



**MFJ VHF 144-220 MHz SWR/WATTMETER  
MODEL MFJ-812B**

**FULL 12 MONTHS 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 of 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 warranty claim and must submit the original or a 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 of proof-of-purchase 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 provided the product is returned postage prepaid to MFJ Enterprises, Inc. with a personal check, cashier's check or money order for \$4.00 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 \$4.00 personal check, cashier's 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 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 is returned. Wired and tested PC boards installed in the owner's cabinet or connected to switches, jacks, cables, etc. sent to MFJ Enterprises, Inc. will be returned at the owner's expense unrepaired.
7. Under no circumstances is MFJ Enterprises, Inc. liable for consequential damages to person or property by the use of any MFJ product.
8. Out-of-Warranty Service: MFJ Enterprises, Inc. will repair any out-of-warranty product provided the unit is delivered prepaid. All charges will be shipped COD to the owner.
9. This warranty is given in lieu of any other warranty express or implied.
10. MFJ Enterprises, Inc. reserves the right to make changes or improvement 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., 921A Louisville 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.

**OWNER'S MANUAL**

**CAUTION: Read All Instructions Before Operating Equipment**

**MFJ ENTERPRISES, INC.**

300 Industrial Park Road  
Starkville, MS 39759 USA  
Tel: 601-323-5869 Fax: 601-323-6551

## MFJ-812B VHF 144-220 MHz SWR/WATTMETER

Thank you for purchasing the MFJ-812B VHF 144-220 MHz SWR/WATTMETER. The MFJ-812B is a low loss meter primarily designed for 2 meter and 220 MHz operation. However it will function down to 21 MHz with reduced sensitivity. The MFJ-812B also has a field strength circuit built-in to monitor RF radiated signals.

### INSTALLATION

1. Connect a coax cable from your transmitter to the coax connector labeled "TRANSMITTER".
2. Connect a coax cable from your antenna to the coax connector labeled "ANTENNA".

### OPERATION

#### 1. SWR MEASUREMENT:

- A) Set the FS/SWR button to OUT for SWR.
  - B) Set the FWD/REF button OUT. Transmit a continuous carrier and set the SWR/POWER control for full scale deflection.
  - C) Push IN the FWD/REF button and read SWR.
- NOTE: The SWR sensitivity must be reset when power level is changed. This will maintain an accurate SWR reading.

#### 2. POWER MEASUREMENT (144 MHz):

- A) Set the FS/SWR button out.
- B) Set the FWD/REF button out.
- C) For 30 watts range - rotate the SWR/POWER control to the 30 mark and read the power level on the 30 watt scale.
- D) For 300 watts range - rotate the SWR/POWER control to the 300 mark and read the power level on the 300 scale.

Note: The SWR/POWER control on the MFJ-812B is factory calibrated for the 30 watt range. Do not reset the knob on this control. However, due to component tolerance when precision reading is desired, the 300 watt range can be recalibrated as follows:

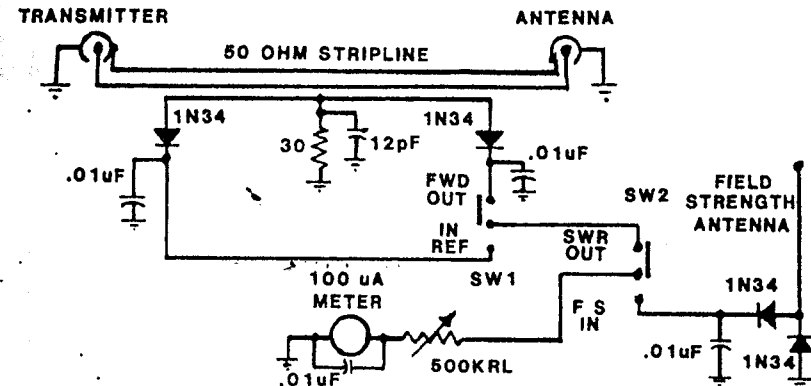
- A) Set the FS/SWR button OUT.
- B) Set the FWD/REF button OUT.
- C) Rotate the SWR/POWER control to the 30 mark and read the power level on the 30 watt scale.
- D) Rotate the SWR/POWER control counter-clockwise until the power level reading on the 300 watts scale is the same as it is on the 30 watts scale as noted in step B above.
- E) Mark the control setting for the re-calibrated 300 watts range.

#### 3. POWER MEASUREMENT (220 MHz):

Power measurement on the 220 MHz operation is the same as in the 144 MHz operation as in Step 2. However, instead of using the 30 and the 300 marks, use the smaller mark to the left of the 30 for 30 watts at 220MHz and the smaller mark to the left of the 300 for 300 watts at 220 MHz.

### FIELD STRENGTH METER

1. Connect a 1 to 2 feet length of wire to the binding post on the rear of the MFJ-812B.
2. Set the FS/SWR button to FS (IN). The FWD/REF button can be either IN or OUT.
3. Adjust the SWR/POWER control for the desired meter sensitivity.



MFJ-812B SCHEMATIC DIAGRAM