

# MFJ 2007 Ham Catalog

## MFJ 1500 Watt Legal Limit IntelliTuner™

Full 1500 watts SSB/CW...Digital & Analog SWR/WattMeter ... All features of MFJ IntelliTuners™-- Ultra-fast, Safe Automatic Tuning ... Wide Tuning Range (12-1600 Ohms from 1.8 to 30 MHz) ... Radio Interfaces ... Built-in Antenna Switch for two coax/long wire ... Automatic Bypass protects your amplifier ... Field Upgradeable Software ... Very Compact!

The MFJ-998  
Full Legal Limit 1500 Watt  
IntelliTuner™

MFJ-998  
\$699.95  
Ship Code C



takes you to the final level in automatic antenna tuners. With a capability of 1500 watts SSB and CW, coupled with automatic tuning, your high-power station can now operate essentially hands-free even when frequency and band changes are made.

### Fast Automatic Tuning

The MFJ-998 instantly matches impedances from 12-1600 ohms using MFJ's exclusive IntelliTune™, AdaptiveSearch™ and InstantRecall™ algorithms with over 20,000 VirtualAntenna™ Memories. When you key your transmitter, MFJ's InstantRecall™ checks to see if that frequency has been used before. If so, tuning is instantaneous. If not, MFJ's IntelliTune™ algorithm (based on MFJ's efficient SWR Analyzer technology) measures the impedance, snaps the necessary components in place, and then fine-tunes the SWR. If the antenna impedance is outside the tuner's measurement range, MFJ's Adaptive Search™ algorithm measures the frequency and determines only relevant component values -- which are then searched for fast tuning.

### Safe Automatic Tuning and Amplifier Protection

The MFJ-998 includes MFJ's Amplifier Bypass Control™ -- an MFJ exclusive feature! When used with a transceiver inter-

**NEW!**

face cable, tuning is safe and "stupid-proof"! When a tuning cycle is initiated, the MFJ-998 first bypasses any in-line amplifier. Next, the MFJ-998 initiates a low-power CW tuning carrier from your transceiver. When tuning is complete, the MFJ-998 reverts your transceiver to its prior power and mode, and re-enables the amplifier. This entire cycle typically takes less than a second! Finally, if the MFJ-998 cannot find a match better than a pre-set amplifier SWR trip-point, the amplifier stays bypassed to provide automatic SWR protection for your amplifier -- another MFJ exclusive!

### Analog SWR/Wattmeter

A large analog Cross-Needle SWR/Wattmeter displays selectable 300/60 watt or 3000/600 watt forward/reflected full-scale ranges. You can even select automatic power ranging -- the best power range is automatically selected for you.

### Digital LCD SWR/Wattmeter

A two-line, 16-character backlit LCD meter displays SWR, forward/reflected power, frequency, antenna selected, an auto-ranging bargraph power indication, and

much more. You can even read the final matching inductor and capacitor values should you want to build your own fixed matching network. Simple menus determine displayed information -- no complex button combinations to remember!

### MFJ VirtualAntenna™ Memory

MFJ new VirtualAntenna™ Memory system gives you 4 antenna memory banks for each of 2 switchable antenna connectors. Select up to 4 antennas on each antenna connector. Each antenna has 2500 memories, 20,000 total. Has two coax connectors and a binding post for end-fed long wire antennas.

### Download and Upgrade Remotely

Field upgradeable firmware via the serial port -- download and upgrade your MFJ-998 as new features are introduced!

### Plus Much More!

**Built-in** radio interface provides control of most amateur transceivers.

**Automatic** bypassing when excessive tuning power or power in excess of 1500 watts is applied.

Use balanced line antennas with external MFJ-912, \$59.95, 1.5 kW 4:1 balun.

MFJ-998 is the smallest full legal-limit auto-tuner in the world! 13Wx4Hx15D inches fits easily into your ham station. Weighs just 9 pounds -- great portability!

**Requires** 10-15VDC at 1.3 amps maximum.

For more information on optional power supply and pre-wired rig control interface cables see page 2 (MFJ-929 copy).

## See inside for 51 New MFJ Products!

New MFJ Auto Tuner for HF SSB  
Weather-sealed for remote use, 1.6-30 MHz.

MFJ-926 \$399.95

See Page 2

New Digital SWR/Wattmeter

Frequency, SWR digital and bargraph

MFJ-826 \$149.95

See Page 17

hamProAudio™ SpeechArticulator™

Adjustable compression, downward expansion ... MFJ-653 \$149.95

See Page 30

MFJ 80/40/20 M Rotatable Dipole  
33 foot wide, full-size, aircraft strength

MFJ-1785 \$359.95

See Page 58

MFJ-4416 Super Battery Booster  
Keeps rig safe, eliminates low/marginal voltages

MFJ-4416 \$139.95

See Page 24

6-Way Desktop DC Power Distribution

Allows 1 DC input to be shared by 6 DC outputs.

MFJ-1106 \$29.95

See Page 24

hamProAudio™ Enhanced SO2R Switch

Single SO2R switch interfaces with any rig!

MFJ-644 \$159.95

See Page 30

hamProAudio™ 2-Radio Selector

Combines audio from 2 receivers for Dxing

MFJ-640 \$49.95

See Page 30

3 New Atomic Wrist Watches



\$39.95 - \$49.95 See Page 44

Hy-gain 2M/440 dual band Yagi  
Get 8 dBi gain on 2-Meters, 6 dBi gain on 440 MHz!

DB-2345 \$89.95

See Page 72

For your nearest dealer or to order, call 800-647-1800

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**No Matter What™ Warranty**  
Every MFJ product is protected by MFJ's famous one year No Matter What™ limited warranty. We will repair or replace your MFJ product no matter what (at our option) for one full year.

Visit... [www.mfjenterprises.com](http://www.mfjenterprises.com) ... free manuals!

# MFJ Compact 200 Watt *IntelliTuners*<sup>TM</sup>

*Automatically tunes any unbalanced antenna . . . Ultra fast . . . 20,000 VirtualAntenna<sup>TM</sup> Memories . . . Antenna Switch . . . Efficient L-network . . . Matches 6-1600 Ohms at 200 Watts . . . 1.8-30 MHz . . . Digital SWR/Wattmeter . . . Audio SWR meter . . . Radio interface . . .*



The MFJ-929 *IntelliTuner-Compact*<sup>TM</sup> lets you *automatically* tune any coax fed or random wire antenna 1.8-30 MHz at full 200 Watts SSB/CW. It can match 6-1600 Ohms (SWR up to 32:1) - - that's a 50% wider matching range at a higher power level than lesser competing products.

You get a *digital* SWR/Wattmeter with backlit LCD, antenna switch for 2 antennas, built-in radio interface and built-in internal BiasTee for remote tuner operation.

MFJ's exclusive *IntelliTune<sup>TM</sup>*, *Adaptive Search<sup>TM</sup>* and *InstantRecall<sup>TM</sup>* algorithms give you ultra-fast automatic tuning with over 20,000 *VirtualAntenna<sup>TM</sup>* Memories.

## MFJ *VirtualAntenna<sup>TM</sup>* Memory

MFJ new *VirtualAntenna<sup>TM</sup>* Memory system gives you 4 antenna memory banks for each of 2 antenna connectors. You can select up to 4 antennas on each antenna connector. Each antenna has 2500 memories.

### 4 Times the Solutions!

MFJ-929 gives you 256 values each of capacitance and inductances for 131,072 matching solutions. That's 4 times the 32,768 matching solutions of competing products with only 128 L/C values each!

### Highly intelligent, ultra-fast tuning!

Don't be fooled by competing products claiming fast search times -- if you have a *quarter* of the matching solutions, of course, it takes less time to finish but it's *not* faster.

MFJ-929 \$219<sup>95</sup> MFJ's faster speed comes from advanced technology Ship Code B and software algorithms *not* from fewer matching solutions.

MFJ's *IntelliTuner-Compact<sup>TM</sup>* actually *measures* complex impedance -- R and X -- of your antenna, computes the L-network values needed and snaps in those components to give you an *instant* match.

If the load is out of measurement range, *AdaptiveSearch<sup>TM</sup>* determines the *smaller* subset from all solutions that can match a safe load -- and then searches *only* that subset -- others search through far more solutions.

### Digital LCD SWR/Wattmeter

An easy-to-read, two-line, 16-character backlit LCD displays SWR, peak or average forward/reflected power, frequency, antenna 1 or 2, L/C tuner values, on/off indicators and other info. They are selected from easy-to-understand menus -- *not* complex combinations of buttons you can't remember.

A fast-response, high-resolution bargraph gives you an auto-ranging 20/200 Watt power meter. You get 60 segments each for forward and reflected power and 36 segments for SWR -- *try that with an 8 segment bargraph that makes you change power ranges and doesn't even give you reflected power!*

You can read inductance and capacitance *directly* in uHy and pF. This turns you into an expert *L-network designer!* Match your load, read the resulting L/C values, then use them to build your fixed L-network.

Or, knowing the L/C values you can determine R and X of the load impedance.

