MFJ 2003 Ham Catalog

MFJ No Matter What™ Warranty Your MFJ product comes with MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace your MFJ products (at our option) no matter what for a full year.

FREE Instruction Manuals on most MFJ products. Visit our web site or write or call 800-647-1800.

MFJ Pocket size Morse Code Reader™

Hold near your receiver -- it instantly displays CW in English! Automatic Speed Tracking . . . Instant Replay . . . 32 Character LCD . . . High-Performance Modem . . . Computer Interface . . . Battery Saver . . .

Is your CW rusty?

Relax and place this tiny pocket size MFJ Morse Code Reader near Ship Code A

MFJ-461

your receiver's speaker...
Then watch CW turn into solid text messages as they scroll across an easy-to-read LCD display.

No cables to hook-up, no computer, no interface, nothing else needed!

Use it as a backup in case you miscopy a few characters - - it makes working high speed CW a breeze - -

even if you're rusty.

Practice by copying along with the MFJ-461. It'll help you learn the code and increase your speed as you instantly see if you're right or wrong.

Eavesdrop on interesting Morse code QSOs from hams all over the world. It's a universal language that's understood the world over.

Automatic Speed Tracking MFJ $AutoTrak^{TM}$ automatically locks on, tracks and displays CW speed up to 99 Words-Per-Minute.

Simply place your MFJ-461 close to your receiver speaker until the lock LED flashes in time with the CW.

Four Display Modes

1. Bottom line scrolls and fills with text, slightly drifting signals. then that entire line is displayed on top line until bottom line refills -- makes reading text extra easy! Automatically displays with lots of QRM/QRN. speed in WPM.

2. Same as 1, without speed display -gives you maximum text display.

3. Top line scrolls, bottom line displays speed in Words-Per-Minute.



4. Both top and bottom lines scroll. Two-line LCD display has 32 large 1/4 inch high-contrast characters.

MFJ Instant Replay

The last 140 characters can be instantly replayed. Lets you re-read or check copy if you're copying along side the MFJ-461.

High Performance Modem

Consistently get solid copy from MFJ's high performance PLL (phaselock loop) modem. Digs out weak signals. Even tracks Tiny $2^{1}/4x3^{1}/4x1$ in. $5^{1}/2$ ounces.

Of course, nothing can clean up and copy a sloppy fist, especially weak signals

Computer Interface

The MFJ-461's serial port lets you display CW text full screen on a bright computer monitor -- just use your computer serial port and terminal program.

More Features

When it's too noisy for its mic pickup, connect MFJ-461 to your radio with a cable.

Battery saving feature puts MFJ-461 to sleep during periods of inactivity. It wakes up and decodes when it hears CW.

Uses 9 Volt battery (not included).

True Pocket Size

Fits in your shirt pocket with room to spare - smaller than a pack of cigarettes.

Accessories

MFJ-26B, \$6.95. Soft leather protective pouch. Clear plastic overlay for display, push button opening, strong, pocket/belt clip secures MFJ-461.

MFJ-5161, \$14.95. MFJ-461 to computer serial port cable (DB-9).

MFJ-5162, \$5.95. Connects MFJ-461 to radio's external speaker 3.5 mm jack.

Celebrating our 30th Year Anniversary 1972-2002 For your nearest dealer or to order call 800-647-1800 MFJ ENTERPRISES, INC., P.O. Box 494, Mississippi State, MS 39762 Voice: (662) 323-5869; 8-4:30 CST, Mon-Fri.; FAX: (662) 323-6551; E-Mail: mfj@mfjenterprises.com; Add s/h.

Visit our web site . . . http://www.mfjenterprises.com

1.8-170 MHz *plus* 415-470 MHz HF/VHF/UHF SWR Analyzer Covers 1.8-170 MHz and 415-470 MHz ... SWR ... Complex RF Impedance: Resistance(R) and

Reactance(X) or Magnitude(Z) and Phase(degrees) . . . Coax cable loss(dB) . . . Coax cable length and Distance to fault ... Return Loss ... Reflection Coefficient ... Inductance ... Capacitance Battery Voltage. LCD digital readout ... frequency counter ... side-by-side meters ... Ni-MH/ Ni-Cad charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive . . .

170 MHz and 415 to

470 MHz -- an MFJ-269 exclusive! It includes all the features of the MFJ-259B, the world's most popular SWR Analyzer plus

Large easy-to-read two line LCD display and side-by-side meters clearly display your information.

Built-in Ni-Cad/Ni-MH charger circuit, battery saver, low battery warning, smooth reduction drive tuning. Use as signal source for testing/alignment.

Built-in $CoaxCalculator^{TM}$ -- calculates coax line length in feet given coax length in electrical degrees and vice versa for any frequency and any velocity factor (great for building matching sections and phasing lines) -- an MFJ-269 exclusive!

New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters -- an MFJ-269 exclu-

Super easy to use! Just set the bandswitch and tune the dial -- just like your transceiver.

1.8 to 170 MHz Range Features

MFJ-269 gives you a complete picture of your antenna. Read antenna SWR and Complex Imped-ance 1.8 to 170 MHz. Built-in frequency counter.

Read Complex Impedance as series equivalent resistance and reactance (Rs+iXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp) -- an MFJ-269 exclu-

You can determine velocity factor, coax loss in dB, length of coax and distance to short or open in feet.

You can read SWR. return loss and reflection coefficient at any frequency simultaneously at a single glance. Also reads match efficiency.

Also read inductance in uH and capacitance in pF at RF frequencies.

You can measure SWR and loss of coax with any

characteristic impedance from 10 to over 600 Ohms, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450 Ohms -- an MFJ-269 exclusive! For more information see MFJ-259B,

New 415 to 470 MHz Range features

Just plug in your UHF antenna coax, set the frequency and read SWR, return loss and reflection coefficient simultaneously. You can read coax cable loss in dB and match efficiency.

You can adjust UHF dipoles, verticals, yagis, quads and other antennas and determine their SWR, resonant frequency and bandwidth.

You can test and tune stubs and coax lines. You can manually determine velocity factor and impedances of transmission lines.

Adjust and test RF matching networks and RF amplifiers without applying power.

Has easy-to-read LCD logarithmic SWR bargraph and SWR meter for quick tuning.

Take it anvwhere

Fully portable, take it anywhere -remote sites, up towers, on DX-peditions. Built-in "N" connector. *Free* N-to-SO-239 adaptor. Use 10 AA Ni-MH (See page 56) or Ni-Cad or alkaline batteries (not incl.) or 110VAC with MFJ-1312D, \$14.95. 4Wx2Dx63/4H inches.

MFJ-269 SWR Analyzer Accessories

MFJ-39, \$24.95. Tote your MFJ-269

anywhere with this genuine MFJ custom carrying case. Has back pocket with security cover for carrying dip coils, adaptors and accessories. Made of special foam-filled fabric, the MFJ-39 cushions blows, deflects scrapes, and protects knobs,

meters and displays from harm.

Wear it around your waist, over your shoulder, or clip it onto the tower while you work -- the fully-adjustable webbed-fabric carrying strap has snap hooks on both ends.

Has clear protective window for frequency display and cutouts for knobs and connectors -- use your MFJ SWR AnalyzerTM without ever taking it out of your case. Authentic MFJ leather logo distinguishes the real thing from imitators!

MFJ-269 SWR Analyzer Accessories

New! MFJ-99C, \$34.95. SWR Analyzer Power Pack. 10 Pack MFJ SuperCell™ Ni-MH batteries, and MFJ-1315 Power supply for MFJ-259B/MFJ-269 SWR

analyzers. Save \$5! New! MFJ-98, \$54.85. MFJ-269 Accessory Pack. Same as MFJ-99 but has MFJ-39 custom Carrying Pouch for MFJ-269. With power supply, dip coils. Save \$5!

New! MFJ-98B, \$77.85. MFJ-269 complete accessory pack! Pouch, batteries, dip coils, power supply. Save \$7!

Find power line noise fast! MFJ pocket-sized RFI Detector



This MFJ handheld power line noise meter lets you walk or drive around the neighborhood to MFJ-852 \$99⁹⁵

search out leaky insulators, loose hardware and corroded ground lines quickly. You can track the noise source

right down to the pole, transformer or insulator, or other source. This sensitive superhet AM receiver has a noise field strength meter. A telescopic, direction-finding dipole antenna is balun iso-

Ship Code A

lated and optimized to give you a sharp, clearly defined null. Operates in the 135 MHz region where activity is a minimum and radiation from corona and arcing is far more localized. 0.3 uV sensitivity and wide-range AGC for noise level meter -- over 70 dB!

Plug in headphones and hear the noise you're tracking or plugin a tape recorder. With your tape, your power company may figure out what's causing the noise and know how to fix the problem before they even come out. They are more likely to cooperate if you have the proof. 2Wx4Hx1.5D inches. Use 9 Volt battery.



Use this ultra-sensitive pocket-sized RFI Detector to track down and eliminate RFI caused by radiating MFJ-805 cables and wires. It'll tell you exactly

which cable is radiating RFI so you can Ship CodeA eliminate it with a simple toroid or clampon RFI filter. Use it to find RFI generated

by consumer devices, computers and high-tech office equipment. When you eliminate the RFI source, hash, birdies, whistles and transient noise miraculously dis-

appear from your communications receiver.

MFJ-805 also works with mobile installations, ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads. Your MFJ Detector isolates cables picking up RFI and indicates when you've suppressed the problem.

Easy-to-use. Simply clamp current transformer over suspected cable or wire (up to 1/4 in. diameter) to detect RFI causing common-mode currents. Super compact 21/4Wx43/4Hx1D inches fits in your shirt pocket. Use 9 Volt battery. Usable from VLF to VHF. Gain adjustable over 50 dB range.

MFJ 1.8-170 MHz, SWR Analyzer MReads complex impedance . . . Super easy-to-use

MFJ-259B reads SWR... Complex RF Impedance: Resistance (R) and Reactance (X) or Magnitude (Z) and Phase (degrees) . . . Coax cable loss (dB) . . . Coax cable length and Distance to fault . . . Return Loss . . . Reflection Coefficient . . . Inductance . . . Capacitance . . . Battery Voltage. LCD digital readout . . . covers 1.8-170 MHz . . . frequency counter . . . side-by-side meters . . . Ni-Cad/Ni-MH charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive tuning . . . much more . . .

