



"Alpha Antenna uses antenna designs that are known to work!"

Alpha Antenna

Model - Alpha DX Sr Antenna

10-80 Meters

500 Watts

Portable/Base

<http://AlphaAntenna.com>

USER GUIDE

V2.0

August 5, 2014

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Introduction

Thank you for purchasing the Alpha DX Sr Antenna, a complete 500 Watt deployment system including antenna system, tripod, & mount for Portable or Temporary Emergency Deployment, Field Operations, Apartment/Condo Residents, or HOA's.

The heavy duty antenna elements plus the Alpha High-Q Tuning Bastion provides you with a unique antenna with both horizontal and vertical elements, which uses a High-Q coil to match the antenna system. The Alpha DX Sr is engineered with a 6 ½ foot heavy-duty steel tripod that is made out of 1 1/4 inch thick steel (standard mast size), which is designed to be your counterpoise system and includes a standard mount where there is a UHF connector that you simply attach your coax to.

Frequency Coverage - Excellent performance on 10 through 80 Meters



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Installation Safety

WARNING: INSTALLATION OF THIS PRODUCT NEAR POWER LINES IS DANGEROUS! FOR YOUR SAFETY, FOLLOW THE ENCLOSED INSTALLATION DIRECTIONS. THOUGH THIS ANTENNA IS CONSTRUCTED OF INSULATED WIRE, PROPER CARE MUST BE TAKEN DURING INSTALLATION. INSTALLER ASSUMES ALL LIABILITY FOR PROPERTY AND LIFE SAFETY.

YOU, YOUR ANTENNA, AND SAFETY


Each year, hundreds of people are killed, mutilated, or receive severe and permanent injuries when attempting to install an antenna. In many of these cases, the victim was aware of the danger of electrocution, but did not take adequate steps to avoid the hazard. For your safety, and to help you achieve a good installation, please **READ** and **FOLLOW** the safety precautions below. **THEY MAY SAVE YOUR LIFE!**

1. If you are installing an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE.
2. Select your installation site with safety, as well as performance, in mind. (Detailed information in Site Selection appears in a separate section of this booklet.) **REMEMBER: ELECTRIC POWER LINES AND PHONE LINES LOOK ALIKE. FOR YOUR SAFETY, ASSUME THAT ANY OVERHEAD LINES CAN KILL YOU.**
3. Call your electric power company. Tell them your plans and ask them to come take a look at your proposed installation. This is a small inconvenience, considering **YOUR LIFE IS AT STAKE.**
4. Plan your installation procedure carefully and completely *before* you begin. Successful raising of a mast or tower is largely a matter of coordination. Each person should be assigned a specific task, and should know what to do and when to do it. One person should be designated as the leader/coordinator of the operation to call out instructions and watch for signs of trouble.
5. When installing your antenna, **REMEMBER: DO NOT USE A METAL LADDER. DO NOT WORK ON A WET OR WINDY DAY. DO DRESS PROPERLY:** shoes with rubber soles and heels, rubber gloves, long sleeved shirt or jacket.
6. If the assembly starts to drop, get away from it and let it fall. Remember, the antenna, mast, cable and metal guy wires are all excellent conductors of electrical current. Even the slightest touch of any of these parts to a power line completes an electrical path through the antenna and the installer – **THAT'S YOU!**
7. If ANY PART of the antenna system should come in contact with a power line, **DON'T TOUCH IT OR TRY TO REMOVE IT YOURSELF. CALL YOUR LOCAL POWER COMPANY.** They will remove it safely. If an accident should occur with the power lines, call for qualified emergency help **IMMEDIATELY.**

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Antenna Installation

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|  | <p>Step 1 – Loosen leg brace knob, extend legs, and slightly tighten leg brace knob</p> <p>Step 2 – Mount tripod on a flat stable surface</p> <p>Step 3 – Screw the Alpha High-Q Tuning Bastion Coil into the top of mast mount</p> <p>Step 4 – Screw the antenna elements into the Tuning Bastion & deploy whip.</p> <p>Step 5 – Attach your coax to the SO-239 on the top of mast mount</p> <p>Step 6 – Loosen the mast section knob and carefully extend mast till the mount is at a height of 6 feet 6 inches, then insert the failsafe pen and slightly tighten the mast section knob</p> <p>Step 7 – Tuning, Page 5.</p> |
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NOTE – Additional Radials or Counterpoise wires are not a requirement for the Alpha DX Sr Antenna to function well, but if you would like to add counterpoise, amateur radio operators are always encouraged to experiment with their Alpha Antenna systems. You must guy the antenna system with heavy nylon cord, high tensile string, or non-conductive material when winds are present.

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SWR Performance/Tuning

SWR Performance – SWR results as shown in the chart below are achievable on 10-80 Meters by simply moving the sleeve on the coil and whip to the location indicated on the chart below.

The following chart is an example of where we found it best to place the sleeve on the coil and whip extension for optimum SWR results. SWR readings can vary depending upon coax length & type as well as environmental variables.

TUNING REFERENCE CHART

| Frequency MHz/Band | SWR | Sleeve Placement |
|---|-------|------------------------------------|
| <u>Top Mil-Stick Element folded in half (2 sections deployed)</u> | | |
| 10 Meters | 1.9:1 | Sleeve placed near top of coil |
| 12 Meters | 1.8:1 | Sleeve placed near top of coil |
| 15 Meters | 1.6:1 | Sleeve placed near top of coil |
| 17 Meters | 1.4:1 | Sleeve placed near top of coil |
| <u>Top Mil-Stick Element Fully Deployed</u> | | |
| 20 Meters | 1.7:1 | Sleeve placed near top of coil |
| 30 Meters | 1.7:1 | Sleeve placed 1/4 from top of coil |
| 40 Meters | 1.7:1 | Sleeve placed 1/3 from top of coil |
| 60 Meters | 1.9:1 | Sleeve placed 2/3 from top of coil |
| 80 Meters | 1.9:1 | Sleeve placed near bottom of coil |

Tuning Tips – You will find it easier to tune your Alpha DX Sr Antenna each time you use it. This is especially true, once you've decided on what coax you will be using and after you become familiar with your own tuning patterns.



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Have Other Questions?

If you have questions about your antenna, please feel free to contact us.

Support

Email: support@alphaantenna.com

Phone: 1-888-482-3249

WEB: www.alphaantenna.com

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NOTES

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