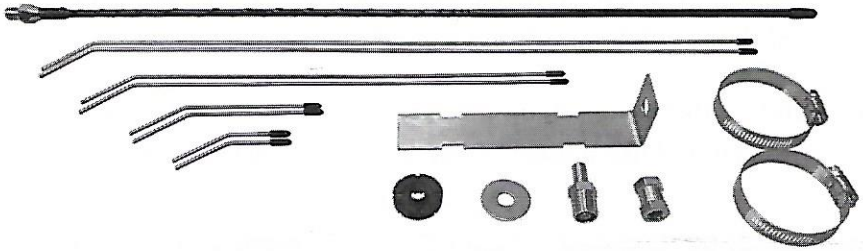
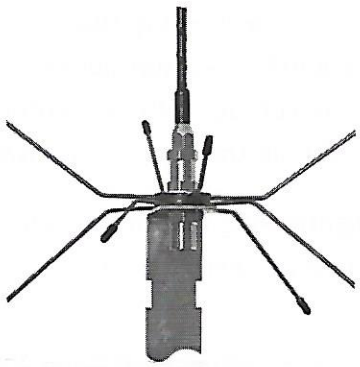
ProComm Spyder Maxx Scanner Antenna Instructions





(2) 21" radials (2 Meter element)
(2) 13.75" radials (1.25 Meter element)
(2) 5.25" radials (70 cm element)
(2) 3" radials (33 cm element)
(2) Mounting Clamps
(1) Angled Mounting Bracket
(1) SO-239 Stud & Nut
(1) Plastic Insulating Hub
(1) Large Flat Washer
(1) Low Frequency Element

1) Place plastic insulating hub onto top of angled mounting bracket. Make sure that the lip slides down into the hole & remains centered. Install stud from bottom, placing flat washer on top of insulating hub & then LOOSELY seat the 3/8" x 24 nut on top of mount.

2) With open side of mount & stud facing you, orient insulating hub so that the four BOTTOM slots of the insulating hub line up with each corresponding corner. This will locate a top slot facing directly towards you. Elements will be installed with matching length radials above & below each other. These elements form tuned cross-polarized dipoles, providing both horizontal & vertical coverage for optimal performance.

3) Element lengths are staggered as we go around the bottom of the hub in a clockwise fashion. The bottom radials form the counterpoise and only slide in a limited distance. This keeps them isolated from touching the center "hot" stud. If checking continuity, they should show continuity between the threaded section of the SO-239 connector with NO continuity to the top locking nut.

Carefully slide a 3" long radial into position on the bottom left front corner. Directly behind that on the bottom left rear corner, slide in a 13.75" radial. If it is difficult to push the elements in, loosen the top nut slightly. In the bottom right rear corner, slide in a 5.25" element. In the bottom front right corner, slide in a 21" radial. These elements should all be sloped downward, forming somewhat of an umbrella.

4) Working counter-clockwise with the top slots now, install a 3" radial directly to the right of the bottom 3" radial. In the next top slot working counter-clockwise, install a 21" radial. The next top slot receives a 5.25" radial and the last top slot receives a 13.75" radial. These elements should all be slid in as far as possible so as to make contact with the center "hot" stud. These are the active "hot" elements on each respective dipole. They should show continuity with the center pin of the SO-239 but not the threads.

5) Slightly snug the top nut above the insulating hub. After doing so, orient each top radial so that they are lined up vertically and are angled up toward the sky, kind of like a bowl. Once all of the radials are oriented as best possible, carefully seat the top nut. Doing so may cause some of the elements to rotate as clamping pressure is increased & some additional tweaking may be required.

6) Install the fiberglass Low Frequency Element into top nut of the stud & secure.

7) Secure mounting bracket to support structure using clamps. Install optional ground screw into bracket & thread into support bracket. Using a metal support bracket will ensure increased conductivity & improve counterpoise mass. This most benefits the low frequency element's performance. You can install any wire used for Earth grounding purposes under this screw using a ring terminal or spade.

8) The higher the antenna is mounted & the further that it is from nearby structures, the better it will perform. This is true for any antenna installation. Height is might!

9) Due to specific capture & radiation patterns of nearby transmitters, it is possible that aiming specific elements North / East / West / South may alter performance. If difficulties receiving specific stations are encountered, try rotating the support pipe. This will change the "N.E.W.S." of the antenna array.

10) Each antenna element can be trimmed to tune to a specific band of operating frequencies. Due to the proximity of the other nearby elements, the existing design offers what we feel is the best compromise for transmitting on the Amateur bands & receiving with a scanner. Having said that, the center frequency of each element can be "rocked" up or down slightly to fine tune for application specific installations. The use of an Antenna Matchbox may offer an easier solution for most if trying to transmit slightly above or below the usable bandwidth of this model as designed.

11) The use of low loss cable of the appropriate impedance ensures maximum signal transfer. As frequency rises, cable losses & impedance become more critical. Don't skimp when it comes to coax!!!

12) The Spyder Maxx was designed & tuned using sophisticated HP test gear that is calibrated annually. We also use high quality low loss coax that maintains consistent 50 ohm impedance. If your results are not as expected, please inspect your installation & the materials used.

If you can't resolve performance issues, please contact ProComm for further assistance. Knowing the make / model / length of cables used along with the mounting height, type & size of support structure and specific VSWR readings & the equipment that the readings were taken with will help with further diagnoses when contacting us.

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