The world's most popular SWR analyzer just got incredibly better and gives you more value than ever!

MFJ-259B gives you a complete picture of your antenna's performance. You can read antenna SWR and Complex Impedance 1.8 to 170

Read Complex Impedance as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).

You can determine velocity factor, coax cable loss in dB, length of coax and distance to a short or open in feet.

You can read SWR, return loss and reflection coefficient at any frequency simultaneously at a single glance.

Also read inductance in uH and capacitance in pF at RF frequencies.

Large easy-to-read two line LCD screen and side-byside meters clearly display your information.

Built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning and smooth re-duction drive tuning and much more.

Super easy to use! Just set the bandswitch and tune the dial -- just like your transceiver. SWR and Complex Impedance are displayed instantly!

Here's what you can do

Find your antenna's true resonant frequency. Trim dipoles and verticals.

Adjust your Yagi, quad, loop and other antennas, change antenna spacing and height and watch SWR, resistance and reactance change instantly. You'll know exactly what to do by simply watching the display.

Perfectly tune critical HF mobile antennas in seconds for super DX -- without subjecting



your transceiver to high SWR.

Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance from 1.8 to 170 MHz!

Check SWR outside the ham bands without violating FCC rules.

Take the guesswork out of building and adjusting matching networks and baluns.

Measure distance in feet to a short or open in faulty coax. Measure length of a roll of coax, coax loss, velocity factor, imped-

Measure inductance and capacitance. Measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and

Adjust your antenna tuner for a perfect 1:1 match without creating QRM.

And this is only the beginning! The MFJ-259B is a complete ham radio test station including -frequency counter, RF signal generator, SWR Analyzer™, RF Resist- ance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter and more!

Take it anywhere

Fully portable, take it anywhere -- remote sites, up towers, on DX-peditions. Use 10 AA or Ni-Cad batteries (not included) or 110 VAC with MFJ-1312D, \$14.95. Rugged all metal cabinet is only $4x2x6^{3}/4$ ".

How good is the MFJ-259B?

MFJ SWR Analyzers™ work so good, many antenna manufacturers use them in their lab and on the production line -saving thousands of dollars in instrumentation costs! Used worldwide by professionals everywhere.

More SWR Analyzers™ MFJ-249B, \$239.95. Like

MFJ-259B, but reads SWR, true impedance magnitude and frequency only on LCD. No meters.

MFJ-209, \$139.95. Like MFJ-249B but reads SWR only on meter. No LCD/counter.

SWR Analyzer Accessories



depending on SWR Analyzer™



\$24.95. Tote your MFJ-259B anywhere with this *genuine* MFJ custom carrying case. Has back pocket with security

cover for carrying dip coils, adaptors and accessories. Made of special foam-filled fabric, the MFJ-29C cushions blows, deflects scrapes, and protects knobs, meters and displays from harm. Has clear protective window for frequency display and cutouts for knobs and connectors. Authentic!



MFJ-731, \$89.95. *Exclusive* MFJ tunable RF filter allows accurate MFJ SWR and impedance measurements between 1.8-30 MHz in presence of strong RF

fields. Has virtually no effect on measurements. Works with all SWR Analyzers.

MFJ-92AA10, \$24.95. Ten rechargeable 1.5 mAh Ni-MH MFJ SuperCell™ AA batteries.

MFJ-99, \$54.85. MFJ-259B Accessory Pack. Carrying pouch, Dip coil Adapters and power supply. Save \$5.

New! MFJ-99B, \$77.85. Deluxe Accessory Pack has 10 Ni-MH batteries, power supply, pouch and dip coils. Save \$

IFJ 1 MHz to 3 GHz Frequency Counter

ncredible package includes rechargeable Ni-Cd batteries, AC Adaptor and telescopic antenna MFJ-886 MFJ-886 Frequency display. Rechargeable Ni-Cd batteries



\$119⁹⁵ Counter covers 1 MHz Ship Code A to 3 GHz. It features 300 MHz direct count with 0.1 Hz-per-second resolution.

10-digit high-contrast LCD display is easy-to-read. Huge ³/₄ inch digits are highly visible. Hold switch locks

Synchronous detector gives ultrasensitive RF Signal Strength LCD

Four selectable gate times gives .1 Hz to 10 Hz resolution in 300 MHz range and 10 Hz to 1000 Hz resolution in 3 GHz range.

(incl.) give up to 6 hours of use. Low battery indicator.

Rugged aluminum cabinet has black anodized finish. Compact 2³/₄Wx3¹/₄H x1¹/₄D inches fits in shirt pocket. Protected by MFJ's famous No Matter WhatTM limited warranty.

MFJ 270-480 MHz SWR AnalyzerTM



Ship Code A

\$179⁹⁵ antenna from 270 to 480 MHz.

Just plug in your antenna coax, set the fre-

quency and read SWR! Easy-to-read LCD displays frequency and SWR and has a logarithmic SWR bargraph for precision tuning. Two line highcontrast LCD has 32 huge 1/4

inch characters. The MFJ-229 covers 270 to 480 MHz. You can select any desired frequency range for

Examples: Tune from 280

Read SWR of any to 295 MHz, 320 to 350 MHz or amplifiers without applying 400 to 450 MHz, etc.

> Tuning knob has a built-in 10:1 vernier reduction drive for extra smooth precision tuning.

You can use the MFJ-229 to adjust dipoles, verticals, yagis, quads and other antennas and determine their SWR, resonant frequency, and bandwidth.

You can test and tune stubs and coax lines. You can determine velocity factor, impedances and estimate losses of transmission lines.

You can adjust and test RF matching networks and RF

power.

Use as signal source for testing and alignment.

Built-in "N" connector includes *free* N-to-SO-239 UHF adaptor. Has Battery Check and Power Saving feature. For 50 Ohm systems. Use 10 AA batteries or 110VAC w/ MFJ-1312D, \$14.95. 33/4Wx61/2Hx13/4D"

MFJ-219B, \$99.95.

Similar to MFJ-229, less LCD display. Has meter for SWR and jack for external frequency counter. 21/2Wx71/2 Hx 2¹/₄D inches.

Custom SWR Analyzers 24 to 350 MHz



\$249⁹⁵ Ship Code A MFJ-220A, 24-49 MHz; MFJ-220B, 34-69 MHz: MFJ-220C.

45-91 MHz; MFJ-220D, 67-135 MHz; MFJ-220E, 90-176 MHz; MFJ-220F, 190-350 MHz; MFJ-220G, 140-260 MHz.

Specify frequency range.

Allow 4 weeks for these models.

Measure signal strength + more with MFJ 2 Meter FM SignalAnalyzer™



MFJ-224 Measure \$159⁹⁵ signal Ship Code A strength over 60 dB range, check and set FM deviation, measure antenna gain. beamwidth, front-toback ratio, sidelobes, measure feedline loss in dB, analyze audio quality with a scope

and much, much more!

MFJ's revolutionary handheld 2 Meter FM SignalAnalyzer™ lets you measure signal strength with over 60 dB dynamic range and measure actual feedline loss in dB

Plug in any scope and your MFJ-224 becomes a service monitor! Lets you visually analyze modulation wave forms, audio distortion, noise and instantaneous peak deviation.

Tune in any signal between 143.5 - 148.5 MHz. Built-in discriminator-meter function makes accurate tuning simple and easy

You can plug in headphones to help you tune in and identify signals easily. There's

also a battery check function.

Here are some countless jobs that your MFJ FM $SignalAnalyzer^{TM}$ can perform . . .

Plot field strength patterns, Position antennas, Measure preamp gain, Detect feedline faults, **Track** down hidden transmitters, **Tune** transmitters and filters, Check and set deviation anywhere in the band plus much more!

Analyze audio quality with an oscilloscope, Solve FM radio problems fast, Scan the band, Tune in and identify signals, Tune transmitters and filters.

Uses 9 Volt battery (not included). Measures 4Wx2¹/₂Dx6³/₄H inches.

MFJ RF Current Meter accurately measures true RF current



MFJ-854 MFJ-854 RF Current \$995 Meter reads Ship Code A true RF current! Accurately

measures actual RF currents flowing in antenna elements, radials, ground wires and on the outside of coax feedlines. Study and optimize your antennas for peak performance.

It's also great for tracking down RFI-causing currents on household wiring.

MFJ-854's sense coil simply snaps over wires and cables for fast measurements on its easy-to-read meter.

Select from five ranges to measure actual RF current from 30 mÅ to 3 Amps full scale.

A sixth range has a variable sensitivity control for quick, fast checks. At maximum sensitivity, RF currents of 1 mA or less will yield a usable meter deflection. This function is especially useful for tracking RFI pickup on household wiring and cables.

It is sensitive enough to use an MFJ SWR Analyzer as the source to drive your antennas. Here are some important features:

Accurate: Linearity compensation circuitry

assures accuracy especially at low RF currents. Wide Range: Measures RF current from as little as 1 mA to 3 Amps in six ranges.

Full HF Coverage: Accurate from 1 MHz to 30 MHz and useable beyond.

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

Handles most cables: Accepts cables up to approximately 1/2 inch in diameter.

Battery Saver: Press-to-test power circuit turns unit off automatically after 15 seconds.

Long Battery Life: Meter draws 3-mA, battery's service life approaches shelf-life.

Rugged: All-aluminum 2¹/₂Wx5¹/₂Hx1¹/₂D in. case and G-10 PC board, (incl. sense coil).

HF 10-160M SWR Analyzer™

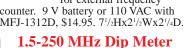
MFJ-207

Plug in coax, find SWR of any HF antenna on any Ship Code A band 10-160 Meters. Jack for external frequency

SWR AnalyzerTM MFJ VHF VHF SWR Analyzer™ MFI-208

finds the SWR of any anten-\$**79**⁹⁵ Ship Code A na from 138-156 MHz. Jack for external frequency

counter. 9 V battery or 110 VAC with MFJ-1312D, \$14.95. 7¹/₂Hx2¹/₂Wx2¹/₄D.



Solid state grid dip \$119⁹⁵ meter covers 1.5-250 MHz Ship Code A in 6 bands. Thumb wheel tuning, color code readout,

6 coils, earphone jack and battery check. Use 9V battery. 2Wx2¹/₂Dx7H.

