

MFJ

Heavy Duty Balcony Antenna Mount

Model MFJ-1907



INSTRUCTION MANUAL

CAUTION: Read All Instructions Before Operating Equipment

MFJ ENTERPRISES, INC.

300 Industrial Park Road
Starkville, MS 39759 USA
Tel: 662-323-5869 Fax: 662-323-6551

DISCLAIMER

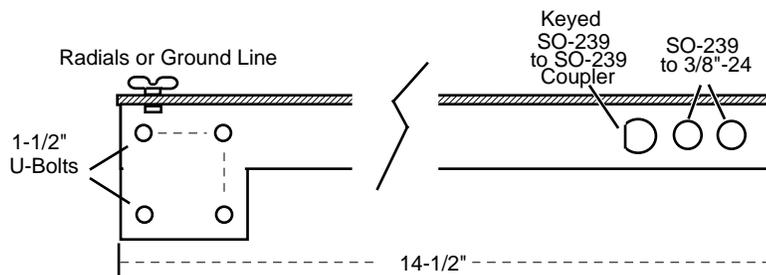
Information in this manual is designed for **user purposes only** and is ***not*** intended to supersede information contained in customer regulations, technical manuals/documents, positional handbooks, or other official publications. The copy of this manual provided to the customer will ***not*** be updated to reflect current data.

Customers using this manual should report errors or omissions, recommendations for improvements, or other comments to MFJ Enterprises, 300 Industrial Park Road, Starkville, MS 39759. Phone: (662) 323-5869; FAX: (662) 323-6551. Business hours: M-F 8-4:30 CST.

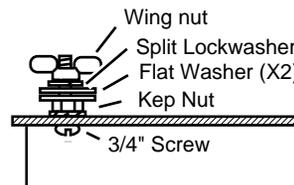
MFJ-1907 Heavy-Duty Balcony Antenna Mount

Description: The MFJ-1907 sets a new standard for portable-mount strength and versatility. Fabricated from rugged 0.1-inch angled aircraft aluminum, the unique design provides an unusually wide range of mounting solutions to get you on the air quickly from virtually any location.

Attaching the Mounting Arm: Use the two supplied 1-1/2-inch U-Bolts to install the support arm on any suitable horizontal or vertical pipe, railing, tower leg, tree branch, etc. Before mounting, confirm that your base support structure is strong enough to hold both the MFJ-1907 mount and the antenna elements you intend to install. The four U-bolt attachment holes also accept 1/4-inch lag bolts or deck screws for a temporary installation on a wooden post or other structural surface.



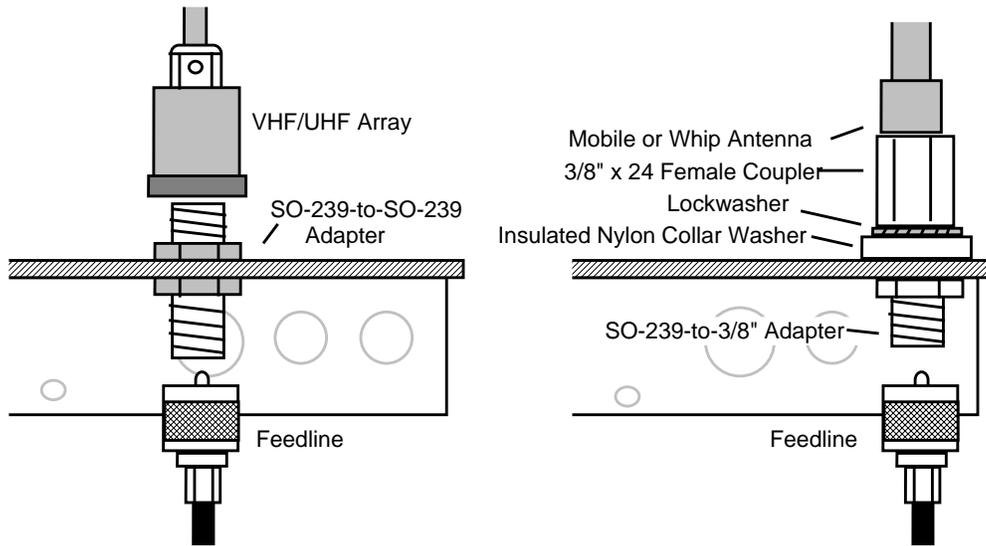
Grounding Post: A hole for mounting a ground-wire post is located above the U-bolt holes. This post may be used to connect radial wires, a counterpoise, or a earth safety ground. Install as shown below, using 10-24 hardware:



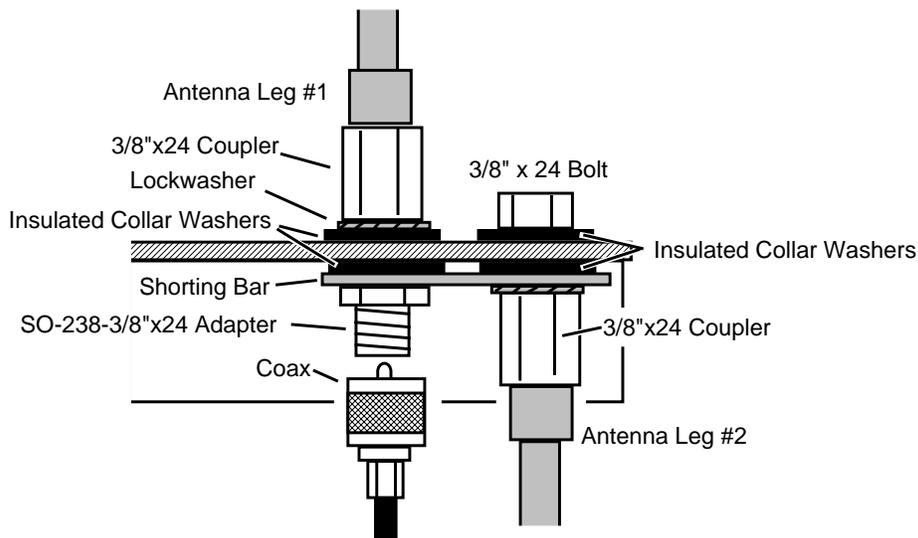
Monopoles: Most HF-mobile verticals function as 1/4-wave monopoles -- either full-sized or loaded by a coil and capacitive hat. HF-mobile antennas normally work against a counterpoise provided by a vehicle body. When installing a mobile antenna on a portable mount like the MFJ-1907, it's important to replace the vehicle's conductive surfaces with set of ground radials, a counterpoise wire, or -- at minimum -- a good earth ground. The same requirement applies to simple telescoping whip verticals. Without a functional ground system, the outer surface of the coaxial cable becomes the missing portion of the antenna and it may conduct unsafe RF levels back to your operating site. A good counterpoise also increases radiating efficiency, improving your ability to "get out" when running low power or operating from less-than-optimal locations.

Mounting Monopole Antennas: Monopoles are fed by connecting the coax center conductor to the vertical element. The coax shield is connected to the

body of the MFJ-1907 mount and to the ground system. Two mounting configurations are shown below. Use the arm's outer 1/2-inch mounting hole for the SO-238 to 3/8-inch hardware. This "standard" mount is most often used for HF-mobile and portable antennas. Use the 5/8-inch keyed hole for the SO-239 to SO-239 feed-through mount. This configuration is often used for smaller multi-band VHF-UHF antennas or high-gain vertical collinear arrays.

