

INTRODUCTION

Congratulations on purchasing the MFJ-853 RF-Current Meter. The MFJ-853 is designed for measuring RF current distribution on antenna elements and radials, ground wires, and coax shields. Here are some important features we think you'll like:

Range: Measures RF current from as little as 300 mA to 3 Amps in three ranges.

Low Interaction: Sense coil has minimal effect on circuits under test.

Large Cable Capacity: Accepts cables up to approximately 1/2" in diameter.

Power: No power source needed.

Non-metallic case: Minimizes field disturbance for accurate reading.

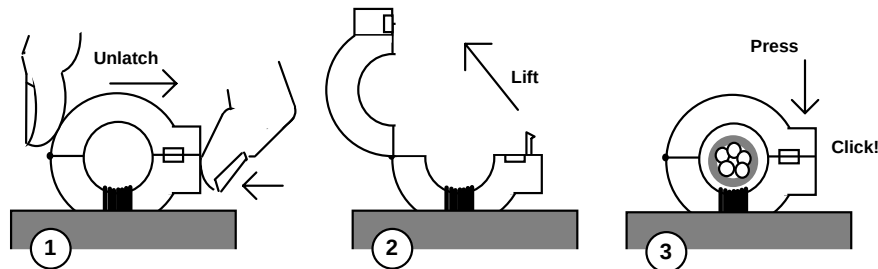
Handheld Size: Light weight, only 2.25" x 1" x 3.75"

CONTROLS

1. **Sense Coil:** Clamps onto conductor under test, accepts diameters to around 1/2" .
2. **Meter:** Calibrated scale indicates readings in mA or Amps.
3. **Range:** Selects from three measurement ranges.

OPERATING INSTRUCTIONS

Using the Sense Coil: The sense coil snaps over wires and cables, as shown below. To unlatch, squeeze the nylon carrier between thumb and forefinger--applying opposing pressure. The coil's top section should move forward slightly. With pressure applied, lift up to open. Position the wire or cable inside the core opening. Close the lid over the cable, pressing down until latch clicks shut.



Meter: The meter is scaled from 0 to 100. On the 100-mA range, readout is direct (100 = 100 mA). On the 1-A range, move the decimal point 2 places to the left (100 = 1.00 A). To convert meter readings made on the 30 mA, 300 mA, and 3-A ranges, multiply accordingly. For example, a reading of 85 on the 300-mA range equals 300 x .85, or 255 mA. The chart below will help you estimate readings quickly:

Meter	Range		
	300 mA	1 A	3 A
10	30	0.1	0.3
20	60	0.2	0.6
30	90	0.3	0.9
40	120	0.4	1.2
50	150	0.5	1.5
60	180	0.6	1.8
70	210	0.7	2.1
80	240	0.8	2.4
90	270	0.9	2.7
100	300	1.0	3.0

The <30 mA range is uncalibrated and meter readings represent a relative indication only. It is normal, at high sensitivity, to see some residual meter reading (up to 15%).

Range: The *Range* switch selects between three calibrated scales (from 300 mA to 3 Amps). To prevent meter pegging, begin checks on a high range and work down. To estimate unknown current levels, use the formula below (I = Unknown Current in Amps, P = Applied Power in Watts, and R = Load Resistance in Ohms).

$$I = \sqrt{\frac{P}{R}}$$

RF Hazard--Important Warnings:

1. RF-current measurements must be conducted with extreme caution. Physical contact with conductors carrying even moderate RF-energy levels can result in severe RF burns, or injury.
2. Avoid measuring RF current on conductors where high RF voltages may be present (>500 Volts). Damage to your meter may result.

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 unrepared.
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.