MFJ RX Noise Bridge Adjust almost any antenna for maximum performance, 1 to

100 MHz. Hand-calibrated MFJ-202B resistance scale, expanded capacitance range and exclusive built-in Ship Code A range extender. 41/4Wx2Hx4D in.



MFJ Antenna Bridge

MFJ-204B \$**79**⁹⁵ Ship Code A

Measure resonant frequency, resistance to 500 Ohms. Resistance bridge, null meter, tunable oscilla-

tor-driver (1.8-30 MHz). 9V or 110 Vac MFJ-1312, $$14.95.7^{1/2}Hx2^{1/2}Wx2^{1/4}D$ ".

6 Meter SWR Analyzer™

MFJ-217

Same as MFJ-208 but covers 30-56 MHz for 6 Meters Ship Code A Ship Code A Jack for external frequency counter. 9 V battery or 110 VAC - MFJ-1312D, \$14.95. 7¹/₂Hx2¹/₂Wx2¹/₄D inches.

Professional Function Generators



MFJ-5000 This unique unit is the \$79⁹⁵ only compact, battery-Ship Code A operated function generator designed for travel or bench use. Based on an XR-2206 integrated circuit, it provides square, triangular, and sine waves continuously from 1

Hz to well over 150 KHz in 3 ranges. ³/₄Hx¹/₄W x1D in. Frequency range switch, external power jack, (3) 5-way binding posts. Use 9V battery.

\$129⁹⁵ Ship Code A



Gives precision sine, square and triangular wave forms from 1 Hz to 1 MHz in 6 decade ranges. Amplitude adjustable 0-12 volts peak-to-peak. DC offset is adjustable from -6 to +6 VDC. Output is short circuit protected with output impedance of 400 Ohms. Sturdy black all metal cabinet. 110 VAC.

Compact Mobile HF Antenna Tuner

Covers 1.8 to 60 MHz

New! Now covers 6-Meter band and has Antenna Bypass Switch!

Don't go mobile without it!

Don't leave home without this mobile tuner! Have an uninterrupted trip as MFJ-945E extends antenna bandwidth and eliminates needs to stop, go outside and readjust your mobile whip. Handles 300 Watts. Super Compact Size

Small 8Wx2Hx6D inch black aluminum cabinet uses little room. Cross-Needle meter shows SWR, forward and reflected power -- at a glance. It reads forward/reflected power in 300/60 and 30/6



Call your dealer for your best price! lower losses and more Watts out. 1000 MFJ-945E

Watt ranges. ON/ OFF lamp switch. Meter lamp uses MFJ-1312D, \$14.95. Fast, easy tuning

Ship Code A

Convenient placement of controls makes tuning fast and easy while in

motion. Antenna switch lets you bypass tuner andstill use the SWR/Wattmeter.

Back panel has SO-239 connectors for transmitter and coax and a wing nut post for your ground.

1000 Volt Capacitors

Efficient airwound inductor gives you Volt capacitors. Covers 1.8 to 60 MHz. Use it at home in your base station when you're not in your RV, boat or car.

Mobile Mounting Bracket

Mobile mount, MFJ-20, \$4.95. Add \$2.00 shipping for bracket if ordered separately. 1 Year *No Matter What*™ warranty.

ross-Needle Super Value Tuner



Ship Code B

MFJ-941E gives you a 300 Watt antenna tuner that covers everything from 1.8-30 MHz -- plus you get a lighted Cross-Needle meter with on/off switch (light uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95), antenna switch and 4:1 balun . . .

MFJ's lighted Cross-Needle meter shows SWR, forward and reflected power all at a glance in 300/60 and 30/6 Watt ranges.

8 position antenna switch lets you select 2 coax lines, random wire/balanced line or dummy load (direct or through).

Efficient 12 position airwound inductor gives lower losses and more power out. Has 4:1 balun, 1000 Volt capacitors.

Beautiful aluminum cabinet has a durable scratch-proof multicolor Lexan front panel matches your rig perfectly and fits right into your station. Measures compact $10^5/8Wx2^7/8Hx7D$ inches.

Portable Antenna Tuner

Tiny MFJ-971 $6x6x2^{1/2}$ inches matches Ship Code A the pop-



ular MFJ SSB, CW QRP Transceivers. Tunes coax, balanced lines, random wire 1.8-30 MHz. Cross-Needle SWR/Wattmeter has 2 power ranges: 30, 300 or selectable 6 Watt. Perfect in-shack or mobile!

MFJ's smallest Versa Tuner MFJ-901B

\$**79**⁹⁵

MFJ's smallest $(5x2^{1}/2x6)$ and most affordable Ship Code A 200 Watt PEP

Versa Tuner. Match dipoles, vees, random

wires, verticals, mobile whips, beams, balanced and coax lines continuously from 1.8-30 MHz. A 4:1 balun for balanced lines is built into this MFJ-901B tuner.

Random Wire Tuner

Operate all MFJ-16010 bands 1.8-30 MHz -- anywhere with any

\$**49**⁹⁵ Ship Code A



transceiver -- using random wire and MFJ's Antenna Tuner. Small enough to carry your hip pocket (2x3x2 inches). Handles 200 Watts output. Match high and low impedances by interchanging input and output. SO-239 connectors.

Antenna Tuner/Artificial Ground

Turns random wire into an effective antenna!



MFJ-934

MFJ-934 combines a versatile antenna tuner with an artificial ground. It turns a random wire into an effective antenna that works. It's great for traveling, emergency or as a makeshift

You get all the best features of the MFJ-941E Cross-Needle Antenna Tuner and the MFJ-931 Artificial Ground in a single compact 10⁵/₈Wx3¹/₂Hx8D inch cabinet -- and the MFJ-934 cost less.

You get a 300 Watt full featured, general purpose antenna tuner that covers 1.8-30 MHz. It has a two range, lighted Cross-Needle Meter that lets you read SWR, forward and reflected power all in a glance and a 4:1 balun for balanced lines. Plus, you get an efficient airwound inductor, special high current/voltage 12 position inductor switch and two 1000 volt air-variable capacitors. it tunes all types of antennas and feedlines including random wire, coax

The MFJ-934 is unique because it has a built-in artificial ground. A ground matching knob lets you switch in inductance to bring an attached wire to a low impedance current point to form an artificial ground. A push button lets you use the Cross-Needle Meter to monitor for maximum ground current.

With an artificial ground to work against, you'll be surprised to see how well a random wire can work. Don't be surprised if you can work the world without hours of calling CQ. When you don't need the artificial ground feature, you can use the MFJ-934 as a full featured tuner.

MFJ-931 Artificial RF Ground

The MFJ-931 effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible! It electrically places far away RF ground at your rig.

How's your RF ground? Do you have RF "hot spots" that "bite" you when you transmit? Do you have RF feedback that causes your rig to quit working on some bands? Do you have TVI/RFI that makes your neighbors hard to



live with? Do you get weak signal reports because of extreme ground losses or radiation pattern distortion? These problems could be caused by poor RF grounding, especially if your rig is on a second floor with no ground at all. Even if you have a good ground, a long connection wire can ruin its effectiveness by isolating a true RF ground from your rig. 7¹/₂Wx3¹/₂Hx7D inches. **MFJ-931** creates an artificial RF ground! It resonates a ran-

dom length or wire thrown along the floor and produces a tuned counterpoise. This ground effectively places your rig near actual earth ground potential even if your rig is on the second floor or higher with no earth ground possible. Covers 1.8 to 30 MHz.

Quality pre-made RG-8X coax patch cables



Molded, weather resistant PL-259 connectors let you conveniently hook up your transceiver and accessories. Heavy rubber boots protect bend points. MFJ-5850, \$17.95. 50 foot coax cable with quality PL-259 connector on one end w/ open end on other.

MFJ-5818, \$12.95. 18 foot coax cable with PL-259 on each end. MFJ-5806, \$9.95. 6 foot coax cable with PL-259 on each end. MFJ-5803, \$5.95. 3 foot coax cable with PL-259 on each end.

MFJ 300 Watt Roller Inductor Tuner

World's only 300 Watt AirCoreTM Roller Inductor Antenna Tuner gives you absolute minimum SWR... Covers 6 Meters thru 160 Meters... true peak reading lighted Cross-Needle meter... tunes any antenna... 8 position antenna switch... dummy load... balun... No Matter WhatTM warranty

Covers 6 Meters thru 160 Meters!

MFJ-969

Call your dealer for your best price!

MFJ-969 gives you MFJ's superb AirCore™ Koller Inductor and full 6 Meters through 160 Meters coverage!

You get everything you've ever wanted including . . . 300 Watts PEP SSB full featured antenna tuner, widest matching range, full-size lighted Cross-Needle SWR/Wattmeter reads true peak forward power, QRM-Free PreTune™, 8 position antenna switch, built-in 50 Ohm dummy load, heavy duty 4:1 balun -- all in a tough, attractive cabinet. MFJ's famous 1 year No Matter WhatTM warranty.

AirCoreTM Roller Inductor



MFJ-969's AirCore™ Roller Inductor, gear-driven turns counter and spinner knob gives you exact inductance control for absolute minimum SWR.



MFJ's exclusive *AirCore*™ Roller Inductor has an air core that can't burn up! You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive Self-Resonance Killer™ keeps potentially damaging selfresonances away from your frequency.

Huge self-cleaning wiping contact gives you excellent low-resistance connection without contact arcing or burning.

Solid 1/4 inch brass shaft, self-align bearings -- smooth non-binding operation. Covers 6 through 160 Meters

The MFJ-969 covers all frequencies from 160 Meters thru 6 Meters, including the "magic band" -- the widest matching range of any full featured antenna tuner.

Match any antenna

Match dipoles, verticals, inverted vees, random wires, beams, mobile whips, SWL receiving antennas -- nearly any antenna.

You can use coax cable, random wire or balanced lines. Has heavy duty 4:1 balun.

New true Peak Reading Cross-Needle Meter

MFJ's new ActivePeak ReadingCircuit™ accurately reads true peak forward power -- an MFJ exclusive.

MFJ's lighted Cross-Needle SWR/Wattmeter reads SWR, true peak forward and average reflected power simultaneously on 300 Watt or 30 Watt ranges.

Lamp has on/off switch and uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95. ActivePeakReading Circuit[™] can also use a 9 volt battery.

