



# Portable Antenna Spike Mount (CHA SPIKE MOUNT) Operator's Manual

Nevada - USA

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## Introduction

Thank you for purchasing and using the Chameleon Antenna™ Portable Antenna Spike Mount (CHA SPIKE MOUNT), see plate (1). The CHA SPIKE MOUNT is an innovative new product built exclusively by the skilled machinists at Chameleon Antenna™. It is a precision fabricated heavy-duty stainless-steel stake with a fitting for attaching the CHA Hybrid HF antenna base and a counterpoise. It is rugged and highly portable and enables easy ground mounting of the Chameleon Antenna™ HF Modular Portable Antenna System (CHA MPAS) or Hybrid Portable HF Antenna (CHA HYBRID MINI/MICRO). The CHA SPIKE MOUNT is an essential accessory for these two antenna systems.



Plate 1. Chameleon Spike Mount with Hybrid Micro and Counterpoise.

## Parts of the Spike Mount

The CHA SPIKE MOUNT is comprised of the following components, see plate (2):

- a. **Ground Spike** - 13 ½" stainless-steel rod with tapered end.
- b. **Mount Fitting** – attached to top of the Ground Spike (a) and has the Threaded Socket (c) in the top and Counterpoise Knob (d) on the side.
- c. **Threaded Socket** – recessed 3/8" x 24 threaded socket for attaching the CHA HYBRID MINI/MICRO.

- d. **Counterpoise Knob** – Knurled knob with bolt used to connect counterpoise wires.

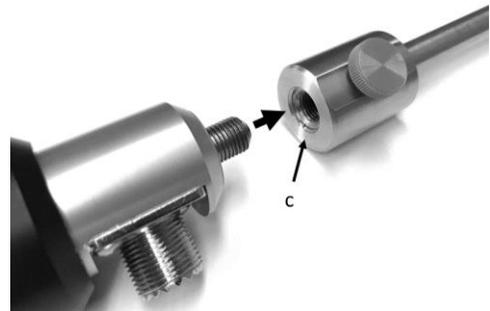


**Plate (2). CHA SPIKE MOUNT Components.**

## Spike Mount Installation

The CHA SPIKE MOUNT is highly portable and easy to install. Follow the instructions below to install the CHA SPIKE MOUNT. You will need a plastic tent peg mallet or a rubber mallet (although a plastic or rubber mallet is best, a metal-faced hammer is also acceptable).

1. Select a location free from large rocks, tree roots, and overhead obstructions or hazards.
2. IMPORTANT: Ensure the CHA HYBRID MINI/MICRO is not attached to the CHA SPIKE MOUNT.
3. Push the tapered end of the Ground Spike (a) into the ground.
4. Firmly strike the top of the Mount Fitting repeatedly with the mallet until the Ground Spike is 10-12 inches into the ground (1-3 inches remaining above the surface) - depending upon the firmness of the ground and length of the antenna. CAUTION: Do not strike the top CHA HYBRID MINI/MICRO, as this will damage it.
5. Attach the HYBRID MINI/MICRO as shown in plate (3). Tighten by hand.
6. Unscrew the Counterpoise Knob (d) by turning counter-clockwise. Place the lugs of the counterpoise wires over the Counterpoise Knob bolt. Reinsert the Counterpoise Knob bolt into the threads on the side of the Mount Fitting and tighten by turning clockwise until snug.



**Plate 3. Hybrid Micro Attachment to Spike**

7. Extend the counterpoise wires.

8. This completes installation of the CHA SPIKE MOUNT.

## Preventive Maintenance

After use, detach the CHA HYBRID MINI/MICRO and Counterpoise Knob (d) from the Mount Fitting (b). Rinse the CHA SPIKE MOUNT with water to remove dirt and grit, especially from the Mount Fitting threaded sockets and Counterpoise Knob (d) bolt threads. Spray a light lubricant, such as WD-40, into the threaded areas and reinsert the Counterpoise Knob.

## Recommended Accessories

The following accessories are recommended:

1. Counterpoise Kit – Available from Chameleon Antenna™. The system will create the ground-plane needed for the MPAS or CHA HYBRID MINI/MICRO vertical antenna. The kit contains four 25' radials on line winders and four tent stakes for superb portability. Each radial has an isolation ring on one end and a connection lug, for attachment to the CHA SPIKE MOUNT, on the other end. The system will greatly increase the efficiency of a ground mounted vertical antenna over a single counterpoise wire.
2. Coaxial Cable Assembly - Available from Chameleon Antenna™. A 50' coaxial cable assembly made from RG-58A coaxial cable. The cable has PL-259 connectors at each end and an integrated RFI isolation choke. It will improve the performance of the MPAS or CHA HYBRID MINI/MICRO antennas by keeping Radio Frequency (RF) energy from travelling back along the shield of the coaxial cable.
3. Plastic Tent Peg Mallet – Available from almost any store selling camping gear. A lightweight solution for driving the CHA SPIKE MOUNT into the ground.

## Chameleon Antenna™ Products

The following products are available for purchase at Chameleon Antenna™.

Go to <http://chameleonantenna.com> for ordering and more information.

