



User Guide

For

Alpha Antenna – ProMaster Sr

Civilian Military Systems

Manufactured by:  
Alpha Antenna  
1.888.482.3249

Website: <http://AlphaAntenna.com>

User Guide Version 2.5

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## Introduction

Thank you for your support of the Alpha Antenna line. The Alpha ProMaster Sr Antenna is a system that is easy to deploy, has acceptable SWRs, and is extremely durable. The Alpha ProMaster Sr Antenna is deployable for covert operations when space or privacy is a premium.

## Product Overview

With proper deployment, the Alpha Antenna system is designed to operate continuously from 10 through 160 meters, where it only needs a wide-band antenna tuner on a couple of bands.

### Additional Product Details

- Antenna Weight: 6 pounds
- Antenna Configuration:
  - Vertical Element: 1 Self-supporting 6 section telescopic vertical element
  - NVIS Elements: 4 (35 foot) active elements & 1 (8 foot) Ground-wire
- Maximum Frequency Coverage: 1.6 MHz to 34 MHz
- Maximum Power Rating: 500 Watts PEP SSB

## 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.
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.**



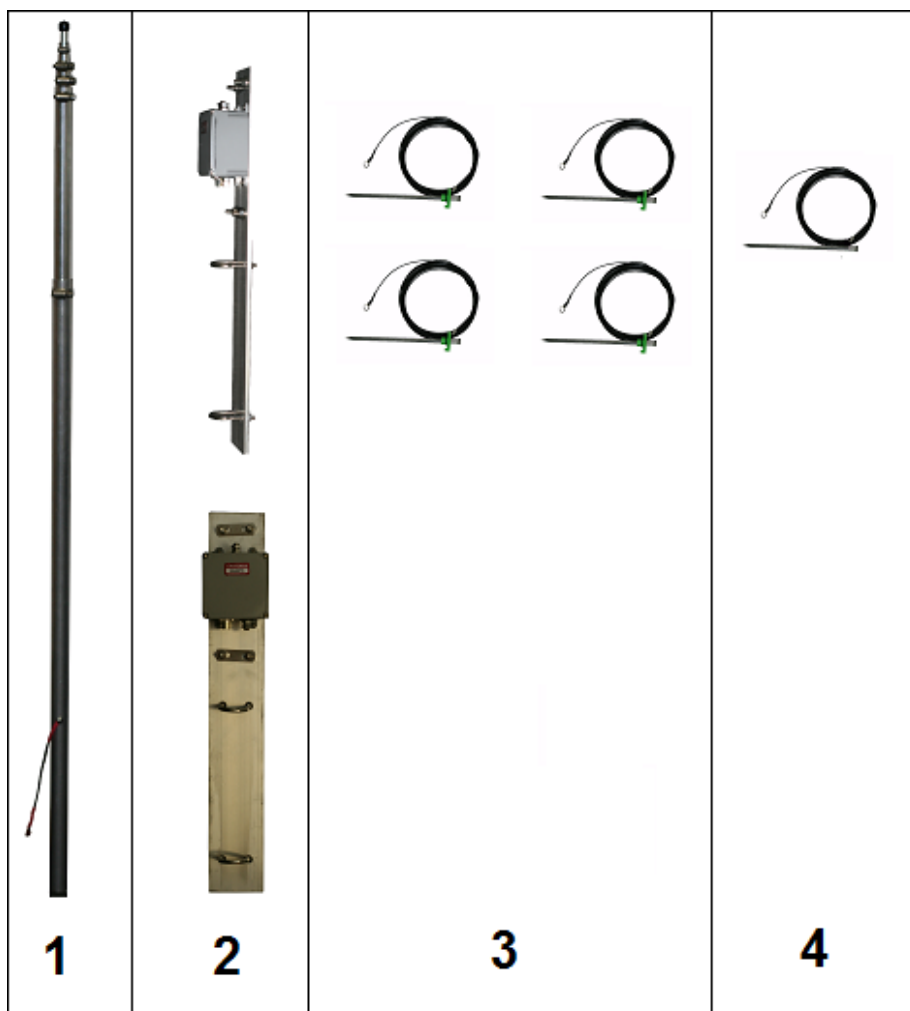
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4. Plan your installation procedure carefully and completely *before* you begin. Successful raising of a mast or tower is largely a matter of coordination. Each person should be assigned a specific task, and should know what to do and when to do it. 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

The following parts are included with this antenna. Please contact our support line if you discover that parts are missing or damaged.