### Plus Much More!

*StickyTune<sup>TM</sup>* mode gives you one-hand tuning by locking the TUNE button -- just transmit to tune regardless of SWR.

Has audio SWR meter and audio feed back. Competing products don't.

Built-in 50 MHz frequency counter.

Its built-in radio interface lets you use a simple wire cable to compatible rigs. Others require a cable with expensive electronics.

Binding post for random wire. Self-test.

Highly efficient L-network. 10 Amp/1000V

relays, RF duty silver mica capacitors. 6<sup>1</sup>/<sub>2</sub> Wx2<sup>7</sup>/<sub>8</sub>Hx8<sup>3</sup>/<sub>8</sub>D in. 2.4 lbs. 12-15 VDC/1Amp or 110 VAC with MFJ-1316, \$21.95.

### MFJ-928, \$199.95.

Like MFJ-929, less LCD, manual tune buttons.



### MFJ-927, \$259.95.

Weather protected remote auto tuner for coax/wire ant., includes MFJ-4116 Power Injector. Most MFJ-929 features, weather protected, no LCD/buttons.



## Super-Compact *MightyMite<sup>TM</sup>* *IntelliTuner<sup>TM</sup>* MFJ-925,

\$179.95.

The MFJ-925 has been



designed for today's compact home, portable or mobile ham stations.

At just 6<sup>1</sup>/<sub>2</sub>Wx2<sup>1</sup>/<sub>8</sub>Hx8<sup>3</sup>/<sub>4</sub>D inches, the MFJ-925 *IntelliTuner<sup>TM</sup>* specifically complements today's compact HF transceivers, such as the IC-706MKIIG, IC-7000, FT-857D, DX-70TH and TS-50S.

It can also be used as a stand-alone automatic antenna tuner for any transceiver that has an output power of 2-200 watts SSB/CW from 1.8-30 MHz with antenna impedances from 6-1600 ohms.

With more than 10,000 non-volatile *VirtualAntenna<sup>TM</sup>* Memories, and MFJ's exclusive *InstantRecall<sup>TM</sup>*, *IntelliTune<sup>TM</sup>* and *AdaptiveSearch<sup>TM</sup>* algorithms, the MFJ-925 gives you fast automatic tuning of unbalanced or single-wire antennas.

Use an optional MFJ-911H, \$29.95 (See page 55 for more details), 1:1/4:1 external balun for balanced feedlines.

MFJ-5114 K/Y/I/A, \$19.95. Prewired Rig Interface cable for MFJ-929/928/925/998. MFJ-4116, \$24.95. Power Injector for remote MFJ-929/928 use. Sends DC/RF down coax.

## Automatic Antenna Tuner for HF SSB Weather-sealed for Outdoor or Marine use -- tough and durable!



MFJ-926 \$399<sup>95</sup> Ship Code D

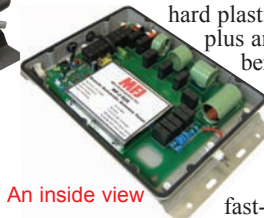
MFJ-926 *Automatic Antenna Tuner* covers the entire HF band, 1.6-30 MHz.

It handles 200 Watts PEP maximum with a 10 watts minimum input power.

MFJ-926 is weather-sealed for outdoor or marine use outside at the base of your ham station antenna -- a *durable*

hard plastic cover and chassis plus an inner lip black rubber seal keeps the interior electronics cool and dry for many years of dependable use.

MFJ-926 has a very fast-tuning: initial tuning



An inside view

is less than 2 seconds and less than .2 seconds tuning from memory.

It has 200 Memory channels. Tunes 6 to 30 MHz with wire greater than 8 feet and tunes 1.6-30 MHz with wire greater than 27 feet. For 50 Ohm transceivers.

Requires 13.8 VDC at 1.5 Amps. Sleek, sexy and compact -- measures just 9<sup>3</sup>/<sub>4</sub>Wx14<sup>1</sup>/<sub>4</sub>Hx3D inches. Weighs just 4 pounds.

This tuner is built-to-last the elements! It is weather-sealed for outdoor or marine use. All connections are double protected with rubber sealing, entire cabinet is specially weather sealed with internal rubber lip. Includes mounting holes with metal strap on each end for easy securing.



# MFJ-989D 1500 Watt *legal limit* Antenna Tuner

*New and improved! World's most popular legal limit antenna tuner just got better -- with no increase in price! You get better efficiency, lower losses, and a new true peak-reading meter. Easily handles full 1500 Watts SSB/CW, 1.8 to 30 MHz including MARS/WARC bands.*



- **New 500 pF air variable capacitors**
- **New AirCore™ Roller Inductor with new fast-tune Crank Knob**
- **New TrueActive™ Peak-Reading Cross-Needle SWR/Wattmeter**
- **New High-Voltage Current Balun**
- **New rugged Cabinet maintains hi-Q Made in the U.S.A.**

*The world's most popular legal limit antenna tuner just got better -- much better -- with no increase in price!*

*You get better efficiency, lower losses and a new true peak reading SWR/Wattmeter. It easily handles full 1500 Watts SSB/CW and covers 1.8 to 30 MHz, including MARS and WARC bands into balanced or unbalanced loads.*

*You can match dipoles, verticals, inverted vees, random wires, beams, balanced lines, coax, mobile whips, short-wave -- nearly any antenna.*

*You get everything you've ever wanted in a high power, full featured antenna tuner -- extremely wide matching range, lighted Cross-Needle SWR/Wattmeter, antenna switch, dummy load and balun.*

### **Massive Transmitting Capacitors**

*New huge 500 pF air variable capacitors give you twice the capacitance for much more efficient operation on 160 and 80 Meters.*

*Specially shaped plates give low minimum capacitance resulting in an extremely wide matching range -- 160 thru 10 Meters.*

*New larger, more attractive capacitor knobs with easy-to-see dials make tuning much easier and precise.*

### **MFJ AirCore™ Roller Inductor with new fast-tune Crank Knob**

*New and improved AirCore™ Roller Inductor gives you lower losses, higher Q and handles more power with no self-resonances. It gives you cool, efficient and smooth tuning on all bands and it's air core can't burn up!*

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

*New fast-tune crank knob lets you reset your roller inductor quickly, smoothly and accurately.*

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

### **TrueActive™ Peak Reading SWR/Wattmeter**

*New TrueActive™ peak reading SWR/Wattmeter lets you read true peak or average power on all modes. Large, easy-to-read illuminated Cross-Needle meter lets you read SWR and forward/reflected (3000/300 Watt ranges) power at a single glance.*

*Uses 9-Volt battery and/or 12 VDC or 110 VAC with MFJ-1312D, \$15.95.*

### **MFJ High Voltage**

#### **Current Balun**

*New high voltage current balun lets you tune high and low impedance balanced lines without core saturation or voltage breakdown.*

*It's constructed with two giant 2½ inch toroid cores and wound with high voltage wire connected to high-voltage glazed ceramic feedthrough insulators.*

#### **Super Antenna Switch**

*MFJ-989D's super heavy duty antenna switch is made of two individual ceramic wafers wired in parallel.*

Patent Pending

MFJ-989D  
\$369<sup>95</sup>  
Ship Code D

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.

#### **Built-in Dummy Load**

*A full-size 300 Watt non-inductive 50 Ohm dummy load is built-in.*

*You'll find it handy for transmitter tuning, testing and repairing rigs, setting power level, adjusting mic gain and more.*

#### **New Cabinet maintains high Q**

*New roomy cabinet helps maintain components' high Q. Vent holes keeps components cool. Super construction -- non-stripping PEM nuts, wing-nut ground post, fire-retardant epoxy glass PC board, and heavy gauge wire throughout. Measures 12⅞Wx6Hx11⅝D inches.*

#### **Lexan Front Panel**

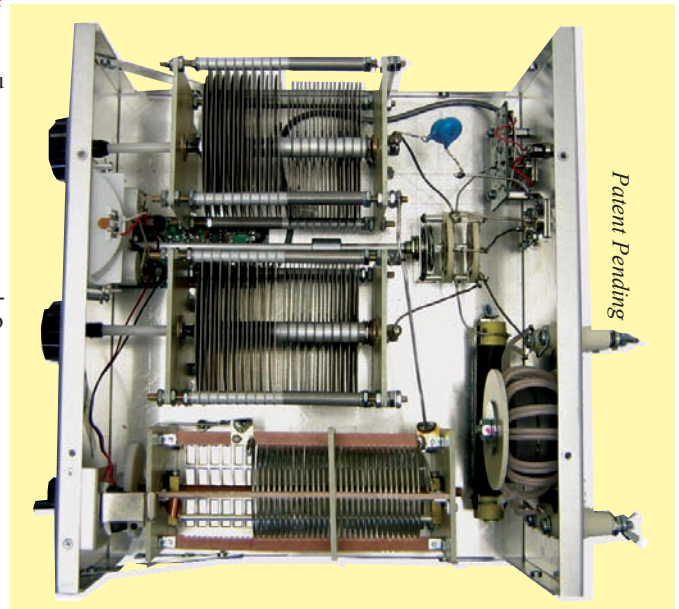
*The MFJ-989D has a new nearly indestructible multi-color Lexan front panel. Its detailed logging scales and legends will be legible for a lifetime of DXing.*

#### **Wide Range T-Network**

*The MFJ-989D uses the time-tested wide range T-Matching Network. It gives you the widest matching range and is the easiest to use of all matching networks. With MFJ's new high value 500 pF air variable capacitors and new low loss roller inductor, it easily handles high power efficiently.*

#### **No Matter What™ Warranty**

*Every MFJ tuner is protected by MFJ's famous one year No Matter What™ limited warranty. We will repair or replace your MFJ-989D no matter what (at our option) for one full year.*



# MFJ KW Differential-T™ Antenna Tuner

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

MFJ-986  
\$339<sup>95</sup>

Ship Code E

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

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 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 Tuner™ . . .