**CHA P-LOOP 2.0** - The CHA P-LOOP 2.0 was designed with portability, ease of use simplicity, ruggedness and high performance in mind. Unlike any other similar antennas on the market, the CHA P-LOOP 2.0 is made with premium materials that are precisely manufactured and assembled in the USA! This is an exciting new product from Chameleon Antenna. Easily deployable HF magnetic loop antennas, also called small transmitting loops, have been routinely used for many years in military, diplomatic, and shipboard HF communication links, where robust and reliable general coverage radio communication is a necessity. Covers 7.0-29.7 MHz.

**CHA F-LOOP 2.0** – The CHA F-LOOP 2.0 was designed with portability, ease of use simplicity, ruggedness and high performance in mind. Unlike any other similar antennas on the market, the CHA F-LOOP 2.0

is made with premium materials that are precisely manufactured and assembled in the USA! Easily deployable HF magnetic loop antennas, also called small transmitting loops, have been routinely used for many years in military, diplomatic, and shipboard HF communication links, where robust and reliable general coverage radio communication is a necessity. Covers 3.5-29.7 MHz.

**CHA WINDOM 40** – The CHA WINDOM 40 Antenna is designed for 40, 20, and 10 meters. Amateur Bands from 60 through 10 meters can be operated using an antenna tuner. Built with the portable operator in mind, it is very light weight, easy to set up, and comes with a military-style pouch.

**CHA EMCOMM II** - The CHA EMCOMM II Antenna has been specially designed for backup emergency

HF system or permanent installation. The integral broadband impedance matching network allows broadband antenna tuning.

**CHA SKYLOOP** - The CHA SKYLOOP is a 250' full wave loop antenna cut for 80M. With the help of an antenna tuner, the CHA SKYLOOP will cover all the bands between 80M and 6M.

**CHA Hybrid Mini – Portable HF Antenna Base** - The CHA HYBRID-MINI Base is the portable version of the regular HYBRID. The unit can be differentiated by the color of the lid and the base connector, which is black instead of gray. The HYBRID-MINI is also smaller and about 50% lighter than the regular HYBRID. An external antenna tuner is required to provide a low VSWR. The connector provided with the antenna is a SO-239 sealed. The entire unit is also waterproof. The HYBRID-MINI will serve as impedance transformer matching network and will greatly reduce the VSWR at the load for the following antennas: V1, V1L, V2L and MIL.

**CHA V2L Mobile Antenna** - The CHA V2L is a rugged multiband HF antenna designed for smaller vehicles.

**CHA VHF/UHF Magnetic Mount Mobile Antenna** - The CHA VHF/UHF is a simple but great dual band antenna for 2M and 70CM.

**CHA MIL Whip** - The CHA MIL whip is a broadband (28 to 54 MHz) monopole antenna designed for portable or man-pack radios requiring compact but rugged antenna systems. Its design has been borrowed from similar antennas utilized by many armies all over the world. The CHA MIL is very hardy, sturdy and portable (being collapsible). Un-mounted the entire antenna length is less than 29". The 5 aluminum sections are hold together by a piece of 1/8th inch US GI MIL SPEC shock cord. The CHA MIL Whip and a CHA HYBRID-MINI Base perfectly complements the capability of the CHA HYBRID - MINI / MICRO.

**CHA MIL EXT Whip Extension** - The CHA MIL EXT whip has been designed to offer maximum

portability and performance for those already using the portable CHA MIL whip for man-pack antenna system. This collapsible antenna extension needs to be used with the CHA MIL to create a 17'4" long portable antenna. When combined with any HYBRID series antenna bases the CHA MIL EXT will operate at all frequencies in the 1.8-54 MHz band without any adjustment with most modern external antenna tuners.

**CHA TD Tactical Dipole LITE** - The CHA TD LITE (Tactical Dipole LITE) is a HF broadband antenna specially designed for portable HF communication where rapid deployment and simplicity of operation is essential but compactness is a primary consideration. The antenna will operate at all frequencies in the 1.8-54 MHz band without any adjustment with most modern external antenna tuners. No masts or guying are required.

**CHA TD Tactical Dipole** - The CHA TD (Tactical Dipole) Antenna is a HF broadband antenna specially designed for portable HF communication where rapid deployment and simplicity of operation is essential. The antenna will operate at all frequencies in the 1.8-30 MHz band without any adjustment with most modern internal antenna tuners. It is ideal for use in conjunction with modern, digitally configured, HF communication transceivers where features such as ALE and frequency hopping require true broadband capability. The antenna will work successfully supported by trees, masts, the tops of vehicles or any convenient object or structure. The CHA TD can also be used without antenna tuner, as the SWR will stay under 2.5:1 between 10M and 80M and under 2.75:1 on 160M.

**CHA FT-817 BRACKETS 2.0** – CHA FT-817 Brackets are built exclusively by the skilled machinists of Chameleon Antenna™. It is a military-style pair of precision fabricated brackets and high quality carrying strap for the popular Yaesu FT-817 series portable QRP transceiver. The CHA FT-817 Brackets will ruggedize and help protect your FT-817 from the many hazards of field operations.

