



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

Alpha Antenna

Model - B6160Sr

6-160 Meters

1.5 KW

Vertical Quad Antenna

USER GUIDE

V1.1

July 24, 2013

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Introduction

Thank you for purchasing the Alpha B6160Sr Vertical Quad Antenna, a complete 6-160 Meter 1.5KW base antenna system.

The heavy duty mounting hardware accompanied by the stealthy vertical element combines the additional radiating elements that provide a total combined length of a $\frac{1}{4}$ wave 160 meter antenna system. The Alpha B6160Sr Vertical Quad Antenna is engineered with an Alpha Match, which is designed to provide SWRs that either do not require a tuner or require very little tuning. The integrated counterpoise system is also included at the feed point, where you simply attach your coax.

Technical Specifications

- Weight: 6 pounds
- Configuration: Vertical Quad
- Frequency Coverage: 1.8 to 54 MHz
- Power Rating: 1.5KW PEP
- Height: Approximately 24 Feet 9 inches (with mounting hardware)
- 4 Quad elements & 4 Counter poise: Approximately 26 Feet each



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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.

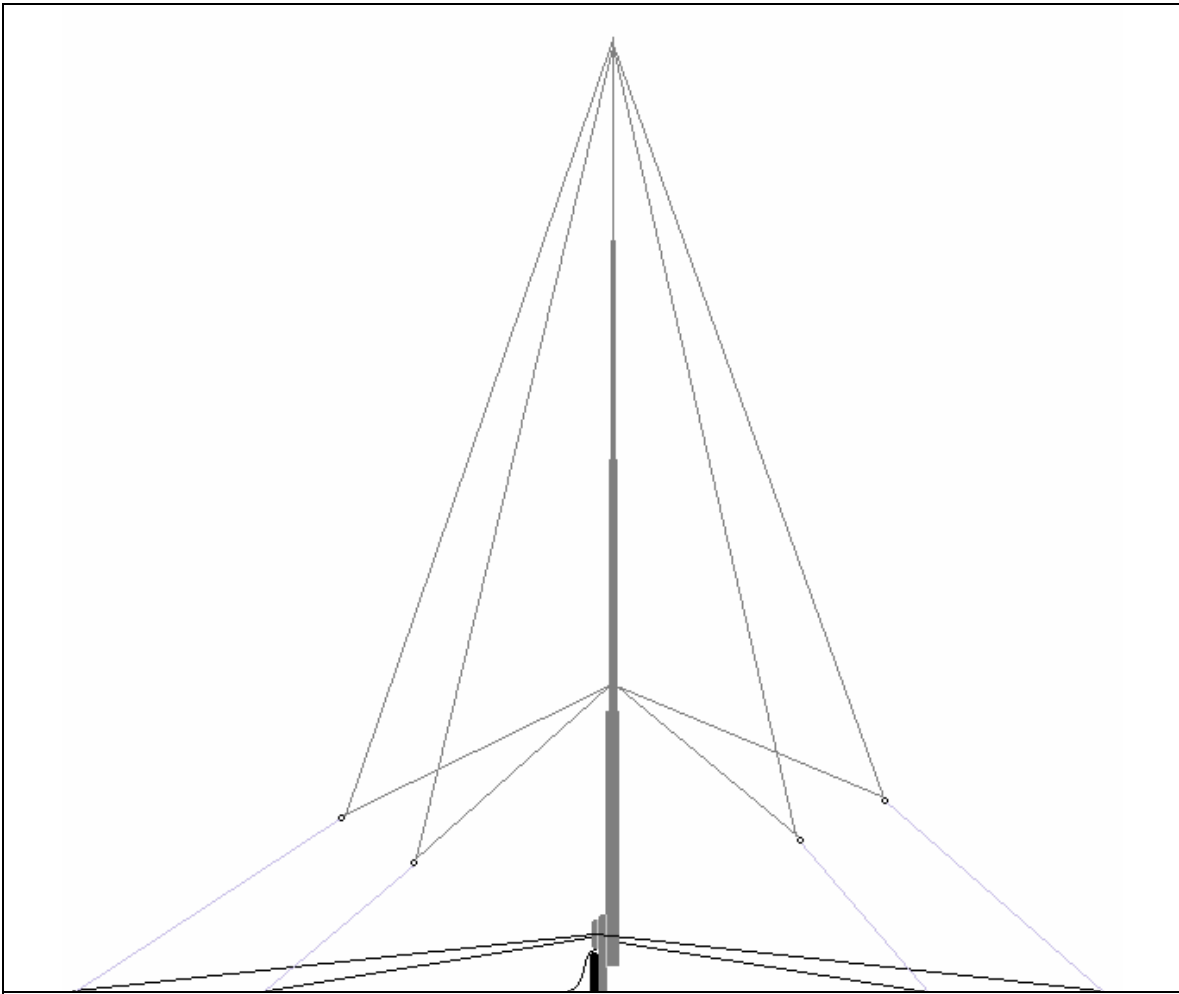
THEY MAY SAVE YOUR LIFE!

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 – Prepare your installation with a roof mount tripod, by placing a metal stake in the ground, or other secure mounting location/hardware

Step 2 – Lay the antenna flat on the ground and extend each section, securing each section with hose clamps

Step 3 – Place the mounting hardware over the item in Step 1 & tighten the U-Bolts

Step 4 – Attach ropes to the included rings on the quad elements, then carefully extend and secure them till they are fully deployed

Step 5 – Deploy the counter poise elements

Step 6 – Attach your coax to the SO-239 on the Alpha Match

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Tuning

All SWR's are tunable with any internal or external antenna tuner. Maximum SWRs to expect with this antenna system are shown below:

Frequency	SWR
1.8-2 MHz	5.6:1
3.5-4 MHz	3.4:1
5.3-5.4 MHz	4.3:1
7-7.3 MHz	3.9:1
10.1-10.15 MHz	3.6:1
14-14.350 MHz	1.7:1
18.08-18.168 MHz	1.4:1
21-21.450 MHz	1.4:1
24.89-24.99 MHz	1.4:1
28-29.7 MHz	1.3:1
50-54 MHz	3.7:1

SWRs of less than 2:1 on 10 through 80 Meters can be achieved by removing the Quad Elements, though this will greatly affect the radiation patterns of the Vertical Quad and the antenna will perform as a Vertical L.



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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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