### A new twist on proven technology

Replacing two variable capacitors with a single differential capacitor gives wide range T-network tuning with just two controls -- a



setting and a broadband response that ends constant retuning. You'll spend your time QSOing instead of fooling with your tuner.

The compact 10<sup>3</sup>/<sub>4</sub> x 4<sup>1</sup>/<sub>2</sub> x 15 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, \$15.95.

### MFJ TrueCurrentBalun™

#### 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

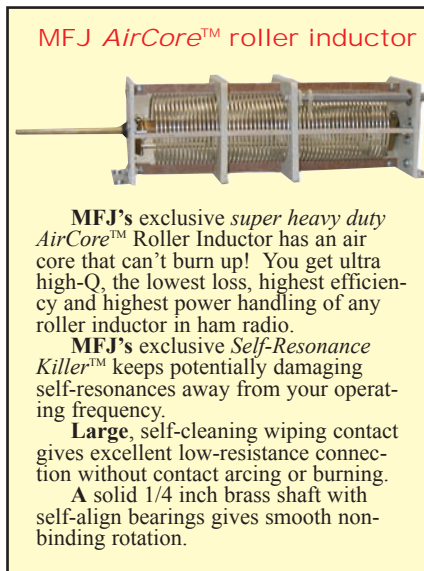
Protected by one year limited warranty.

Call your dealer for your best price!

In stock at ham dealers everywhere.

tuning capacitor and a roller inductor.

Simple 2-knob tuning makes tuning easier than ever. You get minimum SWR at only one



# MFJ-962D Compact Tuner for Linear Amplifiers

MFJ AirCore™ Roller Inductor, Compact Size, Lexan scratch-proof front panel . . .

. . . handles AMERITRON's AL-811H!



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

knob set including a weighted deluxe spinner knob, ultra compact size (10<sup>3</sup>/<sub>4</sub> x 4 x 10<sup>7</sup>/<sub>8</sub> inches) and scratch-proof nearly indestructible multi-colored Lexan front panel.

Two transmitting tuning capacitors and MFJ's exclusive AirCore™ 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™ 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™ 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, \$15.95.

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-962D  
\$279<sup>95</sup>

Ship Code C

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

When you're ready . . . you can add a power-house 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.

Features MFJ's AirCore™ Roller Inductor, new aluminum-skirted



# MFJ 2500 Watts *ContinuousCarrier*<sup>TM</sup> Tuner

*Silver plated Edge-Wound Roller Inductor . . . 1000/500 pF Variable Capacitors . . . Antenna Switch . . . 4-Core Balun . . . true Peak Cross-Needle SWR/Wattmeter . . . Dummy Load . . . Extremely Wide Matching Range . . . Patent Pending . . .*

The MFJ-9982 *ContinuousCarrier*<sup>TM</sup> antenna tuner handles 2500 Watts continuous carrier output on all modes and all HF bands into most unbalanced antennas -- even on 160 Meters where even the best antenna tuners fail!

The MFJ-9982 gives you every feature you'll ever want in a high power tuner -- wide matching range, 1.8 to 30 MHz coverage, 6-position antenna switch, 4-core balun, dummy load, true peak/average lighted SWR/Wattmeter, 6:1 reduction drives with detailed logging scales, 3-digit turns counter, extra large knobs.

### *New Components, New Technologies*

The *Heart and Soul* of the MFJ-9982 is its roller inductor and variable capacitors.

MFJ's high power, high-Q *continuous current AirCore*<sup>TM</sup> roller inductor is no ordinary roller inductor! It's edge wound from thick .06-inch silver-plated solid copper strap.

It can carry huge circulating RF currents and withstand tremendous heat that'll melt or burn up ordinary roller inductors.

*Self-insulating* construction reduces stray capacitance -- keeps self-resonant frequencies high and out-of-the-way. Dual, silver-plated compression wheels give ultra low-resistance contacts. New fast-tune crank knob.

**High-current**, high-capacitance 1000 pF and 500 pF air variable capacitors have low minimum capacitance and are self-insulating.

These newly developed capacitors and MFJ's patent pending innovation gives you very high efficiency on 160/80 Meters and extremely wide matching range on 10/12/15 Meters at 2500 Watts -- a feat *only* the MFJ-9982 has achieved.

### Antenna Tuner/Artificial Ground



MFJ-934  
\$199<sup>95</sup>  
Ship Code B

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.

You get a 300 Watt full featured antenna tuner that covers 1.8-30 MHz. Lighted CrossNeedle meter reads SWR/Forward/Reflected power at-a-glance. 4:1 balun for balanced lines. Features efficient airwound inductor, high current/voltage 12-position inductor switch and two 1000 volt air-variable capacitors. Tunes all antennas and feedlines including random wire, coax and balanced lines. 10<sup>3</sup>/<sub>2</sub>Wx3<sup>1</sup>/<sub>2</sub>Hx8D in.

MFJ . . . The World Leader in Ham Radio Accessories



MFJ-9982  
\$699<sup>95</sup>  
Ship Code F

**Hi-Voltage/Current Antenna Switch**  
The antenna switch is completely isolated to handle high-voltage high impedance antennas. High-current, low impedance antennas are handled by parallel sets of high-current contacts of *two* ceramic switches.

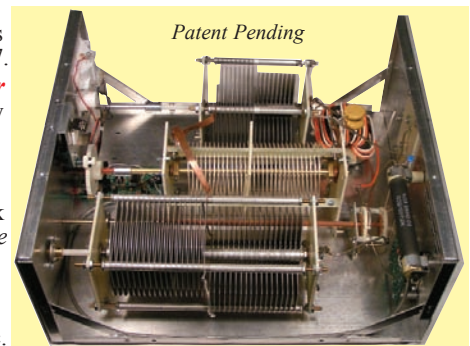
**New 4-Core Balun**  
**Powerful** balun -- Four 2<sup>1</sup>/<sub>2</sub> inch cores, 12-gauge *Teflon*<sup>TM</sup> wire. Run balanced lines at full 2500 Watts SSB/CW continuous, 24/7.

**New Balanced Line Feed-Thru Insulator**  
Allows massive antenna currents to flow directly to the antenna capacitor without passing through lossy screws or bolts.

**TrueActive<sup>TM</sup> Peak Reading Circuit**  
New *TrueActive*<sup>TM</sup> circuit reads true peak or average power on all modes. *Cross-Needle* meter reads SWR/forward/reflected power.

**1500 Watt Dummy Load**  
1500 Watt air-cooled non-inductive 50 Ohm resistor. 100W/10 min., 1.5kW/10 sec.

**New Cabinet maintains high Q**  
New roomy cabinet maintains high Q. Vent holes. Heavy gauge, .08 inch aluminum braced chassis. Vinyl cover, non-stripping PEM nuts, heavy 10-gauge or copper strap wiring throughout. 13<sup>3</sup>/<sub>4</sub>Wx7Dx16<sup>1</sup>/<sub>4</sub>D inches. 15 pounds.



### MFJ Artificial RF Ground

*Places your rig near earth ground potential!*

MFJ-931  
\$99<sup>95</sup>  
Ship Code B

**Create an artificial ground with this MFJ-931!** It 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 a 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 true RF ground from your rig.



**New! 4 Foot Ground Rod**  
**Durable** four foot copper bonded steel earth ground rod is a tough 3/8 in. diameter that will last and last. Sharp pointed end makes it easy to drive into the ground. Use it to tie your equipment to a single earth ground to help bleed off static and RFI and prevent RF hot spots. Use several to form a good RF ground for random, long wire and vertical antennas.

**Continued . . . MFJ-931** creates an artificial ground! It resonates a random length of wire thrown along the floor and produces a tuned counterpoise. This artificial ground effectively places your rig near actual earth ground potential with no earth ground possible. Reduces the electrical length of the ground connection wire to virtually zero by tuning out its reactance. MFJ-931 connects between your rig and a random length of wire or a connecting ground wire. It's tuned for maximum ground current using the built-in RF ammeter. 1.8 to 30 MHz. 7<sup>1</sup>/<sub>2</sub>Wx3<sup>1</sup>/<sub>2</sub>Hx7D inches. RF tight aluminum cabinet.

MFJ-1934  
\$6<sup>95</sup>  
Ship Code B



# MFJ 300W Roller Inductor Tuner

World's only 300 Watt AirCore™ Roller Inductor Antenna Tuner gives you absolute minimum SWR . . . Covers 6 Meters thru 160 Meters . . .



