

MFJ

MatchMaker™ **50-75 Ohm Feed Network**

Model MFJ-2975

INSTRUCTION MANUAL

CAUTION: Read All Instructions Before Operating Equipment

MFJ ENTERPRISES, INC.

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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.

Introduction

The MFJ-2975 is a dipole feed block for connecting unbalanced 50-Ohm coax cable to a 75-Ohm balanced antenna element. Optimize your HF-dipoles for top performance with the MFJ-2975 50-75 Ohm Match-Maker™ feed network!

Mounting HF dipoles high in the air clearly improves their DX performance, but it may also elevate feed-point resistance to a point where minimum SWR and usable bandwidth suffer. When you install the MFJ-2975 Match-Maker™ feed block, you get the ultimate broadband matching solution for connecting 75-Ohm dipoles to 50-Ohm feedline – plus you get a superbly effective current balun to make the transition from unbalanced line to the balanced element!

Why mess with tuners, stubs, and complex toroids when the MFJ-2975 provides the perfect plug-and-play solution for any HF band!

Here's why it works so well:

Accurate Match: The exclusive MFJ Match-Maker™ network features a revolutionary light-weight RF transformer that delivers the precise matching ratio you need right at the antenna.

High Efficiency: With a measured efficiency of over 98%, insertion loss is negligible.

Built-in Balun: A toroid-style current balun gives you 30-dB or more S21 common-mode isolation to ensure a clean transition from your unbalanced cable to the dipole's balanced element. Protects against a wide range of RFI and station performance problems.

Maximum Legal Power: Go ahead and turn on the amp, the MFJ-2975 has been tested extensively at high power and is rated at 1500-Watts PEP on both SSB and CW.

Rugged Construction: The tough UV-resistant Marine ABS feed block is pull-tested at over 200 pounds to take on nasty weather. Comes with a hard-shell matching network cover and all-stainless hardware.

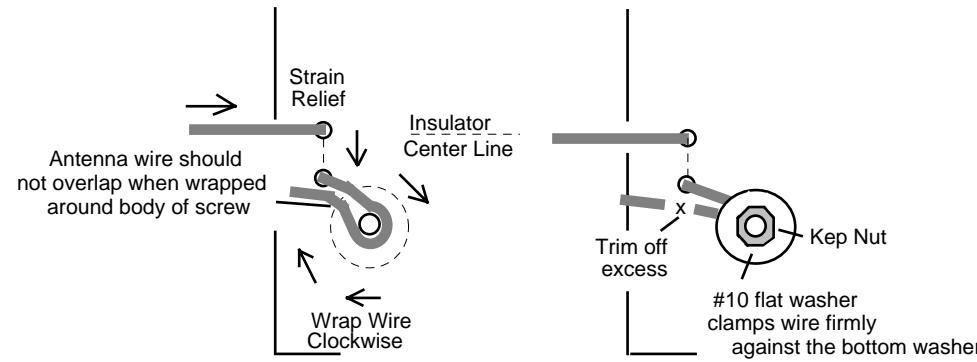
Easy Installation: The antenna wire connection points are stress-relieved and solder-less for fast installation in the field. Simply attach your existing antenna wire to the block, install your feedline on the premium-grade Teflon UHF connector, and put it up in the air! Also has attachment points for installing a halyard for inverted-V mounting.

Installing Feedline

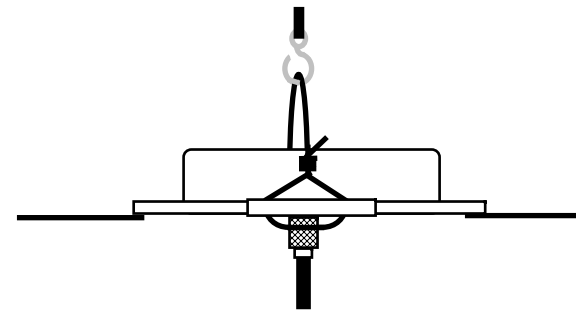
Use any 50-Ohm coax cable that is consistent with your station's output power. RG-58 or RG-8X (Mini-8) cable is good for low power operation (up to 100-Watts), but RG-8 or a low-loss equivalent such as Belden 9914 strongly recommended when running a legal-limit amplifier. The antenna's feed block accepts a standard PL-259 connector.

General Installation

- [] To install antenna wire, first, locate the strain-relief holes and the antenna connection stud at each end of the block (on the bottom surface).
- [] Thread antenna wire through the strain relief, as shown, and pull wire tight.
- [] Remove the top Kep nut and one of the oversized washers from the stud.
- [] Wrap wire in a clockwise direction around the stud, being careful not to overlap the wire on itself. Reinstall the #10 flat washer and Kep nut and tighten firmly to clamp wire between the washers. Trim off excess.
- [] Repeat this procedure to install the second antenna leg on the opposite end of the block.



Halyard Support: The antenna may be center-supported using halyard mounting holes provided in the feed block. Connect as shown:



Specifications:

Feed impedance:	50 Ohms
Load Impedance:	75 Ohms
Power Rating:	1500-W SSB/CW (de-rate 50% for RTTY and digital modes)

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 your problem is not solved by reading the manual 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 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 **\$10.00** covering postage and handling.

3. This warranty is **NOT** void for owners who attempt to repair defective units. Technicalconsultation 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.



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