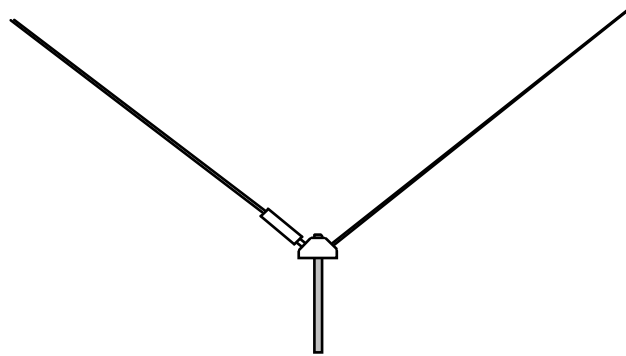


MFJ

Big Ear

Eight-Band HF Portable Antenna

Model MFJ-2289



INSTRUCTION MANUAL

CAUTION: Read All Instructions Before Operating Equipment

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MFJ-2289 *Big Ear*TM Portable HF Antenna

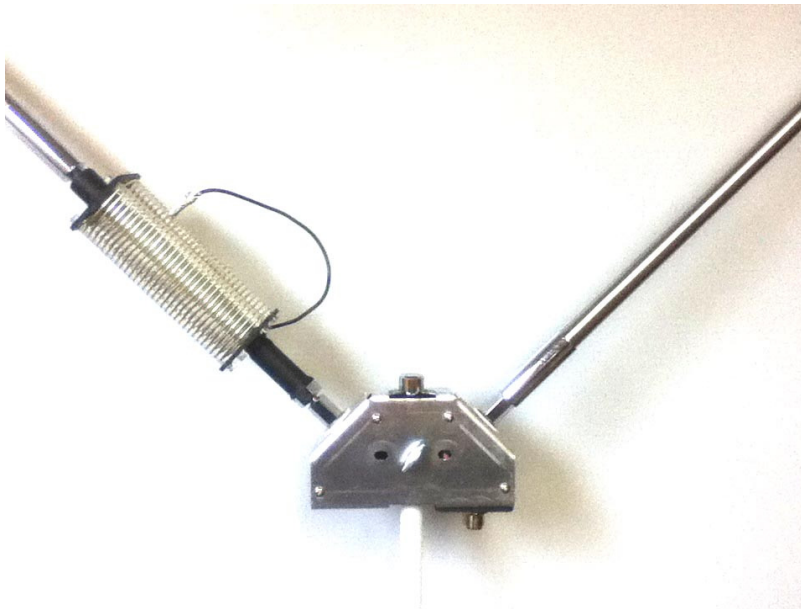
Introduction: Congratulations on your purchase of the MFJ-2289 eight-band portable antenna. MFJ's unique "Big Ear" design uses a single-coil OCFD loading system for greater mechanical strength, simpler tuning, and lower SWR. Couple these features with its impressive 35-foot span, and you have the ultimate high-efficiency signal launcher for operating HF in the field.

Specifications:

Frequency Coverage	7 MHz to 55 MHz, continuously tunable
Impedance	50-Ohms
Minimum SWR	1.2:1 or better, all frequencies
Element Length	To 35 feet, "V" configuration, horizontally polarized
Mast Diameter	Adjustable to 7/8- inch OD
Transport Length	27-3/4"
Weight	3.5 Pounds

Assembly: The MFJ-2289 assembles with only four major components:

- (1) - Feed Block Assembly
- (1) - Slider-Tuned Loading Coil Assembly
- (2) - 17-foot Stainless Steel Collapsible Whips



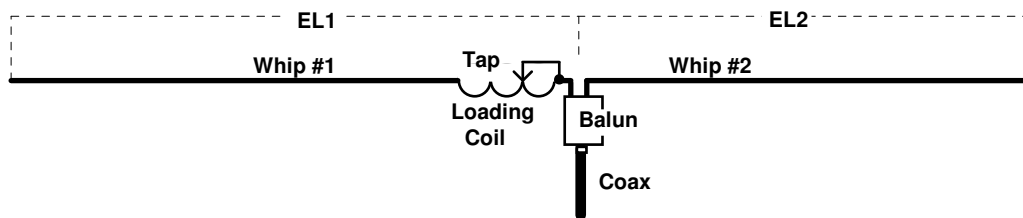
- [] Install coil assembly (**L1**) with tap-wire end toward the feed block.
- [] Install one whip on the outboard end of the coil assembly (**E1**).
- [] Install the second whip (**E2**) on the opposite side of the feed block.
- [] Install your 50-Ohm coax feed on the built-in SO-239 connector.
- [] Mount the feed block on any support pole up to 7/8" OD (insulated mast recommended).

