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› Diamond Antenna X6000A Tri-Band Base Antenna User Manual

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Model: X6000A

INTRODUCTION

The Diamond Antenna X6000A is a high-performance tri-band base antenna designed for amateur radio enthusiasts. It provides excellent coverage across the 2-meter (144-148 MHz), 70-centimeter (430-450 MHz), and 23-centimeter (1260-1300 MHz) bands. This manual outlines the necessary steps for proper installation, operation, and maintenance to ensure optimal performance and longevity of your antenna.

SETUP AND INSTALLATION

Proper setup is crucial for the X6000A's performance. Follow these guidelines for assembly and mounting.

Assembly

The X6000A antenna components are designed for straightforward assembly. Carefully unpack all parts and refer to the included diagram for component identification. Ensure all sections are securely fastened according to the manufacturer's instructions. The antenna features a robust design for reliable outdoor use.

Mounting Considerations

Select a mounting location that is as high and clear as possible, away from obstructions like buildings, trees, or metal structures that could interfere with signal propagation. The antenna is designed for base station use and should be mounted vertically. Ensure the mounting pole or mast is sturdy enough to support the antenna's weight and withstand local wind conditions.

Connection

The X6000A is equipped with an N-Type female connector for maximum feed-line efficiency, which is particularly

important for the 23-centimeter band. Use high-quality coaxial cable with an N-Type male connector to connect the antenna to your radio equipment. Ensure the connection is tight and weatherproofed to prevent moisture ingress.



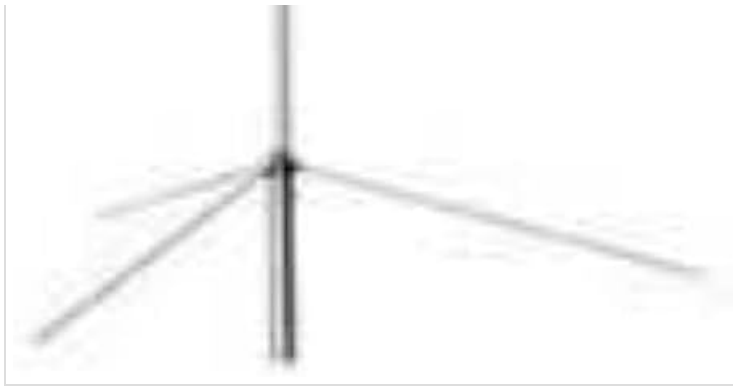


Image: The Diamond Antenna X6000A Tri-Band Base Antenna, showing its tall, slender design with radial elements at the base for ground plane effect. This image illustrates the overall structure of the antenna.

OPERATING THE X6000A

The X6000A is designed to provide superior performance across its specified frequency bands.

Frequency Bands

This antenna covers three key amateur radio bands:

- **2-Meters (VHF):** 144-148 MHz
- **70-Centimeters (UHF):** 430-450 MHz
- **23-Centimeters (SHF):** 1260-1300 MHz

The inclusion of the 23-centimeter band is particularly beneficial as amateur activity on 1.2 GHz continues to increase, offering an impressive solution for this higher frequency range.

Performance Characteristics

The X6000A offers significant gain and wide bandwidth across all three bands, contributing to enhanced signal reception and transmission. Its design ensures efficient operation, making it a valuable asset for multi-band communication setups.

MAINTENANCE

Regular maintenance will help prolong the life and maintain the performance of your Diamond Antenna X6000A.

- **Periodic Inspection:** Annually inspect the antenna and its mounting hardware for any signs of wear, corrosion, or damage. Check all connections for tightness.
- **Cleaning:** If necessary, gently clean the antenna elements with a soft cloth and mild soap solution. Avoid abrasive cleaners or solvents.
- **Weather Resistance:** The antenna is built to withstand various weather conditions. However, after severe storms or high winds, it is advisable to check for any structural integrity issues or shifts in alignment.

TROUBLESHOOTING

If you experience issues with your X6000A antenna, consider the following common troubleshooting steps:

- **Poor Signal Strength:** Verify that all coaxial cable connections are secure and free from damage. Ensure the N-Type connector is properly installed and weatherproofed. Check the antenna's mounting location for new obstructions that may have appeared.
- **Intermittent Operation:** Inspect the feedline for kinks, cuts, or signs of wear. Ensure the antenna is properly grounded according to local electrical codes to protect against lightning and static buildup.
- **No Transmission/Reception:** Confirm that your radio equipment is functioning correctly and is tuned to the appropriate frequency band. Double-check all connections from the radio to the antenna.

For persistent issues, consult a qualified amateur radio technician or refer to the manufacturer's support resources.

SPECIFICATIONS

Model Number	X6000A
Brand	Diamond Antenna
Antenna Type	Tri-Band Base Antenna
Frequency Bands	2-Meters (144-148 MHz), 70-Centimeters (430-450 MHz), 23-Centimeters (1260-1300 MHz)
Connector Type	N-Type Female
Product Dimensions	66 x 5 x 2 inches
Item Weight	3.5 pounds
Color	Red Metallic
UPC	712265203514

WARRANTY INFORMATION

For detailed warranty information regarding your Diamond Antenna X6000A, please refer to the warranty card included with your purchase or visit the official Diamond Antenna website. Warranty terms and conditions typically cover manufacturing defects for a specified period from the date of purchase.

CUSTOMER SUPPORT

Should you require technical assistance, have questions about your antenna, or need to report an issue, please contact Diamond Antenna customer support. Contact details, including phone numbers and email addresses, can typically be found on the manufacturer's official website or in the product packaging.