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

**\$199.95**  
MFJ-969  
Ship Code C

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 one year *No Matter What™* limited warranty.

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

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. **True Peak Reading Cross-Needle Meter** MFJ's new *ActivePeak Reading Circuit™* 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, \$15.95. *ActivePeakReading Circuit™* can also use a 9 volt battery.

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.

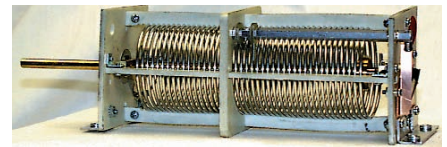
MFJ's *QRM-Free PreTune™* lets you pre-tune MFJ-969 off-the-air into a built-in dummy load without causing QRM.

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

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.

The tough aluminum case has a scratch-proof multi-colored Lexan front panel. Compact 3 1/2"Hx10 1/2"Dx9 1/2"W inches.

**MFJ-969 AirCore™ Roller Inductor**



## Ham Radio's Most Popular 300 Watt Tuner

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

More hams use MFJ-949s than any other antenna tuner in the world!  
MFJ-949E  
**\$169.95**  
Ship Code B

**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™ 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 . . . 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 Antenna switch**

lets you select two coax fed antennas, ran-



dom wire/balanced line or built-in dummy load through your MFJ-949E or direct to your transceiver.

**Big Lighted Cross-Needle Meter**

Has MFJ's full size 3 inch lighted cross-needle Meter. 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, \$15.95.

**QRM-Free PreTune™**

MFJ's *QRM-Free PreTune™* lets you pre-tune your MFJ-949E off-the-air 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 multi-colored front panel, superior cabinet and construction and more! Measures a sleek and compact 10 5/8"x3 3/4"x7 inches.

### MFJ-948 -- An Econo MFJ-949E for Only \$149.95!

MFJ-948  
**\$149.95**  
Ship Code B

All the features of the MFJ-949E -- the world's leading 300 Watt antenna tuner -- for an incredibly low \$149.95! (Dummy load not included; coax



connector for one on rear panel.) Features include custom designed inductor switch, 600 volt tuning capacitors, full size 3 inch lighted Cross-Needle meter, 8 position antenna switch, heavy duty 4:1 balun, full 1.8 to 30 MHz operation, MFJ's famous *No Matter What™* one year limited warranty. Measures a slim and compact 10 1/2"x3 1/2"x7 inches.



# MFJ Compact Mobile HF Antenna Tuner

Covers HF and 6 Meters, Handles 300 watts, Has Antenna Bypass Switch

The compact MFJ-945E mobile antenna tuner covers 6 Meters and HF (1.8- 60 MHz), handles 300 PEP watts, and tunes coaxial cable-fed antennas, plus random wires.

Don't leave home without this mobile tuner, and have a better trip as the MFJ-945E extends antenna bandwidth and eliminates the need to stop, go outside, and readjust your mobile antenna.

The frustratingly narrow bandwidth of mobile antennas can be greatly broadened with this tuner.

Of course, this diminutive tuner can be used to tune coax-fed home station antennas of all kinds, too, as well as random wires.

The cross needle meter shows SWR, forward, and reflected power -- at a glance.



It reads forward/reflected power in 300/60 and 30/6 watt ranges. MFJ-945E \$119.95

The ON/ OFF lamp switch is handy for changing light conditions in your vehicle; the meter lamp is 12 VDC powered with optional MFJ-1312D, \$15.95.

Large, conveniently-placed controls make tuning fast and easy.

The bypass switch lets you bypass the tuner (connecting your antenna and trans-

mitter directly) while still using its SWR/wattmeter.

The back panel has SO-239 coaxial connectors for your transmitter and antenna feedline and a wing nut post for your ground.

For at-home use with a random wire a standard banana plug fits neatly into the antenna jack.

An efficient airwound inductor gives you lower losses for more watts output.

The small, 8Wx2Hx6D inch black aluminum cabinet takes up little space.

A mobile mounting bracket, MFJ-20, is \$6.95. Add \$2.00 shipping for the bracket if ordered separately.

Has MFJ's One Year No Matter What™ limited warranty.

## Portable Tuner for QRP to Full-bore Transceiver

The MFJ-971 is a tiny, inexpensive portable 200 watt PEP antenna tuner that's a perfect match for today's ultra-compact HF transceivers while offering features especially designed for the QRP operator.

Covering 1.8 to 30 MHz, this T-match tuner can match coax-fed antennas, as well as those fed with balanced feedline, and random wires. A 4:1 toroid balun is built in for balanced lines.

From the factory, the MFJ-971 offers forward power readings of 30 watts maximum or 300 watts, on its cross needle meter. You can monitor forward power, reflected power, and SWR simultaneously. For dedicated QRP operation, swapping of a jumper plug internally converts the maximum forward reading on the meter to 6 watts.

The meter lamp may be powered by an external 12 VDC source if you desire (MFJ-1312D, \$15.95).



MFJ-971 \$109.95 Ship Code B

(12 positions), Transmitter, and Antenna. Once you find the proper setting on each band, just record it for future "instant band changing."

Rear panel includes SO-239 coaxial jacks for transmitter and antenna; 2 sturdy binding posts for balanced line; another binding post for a random wire; ground post; 12 VDC input jack for meter lamp; and low/high power meter range switch.

The MFJ-971 is backed by MFJ's No Matter What™ warranty. Measures a tiny 6X6X2.5 inches.

## MFJ 300-Watt Super Value Versa Tuner Covers 160-10 Meters

It's not just a tuner, it's an 8-position antenna switch.

The photo tells the story: you can select among two coaxial-fed antennas, a balanced line (4:1 toroid balun included) or random wire or an external dummy load, and for each you can select "direct" (bypassing the tuner) or "tuned."

This tuner is rated at 200 watts and can match dipoles, vees, random wires, and balanced and coax feedlines, from 1.8 to 30 MHz. You get a lighted cross needle

SWR/wattmeter with on/off switch (lamp uses 12 VDC or 110 VAC with MFJ-1312D, \$15.95).

The meter shows SWR, and forward and reflected power in 300/60 and 30/6 watt ranges selected at the front panel.

An efficient 12 position airwound inductor gives low losses for more power out. Uses 1000 Volt capacitors.



The aluminum cabinet has a durable scratch-proof multi-color Lexan front panel to complement your rig and fits right into your station.

Measures a sleek, compact 10 7/8 Wx2 7/8 Hx7 D inches.

### MFJ's Smallest VERSA TUNER



MFJ-901B \$89.95 Ship Code B

MFJ's smallest (5x2 1/2 x6) and most affordable 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. Three adjustment controls for maximum matching capability.

### Random Wire Tuner for HF



MFJ-16010 Operate \$59.95 all Ship Code A bands 1.8-30 MHz -- anywhere with any transceiver -- using

a single random wire and MFJ's Random Wire Tuner. Small enough to carry in your hip pocket. Handles 200 watts output. Matches high or low impedance loads by interchanging input and output, so it uses SO-239 connectors for both. Measures a compact 3 1/2 Wx2 1/4 Hx5 1/4 D inches.

### Pre-made Coax Patch Cables

Weather resistant 50-Ohm coax patch cables with PL-259 connectors. Select from RG-58, RG-8X or RG-213.



length	RG-58	Price	RG-8X	Price	RG-213 (H)	Price
3 ft.	MFJ-5803	\$5.95	MFJ-5803X	\$9.95	MFJ-5803H	10.95
6 ft.	MFJ-5806	9.95	MFJ-5806X	11.95	MFJ-5806H	12.95
9 ft.	MFJ-5809	11.95	MFJ-5809X	13.95	--	--
12 ft.	MFJ-5812	12.95	MFJ-5812X	14.95	MFJ-5812H	16.95
18 ft.	MFJ-5818	14.95	MFJ-5818X	16.95	MFJ-5818H	19.95
50 ft.	MFJ-5850	24.95	MFJ-5850X	29.95	MFJ-5850H	49.95
100 ft.	MFJ-58100	39.95	MFJ-58100X	49.95	MFJ-58100H	79.95

# MFJ tiny Travel Tuners

**Tiny 4 1/2x2 1/4x3 inch tuner handles full 150 Watts! Covers 80-10 Meters, has tuner bypass switch, tunes nearly anything!**

MFJ brings you the world's smallest full power 150 Watt 80-10 Meter Antenna Tuner. Extra wide matching range lets you tune nearly any antenna.

**It's no toy, it's got guts!** Built with real air variable capacitors (600 Volt, 322 pF) and three stacked powder iron toroids to handle real power -- not just QRP. Bypass switch lets you bypass tuner when you don't need it.

You can use nearly any transceiver at full power with nearly any coax fed or random wire antenna for portable, home or mobile operation.

It's perfect for compact rigs like Icom IC-706MKIIG, Yaesu FT-100D, Kenwood TS-50, QRP rigs and others with a built-in SWR meter.