Hand tightening is usually sufficient to seat elements. If using a wrench, avoid applying excessive torque. Measure element length with the antenna on the ground. When erecting, raise the feed block a minimum of five-to-six feet above the ground. Before installing on a mast, check your area carefully to confirm both dipole legs will be clear of wires, metallic structures, people, pets, etc. when fully extended and rotated. We strongly recommend insulating the end of your support mast that passes through the feed block. Installing a short length of PVC pipe, fiberglass tube, or even

a length of 7/8" wooden dowel will prevent stray RF coupling to the mast, a condition that could cause detuning and result in element measurements deviating from those prescribed in the chart.

Warning: Never assemble or install your antenna in close proximity to power lines or entrance cables. Accidental contact with utility lines can result in serious injury or death.

Tuning Procedure: Three adjustments tune the antenna (see diagram). When following the tuning chart, note that dimension **E1** always refers to the whip that is mounted on the *loading coil assembly (L1)*, and **E2** refers to the whip installed directly to the feed block. On 30 Meters, E1 and E2 are not equal and, if reversed, the antenna will not tune properly.



Tuning Chart: **E1** and **E2** are measured from the face of the feed block to the element tip (E1 length includes the loading coil assembly). When setting E1 and E2, extend each whip from the feed block toward the tip, so the element always has maximum diameter.

To estimate the **L1** slider setting on 40 and 30 Meters, count the *exposed turns* between the end of the coil and the face of the slider tube. Alternatively, you may measure the distance from the end of the coil to the face (both provided). Then, fine-tune the slider position for minimum SWR. Above 30 Meters, move the slider to the outer end of the coil, shorting out all of the inductor turns.

Frequency	E1	E2	L1
7.15	Full Length	Full Length	26-t
10.11	Full Length	9' 9"	16-t
14.15	Full Length	Full length	Shorted
18.11	13'	13'	Shorted
21.20	11'	11'	Shorted
24.93	9' 3"	9' 3"	Shorted
28.50	8' 2"	8' 2"	Shorted
50.10	4' 3"	4' 3"	Shorted

Optimum dimensions for minimum SWR may vary at your location, depending on ground conductivity, nearby objects, and antenna height. Note that the "Big Ear" is a continuous coverage antenna. By scaling the length of E1 and E2 to the nearest ham-band settings, tuning should be possible on any frequency between 7 and 55 MHz.

In Case of Trouble: If you are unable to obtain low SWR, if settings deviate widely from the chart, or if SWR jumps intermittently, check the following items:

- [] Are the coil assembly and each whip seated firmly?
- [] Is there damage to the coil or attachment wire?
- [] Is the coax feed shorted, open, or intermittent?
- [] (30-M) Are dimensions for E1 and E2 reversed?
- [] (Above 30-M) Are all of L1's turns bypassed by the tap?
- [] Is a metal mast making contact with the feed block and detuning the element slightly?

FULL 12 MONTH WARRANTY

MFJ Enterprises, Inc. warrants to the original owner of this product, if manufactured by MFJ Enterprises, Inc. and purchased from an authorized dealer or directly from MFJ Enterprises, Inc. to be free from defects in material and workmanship for a period of 12 months from date of purchase provided the following terms of this warranty are satisfied.

1. The purchaser must retain the dated proof-of-purchase (bill of sale, canceled check, credit card or money order receipt, etc.) describing the product to establish the validity of the warranty claim and submit the original of machine reproduction or such proof of purchase to MFJ Enterprises, Inc. at the time of warranty service. MFJ Enterprises, Inc. shall have the discretion to deny warranty without dated proof-of-purchase. Any evidence of alteration, erasure, or forgery shall be cause to void any and all warranty terms immediately.
2. MFJ Enterprises, Inc. agrees to repair or replace at MFJ's option without charge to the original owner any defective product under warranty provided the product is returned postage prepaid to MFJ Enterprises, Inc. with a personal check, cashiers check, or money order for **\$7.00** covering postage and handling.
3. MFJ Enterprises, Inc. will supply replacement parts free of charge for any MFJ product under warranty upon request. A dated proof of purchase and a **\$5.00** personal check, cashiers check, or money order must be provided to cover postage and handling.
4. This warranty is **NOT** void for owners who attempt to repair defective units. Technical consultation is available by calling (601) 323-5869.
5. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.
6. Wired and tested PC board products are covered by this warranty provided **only the wired and tested PC board product is returned**. Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, or cables, etc. sent to MFJ Enterprises, Inc. will be returned at the owner's expense unrepai red.
7. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ products.
8. **Out-of-Warranty Service:** MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is shipped prepaid. All repaired units will be shipped COD to the owner. Repair charges will be added to the COD fee unless other arrangements are made.
9. This warranty is given in lieu of any other warranty expressed or implied.
10. MFJ Enterprises, Inc. reserves the right to make changes or improvements in design or manufacture without incurring any obligation to install such changes upon any of the products previously manufactured.
11. All MFJ products to be serviced in-warranty or out-of-warranty should be addressed to **MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, Mississippi 39759, USA** and must be accompanied by a letter describing the problem in detail along with a copy of your dated proof-of-purchase.
12. This warranty gives you specific rights, and you may also have other rights which vary from state to state.