

## BINGFU BFN00932

# Bingfu Vehicle Mobile Ham Radio Antenna User Manual

Model: **BFN00932** | Brand: **BINGFU**

## 1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Bingfu Vehicle Mobile Ham Radio Antenna. This dual-band antenna is designed for VHF (136-174MHz) and UHF (400-470MHz) frequencies, featuring a strong magnetic base for vehicle mounting and a soft whip design. Please read this manual thoroughly before use to ensure optimal performance and safety.

## 2. PACKAGE CONTENTS

Verify that all items listed below are present in your package:

- 1 x Ham Radio Antenna (Soft Whip)
- 1 x Magnetic Base with 5m/16.4ft RG58/U Cable and UHF PL259 Male Connector
- 1 x SO239 to SMA Female Adapter
- 3 x Short Ground Planes (9.5cm/3.74inch for UHF)
- 3 x Long Ground Planes (15cm/5.9inch for VHF)
- 1 x PL259 to SO239 Adapter
- 1 x Hex Tool (for tuning, if applicable)



Figure 2.1: Complete antenna kit including the whip antenna, magnetic base, cable, adapters, ground planes, and hex tool.

### 3. PRODUCT FEATURES

- **Dual Band Operation:** Supports VHF (136-174MHz) and UHF (400-470MHz) frequencies.
- **Magnetic Base Mount:** Features a strong magnetic base for secure attachment to vehicle metal surfaces. Includes a silicone rubber gasket to protect vehicle paint.
- **Soft Whip Antenna:** Flexible and durable antenna whip, approximately 42cm (16.53 inches) in length.
- **Integrated Cable:** Comes with a 5m (16.4ft) RG58/U coaxial cable for extended reach.
- **PL259 Male Connector:** Standard connector for compatibility with various ham radios.
- **Ground Plane Kit:** Includes both short (9.5cm) and long (15cm) ground planes for optimized performance across different frequency bands.
- **Wide Compatibility:** Designed for use with Marine Boat VHF Radio, Amateur Mobile Radio, Ham Radio, FRS GMRS MURS Radio, Walkie Talkies, and Two Way Radios. Compatible with brands such as BTECH, ICOM, Midland, Yaesu, TYT, AnyTone, Radioddity, Cobra, Uniden, President, Galaxy Audio, Pro Trucker, and Stryker.



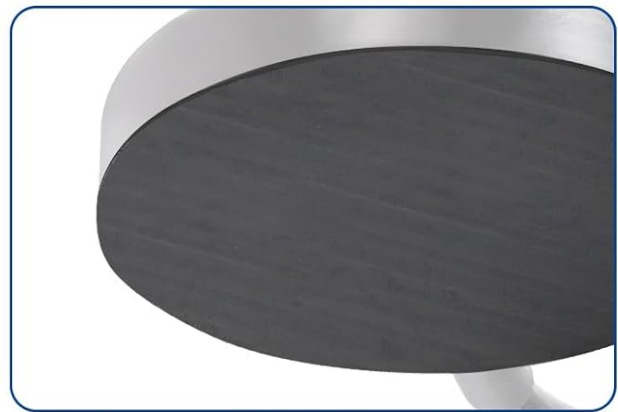
**Figure 3.1:** Antenna dimensions and cable type. The antenna whip is flexible, and the cable is a low-loss RG58 type.

# EFFECTIVELY PROTECT YOUR VEHICLE SURFACE

9cm / 3.55inch



**Strong Magnetic Base**



**Silicone Rubber Gasket**

Figure 3.2: Details of the magnetic base, highlighting its strong magnetic hold and the protective silicone rubber gasket.

