



# User Guide

For

Alpha Antenna – (34 foot) JPole Jr

Manufactured by:  
Alpha Antenna

User Guide Version 2.9

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# $\alpha$ ALPHA ANTENNA®

## Introduction

Thank you for your support of the Alpha Antenna line. We hope that you will enjoy using this product, as we continue to receive written testimonials from Amateur Radio Operators (Hams) on how easy the Alpha Antenna systems are to deploy, how well they work, and how each antenna system that is deployed has made each person's operating experiences positive and enduring.

The Alpha Antenna is a Civilian Military system that is easy to deploy, has acceptable SWRs, and is extremely durable. The antenna system is composed of building blocks that used to construct a large variety of deployable solutions. No supports are necessary to deploy the systems, however, several varieties of deployment options exists if natural supports are available. If space or privacy is a premium, the Alpha Antenna is deployable for covert operations. This antenna is so efficient that it is also deployable indoors, from a porch or balcony.

## Product Overview

With proper deployment, the Alpha Antenna system is designed to operate continuously from 6 through 80 meters, with only the use of your wide-band (external) antenna tuner.

### Additional Product Details

- Antenna Weight: 1.5 pounds
- Antenna Configuration: Horizontal, or Sloper
- Maximum Frequency Coverage: 3.5 MHz to 54 MHz
- Maximum Power Rating: 250 PEP SSB, 125 CW, or 25 watts for digital modes
- Length 34 feet

## Safety Tips

*When installing or operating this antenna, please observe the following safety tips.*

**NOTE – High voltages are present when transmitting, no matter how much or little power is applied. Do not touch any part of the antenna while transmitting.**

*WARNING: INSTALLATION OR OPERATION 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.

1. If you are installing an antenna for the first time, please, for your own safety as well as others, seek PROFESSIONAL ASSISTANCE.

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2. Select your installation site with safety, as well as performance, in mind. **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 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.
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.

## Antenna Parts List

Item	Description	Qty.	Representation
1	Alpha Antenna JPole Jr	1	Image 1

## Deployment Recommendations

For maximum effectiveness, keep your feed point as high as possible and run the antenna as a sloper for good NVIS and DX results, or a flat top for good NVIS results. An optimum installation would be where the antenna is deployed as a sloper with the high (feed point) end at 30 feet or higher and the low end at 10 feet or higher.

We do not recommend installing this antenna as a Vertical due to verticals being inherently prone to high noise (RFI) and unpredictable radiation patterns due to proximity of coax, which also allows for common mode feedback to increase.

For the initial installation, we do not recommend a Balun or air choke coil be used at the antenna. We recommend that you ground your tuner and rig. Your equipment has a ground bolt on the back of it, and manufacturers (and we at Alpha) do recommend a RF ground be connected on it to balance the circuit. We only recommend that a RF Choke be used if you find one is needed, as would be the case if you hear feedback through speakers, etc. when you transmit. However, a Grounded Counterpoise would be the first option for any common mode current that might exist. If you find that common mode exists after you install the antenna, a Grounded Counterpoise wire can then be attached to the barrel connector at the antenna's feed point, which can be secured with a stainless steel hose clamp.

## Support Contacts

If you have questions about your antenna, please feel free to email us at [alphaantenna@gmail.com](mailto:alphaantenna@gmail.com)

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## Antenna Installation

**IMAGE 1**



## PLAN YOUR DEPLOYMENT

There are 2 basic methods to install the antenna. One enhances NVIS (Near Vertical Incident Sky wave) and the other DX (Long Distance) communications.

For NVIS deployments, install the antenna closer to the ground, at a minimum height of **6+ Feet** on either end.

For DX (Long Distance) deployments, install the antenna higher, sloped at a height of 1/2 wavelength or higher for maximum results.

The most effective method for deployment is to position the antenna so that it is sloped or horizontal. Where your signal will either launch in the direction of the slope or in both directions for horizontal deployments per **Image B**.

**IMAGE A**



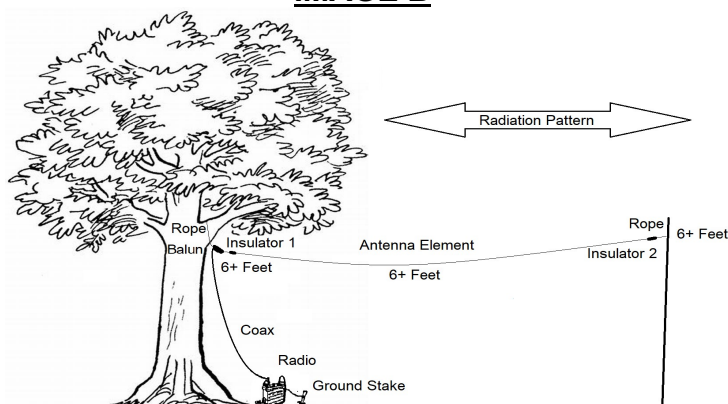
**HALYARD BEND**

Please refer to **Image B** as an example, where the **Balun** should be supported with a **Rope**, which can be run through both the **Balun's** eye-bolt and **Insulator 1** as represented in **Image C**. The other end of the **Antenna Element** should be supported at a height of **6+ Feet** using a **Rope** run through **Insulator 2**.

Next, the Red terminal on the wire element attaches to the shorter Lug marked with Red on the Balun, and the Black to the Black. Then attach your **Coax** to the **Balun** and note that the weight of the **Coax** can be supported (tied off and up) with the loose end of the **Rope** to your mast as is depicted in **Image C**. We suggest using a 'halyard bend' type knot (Ref. **Image A**) to tie the coax off to your mast.

Once the antenna is deployed, connect your equipment between the **Coax** and the **Ground Stake**.

**IMAGE B**



**IMAGE C**