MFJ-902  
\$89<sup>95</sup>  
Ship Code A



Operate anywhere, anytime with a quick easy set-up! Tune out SWR on your mobile whip from inside your car.

Operate in your apartment with a wall-to-wall antenna or from a motel room with a wire dropped from a window or from a mountain top with a wire over a tree limb.

It's perfect for DXpeditions or field day -- packs up quickly and takes up little space. Helps you be prepared for emergencies -- this tuner and a wire antenna can be packed and set-up just about anywhere.

MFJ-902 is so small and handy, you'll rely on it wherever you go -- easy to pack away in your briefcase, suitcase, backpack, glove compartment or desk drawer.

It's tiny enough to slide in your back hip pocket! 4 1/2Wx2 1/4Hx2 3/4D inches.



## MFJ Tiny Travel Tuner with 4:1 Balun

MFJ-902H  
\$109<sup>95</sup>  
Ship Code A

The MFJ-902H is the same as the MFJ-902 Tiny Travel Tuner but has 4:1 balun for tuning balanced line antennas.

It includes binding post connections for balanced lines and random wire antennas.

Measures a compact 5 3/4Wx2 1/4Hx2 3/4D inches.

## Tiny Travel Tuner with Cross-Needle SWR/WattMeter and 4:1 Balun



MFJ-904H  
\$139<sup>95</sup>  
Ship Code A

MFJ-904H is the same as MFJ-902 Tiny Travel Tuner but has a large 1.5 inch Cross-Needle SWR/Wattmeter and a 4:1 balun for tuning balanced lines.

It includes binding post connections for balanced lines and random wire antennas.

The Cross-Needle meter shows SWR, forward and reflected

power simultaneously at-a-glance. A push button selects forward or reflected power in 300/60 and 30/6 Watt ranges. Measures a compact 7 1/4Hx2 1/4Hx2 3/4D inches.

## Travel Tuner with Cross-Needle SWR/Wattmeter



MFJ-904  
\$119<sup>95</sup>  
Ship Code A

MFJ-904, Same as MFJ-902 Tiny Travel Tuner but has a large 1.5 inch Cross-Needle SWR/Wattmeter that shows SWR, forward and reflected power all at a glance. Push button selects forward/reflected power in 300/60 and 30/6 Watt ranges. Measures a compact 7 1/4Hx2 1/4Hx2 3/4 D inches.

# MFJ 6 Meter/VHF/UHF Antenna Tuners

## MFJ 6 Meter Antenna Tuners



MFJ-906, \$89.95. Six Meter Ship code A 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-1312D, \$15.95 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. 8Wx2 1/2Hx3D inches.

MFJ-903, \$59.95. Like MFJ-906. Less meter/bypass switch. Tiny 5Wx2 1/2Hx3D inches makes it great for the backpack!

## 144/220 MHz or 440 MHz Tuner

MFJ-921/924  
\$79<sup>95</sup>  
Ship code A

MFJ-921 Dual Band VHF

tuner covers 2 Meters/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. Black aluminum cabinet measures a compact 8x2 1/2x3 inches -- fits just about anywhere.

MFJ-924, \$79.95. 440 MHz band only.





# MFJ *Balanced Line Antenna Tuners*

*Superb balance . . . Extremely wide matching range . . . Covers 1.8-54 MHz . . .  
Cross-Needle SWR Wattmeter . . . Handles 300 Watts . . . Compact size . . .*

The MFJ-974HB is a fully balanced true balanced line antenna tuner. It gives you superb current balance throughout its very wide matching and frequency range.

MFJ-974HB  
**\$199<sup>95</sup>**  
Ship Code C

### *Johnson Matchbox*

For decades, the Johnson Matchbox has been the standard of comparison for balanced line tuners. But, it had a severely limited matching range and covered only 80, 40, 20, 15 and 10 Meters.

The MFJ-974HB is its successor. It meets today's needs and even surpasses the Johnson Matchbox outstanding performance.

### *Everything You Need*

The MFJ-974HB gives you excellent current balance, very wide matching range (12-2000 Ohms) and covers 1.8 through 54 MHz continuously including all WARC bands, 160 Meters, 6 Meters and the new 60 Meter band. Handles 300 Watts SSB PEP and 150 Watts CW.

Tuning is fast and easy - - just three tuning controls. You can even adjust for highly efficient broadband low-Q operation or use higher Q when you encounter extreme loads.

A large three-inch lighted Cross-Needle SWR/Wattmeter lets you read SWR, peak or average forward and reflected power all at a glance on 300 or 30 Watt ranges.

A ground post is provided to ground one output terminal so you can also tune random and coax fed antennas.

Compact 7½x6x8D inches fits anywhere.



### *Tunes any Balanced Line*

The MFJ-974HB tunes any balanced lines including 600 Ohm open wire line, 450/300 Ohm ladder lines, 300/72 Ohm twin lead - - shielded or unshielded.

Superb current balance minimizes feed-line radiation that can cause troublesome TVI and RFI, painful RF bites, mysterious RF feedback problems and radiation pattern distortion.

### *Excellent Balance, Excellent Design*

The MFJ-974HB is a fully balanced wide range T-Network using four gear driven 1000-Volt air variable capacitors and high-Q air wound tapped inductor for 80-10 Meters and separate inductors for 6 and 160 Meters. The tuning components are mounted symmetrically to insure electrical balance.

A 1:1 current balun is placed on the low impedance 50 input side to convert the balanced T-Network to unbalanced operation. The balun is made of 50 ferrite beads on RG-303 Teflon™ coax to give exceptional and efficient isolation. It stays cool even at maximum power.

### *Balanced Line = Extremely Low Loss*

Balanced lines give extremely low loss. Doublet, horizontal loop, vertical loop, quad, double extended Zepp, Lazy H, W8JK antennas all give efficient multi-band operation when fed with balanced lines.

### *6-80 Meter Balanced Line Tuner*

MFJ-974B  
**\$179<sup>95</sup>**  
Ship Code C



MFJ-974B. Same as MFJ-974HB but for 6-80 Meter operation (no 160 Meters).

### *Antenna Accessories*

MFJ-1777, \$49.95. 102 feet all band doublet antenna covers 160-6 Meters with balanced line tuner.

Super strong custom fiberglass center insulator provides stress relief for 450 Ohm ladder line (100 feet included). Authentic glazed ceramic end insulators. Handles 1500 Watts.

MFJ-18H100, \$16.95. 100 feet of quality 450 Ohm ladder line.

MFJ-18G100, \$11.95. 100 feet of extremely strong heavy duty 7-strand, 14-gauge hard copper antenna wire.

MFJ-16C06, \$4.56. 6 authentic glazed ceramic end/center antenna insulators. Extra strong. Will not arc or melt.

New! MFJ-16D01, \$8.95.

Super strong custom fiberglass stress relieving center insulator for 450 Ohm ladder line.



See page 59 for more antenna accessories.

# MFJ 1500 Watt *Fully Balanced Antenna Tuner*

*Fully balanced MFJ-976 handles 1500 Watts legal limit . . . Extra-wide 12-2000 Ohms matching range . . . continuous 1.8 to 30 MHz coverage including all WARC bands . . . Four separate 500 pF in two gangs gives you a total of 2000 pF capacitance . . . Heavy duty 1:1 current balun . . . more!*



MFJ-976  
**\$499<sup>95</sup>**  
Ship Code E

You can tune any balanced lines including 600 Ohm open wire line, 450/300 Ohm ladder lines, 300/72 Ohm twin lead -- shielded or unshielded. Also tunes random wires and coax fed antennas.

MFJ's fully balanced extremely wide-range T-network gives you simple, fast three knob tuning. No complicated switching between high and low impedance and switching in additional capacitance of L-networks.

Four separate 500 pF in two gangs gives you a total of 2000 pF for highly efficient low loss operation on 160 Meters.

You get excellent 10 Meter performance because of MFJ's low minimum capacitance and exclusive Self-Resonance Killer™ high-Q AirCore™ roller inductor

The MFJ-976 is a 1500Watt full Legal Limit fully balanced antenna tuner.

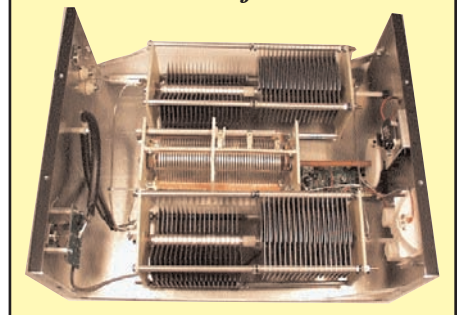
You get superb current balance, very wide matching range (12-2000 Ohms) and continuous 1.8-30 MHz coverage including all WARC bands. Handles full 1500 Watts SSB and CW.

with silver plated contacts.

Heavy duty 1:1 current balun gives you superb balance and stays cool even at 1.5kW.

True active peak reading lighted Cross-Needle SWR/Wattmeter lets you read SWR, true peak or average forward and reflected power all at a glance on 300/3000 Watt ranges. 12Wx6Hx15¾D inches.