Item	Description	Qty.	Comment
1	18 foot Vertical Element	1	
2	Mounting hardware with Alpha Match	1	
3	35 foot NVIS Elements	4	
4	8 foot Ground wire	1	



## Antenna Installation

The ProMaster Sr is a permanent outdoor base camp and transportable antenna that brings you multi-band system performance into an extremely small footprint. All you need is an area that is 49.5 feet x 49.5 feet to optimally deploy the antenna.

Simply mount the antenna 5 to 7 feet off the ground on a 1 1/4 to 1 3/8 pipe that has been secured in the ground. Then use the installation procedure included in this manual to deploy.

## Antenna Assembly

Step 1 – Prepare your mounting installation with a) 1 1/4" to 1 3/8" galvanized 10 foot fence rail or similar pipe that is secured in the ground. (Optionally mountable on the Military Type Heavy Duty Steel Tripod for Transportable deployments.)

Step 2 – Lay the 6 tapered vertical antenna elements end to end flat on the ground. Insert each section into the next until each element passes the slit of the other by 1/4 inch, and secure each section with a stainless steel clamp.



Step 3 – Place aluminum mounting plate hardware onto the supporting item in Step 1 & tighten the U-Bolts that are circled below.



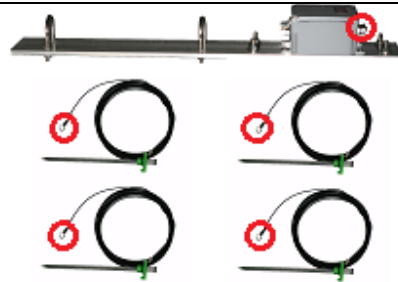
Step 4 – Mount the vertical antenna element into the U-Bolts opposite of those used to mount the aluminum mounting plate. Here is where you will place the included rubber offsets circled around the vertical element and under the associated U-Bolts on the mounting plate that are circled below. Then attach the o-ring from the vertical elements jumper wire to the top bolt on the Alpha Match.



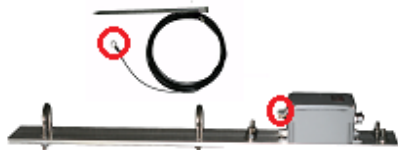
Step 5 – a) Attach 4 wire/o-rings that have red shrink tube on each wire NVIS element to top bolt on Alpha Match, both of which are circled below. b) Secure the ring connectors in place with the included nut. c) Deploy the NVIS elements evenly spaced, sloped, and without touching the ground so that they are secured with the included spike.

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Step 6 – a) Attach the 1 o-ring that has black shrink tube on the Ground wire to the bottom bolt on the Alpha Match, as circled below. b) Secure the ring connector in place with the included nut. c) Secure it with the included ground spike.



Step 7 – Secure all mounting hardware with a wrench after deployment.

Step 8 – Attach your coax to the SO-239 on the Alpha Match to your antenna tuner.

Here is how your primary connections for the antenna should look once assembled:



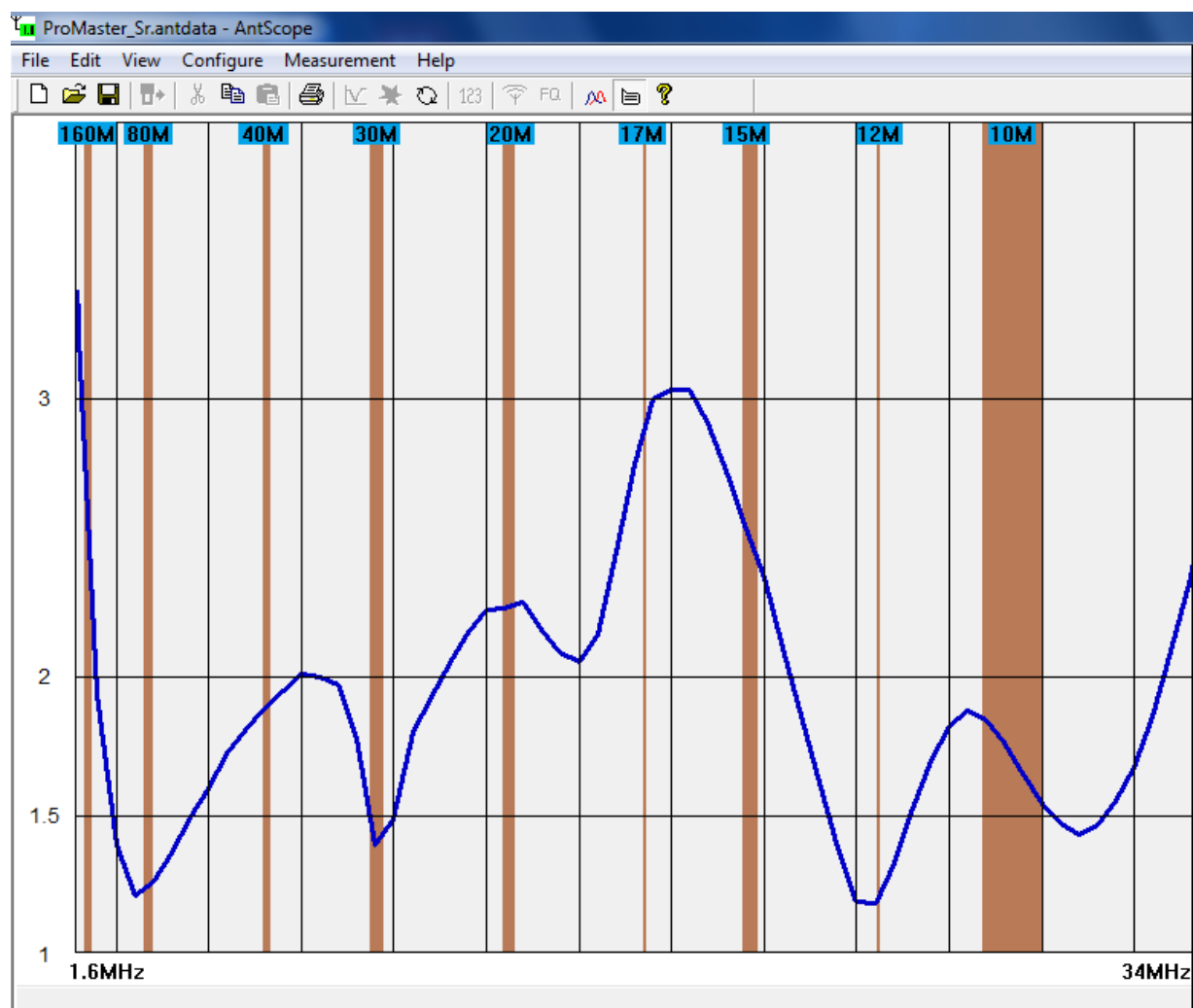
NOTE – This is a balanced antenna, there is no need to add or detract components.



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## SWR Performance

Readings have been taken while the antenna was mounted at 6 feet using a 6 foot of LMR-400. Your SWRs may vary depending upon antenna location & variances in coax.





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## **The Deployed Antenna**

The antenna systems should be placed in the most free and clear place on your property. This will give the takeoff angle the best chance to propagate your signal in the most optimum manner possible. The slope of the NVIS element should be positioned towards the direction you want the primary lobe of your signal to propagate.



## **Support Contacts**

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

Email: [support@AlphaAntenna.com](mailto:support@AlphaAntenna.com) – Phone: 1-888-482-3249 – WEB: [www.AlphaAntenna.com](http://www.AlphaAntenna.com)