## 4. SETUP & INSTALLATION

### 4.1. Ground Plane Assembly

1. Identify the central connector for the ground planes.
2. Select the appropriate ground plane rods based on your operating frequency:
  - Use the **short ground planes** (9.5cm/3.74inch) for optimal performance on **UHF (400-470MHz)**.
  - Use the **long ground planes** (15cm/5.9inch) for optimal performance on **VHF (136-174MHz)**.
3. Carefully screw the three selected ground plane rods into the designated ports on the central connector. Ensure they are finger-tight.

# ***ANTENNA GROUND PLANE KIT***

## ***IMPROVE SIGNAL RECEPTION***



**Figure 4.1:** Ground plane kit showing the central connector and both short and long ground plane rods.



**Figure 4.2:** Comparison of short (UHF) and long (VHF) ground plane rod lengths.

## 4.2. Antenna Assembly

1. Screw the assembled ground plane unit onto the base of the antenna whip.
2. Attach the antenna whip assembly to the magnetic base. Ensure a secure connection.

## 4.3. Vehicle Mounting

1. Choose a flat, metallic surface on your vehicle, such as the roof or trunk lid, that is free from obstructions and provides a clear line of sight.
2. Clean the chosen surface thoroughly to ensure maximum magnetic adhesion and to prevent scratching.
3. Place the magnetic base firmly onto the cleaned metallic surface. The strong magnet will secure the antenna. The silicone gasket on the base helps protect your vehicle's paint.
4. Route the 5m (16.4ft) RG58/U coaxial cable carefully to your radio, avoiding sharp bends, pinching, or interference with doors or windows.



# Easy to Install

Cable Length: 5m / 16.4ft



Figure 4.3: Example of antenna placement on a vehicle roof for optimal signal.

## 4.4. Connecting to Your Radio

1. The antenna cable terminates with a UHF PL259 Male Connector.
2. If your radio has a UHF SO239 Female port, connect the PL259 Male connector directly.
3. If your radio requires an SMA Female connection (common on handheld radios), use the provided SO239 to SMA Female Adapter. First, connect the PL259 Male to the SO239 side of the adapter, then connect the SMA Female side to your radio.
4. Ensure all connections are tight to prevent signal loss.

# ***FIT MOST MOBILE HAM RADIOS***



Figure 4.4: Connector types and adapters for connecting the antenna to various mobile ham radios.

## **5. OPERATION**

Once installed and connected, your Bingfu antenna is ready for use. Ensure your radio is set to the correct frequency band (VHF or UHF) corresponding to the ground planes you have installed for optimal performance.

- **Frequency Range:**

- VHF: 136-174MHz
- UHF: 400-470MHz

- **SWR Tuning:** While the antenna is designed for broad coverage, fine-tuning the SWR (Standing Wave Ratio) with an SWR meter is recommended for peak performance and to protect your radio's final amplifier. The included hex tool may be used for minor adjustments if the antenna whip allows for it.



# Say Goodbye to Weak Signals Forever



Figure 5.1: The antenna facilitates clear communication for mobile radio users.

## 6. MAINTENANCE

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- **Cleaning:** Periodically clean the antenna whip and magnetic base with a soft, damp cloth. Avoid abrasive cleaners.
- **Magnetic Base Inspection:** Regularly check the magnetic base and the vehicle surface beneath it for any debris that could scratch the paint or reduce magnetic adhesion. Ensure the silicone gasket is intact.
- **Cable Inspection:** Inspect the coaxial cable for any signs of wear, cuts, or damage. Ensure connectors are clean and tight.
- **Storage:** When not in use for extended periods, especially in harsh weather, it is recommended to remove the antenna and store it in a dry, protected environment.