### *An inside view of the MFJ-976*



# MFJ Small, high efficiency *Loop Tuners*<sup>TM</sup>

*Turns any wire loop into small, high efficiency multi-band transmitting loop antenna*

Mount for  
PVC Cross Loop



MFJ-933  
\$179<sup>95</sup>  
Ship  
Code B

MFJ-935B  
\$199<sup>95</sup>  
Ship  
Code B

MFJ-936B  
\$249<sup>95</sup>  
Ship Code C

**Drape** a wire around a bookcase or window and attach both ends to this new *MFJ Small Loop Tuner*<sup>TM</sup>.

*It instantly turns into a small, high efficiency multi-band transmitting loop antenna!*

You can operate 5.3 to 30 MHz with a full 150 Watts. No ground, radials or counterpoises needed.

The excellent performance of a high-efficiency small loop antenna is legendary and well proven by users all over the world.

You'll radiate a low angle DX signal that literally rivals full size dipoles and work incredible DX!

It's a very quiet receiving antenna -- you'll hardly notice static crashes. Its high-Q reduces QRM, overloading, harmonics.

It's perfect for apartments, antenna restricted areas and portable operation -- *it really gets out!*

A 13 foot wire formed into a loop operates 30-20 Meters (4 foot for 17-10 M; 7 foot for 20-15 M; 28 foot for 60-40 M).

You can tune *any* shape loop -- circle, square, rectangle, *any* odd shape. A quarter wavelength wire shaped as a *circle* is the most efficient.

A given wire length covers about 1.5 to 1 frequency range (i.e. 7-10/18-28 MHz, etc.). Exact frequency coverage depends on wire length, loop shape, surroundings and height above ground.

Has MFJ low loss *Butterfly* loop tuning capacitor, no rotating contacts. *Easy-Carry* handle. Mount for PVC Cross on cover.

See June, 1986, *QST* or recent *ARRL Antenna Handbook* for more details on small, high efficiency loops.

**MFJ-936B, \$249.95.** For home/portable stations. Has relative RF antenna current meter with sensitivity control and 30/300 Watts Cross-Needle SWR/Wattmeter. 9 1/4"Wx5 1/2"Hx9 1/2"D inches.

**MFJ-935B, \$199.95.** For portable/home stations. Smaller, lighter. Relative RF current meter with sensitivity control. 6 1/4"Wx5 1/2"Hx9 1/2"D inches.

**MFJ-933, \$179.95.** Same as MFJ-935B less RF current meter. 6 1/4"Wx5 1/2"Hx9 1/2"D in.

## Wire Loops and Mounts

**MFJ-57B, \$29.95.** Has PVC Cross for mounting loop on cover, 20-15M insulated 10-gauge flexible loop, low resistance lugs.

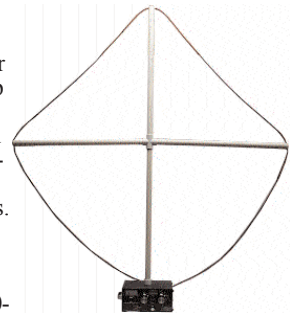
**MFJ-58B, \$49.95.** Has MFJ-57B above, plus 60-40 M, 20-15 M, 17-10 M loops; wire clips.

## Butterfly loop Tuning Capacitors

The heart of the *MFJ Loop Tuners* is an extremely low loss *butterfly* tuning capacitor with no rotating contacts. 4200 Volts RMS. 1/4" dia. x 2 1/2" long shaft.

**A. MFJ-19, \$69.95.** 12 to 67 pF. 6Dx3Wx3 1/2"H in.

**B. MFJ-23, \$89.95.** 18 A. to 136 pF. 10Dx3Wx3 1/2"H in.



## Mini high-efficiency Loop Tuner<sup>TM</sup>



MFJ-932  
\$129<sup>95</sup>  
Ship Code A

**Tiny 50-Watt version of MFJ-933, Small High-Efficiency Loop Tuner<sup>TM</sup>.** Makes portable operation *really portable and fun!* Ultra low loss butterfly capacitor. Covers 80-10 Meters with appropriate wire loop. Tiny 3Wx4Hx1 1/2 inches.

## RF Bypass Switches



MFJ-1705  
\$19<sup>95</sup>  
Ship Code A



MFJ-1705H  
\$29<sup>95</sup>  
Ship Code A

Connect your antenna and transceiver to this MFJ *RF Bypass Switch* and you can switch in or bypass your antenna tuner, linear amplifier, preamp, wattmeter or other device -- switch in and bypass *any* coax fed device with PL-259 UHF connectors. DC to 60 MHz. SO-239 connectors. 50-75 Ohms. 3Wx1 1/2"Hx2 1/2"D inches.

**MFJ-1705, \$19.95.** 300 Watts.

**MFJ-1705H, \$29.95.** 1500 Watts.

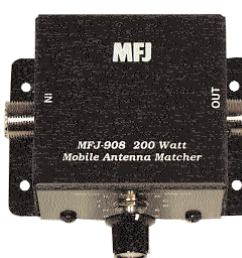
## Variable RF Transformer



MFJ-907  
\$59<sup>95</sup>  
Ship Code A

(2-50 Ohms) of mobile antennas (ham sticks, screwdrivers, etc.) to 50 Ohm transceiver. 11 impedance ratios. Use in reverse to transform high impedances to 50 Ohms. Handles 1000 Watts. 1.8 to 30 MHz. SO-239 connectors.

## Mobile Antenna L-Matcher



MFJ-908  
\$39<sup>95</sup>  
Ship Code A

Matches HF mobile antennas (ham sticks, screwdrivers, etc.) 10-80 Meters by adding *L (inductance)* at the antenna feed-point to ground to form L-network with antenna. 11 values of switchable inductance, .2 uH-12 uH. Handles 200 Watts. SO-239 connectors. 4Wx3 1/4"Hx1 1/4"D inches.

## Mobile Antenna Matcher



MFJ-910  
\$24<sup>95</sup>  
Ship Code A

Matches HF mobile antennas 10 through 80 Meters.

Select five values of capacitance 120-470 pF to add at antenna feed point to ground to form L-network with antenna. Gives you more power out. Handles 300 Watts. SO-239 connectors. Tiny 3 1/2"Wx3Hx1 1/4"D inches.

## Mobile Antenna C-Matcher



MFJ-909  
\$39<sup>95</sup>  
Ship Code A

Matches HF mobile antennas (ham sticks, screwdrivers, etc.) 10-80

Meters by adding *C (capacitance)* at the antenna feedpoint to ground to form L-network with antenna. 11 values of switchable capacitance 30 pF-2000 pF. 600 Watts. SO-239 connectors. 3 1/2"Wx3Hx1 1/4"D inches.

## AutoTuner Extender<sup>TM</sup>



MFJ-914  
\$69<sup>95</sup>  
Ship Code A

**Does your 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. Covers 160-10 Meters, handles 300 Watts, has bypass position. Measures a compact 6Wx4Hx2 1/2"D inches.



# MFJ UHF/VHF/HF Dummy Loads

## MFJ VersaLoad™ kW Dummy Load MFJ-250X VersaLoad™



KW dummy load lets you tune up fast! Run 1KW CW or 2 KW PEP for 10 min. Run 1/2 KW CW or 1 KW PEP for 20 minutes. Run continuous duty with 200 Watts CW or 400 W PEP. Complete with derating curve. Quality 50 ohm non-inductive resistor. Use transformer oil (not incl.). 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. SO-239 connector and vented for safety. Removable vent cap. Carrying handle. 7 1/2 inches. high by 6 5/8 diameter.

MFJ-250, \$69.95. Includes transformer oil (no PCB). Ship Code D.

### Industrial Grade Transformer Oil

MFJ-21, \$29.95. 1 gal. industrial grade transformer oil, (no PCB). Ship Code C.

## Dry 1.5 kW UHF/VHF/HF Load

This is ham radio's most versatile 50 ohm dummy load. Works with all radios from 160 Meters to 650 MHz and from QRP to the full 1500 watt legal limit. SWR below 1.3 to 650 MHz and below 1.1 at 30 MHz. Handles 100 watts for 10 minutes, 1500 Watts for 10 seconds. Strong lightweight aluminum construction. 3Wx3H x9D in. Has MFJ's famous *No Matter What™* one year limited warranty.



MFJ-264 \$74.95 Ship Code A

MFJ-264N, \$84.95. Similar to MFJ-264 but with type "N" connector.

### Coax Patch Cable

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

## Dry 300 Watt VHF/HF Dummy Load

Air cooled, non-inductive resistor is housed 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. A super compact 2 1/4 x 2 1/4 x 7".



MFJ-260C \$39.95 Ship Code A

MFJ-260CN, \$49.95. Similar to MFJ-260C but with type "N" connector.

### Coax Patch Cables

MFJ-5803, \$5.95. 3-foot RG-58 coaxial line with PL-259 connectors.

MFJ-5806, \$9.95. 6-foot RG-58 coax.

MFJ-5809, \$11.95. 9-foot RG-58 coax. See page 7 for more details.

# MFJ Dry Dummy Load with Precision SWR/Wattmeter

World's most versatile 1.5 kW dummy load has a built-in true peak reading SWR/Wattmeter that you can switch and use independently!