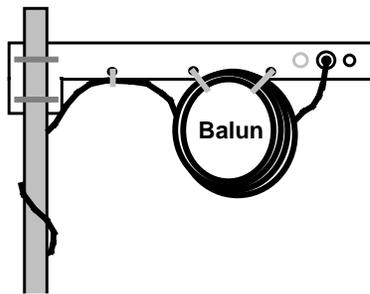


Mounting Dipole Elements: The dipole mount is configured differently because both legs of the antenna element must be electrically insulated from the arm. A portable dipole may consist of two hamsticks, two center or base loaded whips, a screwdriver paired with a fixed whip, or two MFJ heavy-duty collapsible stainless elements. Off-center feed may be used to facilitate matching. Element legs install using the two 1/2-inch holes located at the end of the mounting arm (see below):



Dipole Polarity: While monopoles are normally mounted vertically, HF-dipoles may be oriented for either polarity, depending on height above ground and the proximity of nearby structures. If the MFJ-1907 arm is attached to a horizontal metal railing, orient the dipole vertically to cross-polarize it with the rail (if mounted parallel, the rail could detune the element and destroy its efficiency). When using a tall vertical mount, it's best to orient the dipole horizontally. As a plus, horizontally mounted dipoles may have up to 3 dB more gain because of signal reinforcement from ground reflection.

Feedline and Baluns: For most portable setups, flexible light-weight coax such as RG-58 or RG-8X is preferable for ease of handling. The MFJ-1907 arm has three 3/16-inch mounting holes punched along the lower edge for securing coax with tie-wraps (supplied). These attachment points also make it very easy to wind a simple balun from a few coiled turns of coax. Forming a simple balun and attaching it to the MFJ-1907 arm is a simple procedure that provides cheap insurance against accidentally exposing you or your equipment to damaging RF.



Lower HF Range: Coil 16-18 feet of cable
Upper HF Range: Coil 6-8 feet of cable

Parts List: Please inventory the package contents for the following components:

Qty	Description
1	MFJ-1907 antenna mounting Arm
2	1/4-20 x 1-1/2" span U-bolt with nuts,lock washers (2)
4	Fiber shoulder washer, 5/8" OD x 3/8" ID x .062"
1	Nylon shoulder washer, 5/8" OD x 3/8" ID x .125"
2	3/8 ID lock washer, external star
2	3/8-24 x 3/4" hex female coupler
1	3/8-24 x 11/16" hex-head bolt
1	SO-239 to 3/8-24 adapter
1	SO-239 to SO-239 x 2" chassis coupler with nuts (2)
1	3/4" x 1-3/4" shorting bar, two 3/8" holes
1	5/8" vinyl cap
1	#10-24 x 3/4" Phillips head screw
1	#10-24 Kep nut
2	#10 flat washer
1	#10 lockwasher, split
3	7" nylon tie-wrap

Technical Assistance

If you have any problem with this unit first check the appropriate section of this manual. If the manual does not reference your problem or reading the manual does not solve your problem, you may call *MFJ Technical Service* at **662-323-0549** or the *MFJ Factory* at **662-323-5869**. You will be best helped if you have your unit, manual and all information on your station handy so you can answer any questions the technicians may ask.

You can also send questions by mail to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759; by Facsimile (FAX) to 662-323-6551; or by email to techinfo@mfjenterprises.com. Send a complete description of your problem, an explanation of exactly how you are using your unit, and a complete description of your station.

LIMITED 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 or machine reproduction of 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 warrantee 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. This warranty is **NOT** void for owners who attempt to repair defective units. Technical consultation is available by calling the Service Department at 662-323-0549 or the MFJ Factory at 662-323-5869.
4. This warranty does not apply to kits sold by or manufactured by MFJ Enterprises, Inc.
5. 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 unrepaired.
6. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ products.
7. **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.
8. This warranty is given in lieu of any other warranty expressed or implied.
9. 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.
10. 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.

11. This warranty gives you specific rights, and you may also have other rights which vary from state to state.



MFJ ENTERPRISES, INC.
300 Industrial Park Road
Starkville, MS 39759

MFJ-1907 Manual
Version 1A
Printed In U.S.A.