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› GOOZEEZOO End Fed Half Wave Antenna 1:64/1:49 Balun Antenna Instruction Manual

GOOZEEZOO 1:64/1:49 Balun Antenna

GOOZEEZOO End Fed Half Wave Antenna 1:64/1:49 Balun Antenna Instruction Manual

Model: 1:64/1:49 Balun Antenna

Brand: GOOZEEZOO

INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your GOOZEEZOO End Fed Half Wave Antenna (1:64/1:49 Balun Antenna). Please read this manual thoroughly before using the product to ensure optimal performance and longevity.



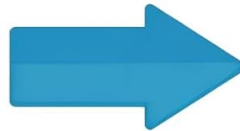
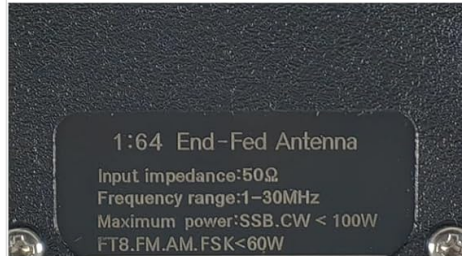
Image: The GOOZEEZOO End Fed Half Wave Antenna, featuring its compact black housing and SO239 connector.

PRODUCT OVERVIEW

The GOOZEEZOO End Fed Half Wave Antenna is designed for amateur radio enthusiasts, offering versatile compatibility and ease of installation for various communication activities. Its robust construction ensures reliable performance in diverse conditions.

- **Versatile Compatibility:** Supports custom wire lengths for 4-band (20 meters) and 8-band (40.8 meters) configurations.
- **Easy to Install:** Compact and lightweight design facilitates both permanent outdoor installations and temporary field setups.
- **Durable Construction:** Features an ABS shell for enhanced durability and longevity.
- **Wide Frequency Range:** Operates across 80m, 60m, 40m, 30m, 20m, 16m, 12m, 10m, and 6m bands (1-30MHz).
- **Optimized Performance:** An optimized 1:64 matching ratio (also supports 1:49) ensures minimal signal loss and maximum reception efficiency.

End Fed HF Antenna: Upgraded to 150W



1: 64

SSB<100W

CW<100W

1:64 / 1:49

SSB<150W

CW<120W

Image: Comparison showing the antenna's upgraded power handling capabilities, now supporting up to 150W SSB.

1:64/49:1 End Fed Half Wave Antenna

Frequency Band: 1-30MHz

SSB<150W

CW<120W

Digital Mode<80W

Connector: SO239



Image: A close-up of the antenna's label, detailing its 1:64/1:49 ratio, frequency band (1-30MHz), power limits (SSB<150W, CW<120W, Digital Mode<80W), and SO239 connector type.



Image: A hand holding the compact antenna, illustrating its portable and lightweight design.

SETUP INSTRUCTIONS

1. Prepare Antenna Wire:

- For 4-band operation, prepare a 1.5-2.5 square millimeter wire approximately 20 meters (65.6 feet) in length.
- For 8-band operation, prepare a 1.5-2.5 square millimeter wire approximately 40.8 meters (132.5 feet) in length.

2. Connect Antenna Wire:

Attach the prepared antenna wire to the designated terminal on the balun. Ensure a secure connection. For optimal stress relief and to prevent wires from touching, consider using zip ties or similar insulators if connecting to the top loops, as the wing nuts may not provide sufficient strain relief for long wires.

Easy to Install

4 band: 20m/65.6ft

8 band: 40.4m/132.5ft



Image: Close-up view demonstrating how to connect the antenna wire to the balun's terminals for both 4-band and 8-band configurations.

3. Mounting the Antenna:

The antenna requires suspension from a mast or a sturdy tree. Ensure the installation height is at least two meters (approximately 6.5 feet) above ground for effective operation. The compact and lightweight design allows for easy deployment in various outdoor settings.





Image: An example of the antenna installed outdoors, suspended between a tree and a distant support, demonstrating a typical field deployment.

4. **Connect Coaxial Cable:**

Connect your 50 Ohm coaxial cable to the SO239 connector on the balun. Ensure the connection is tight and weatherproofed.

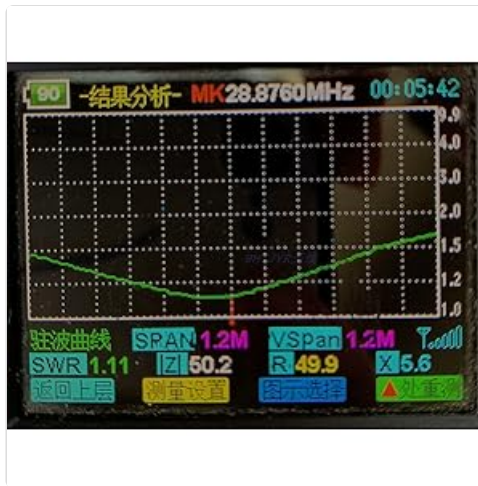


Image: A detailed view of the SO239 connector on the antenna, ready for coaxial cable attachment.