8 Position Antenna Switch

MFJ's 8 positions let you select two coax fed antennas, random wire/balanced line or built-in dummy load for use through your MFJ-969 or direct to your rig.

ORM-Free PreTune^T

MFJ's *ORM-Free PreTune*™ lets you pre-tune MFJ-969 off-the-air into a built-in dummy load without causing QRM.

Pre-tuning into a dummy load makes tuning your actual antenna quick and easy!

Full Size Dummy Load

The MFJ-969 has a full size non-inductive 50 Ohm dummy load. You'll find it handy for tuning, testing, repairing rigs, setting power level, adjusting mic gain, etc.

Superior Cabinet

New tough aluminum case has a scratch-proof multi-colored Lexan front panel. Compact 3¹/₂Hx10¹/₂Dx9¹/₂W inches.

MFJ-949E Deluxe

MFJ-949E \$149⁹⁵ Ship Code B

More hams use MFJ-949s than any other antenna tuner in the world!

Why? Because the world's leading tuner has earned a worldwide reputation for being able to match just about anything.

Full 1.8-30 MHz Operation

Custom designed inductor switch, 1000 volt tuning capacitors, Teflon^R insulating washers and proper L/C ratio gives you arc-free no worries operation with up to 300 Watts 1.8 to 30 MHz.

Tunes any Antenna

Tunes out SWR on dipoles, verticals, inverted vees, random wires, beams, mobile whips, shortwave receiving antennas . . . nearly anything! Use coax, random wire or balanced lines. Has heavy duty 4:1 balun.

Custom Inductor Switch

The inductor switch is the most likely component to burn up in any antenna tuner.

MFJ's inductor switch in the MFJ-949E was custom designed to withstand the extremely high RF voltages and currents that are developed in your tuner.



8 position Super Antenna Switch

Lets you select two coax fed antennas, random wire/balanced line or built-in dummy load through your MFJ-949E or direct to your transceiver.

Full Size Lighted Cross-Needle Meter

Has MFJ's full size 3 inch lighted Cross-Needle Meter (not a puny "meter" you can't read). Lets you easily read SWR,

true peak forward and average reflected power simultaneously on 300 Watt or 30 Watt ranges. Lamp has on/off switch, requires 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

RM-Free PreTuneTM

MFJ's *QRM-Free PreTune*™ lets you pre-tune your MFJ-949E off-theair into its built-in dummy load! Makes tuning your actual antenna faster and easier.

Plus Much More!

Full size built-in non-inductive 50 Ohm dummy load, scratch-proof Lexan multicolored front panel, superior cabinet and construction and more! 105/8x31/2x7 inches.

MFJ-948 -- an *econo MFJ-949E* for only \$129.95!



Has nearly all the features \$129⁹⁵ (except dummy load) of the Ship Code B MFJ-949E -- the world's leading 300 Watt antenna tuner -- for an incredibly low \$129.95! Features include custom deisgned inductor switch, 1000 volt tuning capacitors, full size 3 inch lighted Cross-Needle meter, 8 position super antenna switch, heavy duty 4:1 balun, full 1.8 to 30 MHz operation, MFJ's famous No Matter What[™] one year limited warranty. Black. $10^{1/2}x3^{1/2}x7$ inches.

MFJ *GrandMaster™* SWR/Power Meter Series

The Cadillac of ham radio! If you simply will not settle for less than the best accuracy and precision these MFJ GrandMastersTM are for you.



MFJ GrandMaster™ SWR/Power Meters are the Cadillacs of ham radio! If you simply will not settle for less than the best accuracy and precision these MFJ *GrandMasters*™ are for you.

You get a large $3^{1/4}$ x $1^{1/4}$ inch precision illuminated meter for easy wide-angle viewing. A highly visible black and red meter scale on a bright white background makes it quick and easy to read SWR, forward or reflected power. Meter lamp requires 13.8 VDC or 110 VAC

A functional and simple front panel layout lets you select power ranges, bands or make SWR readings intuitively.

The GrandMaster™ series feature an SWR scale that expands the full view of the meter. 3:1 SWR is centered at mid-scale to give you precision and wide-range measurements.

All GrandMasters™ feature peak and average, forward and reflected power readings and have selectable power ranges.

Each $GrandMaster^{TM}$ is housed in an all metal cabinet with rubber feet and protected by durable speckled black paint. A designer injection molded grey front panel perfectly matches any transceiver. 7¹/₂Wx3¹/₈Hx4¹/₄D inches.

Air dielectric SO-239 connectors with gold plated center pins gives superb performance to beyond 525 MHz.

All GrandMaster™ Meters are precisely factory calibrated for accurate measurments.

Choose from four MFJ GrandMastersTM MFJ-870, \$134.95. HF SWR/Power Meter. Covers 1.6 to 60 MHz. 30, 300, 3000 Watt power ranges.

MFJ-872, \$94.95. HF/VHF SWR/Power Meter. Covers 1.8 to 200 MHz. 5, 20, 200 Watt power ranges.

MFJ-873, \$114.95. VHF/UHF SWR/Power Meter. Covers 125 to 525 MHz. 5, 20, 200 Watt power ranges

MFJ-874, \$169.95. HF/VHF/UHF SWR/Power Meter. Covers 1.8-525 MHz. 5, 20, 200 Watt power ranges.

MFJ gives you its famous No Matter What™ one year limited warranty. MFJ will repair or replace (at our option) your *GrandMaster*TM Meter no matter what for one full year.

Compact SV /R/Wattmeters



\$**44**⁹⁵ Ship Code A

> MFJ-862 \$**54**⁹⁵ Ship Code A

MFJ-864 \$**84**⁹⁵ Ship Code A

This new MFJ Cross-Needle SWR/Wattmeter Covers HF thru VHF --1.8-60 MHz, 144 MHz, and 440 MHz bands -for an incredibly low \$84.95!

MFJ-864's Cross-Needle Meter reads forward and reflected power and SWR simultaneously at a single glance. It features separate HF and VHF/UHF directional couplers, each with its own SO-239 connectors.

This lets you connect your HF and VHF/ UHF transceivers at the same time. You can then monitor SWR and power of either transceiver at the flick of a switch. Others have a single set of connectors -- you have to plug and unplug to use separate HF or VHF rigs.

Power ranges: 30/300 Watts forward and 6/60 Watts reflected. Each power range for each band is individually calibrated. Schottky diodes are used for best accuracy.

Single knob operation makes it easy to use and the meter is lighted for easy reading.

Meter uses 12 VDC or 110 VAC with optional adapter, MFJ-1312D, \$14.95.

The attractive all metal black cabinet has a tough vinyl cladding that won't scratch off. You won't find a tougher, longer lasting finish anywhere. MFJ-864 measures a compact 71/4 $Wx2^{1/2}Hx2^{1/4}$ D inches.

MFJ-862 covers 144/220/440 MHz.

Similar to MFJ-864 but covers 144/220/440 MHz. 30/300 Watts forward, 6/60 Watts reflected ranges. 5³/₄x2¹/₂x2¹/₄ inches. Has one sensor for all three bands.

MFJ-860 covers 1.8 to 60 MHz. Similar to MFJ-864 but for 1.8-60 MHz only. Push button selects 30/300 Watts forward, 6/60 Watts reflected. Compact 41/2x21/4x3 inches.

MFJ large 3 inch HF or VHF Meter



MFJ-815B **MFJ-815B** covers 1.8-60 MHz. Extra-Large 3 inch Cross-Ship Code A Needle Meter reads SWR and peak/average for forward and

reflected power. Power ranges: 200/2000 Watts forward and 50/500 Watts reflected.

Reads SWR from 1:1 to 8:1. SO-239 connectors. Meter lamp uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95. Measures $7^{1/4}x4^{1/2}x3^{1/2}$ inches. Black aluminum cabinet.

MFJ-817, \$89.95. Similar to MFJ-815B but for VHF/UHF. Reads SWR and peak/average for forward and reflected power in 2 power ranges: 200/20 and 50/5 Watts.

Most Popular VHF or HF Meters



\$3495

This is the world's most popular and most affordable VHF Ship Code A SWR/Wattmeter.

It has a built-in Field Strength Meter. Covers 144 and 220 MHz.

Read forward and reflected power in 2 ranges -- 30 or 300 Watts. Reads SWR from 14 thru 220 MHz.

MFJ-812B also reads relative field strength from 1 to 220 MHz. Has binding post for field strength antenna. 2 color meter. Measures a super compact 41/2x21/4x3 inches. Eggshell white.



MFJ-816, \$34.95. Similar to MFJ-812B but for HF. Two scales--30/300 Watts. SWR from 1.8-30 MHz. Toroid current pickup gives uniform sensitivity. 2-color

MFJ Field Strength Meters

These new easyto-use MFJ antenna meters show the strength of the actual field being radiated from your antenna.

You can use it to determine the basic radiation pattern of vour antenna and see which direction your



signal is strongest. You can make changes to your antenna and instantly know if it radiates better or worse. You can compare one antenna to another. Find out which HT antenna radiates the strongest signal?

Measure your HF antenna now and compare it later to make sure its performance is still up to par. Adjust a ground lead, artificial ground, counterpoise or tune your transmitter or antenna tuner for maximum field strength. You can check for RF floating around the shack that may be caused by faulty antennas or poorly shielded equipment. Demonstrate the concept of gain or antenna polarization. Find hidden transmitter bugs at office or house. Usable from 100 KHz to 500 MHz.

MFJ-802, \$39.95. Telescoping dipole antenna (40 in. extended) reduces influence of surrounding objects. More reliable and repeatable readings than MFJ-801. Huge 3" meter spans width of case. Sensitivity control. Jack for MFJ-802R remote RF sensing head. 25/8Wx4Hx11/2D in.

MFJ-802R, \$24.95. Place this RF sensing head where you want it and read your field strength remotely where you can control your transmitter or rotate your beam. Requires shielded two conductor cable (not incl). 2³/₈Wx3⁵/₈Hx1D in. **MFJ-802X, \$59.90**, MFJ-802/802R combo.

MFJ-801, \$19.95. Great general purpose field strength meter. Easy-toread 1³/₄ inch meter. Sensitivity control. 20 inch (extended) monopole. Finger contact on side increases sensitivity when needed. 2³/₈x3⁵/₈ x1 in.

