



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

Alpha Antenna

Model - DX

6-60 Meters

1 KW

Portable/Base

Alpha DX Antenna

USER GUIDE

V1.3

August 30, 2013



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Introduction

Thank you for purchasing the Alpha DX Antenna, a complete 1KW 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 provide you with a total combined length of a $\frac{1}{4}$ wave 60 meter antenna system. This High-Q system is engineered with a 6 $\frac{1}{2}$ foot heavy-duty steel tripod that is made out of 1 $\frac{1}{4}$ 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 6 through 60 Meters

Alpha Antenna uses antenna designs that are known to work! Designed by Amateur Radio Operators at Alpha Antenna, in conjunction with a Certified Commercial Broadcast Engineer, the Alpha DX Antenna uses the best antenna designs in one antenna system.

Technical Specifications

- Weight: 12 pounds
- Configuration: Vertical
- Frequency Coverage: 5 to 55 MHz
- Power Rating: 1KW
- Height: Approximately 14 $\frac{1}{2}$ Feet with tripod



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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.

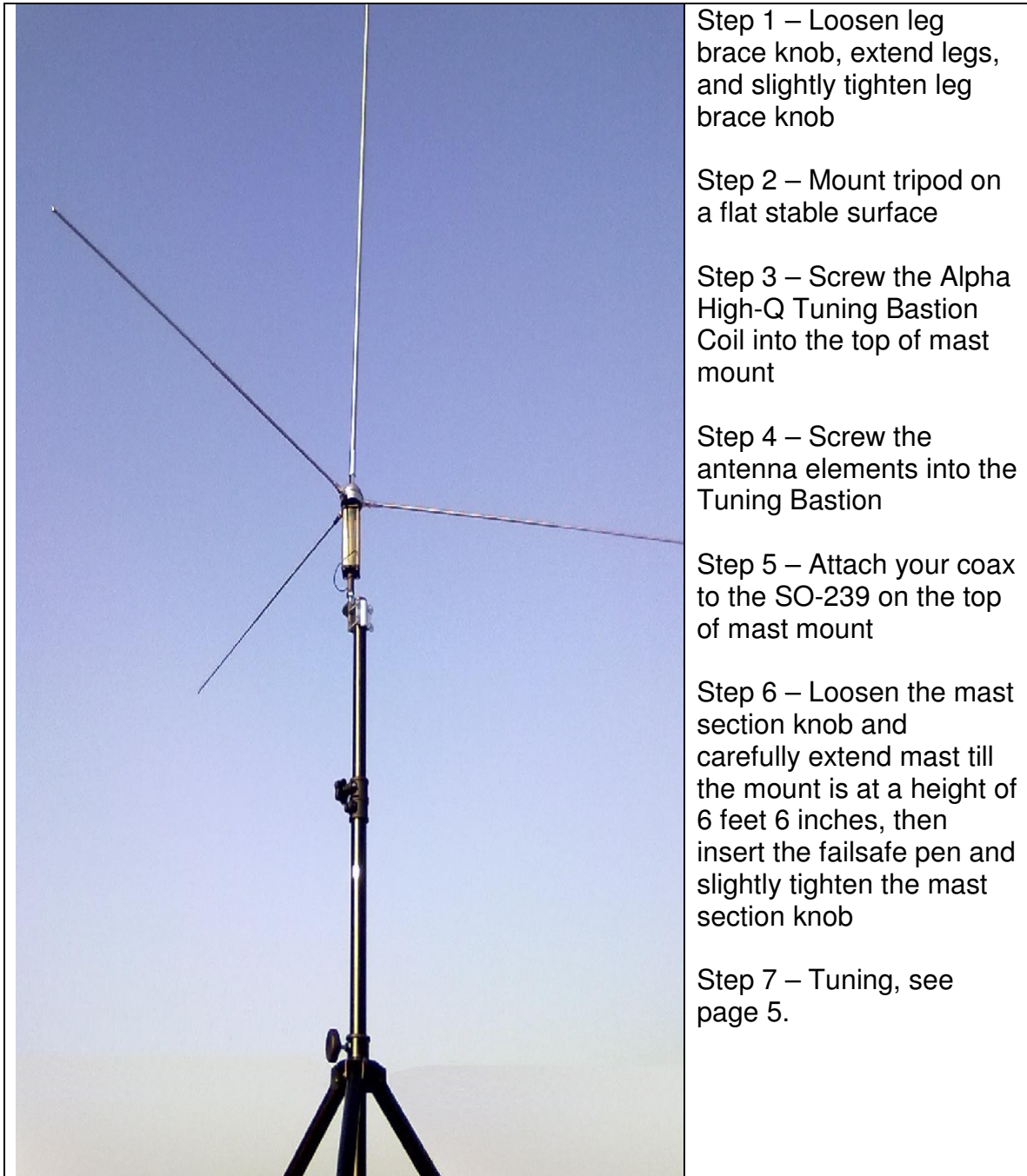
THEY MAY SAVE YOUR LIFE!

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



Step 1 – Loosen leg brace knob, extend legs, and slightly tighten leg brace knob

Step 2 – Mount tripod on a flat stable surface

Step 3 – Screw the Alpha High-Q Tuning Bastion Coil into the top of mast mount

Step 4 – Screw the antenna elements into the Tuning Bastion

Step 5 – Attach your coax to the SO-239 on the top of mast mount

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

Step 7 – Tuning, see page 5.

NOTE – Additional Radials or Counterpoise wires are not a requirement for the Alpha DX Antenna to function well, but when added can improve performance for frequencies below 7.3MHz. 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 6-60 Meters by simply moving the clip from one position to another on the Alpha DX High-Q Tuning Bastion from 21-5.5 MHz with the tripod's mast fully extended and 24-55MHz with the tripod's mast fully retracted.

The following chart is an example of where we found it best to place the clip for optimum SWR results, which can vary depending upon coax length & type as well as environmental variables. For best results coil the coax eight times into a 8 inch loops to form an air choke balun.

TUNING REFERENCE CHART

Frequency MHz/Band	SWR	Clip Placement/Mast extension
52.000 – 6 Meters	1.7:1	7 coils from top/Collapsed
28.750 – 10 Meters	1.9:1	Clip on lip of Bastion/Collapsed
24.950 – 12 Meters	1.5:1	Top coil/Collapsed
21.225 – 15 Meters	1.28:1	3 coils from top/Extended
18.140 – 17 Meters	1.7:1	5 coils from top/Extended
14.175 – 20 Meters	1.16:1	8 coils from the top/Extended
10.125 – 30 Meters	1.8:1	16 coils from the top/Extended
7.175 – 40 Meters	1.4:1	13 coils from the top/Extended
5.371 – 60 Meters	1.5:1	Bottom coil/Extended

Tuning Tips – You will find it easier to tune your Alpha DX Antenna each time you use it. 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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