5. General Installation Guidelines:

Refer to the table below for general installation requirements for various antenna types, including the End-Fed Antenna.

	Antenna Model	Installation Requirements
	JPC-12/JPC-7/JPC-350 antenna	Convenient setup and dismantling without masts or trees; low elevation angle, suitable for DX communication; no balun needed, quarter-wave dipole, but requires good ground mesh.
	GA800/450 loop antenna	Indoor/outdoor use, ready to use without setup.
	mla-30+/K-180/k-480/youLoop antenna	Indoor/outdoor setup, requires pole suspension.
	End-Fed Antenna	Requires mast or tree, installation height must be at least two meters.
	WV-601/GA506/GA202 antenna	Outdoor hanging setup.
	QRP Antenna	Requires tripod for stable setup.

Image: A table outlining installation requirements for different antenna models, including the End-Fed Antenna which specifies requiring a mast or tree and a minimum installation height of two meters.

OPERATING INSTRUCTIONS

The GOOZEEZOO End Fed Half Wave Antenna is designed for operation across a wide range of frequencies and modes.

- **Frequency Range:** 1-30 MHz, covering 80m, 60m, 40m, 30m, 20m, 16m, 12m, 10m, and 6m amateur radio bands.
- **Supported Modes:** CW, FM, AM, FT4, FT8, SSB.
- **Power Handling:**
 - SSB: Up to 150W
 - CW: Up to 120W

- FM, AM, FT4, FT8 (Digital Modes): Up to 80W

Note: For digital modes like FT8, it is recommended not to exceed 80W to prevent overheating, especially during extended transmissions.

- **Impedance:** 50 Ohm.
- **Matching Ratio:** 1:64 / 1:49.



Image: The antenna shown with text indicating support for CW, FM, AM, FT4, FT8, and SSB modes.

Performance Characteristics

The antenna is designed to provide good SWR across its supported bands. Below are examples of SWR measurements at various frequencies:

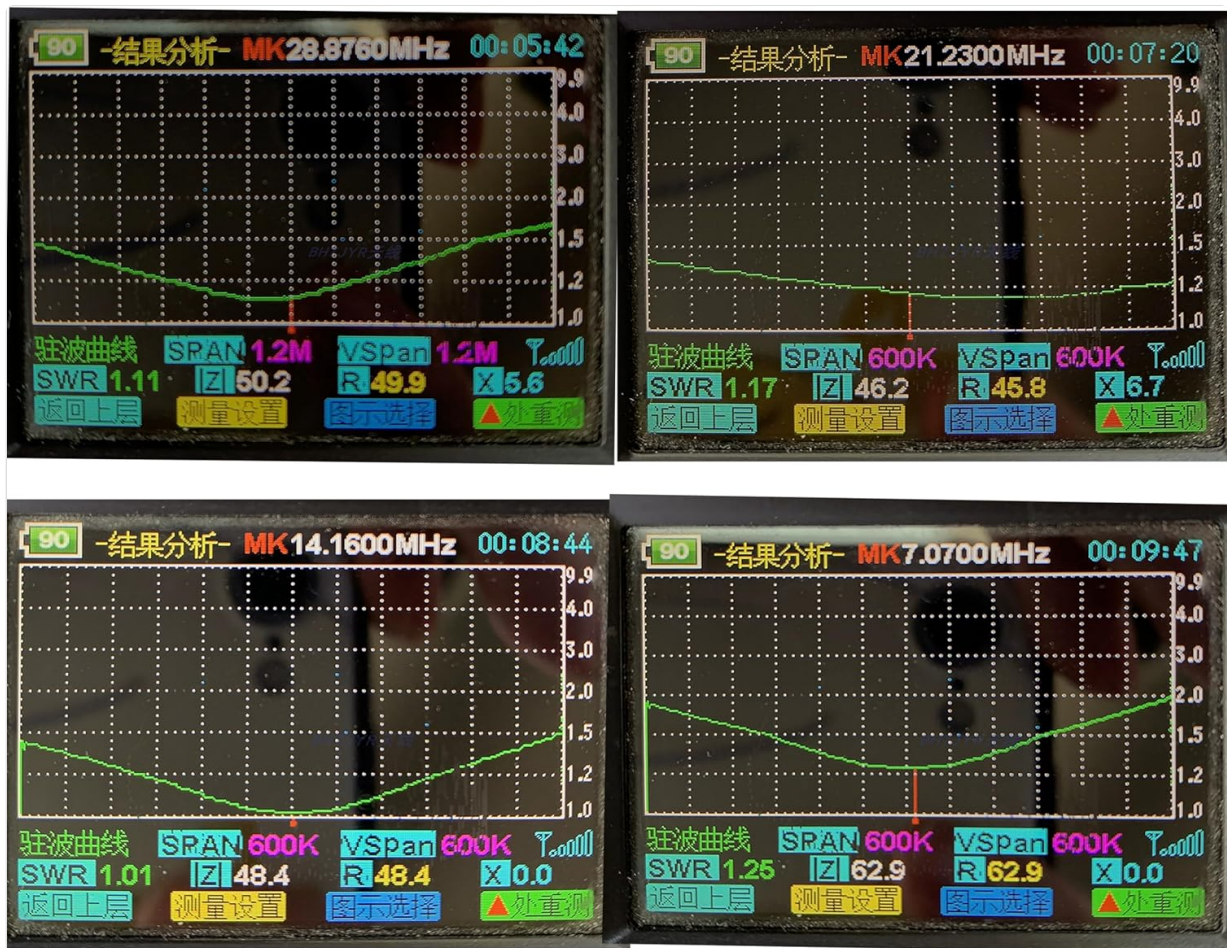


Image: A compilation of four SWR charts. The charts display SWR readings of 1.11 at 28.8760 MHz, 1.17 at 21.2300 MHz, 1.01 at 14.1600 MHz, and 1.25 at 7.0700 MHz, demonstrating the antenna's performance across different bands.

MAINTENANCE

To ensure the longevity and optimal performance of your antenna, consider the following maintenance tips:

- **Weatherproofing:** While the housing has an integral rubber grommet, for enhanced weather resistance, it is recommended to apply a bead of RTV sealant along the edges of the housing when assembling or inspecting the unit. This can prevent moisture ingress over time.
- **UV Protection:** The antenna housing is made of ABS plastic, which may degrade over time with prolonged exposure to ultraviolet (UV) radiation. If the antenna is permanently installed in direct sunlight, consider additional UV protective coatings or shielding to extend its lifespan.
- **Connection Checks:** Periodically inspect all connections (antenna wire, coaxial cable) for corrosion or looseness. Clean and re-tighten as necessary.
- **Physical Inspection:** Regularly check the antenna wire and balun housing for any physical damage, fraying, or cracks. Address any issues promptly.

TROUBLESHOOTING

If you encounter issues with your GOOZEEZOO End Fed Half Wave Antenna, consider the following steps:

- **High SWR:**
 - Check all connections for tightness and proper contact.
 - Verify the length of your antenna wire matches the recommended specifications for the desired

band.

- Ensure the antenna is installed at an adequate height and clear of obstructions.
- Inspect the coaxial cable for damage.

- **No Signal or Weak Reception:**

- Confirm the antenna is properly connected to your radio.
- Check for continuity in the antenna wire and coaxial cable.
- Ensure your radio is tuned to the correct frequency and mode.

- **Interference:**

- Ensure proper grounding of your radio equipment.
- Consider adding a common mode choke at the feed point if experiencing RF interference with other electronic devices.

SPECIFICATIONS



Image: The antenna with overlaid dimensions, showing a length of 6.7 inches, width of 3.9 inches, and height of 2.4 inches. Magnetic ring specifications are also listed.

Feature	Detail
Model	1:64/1:49 Balun Antenna
Brand	GOOZEEZOO
Frequency Range	1-30 MHz (80m, 60m, 40m, 30m, 20m, 16m, 12m, 10m, 6m)
Power Handling (SSB)	<150W
Power Handling (CW)	<120W
Power Handling (Digital Modes: FM, AM, FT4, FT8)	<80W
Input Impedance	50 Ohm
Matching Ratio	1:64 / 1:49
Connector Type	SO239
Product Dimensions (L x W x H)	5.5" x 3.1" x 1.4" (14 cm x 7.9 cm x 3.6 cm)
Item Weight	12.6 ounces (357 grams)
Housing Material	ABS Plastic
Date First Available	July 17, 2024

WARRANTY AND SUPPORT

For warranty information, technical support, or any inquiries regarding your GOOZEEZOO End Fed Half Wave Antenna, please contact the manufacturer directly through their official channels or the retailer where the product was purchased.

Manufacturer: GOOZEEZOO