MFJ KW Differential-TTM Antenna Tuner

... Gives you absolute minimum SWR... Simple 2-knob tuning... Lighted Cross-Needle SWR/Wattmeter... New AirCoreTM Roller Inductor... 6-position antenna switch... Balun for balanced lines... 1.8-30 MHz coverage...

329⁹⁵

Ship Code F

MFJ's innovative Differential-T™ Tuner uses a differential capacitor that makes tuning easier than ever. Gives minimum SWR at only one setting. Broadband coverage ends constant re-tuning.

The MFJ-986 is a rugged roller inductor antenna tuner that handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Tunes 1.8-30 MHz *continuously*, including MARS and all the WARC bands.

MFJ's exclusive *AirCore*™ Roller Inductor gives *absolute minimum* SWR -something tapped inductors just can't do.

3-digit turns counter plus a spinner knob gives precise inductance control so you can quickly retune your frequency.

A *lighted* peak and average reading Cross-Needle meter shows SWR, forward and reflected power at a single glance!

You get a 6-position antenna switch that lets you select two coax lines and/or random wires (direct or through tuner), balanced line and external dummy load.

The MFJ TrueCurrentBalun™ for bal-

The MFJ TrueCurrentBalun™ for balanced lines minimizes feedline radiation that causes field pattern distortion, TVI and RF in your shack. *Ceramic* feedthru insulators for balanced lines withstand high voltages and temperatures.

Differential-T TunerTM.... A new Twist on a Proven Technology

Replacing two variable capacitors with a single differential capacitor gives a wide range T-network tuner with only two controls -- a tuning capacitor and a roller inductor. Simple 2-knob tuning makes tuning

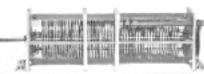


• Easy 2-knob tuning

- •Covers 1.8-30 MHz
- Peak and average Cross-Needle Meter
- Differential capacitor
- Roller inductor with 3-digit turns counter
- TrueCurrentBalun™
- A de Carrent Batt

Antenna Switch

MFJ AirCore™ Roller Inductor



MFJ's exclusive *super heavy duty AirCoro*™ Roller Inductor has an air core that can't burn up! You get ultra high-Q, the lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-Resonance Killer*[™] keeps potentially damaging self-resonances away from your operating frequency.

Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning.

A solid 1/4 inch brass shaft with self-align bearings gives smooth non-binding rotation.

easier than ever. You get minimum SWR at only *one* setting and a broadband response that ends constant re-tuning. You'll spend your time QSOing instead of fooling with your tuner.

The compact 10³/₄x4¹/₂x15 inch cabinet has plenty of room to mount the roller inductor away from metal surfaces for highest Q -- you get high efficiency and

more power into your antenna.

Wide-spaced tuning capacitor plates let you run high power without arcing.

Lighted Cross-Needle Meter

MFJ's lighted Cross-Needle Meter shows you SWR, forward and reflected power *simultaneously*. It reads *peak* or average power on 2000 or 200 Watt ranges.

Lamp has on/off switch and uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

MFJ TrueCurrentBalunTM reduces feedline radiation

Most tuners use a *voltage* balun that forces equal voltages on the two antenna halves. It minimizes unbalanced currents only if the antenna is perfectly balanced -not the case with practical antennas.

The MFJ-986 uses a *true* current balun to force equal *currents* in the two antenna halves -- even if the antenna is not perfectly balanced!

The MFJ TrueCurrentBalun™ gives superior balance over voltage baluns and minimizes unbalanced current. This reduces field pattern distortion, concentrates your power for a stronger signal --plus it reduces TVI and RF in your shack caused by feedline radiation.

No Matter What™ Warranty
Protected by one year limited warranty.
Call your dealer for your best price!
In stock at ham dealers everywhere.

MFJ-962D compact Tuner for linear amplifiers

NEW MFJ AirCore™ Roller Inductor, Compact Size, Lexan scratch-proof front panel
... handles AMERITRON's AL-811H!



Ship Code E

Why settle for a mere 300 Watt antenna tuner when a few extra dollars let you add real power

when you're ready? The MFJ-962D lets you use your barefoot rig now.

When you're ready . . . you can add a powerhouse linear amplifier at no additional cost.

The compact MFJ-962D handles

1500 Watts PEP SSB amplifier input power (800 Watts PEP SSB amplifier output power). It's perfect for *AMERITRON's* best selling 800 Watt AL-811H or 600 Watt AL-811 amplifiers.

MFJ-962D is new and improved! New features include MFJ's $AirCore^{TM}$ Roller Inductor, new aluminum-skirted knob set including a weighted deluxe spinner knob, ultra compact size $(10^{3}/4 \text{ x4 x})$

10⁷/₈ inches) and scratch-proof multi-colored Lexan front panel.

Two transmitting tuning capacitors and MFJ's exclusive $AirCore^{TM}$ roller inductor gives you precise control to get your SWR down to an absolute minimum.

You get an extremely wide matching range from 1.8 to 30 MHz *continuously*, including MARS and WARC bands.

MFJ's $AirCore^{TM}$ roller inductor has an air core that can't burn up. You get ultra high-Q, low loss and MFJ's exclusive Self- $Resonance\ Killer^{TM}$ that eliminates damaging self-resonances.

MFJ's *lighted* peak and average reading Cross-Needle SWR/Wattmeter makes tuning quick and easy. At one glance you can read SWR, forward and reflected power in two power ranges. Meter light uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

A 6-position *ceramic* antenna switch lets you select 2 coax lines (direct or through tuner), random wire and balanced lines.

You get a heavy duty MFJ *TrueCurrentBalun*[™] for balanced lines. High-voltage *ceramic* feedthru insulators let you operate high power into balanced feedlines.

MFJ-989C Legal Limit Antenna Tuner

More hams use MFJ-989s than any other legal limit antenna tuner in the world! Why? Because MFJ uses super heavy duty components to make the world's finest legal limit antenna tuner . . .

In Stock at ham dealers everywhere! Call your dealer for your best price

MFJ-989C

- MFJ AirCore™ Roller Inductor
- Super Heavy Duty Components
- Cross-Needle SWR/Wattmeter
- Antenna Selector
- TrueCurrent™ Balun
- · Built-in Dummy Load
- Made in U.S.A.

MFJ uses super heavy duty components -- roller inductor, variable capacitors, antenna switch and balun -- to build the world's most popular high power antenna tuner.

The rugged world famous MFJ-989C handles 3 KW PEP SSB amplifier input power (1500 Watts PEP SSB output power). Covers 1.8 to 30 MHz, including MARS and WARC bands.

MFJ's AirCore™ Roller Inductor, new gear-driven turns counter and weighted spinner knob gives you exact inductance control for absolute minimum SWR.

You can match dipoles, verticals, inverted vees, random wires, beams, mobile whips, shortwave -- nearly any antenna. Use coax or balanced lines.

You get everything you've ever wanted in a high power, full featured antenna tuner -- widest matching range, lighted Cross-Needle SWR/Wattmeter, antenna switch, built-in dummy load, balun -- all in a sleek, compact cabinet.

MFJ builds the world's most popular high power antenna tuner using these super heavy duty components . . .

MFJ AirCore™ Roller Inductor



MFJ's exclusive heavy duty AirCore™ Roller Inductor has an air core that can't burn up! Get ultra high-Q, lowest loss, highest efficiency and highest power handling of any roller inductor in ham radio.

MFJ's exclusive *Self-Resonance* Killer™ keeps damaging self-resonances away from your operating frequency.



Large, self-cleaning wiping contact gives excellent low-resistance connection without contact arcing or burning

Solid 1/4 inch brass shaft, self-align bearings give smooth non-binding rotation.

Competing tuners use a lossy, low Q, solid plastic core with erratic electrical contacts and have potentially damaging selfresonant frequencies. This can cause excessive heating and melt the core!

New Gear Driven Counter

A new precision gear driven 3-digit turns counter lets you accurately reset your roller inductor for quick band changing.

Weighted spinner knob on roller inductor gives you smoother flywheel tuning.

Massive Transmitting Capacitors

Look inside . . . you'll see two *super*heavy duty transmitting variable capacitors that can handle 6000 volts. Extra wide (0.27 inch) stator plate spacing gives you arc-free operation.

Specially shaped plates give low minimum capacitance when unmeshed. This and a hefty 250 pf maximum give you an extremely wide matching range -- even on 160 and 10 Meters.

The nearest competing "legal limit" tuner has variable capacitors physically smaller than MFJ-989C's. Theirs is rated at 4500 volts -- a full 25% less than the MFJ-989C. Theirs is more likely to arc -not what you want in a "legal limit" tuner!

Super Antenna Switch

MFJ-989C's super heavy duty antenna switch is made of two individual ceramic wafers wired in parallel. Extra wide spaced, heavy duty contacts handle extreme voltages and currents. We've never burned one up!

You can select two coax antennas (directly or through tuner), balanced line/ random wire, or built-in dummy load.

AFJ TrueCurrent™ Balun

MFJ's super heavy duty TrueCurrent™ balun for balanced lines uses two giant 2¹/₂ inch toroid cores. It's wound with Teflon^R wire connected to high-voltage glazed ceramic feedthrough insulators.

The MFJ-989C lets you safely operate

high power into balanced feedlines without

http://www.mfjenterprises.com

core saturation or voltage breakdown.

Some "legal limit" tuners have inferior voltage baluns with smaller diameter toroid cores and use soft plastic feedthrough insulators that can are and melt.

More reasons why the MFJ-989C is the world's finest high power antenna tuner:

Built-in Dummy Load

A full-size 300 Watt non-inductive 50 Ohm dummy load is built into MFJ-989C.

You'll find it handy for transmitter tuning, testing and repairing rigs, setting

power level, adjusting mic gain and more. **Some** "legal limit" tuners *don't* have a built-in dummy load. They want you to pay for external loads that get in your way.

Lighted Cross-Needle Meter

Lighted *Cross-Needle* SWR/Wattmeter lets you monitor SWR, forward and reflected power simultaneously. Read both peak and average power in two power ranges. Meter lamp requires 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

Sleek and Compact

The compact MFJ-989C slides right into your operating position -- you'll hardly know it's there. It's just 10³/₄Wx4¹/₃Hx15D inches. Do you want a bulky "legal limit" tuner that's bigger than your amplifier?