MFJ-267 \$159.95 Ship Code B

### You'll find tons of uses!

Tune up your transceiver, linear amplifier or antenna tuner into a safe 50 Ohm dummy load at full power.

Then instantly switch to your antenna and monitor SWR, forward and reflected power.

Use for testing/tuning transmitters, transceivers, amplifiers, antenna tuners, baluns, transformers, filters, matching networks, coax, stubs, transmission lines and antennas.

### 1500Watt Dry Dummy Load

The 50-Ohm dry dummy load works DC to 60 MHz.

SWR is below 1.3:1 at 30 MHz. Can



handle 100 Watts for ten minutes or 1500 Watts for ten seconds. Comes with power derating curve.

### Cross-Needle SWR/Wattmeter

Extra-large three-inch lighted Cross-Needle meter reads SWR (1:1 to 8:1), forward and reflected power simultaneously.

Reads true peak PEP or average power on 300/3000 Watts forward and 60/600 Watts reflected power ranges 1.8-54 MHz.

High accuracy comes from a carefully designed directional coupler, an accurate active-peak reading circuit and a precision d'Arsonval meter movement.

RF tight perforated aluminum cabinet. 4 1/2 W x 3 1/2 H x 10 1/2 D inches. Uses 12 VDC or 120 VAC with MFJ-1312D, \$15.95.

### MFJ NoMatterWhat™ Warranty

MFJ-267 is protected by MFJ's famous *No Matter What™* one year limited warranty. MFJ will repair or replace your MFJ-267 dummy load *no matter what* for one full year.

# 2500 Watts fan-cooled Dry Dummy Load



New!

MFJ-265 \$209.95 Ship Code C

MFJ's 2500 Watt fan cooled dummy load handles any legal limit amplifier, and lets you tune-up your expensive amplifier fast and super easy.

Works with all amplifiers, transceivers and transmitters from DC through 6 Meters.

It can dissipate 2500 Watts average power for one minute on, ten minutes off.

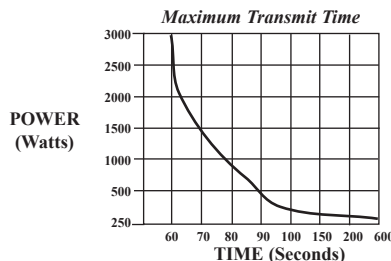
Handles 300 Watts continuous.

SWR is less than 1.25 to 1 below 30 MHz and less than 1.4 from 30 to 60 MHz.

Four 50 Ohm non-inductive super high energy density resistors are used.

Each has an incredibly high energy density of 7000 joules per cubic inch per second with a voltage gradient of 10 kV per inch! Detailed specifications and power curve are permanently silk-screened on the bronzed cabinet for easy reference.

Uses 12 VDC or 110 VAC. 8 1/4 W x 4 H x 9 1/2 D in. SO-239 connectors. 5 pounds.



# Dry DC-500 MHz "Handy" Dummy Load

New! MFJ-261 \$27.95 Ship Code A

Connects directly to your transmitter or test equipment with a PL-259 connector.

Great for use with your MFJ-259B Antenna SWR Analyzer™. Use MFJ-261N, \$37.95 for use with your MFJ-269 SWR Analyzer™.

No patch cable used, reduces SWR. Finned aluminum, air-cooled heatsink. Handles 100 Watts peak, 15 Watts average. 50 Ohms.

Covers DC to 500 MHz with less than 1.15:1 SWR. 1 3/8 round by 3" long.

MFJ-261N, \$37.95 Similar to MFJ-261, but has N-male type connector.



# MFJ Desktop or Remote Antenna Switches

## Desk/Remote 6/4 pos. **Antenna Switches**



(back of unit)



MFJ-4716  
\$89<sup>95</sup>

Ship Code B

**New!**

Use this MFJ-4716 Six-Position Antenna Switch on your desk or place it out-of-way under your desk or in another room and use a remote control.

A simple rotary switch lets you select 1 of 6 antennas. All unused inputs are grounded. You can connect a sense line to your transceiver so when it's off, all inputs are automatically grounded.

In the OFF position, all inputs are grounded or control is transferred to the MFJ-4716RC, \$39.95, Remote Control.

Ultra-fast gas discharge tube lightning surge protector protects transceiver and safely shunts static electricity and lightning induced surges safely to ground. Does not protect against a direct lightning hit.

Super easy-to-use -- just one simple rotary switch. There are no complicated computer buttons to learn or microprocessors to fail or generate RFI that could mask rare DX.

SO-239 connectors. 1500 Watts/50-75 Ohm load, 1-60 MHz. Useable to 150 MHz. Connects to MFJ-2716RC remote control with common CAT 5 cable, not included (available from WalMart, etc.). Use 12 VDC or 110 VDC with MFJ-1312D, \$15.95. 8Wx2<sup>3</sup>/<sub>4</sub>Hx4<sup>1</sup>/<sub>4</sub>D inches. For indoor use, not weather protected.

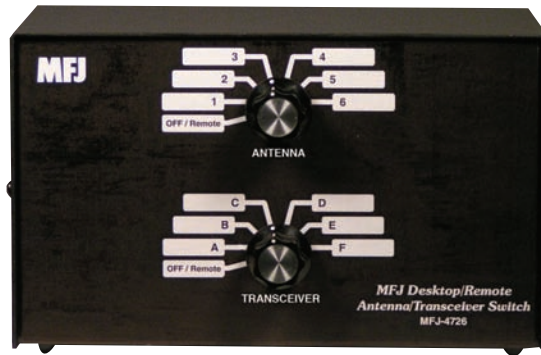


MFJ-4716RC, \$39.95. 6-position. Remote Control for MFJ-4716. CAT 5 cable not included. Tiny 2<sup>3</sup>/<sub>4</sub>Wx3<sup>3</sup>/<sub>4</sub>Hx1D inches.

**4-Position Desktop/Remote Antenna Switch MFJ-4714, \$79.95.** Like MFJ-4716, but switches between four antennas.

**MFJ-4714RC, \$39.95.** 4-position Remote Control for MFJ-4714, 4 antenna desktop/remote switch.

## Desktop/Remote 6 & 4 position **Antenna/Transceiver Switches**



MFJ-4726  
\$159<sup>95</sup>

Ship Code B

Place this MFJ-4726 Six-Position Antenna/Transceiver Switch on your desk or place it out-of-way under your desk or in another room and use

a remote control. Select one of six antennas and one of six transceivers in any combination with just 2 easy-to-use rotary switches.

Plug in antenna tuner, SWR/Wattmeter or other into its common ports, so it is always connected to the antenna and radio selected.

All unused inputs are grounded. When rotary switches are in OFF position, all inputs are grounded or control is transferred to MFJ-4726RC, \$59.95, remote control.

Automatically grounds all inputs when you turn off transceiver. Lightning surge protector protects transceivers and shunts surges to ground. Does not protect against a direct lightning hit.

SO-239s. 1500 Watts into 50-75 Ohm load 1-60 MHz. Useable to 150 MHz. Use CAT 5 cable for remote control, not included. Use 12 VDC or 110 VAC with MFJ-1312D, \$15.95. For indoors, not weather protected. 8Wx5Hx4<sup>1</sup>/<sub>4</sub>D inches.



MFJ-4726RC, \$59.95. 6-position. Remote control for MFJ-4726. Use CAT 5 cable, not included.

**4-Position Desktop/Remote Ant./Xcvr Switch MFJ-4724, \$139.95.** Like MFJ-4726, but switches between four antennas/transceivers.

**MFJ-4724RC, \$59.95.** 4-position Remote Control for MFJ-4724. Tiny 2<sup>3</sup>/<sub>4</sub>Wx3<sup>3</sup>/<sub>4</sub>Hx1D inches.



MFJ-4712  
\$79<sup>95</sup>

Ship Code B

## MFJ 2-Position **Remote Antenna Switch**

This MFJ 2-position remote antenna switch uses a single coax feed-line to feed two antennas, DC power and control signals -- no power or control cable needed.

It's perfect for switching from HF to VHF -- no more unplugging coaxial lines from your antennas just to switch frequency -- a quick switch does it for you.

MFJ-4712 covers 1.8 MHz-150 MHz and handles 1500 Watts. Impedance is 50-75 Ohms.

The compact 4Wx2<sup>3</sup>/<sub>8</sub>Hx1<sup>1</sup>/<sub>2</sub>D inch Outside Switch Box is fully enclosed and weather protected. It also has three quality Teflon<sup>®</sup> SO-239 connectors for transmitter, antenna one and antenna two.

It uses a Stainless steel 1<sup>1</sup>/<sub>2</sub>" tall bracket with a U-bolt for mast up to 1<sup>1</sup>/<sub>2</sub> in. O.D. Inside Remote Control is 2<sup>1</sup>/<sub>4</sub>Wx2<sup>1</sup>/<sub>2</sub>Hx1<sup>1</sup>/<sub>4</sub> inches.