## 7. TROUBLESHOOTING

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Problem	Possible Cause	Solution
Weak signal reception or transmission.	<ul style="list-style-type: none"><li>◦ Incorrect ground plane rods installed for the frequency band.</li><li>◦ Loose or corroded connections.</li><li>◦ Antenna not properly grounded (e.g., mounted on non-metallic surface).</li><li>◦ High SWR.</li><li>◦ Obstructions blocking signal.</li></ul>	<ul style="list-style-type: none"><li>◦ Ensure correct ground planes are used (short for UHF, long for VHF).</li><li>◦ Check all cable connections for tightness and cleanliness.</li><li>◦ Mount antenna on a large metallic surface (vehicle roof/trunk).</li><li>◦ Check SWR with a meter and adjust if necessary.</li><li>◦ Relocate antenna to a clearer area.</li></ul>
Antenna falls off vehicle.	<ul style="list-style-type: none"><li>◦ Insufficient magnetic adhesion.</li><li>◦ Vehicle surface is dirty or uneven.</li><li>◦ Excessive speed or strong winds.</li></ul>	<ul style="list-style-type: none"><li>◦ Clean the mounting surface thoroughly.</li><li>◦ Ensure the magnetic base is fully in contact with a flat metallic surface.</li><li>◦ Reduce speed in high wind conditions.</li></ul>
Cable damage or wear.	<ul style="list-style-type: none"><li>◦ Cable pinched by door/window.</li><li>◦ Exposure to sharp edges or excessive friction.</li></ul>	<ul style="list-style-type: none"><li>◦ Reroute cable to avoid pinching points.</li><li>◦ Inspect cable regularly and replace if damaged.</li></ul>

## 8. SPECIFICATIONS

Feature	Detail
Model Number	BFN00932
Frequency Range	VHF: 136-174MHz, UHF: 400-470MHz
Antenna Type	Dual Band Mobile Ham Radio Antenna with Ground Planes
Antenna Length	Approximately 42cm (16.53 inches) whip, 48.5cm (19.1 inches) total with base
Magnetic Base Diameter	9cm (3.55 inches)
Cable Type	RG58/U Coaxial Cable
Cable Length	5m (16.4ft)
Connector Type	UHF PL259 Male
Impedance	50 Ohm
Color	Black
Item Weight	1.76 pounds

Feature	Detail
Product Dimensions (L x W x H)	16.93 x 5.12 x 2.56 inches (packaged)

## 9. SAFETY INFORMATION

- Do not operate the antenna near power lines or during lightning storms.
- Ensure the antenna is securely mounted to prevent it from detaching during vehicle movement, which could cause injury or damage.
- Avoid touching the antenna during transmission, as high-frequency energy can cause burns.
- Always check your SWR before transmitting to prevent damage to your radio equipment.

## 10. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided with your purchase or contact Bingfu customer service directly. Keep your purchase receipt as proof of purchase.









**Manufacturer:** Bingfu

**ASIN:** B0CLKLHHNP



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### Related Documents - BFN00932

<div><p><b>RF Connector Usage Guidelines</b></p><div></div><p>Made in China</p></div>	<p><a href="#">Bingfu RF Connector Usage Guidelines</a></p> <p>Concise guidelines for the proper installation and use of Bingfu RF connectors to ensure optimal performance and longevity.</p>
<div><p>Budget DIY GPS/GNSS Base Station - Receiver Setup With ESP32 and UM980</p><p>Introduction</p><p>1. Introduction</p><p>2. Hardware Components</p><p>3. Software Setup</p><p>4. Testing and Calibration</p><p>5. Troubleshooting</p><p>6. Conclusion</p></div>	<p><a href="#">Budget DIY GPS/GNSS Base Station / Receiver Setup With ESP32 and UM980</a></p> <p>Learn how to build a cost-effective DIY GPS/GNSS base station or receiver using the ESP32 microcontroller and Unicorecomm UM980 module. This guide covers hardware, firmware, and configuration for creating a custom high-precision location system.</p>



### [Produktliste und Preise für Elektronik und Zubehör](#)

Umfassende Liste von Elektronikprodukten und Zubehör mit detaillierten Preisinformationen.

Entdecken Sie eine breite Palette von Marken und Artikeln, von Kopfhörern und Lautsprechern bis hin zu Computern und Mobiltelefonzubehör.