New Lexan Front Panel

The MFJ-989C has a new nearly indestructable multi-color Lexan front panel. Its detailed logging scales and legends will be legible for a lifetime of DXing.

Super Construction

MFJ-989C uses PEM nuts (not selftapping screws), wing-nut ground post (not a cheap nut), fire-retardant epoxy glass PC board (not canvas based), heavy gauge wire thru-out (not small gauge), locking compound on nuts/bolts (not loose hardware).

No Matter WhatTM Warranty Every MFJ-989C is protected by MFJ's famous one year No Matter What™ limited warranty. We will repair or replace your MFJ-989C (at our option) for a full year.

Outstanding Customer Service

We're here to help keep your MFJ-989C performing flawlessly -- no matter how long you own it -- call 662-323-0549.

MFJ UHF/VHF/HF Dummy Loads

MFJ VersaLoad™ kW Dummy Load



MFJ-250X **MFJ-250X** \$39⁹⁵ VersaLoad™ KW Ship Code A dummy load lets you tune up fast! Run 1KW CW or 2 KW PEP for 10 minutes. Run 1/2 KW CW or 1 KW PEP for 20 minutes.

Run continuous duty with 200 Watts CW or 400 Watts PEP. Complete with derating curve. Quality 50 Ohm non-inductive resistor. Use transformer oil (not included).

Low VSWR to 400 MHz. Under 1.2:1 to 30 MHz. $1.5{:}1$ for $30{-}300$ MHz. $2{:}1$ for $300{-}400$ MHz. Ideal for testing both HF and VHF rigs. Has SO-239 connector and vented for safety. Removable vent cap. Carrying handle. 7¹/₂ inches high by 6⁵/₈ diameter. **MFJ-250, \$59.95.** Includes transformer

oil (no PCB). Ship Code D.

1.5 kW UHF/VHF/HF Dry Load

This is ham radio's most versatile 50 Ohm dummy load. It does it all -- works with all radios from 160 Meters through 650 MHz and from QRP to the full 1500 Watt legal limit. You get SWR below 1.3 to



MFJ-264 \$69⁹⁵

650 MHz and below 1.1 at 30 Ship Code A MHz. Handles 100 Watts for 10 minutes, 1500 Watts for 10 seconds.

Strong lightweight aluminum construction. 3Wx3Hx9D inches.

Comes with MFJ's famous No Matter What[™] one year limited warranty. Made in U.S.A.

MFJ-264N, \$79.95. Similar to MFJ-264 but with type "N" connector.

Dry 300 Watt VHF/HF Dummy Load

Air cooled, non-inductive resistor in a perforated metal housing has SO-239 connector.

Full load for 30 seconds. Silk-screened derating curve to 5 minutes. Handles 300 Watts. SWR below 1.1:1 to 30 MHz, 1.5:1 from 30 to 650 MHz. Measures a super compact 21/4x21/4x7".

MFJ-260C Ship Code A

MFJ-260CN, \$39.95. Similar to MFJ-260C but with type "N" connector.

Coax Patch Cable

MFJ-5803, \$5.95. 3 foot coaxial line with PL-259 connectors. Shipping code A

Industrial Grade Transformer Oil

MFJ-21, \$24.95. 1 gallon of industrial grade transformer oil, (no PCB). Ship Code C.

MFJ Dry Dummy Load with Precision SWR/Wattmeter

MFJ painstakingly designed the MFJ-267 to make accurate power measurements.

Designed-in-accuracy is the result of a carefully designed directional coupler, an accurate active peak reading circuit and a precision d'Arsonval meter movement.

This a super verstile station accessory with a true-peak reading SWR/Wattmeter and a 50 Ohm dry dummy load in combination. Frequency coverage is 1.8-54 MHz.

Extra-Large 3-inch Cross-Needle Meter reads true-peak or average power. Reads forward and reflected power and SWR on a highly visible dual cross-needle meter movement

at a single glance. Meter circuit/ lamp uses 12 VDC or 120 VAC \$129⁹⁵ with MFJ-1312D, \$14.95. Meter circuit can also operate with a 9 V battery. Power ranges are 300/3000 Watts forward and 60/600 Watts reflected. Reads PEP or average power and SWR from 1:1 to 8:1.

50 Ohm dummy load works with all radios from DC through 60 MHz. Wattmeter can be switched between dummy load or an external antenna. SWR below 1.3:1 at 30 MHz. 100 Watts for 10 min., 1.5 kW for 10 sec. Strong all-black aluminum construction with perforated cabinet. 41/10Wx31/8Hx10D in. RFI tight.



Antenna Tuners

MFJ 6 Meter Antenna Tuners



MFJ-906 \$**79**95 Ship code A

MFJ-906 6 Meter tuner. Low SWR with most any coax fed antenna. You'll get more power out of your transceiver and into your antenna for more DX. Lighted Cross-Needle SWR/Wattmeter shows SWR, forward, reflected power, 300/60 and 30/6 Watt ranges. Order MFJ-1312B, \$14.95 for meter lamp. Built-in bypass switch, handles 100 Watts FM, 200 Watts SSB PEP. Works with solid state and tube rigs, 50-60 MHz. 8Wx21/2Hx3D inches.

MFJ-903, \$49.95. Like MFJ-906. Less meter/bypass switch. 5Wx2¹/₂Hx3D inches. 144/220 MHz or 440 MHz Tuner



MFJ-921 or MFJ-924 \$**69**⁹⁵ Ship code A

MFJ-921 Dual Band VHF tuner covers 2 Meters and 220 MHz. Built-in SWR/Wattmeter measures SWR in 2 power ranges: 300 or 30 Watts. Meter is usable for both 144 MHz and 220 MHz bands. Low SWR with practically any antenna. Handles 200 Watts. Designed to match a wide range of impedances for both mobile/base operation. SO-239 input/output connectors, wing nut post ground. Eggshell white and black aluminum cabinet. 8x2¹/₂x3 inches fits just about anywhere. MFJ-924, \$69.95. covers 440 MHz band only.

Dual Band VHF/UHF Antenna Tuner



MFJ-922 \$**79**⁹⁵ Ship code A

This compact dual band VHF/UHF antenna tuner has a single meter that reads SWR and power. No zero adjustment needed. It covers VHF from 136 to 175 MHz and UHF from 420 to 460 MHz. You can read power up to 150 Watts in 2 ranges: 60 Watts or 150 Watts. It's a great antenna tuner for HTs, mobile rigs or amplifiers up to 150 Watts. Its super-compact size lets you take it anywhere -- measures a tiny $4x2^{1/2}x1^{1/4}$ inches -- you can put it in your shirt pocket! Carry it with you in your car, camping trips, etc. Tuning tool included.

1.5 kW Low Pass TVI Filter reduces harmonics

MFJ-704 suppresses TVI, RFI, telephone and other interference

MFJ-704 Ship Code A

by reducing unwanted harmon-

ics going to your antenna. At the same time your HF signal passes on through with low loss so you can snag rare DX.

If your harmonics are causing TVI problems, an MFJ-704 can keep your neighbors happy while you have fun with ham radio!

Nine Chebyshev poles, MFJ's exclusive TeflonDielectric Technology™ capacitors, Hi-

Q inductors, ground plane shielding and an RF tight cabinet give you excellent TVI and RFI protection.

These exclusive Teflon Dielectric Technology™ capacitors give you extremely low loss and eliminate voltage breakdown and capacitor heating -- even at full legal power with a 2:1 SWR load!

Handles full legal power from 1.8-30 MHz. SWR below 1.3 to 30 MHz into 50 Ohms. Attenuates above 40 MHz. Measures a compact 3x3x9 inches. Handy mounting tabs.

MFJ Compact VHF/UHF SWR/Power Meter



MFJ-844

Perfect for mobile hams! Handles 200 Ship Code A Watts and measures SWR and Power in three power ranges: 15W, 60W, and 200 Watts. Multi-colored

meter makes for easy reading. Meter is extra large and highly visible. Covers 144 and 440 MHz. Insertion loss is 0.3 dB or lower with 50 Ohm impedance. SO-239 connectors. Compact 3.75W x3H x1.25D inches. Made of die-cast metal.

Lightning Protected Heavy Duty Coax Switches



MFJ-1704 selects any of 4 antennas or center ground position. Replaceable light-



ning surge protector helps protect against distant lightning induced surges MFJ-1702C and static.

\$2495 Handles 2.5 kW Ship Code A PEP.

Extremely low

SWR. Isolation better than 50 dB at 30 MHz and better than 50 dB at 500 MHz. Negligible insertion loss. 50 Ohms. Mounting holes.

MFJ-1704N, \$74.95. "N" connectors. MFJ-1702C 2-position coax switch has a center ground position and lightning surge protection! 50 dB at 450 MHz. 50 Ohm. Unused terminal is automatically grounded. Less than 0.2 dB insertion loss and SWR below 1.2:1. Heavy duty cavity type construction. SO-239 connectors. Mounting holes. 3x2x2 inches. MFJ-1702CN, \$34.95. Type N. DC-1.1 GHZ.

MFJ Six Position Antenna/Transceiver Switch



High power Antenna/Trans-ceiver Switch lets you select one of six antennas

and one of six different transceivers in MFJ-1700B any combination. You can plug in an **\$79**95 antenna tuner, meter, etc., so it is always connected to the antenna and Ship Code B

radio selected. 2 kW PEP. 50-75 Ohm loads. Unused terminals are automatically grounded. SO-239 connectors. 1.8 to 30 MHz. 10x3x1¹/₂ inches.

Six Position HF Antenna Switch



MFJ-1700B \$49⁹⁵ Ship Code B

of 6 antennas 1.8-30 MHz. Unused terminals are grounded. SO-239 connectors. 2 kW PEP, 1 kW CW. 50-75 Ohm loads.

Sense Transmit/Receive Switch



MFJ-1708 **Do** you \$6995 enjoy using Ship Code A vintage tube type transmitters and receivers of your youth?

It was a real

chore to switch your antenna from transmit to receive and back -- it still is!

This neat little MFJ automatic T/R switch senses transmitted RF and switches your

MFJ Tune-Up *Matchmaker*TM



MFJ-212, \$79.95. Tune up your antenna tuner for 1:1 SWR without transmitting! Avoids overheating/

arcing caused by high SWR and long tuneups. Automatic T/R switch bypasses MFJ-212 to prevent damage. Handles 300 Watts. Works with all radios 160-6 Meters. 31/3x11/4x4 in. Use MFJ-1312D, \$14.95.

MFJ AmplifierSaver™ Interface



MFJ-914, \$59.95. This lets you safely tune up your kilowatt linear amplifier at full peak power for best linearity. Keeps average power to a low safe level to prevent overheat-

ing power supply stress. Plugs into your rig's CW key jack. Simply press Pulse Tune button and tune your amplifier normally for maximum power output. Uses 9V battery (not included).

MFJ Mobile Antenna Matcher



MFJ-910, \$19.95. Matches mobile antennas 10 through 80 Meters. Get more power into your antenna! $2^{1}/_{2}x2^{1}/_{2}x1^{1}/_{2} \text{ inches -- easily}$

fits in your glove compartment.

MFJ W9INN Balun Box

MFJ-912, \$49.95.

Converts unbalanced coax to balanced ladder transmission line. Giant 2-core 4:1 balun wound with Teflon^R



wire. 31/4x21/4x7 in. Ceramic feed-thru insulators. Full legal limit. SO-239 connector.

antenna from receive to transmit using a relay. It shorts your receiver antenna input to ground to protect your receiver. It also provides an auxiliary contact closure to ground during receive (opened in transmit) for an "On-the-Air" sign or other use.

Instead of using RF sense to switch the antenna, a control line input lets your key/keyer or PTT line switch the antenna.

An adjustable time delay circuit gives you delayed switching. This prevents your antenna from switching between dots and

MFJ AutoTuner ExtenderTM



MFJ-914, \$59.95. Does your HF rig's automatic tuner have limited matching range? MFJ-914 transforms your antenna impedance by as much as

10 times! Puts nearly any antenna into the range of your automatic or manual tuner. 160-10 Meters. 300 Watts. Bypass position.

MFJ Lightning Surge Protector MFJ-270, \$29.95.



Safeguard your equipment from static electricity and lightning induced surges on 50 Ohm coax. MFJ's

Guardian Angel™ Lightning Surge Protector has an *Ultra-fast* gas discharge tube that safely shunts up to 5000 amps of peak impulse current harmlessly to an independent ground. SWR less than 1.1:1. Less than 0.1 dB loss. Use up to 1000 MHz. 400 Watts PEP. SO-239. The MFJ-270 doesn't protect against a direct lightning hit.

MFJ-97, \$9.95. Replacement gas tube. MFJ-270N, \$34.95. Same as MFJ-270 but has low-loss N-Connector.

High Pass TVI Filter

MFJ-711, \$19.95. MFJ's Shield Breaker™ high pass fil-

ter effectively suppresses annoying TVI! Wipe out TVI caused by broadcast, commercial, two-way, amateur and CB radios operating below 30 MHz. Use between cable/antenna and TV/VCR. For 75 Ohm cable or 300 Ohm twin lead.

dashes or between syllable and words.

Works on all modes -- CW, AM, SSB, FM and digital modes. Handles 200 Watts SSB PEP. Compact 4Wx2⁵/₈Hx1¹/₂D in.

Has SO-239 coax connectors for antenna, transmitter and receiver. Has control input, auxiliary contact closure to ground, time delay screwdriver adjustment, power jack. Requires 12 VDC or 110 VAC w/ MFJ-1312D, \$14.95.

MFJ-30, \$9.95, Golden Classics of Yesteryear, on vintage transmitters/receivers.

81 dB Step Attenuator, 1 dB steps



MFJ-762, \$69.95. This will be your most useful ham shack accessory! 50 Ohms. Usable to 500 MHz. 250 milliwatt maximum input. BNC connectors. Shielded stages. Connect between receiver and antenna and use an S-meter as a precision calibrated field strength meter. Prevent receiver blocking, cross-modulation. Determine gain and loss. Ideal for fox hunting. Evaluate linearity. Measure input and output level differences. Isolate circuits. Extend the range of your sensitive equipment. 6¹/₂Wx2¹/₂Hx1¹/₂D inches.

MFJ AC Line Monitor



MFJ-850, \$19.95. Color coded scale lets you read voltage from 95-135 Volts. 2% Accuracy. $2^{1/4}Wx2^{1/4}Hx1^{1/2}D$ inches. Great accessory for the ham shack and motor homes!

MFJ RFI Free Choke Kit

MFJ-701, \$14.95. Eliminate common ŘFI problems by simply winding the offending cable around RFI suppressing toroids.

4 square ferrite toroids are formulated especially for eliminating RFI from .5 -200 MHz. Wind on all kinds of cable, computer ribbon, TV coax, power, telephone, etc.

MFJ High Current Multiple DC Power Outlets



MFJ-1118 Ship Code A

\$49⁹⁵ Ship Code A

\$34⁹⁵ Ship Code A

MFJ-1118, \$74.95. Lets you power \$7495 two HF and/or VHF trans- ceivers and six or more accessories from your transceiver's main 12 VDC supply.

Two pairs of super heavy duty 30 amp 5-way binding posts connect your transceivers. Each pair is fused and RF bypassed. Handles 35 Amps total.Six pairs of heavy duty, RF bypassed 5-way binding posts let you power your accessories. They handle 15 Amps total, are protected by a master fuse and have an

ON/OFF switch with "ON" LED indicator. **Built-in** 0-25 VDC voltmeter. Six feet super heavy duty eight gauge color-coded

cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Heavy duty aluminum construction. $12^{1}/_{2}x2^{3}/_{4}x2^{1}/_{2}$ inches.

MFJ-1117, \$54.95. For powering four HF/VHF radios (two at 35 Amps each and two at 35 Amps combined) simultaneously. Tiny 8x2x3 inches.

MFJ-1116, \$49.95. Similar to MFJ-1118. No 30 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total.

MFJ-1112, \$34.95. Similar to MFJ-1116. No on/off switch, LED, meter, fuse.

Protected by MFJ's famous No Matter What™ one year limited warranty.

ew! HF Power Cord for most rigs

Ship Code A



Fits Yaesu, Icom & Kenwood

10 Feet Long

Ship Code A

- \$1495 12 Gauge Multistrand soft Wire
 - With 2 Fuses & Fuse Holders

New! VHF Power Cord for Most rigs



MFJ-5512 \$12⁹⁵

- 15 Feet Long
- 12 Gauge Multistrand soft Wire
- With 2 Fuses & Fuse Holders

Call for bulk discounts!

Quality MFJ Connectors



MFJ-7701, SO-239 to SO-239 Adaptor \$3.95 each MFJ-7702, PL-259 to PL-259 Adaptor \$2.95 each MFJ-7703, PL-259-to-BNC right angle \$6.95 each MFJ-7705, N male to SO-239 Adaptor \$4.95 each MFJ-7706, NMO to SO-239 Adaptor \$9.95 each MFJ-7708, BNC male to SO-239 Adaptor . . . \$2.95 each 1-800-647-1800 for bulk pricing information.

Super high capacity 1800 mAh Ni-MH AA batteries

These super Ni-MH "AA" batteries have twice the power of standard Ni-Cads!



MFJ-92AA01, \$2.99 each. Ship MFJ-92AA10, \$24.95, 10 Pack.

MFJ's super high capacity Ni-MH Code "AA" batteries have twice the power of standard Nicads at about the same price!

These MFJ 1800 mAh, 1.2 volt batteries greatly extend the operating time of

your electronic device.

MFJ Ni-MH "AA" batteries have no detrimental memory effect that are the trademark of Ni-Cad batteries so you can use them to their full potential.

They are perfect for your MFJ-259B

SWR AnalyzerTM with its built-in battery charging circuit.

MFJ SuperCell™ AAA Batteries MFJ-92AAA01, \$2.49. AAA Ni-MH rechargeable batteries. 600 mAh, 1.2 volt batteries. MFJ-92AAA04, 4 pack AAA Ni-MH batteries, \$8.99.

MFJ SuperCell™ 9 volt Battery MFJ-929V, \$9.95. 9 Volt SuperCellTM rechargeable Ni-MH battery. 160 mAh. Standard charge: 16 mÅ for 15 hours. Fast charge: 32 mA, 7.5 hours.

MFJ *POWERHaus*™ Ni-MH battery chargers for MFJ SuperCells™

MFJ's new POWER Haus™ battery chargers are perfect for charging your MFJ or other brand Ni-MH or Ni-Cd rechargeable batteries.

A. MFJ-633, \$24.95. Intelligent Ultra-Fast Battery Charger.

Charges "AA", "AAA", "C", "D" and 1 or 2 pieces of "9V" Ni-MH or Ni-Cd Battery types. It has a 2 and 4 battery charging selection. Great versatility in one charger!

An intelligent active IC detects both positive and negative, and monitors the voltage level during charging process. Ni-Cds and Ni-MHs of all capacity can be fully charged.

You get two separate sets of *ultra-fast* charging compartments to optimize energy efficiency. The discharge mode is activated by the press of a button and it switches to charge

A. MFJ-633 В. **\$24**95 POSSIVE Ship Code A New MFI-631 \$995 Ship Code A

mode automatically.

The MFJ-633 will automatically switch to trickle charge mode when a full charge is successfully completed.

A deep conditioning mode helps to rescue

batteries damaged by memory effect. Charging status LEDs keep you informed to your battery(ies) progress.

It's super versatile and easy-to-use. MFJ-633 has a removable dust cover and an AC 12 Volt, 500 mA wall adapter is included.

MFJ-633 quick charges 2-4 "AA" or "AAA" Ni-MH or Ni-Cd rechargeable cells in an hour or less -- only takes 11/2 hours to fully charge 1300 mAh AAs!

Do not charge alkaline batteries.

B. MFJ-631, \$9.95. "AA" Charger.

Charges 2-4 Ni-MH or Ni-Cd batteries in 14 hours by trickle charging. It charges only "AA" Ni-MH/Ni-Cd batteries. Has red charge status LED, removable dust cover and it plugs directly into the nearest AC wall outlet.

MFJ Switching Power Supplies

Power your HF transceiver, 2 meter/440 MHz mobile/base and accessories with these new 25 or 45 Amp MFJ MightyLiteTM Switching Power Supplies! No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .

MFJ's new adjustable voltage switching power supplies do it all! Power your HF or 2M/440 MHz radio and accessories

HF or 2M/440 MHz radio and accessories.

MFJ's MightyLites™ are so light and small you can carry them in the palm of your hand! Take them with you anywhere.

No more picking up and hauling around heavy, bulky supplies that can give you a painful backache, pulled muscle or hernia.

MFJ's 25 Amp MightyLite™ weighs just 3.7 lbs. -- that's 5 times lighter than an equivalent conventional power supply.
MFJ's 45 Amp is even more dramatic -- 8 times lighter and weighs just 5.5 pounds!

No RF hash!

These babies are clean . . . Your buddies won't hear *any* RF hash on your signal! *None* in your receiver either!

Some competing switching power supplies generate objectionable RF hash in your transmitted and received signal.

These super clean MFJ $MightyLites^{TM}$ meet all FCC Class B regulations.

Low Ripple . . . Highly Regulated
Less than 35 mV peak-to-peak ripple
under 25 or 45 amp full load. Load regula-

No RF Hash!

MFJ-4225MV 25 Amp 95 Ship Code B MFJ-4245MV 45 Amp 95

tion is better than 1.5% under full load. *Fully Protected*

You won't burn up our power supplies! They are fully protected with Over Voltage and Over Current protection circuits.

Worldwide Versatility

MFJ MightyLites[™] can be used anywhere in the world! They have switchable AC input voltage and work from 85 to 135 VAC or 170 to 260 VAC. Replaceable fuse.

MightyLites[™] . . . Mighty Features

MFJ MightyLites[™] feature a front-

MFJ MightyLites™ feature a frontpanel voltage control. It lets you vary the output voltage from 9 to 15 Volts DC and gives you a highly regulated voltage output. You get an easy access front-panel with No RF Hash!



five-way binding posts for heavy duty use and a cigarette lighter socket for mobile accessories. MFJ-4245MV has two sets of quick-connects on the rear for accessories.

Large 3 inch dual meters are brightly illuminated to make it easy to monitor load voltage and current.

A whisper quiet internal fan efficiently cools your power supply for long life.

Two models to choose from... MFJ-4225MV, \$149.95. 25 Amps maximum or 22 Amps continuous. Weighs 3.7 pounds. Measures 5^{3} /₄Wx4¹/₂Hx6D in.

MFJ-4245MV, \$199.95. 45 Amps maximum or 40 Amps continuous. Weighs 5.5 pounds. Measures 7¹/₂Wx4³/₄Hx9D in.

MFJ Super Compact MightyLite[™] 25 Amp Switching Power Supply This is the smallest power supply in ham radio! 5³/4Wx3Hx5³/4D inches fits anywhere!!!

New! 25 Amp MightyLiteTM

MFJ-4125 is like the popular MFJ-4225 MV but much smaller and doesn't have meters or the cigarette lighter socket.

MFJ-4125 features 5-way binding posts for high current radio connections and a pair of speaker type push-on terminals for low current accessories.

MFJ-4125 25 Amp **109**95 Ship Code A

> This Super light and com-

pact supply weighs only 3.5 lbs. and measures an unbelievable $5^1/2Wx2^1/2Hx5^3/4D$ inches.

No Hash!

It features super protection modes such as Over Voltage Protection and Over

Current Protection. Has a whisper quiet internal cooling fan that generates a tremendous amount of air flow to help keep components cool.

MFJ-4125 has switchable AC input voltage. 110 VAC at 47-62 Hz and 220 VAC at 47-63 Hz. Super regulation. Works with AC input 85-135 VAC or 170-260 VAC.

MFJ 30/22/12 Amp Regulated DC Power Supplies

MFJ-4035MV has a Massive heavy-duty 19.2 pound transformer... No RF hash... Adjustable 1 to 14 VDC... front panel quick connects... cigarette lighter socket for mobile accessories... More!

MFJ's heavy duty conventional power supply is excellent for powering HF or 2 Meter/440 MHz transceiver/accessories.

MFJ-4035MV **\$149**95 Ship Code F

A massive 19.2 pound transformer makes this power supply super heavy duty! It delivers 35 amps maximum and 30 amps continuous without even flexing its muscles. Plugs into any 110 VAC wall outlet.

It's highly regulated with load regulation better than 1%. Ripple voltage is less than 30 mV. *No RF hash* -- it's super clean!

Fully protected -- has over voltage protection, fold back short circuit protection and over-temperature protection.

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. A pair of front-panel meters let you monitor voltage and current.



Three sets of output terminals include a pair of heavy duty five-way binding posts for HF/VHF radios, two pairs of quick-connects for accessories and a covered cigarette lighter socket for mobile accessories.

A front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed increases as load current increases -- keeps

components cool. 91/2Wx6Hx93/4D inches.

Your MFJ-4035MV is protected by MFJ's famous *No Matter What*™ one year limited warranty. We will repair or replace (at our option) your product for 1 full year.

MFJ 22/20 Amp Power Supply MFJ-4322, \$99.95

MFJ-4322, \$99.95 delivers 22 Amps surge and 20 Amps continuous at 13.8 VDC. Its massive transformer, heat-

sive transformer, heatsink and heavy duty construction weigh over 19 pounds. 8Wx4³/4Hx11³/4D inches.

MFJ 12/10 Amp Power Supply

MFJ-4312, \$69.95 delivers 12 Amps surge and 10 Amps continuous at 13.8 VDC. It weighs over 13¹/₂ pounds. 8Wx4³/₄Hx10¹/₄D inches.



MFJ Speech Intelligibility Enhancer™ gave me back my Ham Radio hobby



"As I got older, my high frequency 1000 to 4000 Hz frequency range with hearing loss was destroying my ham radio for me . . .

-- Martin F. Jue, K5FLU, President and Founder MFJ Enterprises, Inc.

I know I'm not the only ham who can't understand all the speech in a QSO caused by high frequency hearing loss.

I developed a solution that I want to share with my fellow hams.

I almost gave up my ham radio hobby

I have been a passionate ham radio operator for over 40 years ever since I was a teenager. I loved every minute of it. Still do, but I almost had to give it up.

As I grew older (I'm 56 now) I found myself asking "What did you say?" so often it got downright embarrassing. I can hear pretty good most of the time. I just can't always understand what people are saying and my left ear is weaker than my right ear.

It got to where I was having trouble carrying on QSOs. I could hear, but I just couldn't quite make out all the words.

My hearing problem almost put a stop to my lifelong hobby.

There was no way I was going to give up ham radio...

Research showed me what to do

I searched the literature and spoke to hearing and speech experts.

According to their research on the intelligibility of speech in hearing English words:

1. The frequencies important for speech intelligibility are the consonant sounds from 500 to 4000 Hz. They contribute 83% of word intelligibility.

Frequencies from 500 to 1000 Hz contributes 35% of word intelligibility and 35% of sound energy.

Frequencies from 1000 to 4000 Hz contributes 48% of intelligibility but has only 4% of sound energy!

2. In contrast, frequencies from 125 to 500 Hz contributes 55% of sound energy but only 4% to word intelligibility.

In other words, nearly half the speech intelligibility is contained in only 4% of the speech sound energy.

On the other hand, the low frequencies 125 to 500 Hz have most of the speech energy but contribute very little to intelligibility.

How I improved my ability to hear and understand QSOs

The research showed me what to do. First, drastically increase the speech energy above 500 Hz where 83% of intelligibility is concentrated.

Second, drastically reduce the speech energy below 500 Hz that contributes only 4% of intelligibility.

Amateur radio communications limit audio to about 300 to 2700 Hz.

I split the audio band into four overlapping octave ranges centered at 300, 600, 1200, 2400 Hz.

I could boost or cut each range by nearly 20 db to give me full control. This let me maximize speech intelligibility for most kinds of frequency loss.

My left ear is weaker than my right ear so I split the output audio into left and right channels with separate 2¹/₂ watt amplifiers. A balance control lets me equalize the perceived loudness to each ear. Now both ears help in improving speech intelligibility!

I couldn't believe my ears!

I built one and hooked it to my rig. I boosted the high frequencies, cut the low frequencies, set the volume and adjusted the balanced control so I could hear each side equally loud.

I couldn't believe my ears! Speech that I could hear but barely understand before was now highly understandable. I got my ham radio back!

With this concept, you'll understand QSOs better and enjoy ragchewing and contesting more, even if you don't have high frequency hearing loss.

It helped me so much I wanted to share this with my fellow hams

I developed this into an accessory that any ham can use.

I made it immune to RFI, added a

front panel phone jack, on/off speaker switch, two selectable transceiver inputs, a bypass switch for in/out comparison and built it into 10Wx21/2Hx6D inch aluminum enclosure. Needs 12 VDC.

Other Uses

Replace your rig's audio section for superb audio. Eliminate hum, buzzes, poor frequency response, low audio power.

Works with SSB, FM, AM, CW -any voice mode. Use any rig -- ham, marine, aircraft, CB. Use for PA systems, internet phone, radio talk shows.

MFJ-616 Accessories

MFJ-392, \$19.95. Matching high performance communication headphones.

MFJ-281, \$12.95. Mylar cone speaker emphasizes 600-4000 Hz for crystal clear speech fidelity. Requires two.

MFJ-1316, \$19.95. For 110 VAC operation. Provides 12 VDC/1.5 Amps.

MFJ-72, \$58.80. All-in-one MFJ-616 Accessory Pack. Includes MFJ-392 headphones, two MFJ-281 speakers and MFJ-1316 power supply. Save \$7!

CyberEAR™!



Ship Code A

Tiny powerful MFĴ **Q95** CyberEar™ plugs in and loops over ear -- captures

and amplifies sounds by 12 dB! Extends your hearing range, helps you hear every word at hamfests and club talks - even if you're on the back row! Great for eyeball QSOs. Volume control, on/off switch. For left or right ear. 3 interchangeable ear plugs. Flesh color -- hardly noticeable. Super lightweight -- 10 grams with battery! Includes batteries. Hear even better -- buy one for each ear! 30 day money back if not absolutely delighted. Not a hearing aid.

MFJ-389, \$59.95. Super $CyberEAR^{TM}$. Hear everything! Capture and amplify sounds up to 50 dB! Left or right ear plugs, volume control, extremely small. Not a hearing aid.