MFJ-4712 is protected by MFJ's famous No Matter What™ one year limited warranty. MFJ will repair or replace (at our option) your MFJ 2-position remote antenna switch for one full year.

## BiasTee DC Power Injector



**New!**

MFJ-4116  
\$24<sup>95</sup>

Ship Code A

Send up to 1 Amp DC /50 Volts DC through coax cable to power equipment (automatic antenna tuner, remote antenna switch, relay box) without running separate cable. Requires one MFJ-4116 on each end of coax to inject DC power and to retrieve DC power. 1-60 MHz. SO-239 connectors. 2<sup>3</sup>/<sub>4</sub>Wx2<sup>1</sup>/<sub>2</sub>Hx1<sup>1</sup>/<sub>4</sub>D inches.

MFJ-4116P, \$47.95, pair of MFJ-4116.

MFJ-4117, \$29.95. Like MFJ-4116, but with switch to turn remote equipment on/off.

## Rig/Antenna RF Safety Switch



MFJ-1703  
\$24<sup>95</sup>

Ship Code A

1703 keeps your expensive transceivers safe from transmitting into nothing! No more burning up your radio because you forgot to change your antenna switch! 1.8 to 30 MHz. Your transceiver is always hooked up to one of two antennas! Connect two rigs and two antennas and switch to different combinations. 300 watts PEP SSB, 150 watts CW. Handy mounting tabs. All metal, switches 50-75 Ohm unbalanced lines.

## MFJ RF Sense T/R Switch



MFJ-1708  
\$79<sup>95</sup>

Ship Code A

Automatic T/R Switch senses transmitted RF and switches your antenna from receive to transmit using a relay. Shorts your receiver antenna input to ground to protect your receiver. Provides an auxiliary contact closure to ground during receive (opened in transmit) for an "On-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. Adjustable time delay circuit gives you delayed switching. All modes. 200 Watts SSB PEP. Measures 4Wx2<sup>3</sup>/<sub>4</sub>Hx1<sup>1</sup>/<sub>2</sub>D inches. 12 VDC or 110 VAC with MFJ-1312D, \$15.95.

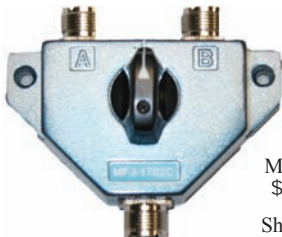


# Lightning Protected Heavy Duty Coax Switches

**MFJ gives you a center ground position, automatic grounding of unused positions, handles 2.5 kW PEP and works to over 500 MHz!**



MFJ-1704  
\$79<sup>95</sup>  
Ship Code A



MFJ-1702C  
\$39<sup>95</sup>  
Ship Code A



MFJ-1702  
\$19<sup>95</sup>  
Ship Code A

Mount this 4-position SO-239 switch on your operating desk and you'll have more than the convenience of being able to instantly select any of four antennas or the center ground position -- you'll also get the replaceable lightning surge protection device that helps protect against distant lightning induced surges and static. Handles a full 2.5 kW PEP. Extremely low SWR. Isolation is rated from better than 60 dB at 30 MHz to better than 50 dB isolation at

500 MHz. Negligible insertion loss. 50 Ohms. **MFJ-1704N, \$84.95.** Like MFJ-1704, with "N" type connectors.

**MFJ-1702C** 2-position Coax Switch has a new lightning surge protection device that helps protect against distant lightning induced surges and static. Has center ground position and handles 2.5 kW PEP, 1 kW CW. It has better than 60 dB isolation at 300 MHz and better than 40 dB at 450 MHz. 50 Ohms. Unused terminals are

automatically grounded for static and RF protection. It has less than 0.2 dB insertion loss and SWR below 1.2:1. The MFJ-1702C has a heavy cavity type construction and uses SO-239 connectors. Has handy mounting holes. Measures 3Wx2Hx2D in. **MFJ-1702CN, \$44.95.** Like MFJ-1702C, with "N" type connectors. Covers DC to 1.1 GHz.

**MFJ-1702, \$19.95.** Like MFJ-1702C, less lightning surge protection, center ground.

## MFJ Six Position Antenna/Transceiver and Antenna Switches



MFJ-1700C  
\$99<sup>95</sup>  
Ship Code B

### New and Improved MFJ-1700C!

**MFJ-1700C, \$99.95.** The new MFJ-1700C adds lightning surge protection and much better isolation between connectors, wires.

This high power Antenna/Transceiver Switch lets you select one of six antennas and one of six different transceivers in any combination.

You can also plug in an antenna tuner, SWR wattmeter, other electronic equipment. Has quality SO-239 connectors.

You are always connected to the antenna and radio selected. MFJ-1700C handles 2 kW PEP SSB, 50-75 Ohm loads.

Unused terminals are automatically grounded. SO-239 connectors. Covers 1.8 to 30 MHz. Measures 4 3/4"Wx6 1/2"Hx3D in.

### 6 Position HF Antenna Switch



MFJ-1701  
\$69<sup>95</sup>  
Ship Code B

**MFJ-1701, \$69.95,** lets you select one of six antennas. Covers 1.8-30 MHz.

Unused terminals are automatically grounded. Quality SO-239 connectors for hook-up to your antennas. Handles 2 kW PEP SSB, 1 kW CW, 50-75 Ohm loads. Measures a compact 10Wx3Hx1 1/2D inches.

## MFJ 12-Position Coax Patch Panel



MFJ-4706  
\$79<sup>95</sup>  
Ship Code A

**MFJ Coax Patch Panel connects devices**

with virtually no loss, feed-through or cross-talk . . .

Provides 12 Teflon<sup>®</sup> SO-239 coax feedthru barrel connectors to patch 12 coax fed devices together with short coax jumpers.

This extremely high performance and versatile military/professional patch panel approach has virtually no loss, no feed-thru and no cross-talk -- depends only on the quality of your coax -- and has far better performance than any switching system.

To use, connect your coax fed devices (rigs, antennas, SWR/Watt-meters, tuners,

amplifiers, preamps, switches, and other electronic equipment) to coax connectors inside the patch panel.

Each device is then available on the front panel and can be connected to any other device using a short coax patch cable. All devices can be used at the same time.

Cables enter through side or rear on either side. Has wing nut for ground.

Side or back mounting tabs let you mount to a wall, under your table, or on ham station desk.

Compact 9Wx5Hx4D inches fits just about anywhere.

### MFJ 8-Pos. Coax Patch Panel



**MFJ-4704, \$69.95.** Similar to MFJ-4706 but for 8 coax-fed devices.

Both are protected by MFJ's famous *No Matter What*<sup>™</sup> one

year limited warranty.

## MFJ Balanced line antenna switch



MFJ-1706  
\$99<sup>95</sup>  
Ship Code B

Use one of six different balanced feedlines from 1.8 to 30 MHz. Has handy, versatile 5-way binding posts. Handles 1500 Watts PEP SSB. All metal enclosure has silk-screened label positions. 9Wx3 1/4"Hx6 1/2"D".

**MFJ-1706H, \$109.95,** similar, but has high-voltage glazed ceramic feedthrough insulators instead of 5-way binding posts.



MFJ-1706 back



MFJ-1706H back

# Safeguard expensive gear from static electricity and lightning surges

## MFJ Lightning Surge Protectors handle 400 Watts PEP or 1500 Watts PEP



400Watts!

MFJ-270  
\$29.95

Ship Code A

**Safeguard** your expensive equipment from static electricity and lightning induced surges on 50 Ohm coaxial line.

MFJ's Guardian Angel™ Lightning Surge Protectors 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. MFJ-270 handles 400 W PEP. MFJ-272 handles 1.5 kW PEP. MFJ-270 and MFJ-272 do not protect against a direct lightning hit.

**MFJ-270, \$29.95.** SO-239 to SO-239.

**MFJ-270MF, \$34.95.** SO-239 to PL-259.

**MFJ-270N, \$34.95.** Low-loss N-connectors.

**MFJ-97, \$9.95.** Replacement gas discharge tube for MFJ-270.

MFJ-272  
\$39.95

Ship Code A

**MFJ-272, \$39.95.**

SO-239-

SO-239.

**MFJ-272N, \$44.95.** N

Connectors.

**MFJ-272MF, \$44.95.** SO-239 to PL-259.

**MFJ-97H, \$19.95.** Replacement Gas Discharge tube for MFJ-272.



1.5kWatts

MFJ-272MF pictured.

## Reduce Harmonics, Avoid TVI with MFJ Filters

### Low Pass TVI Filter Handles Full Legal Power

MFJ-704  
\$49.95

Ship Code A

**MFJ-704** suppresses TVI, RFI, telephone and other interference by reducing unwanted harmonics going to your antenna.

At the same time your HF signal passes on through with low loss so you can snag that rare and exciting 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 *Teflon Dielectric 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 1500 Watts 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.

### 200W Low Pass TVI Filter

MFJ-702B  
\$39.95

Ship Code A

**Be a good neighbor.**

Plug this

Low Pass TVI filter between your transmitter and antenna or tuner and reduce your transmitter harmonics by 50 dB! Harmonics could be the source of interference to your neighbor's TV, radio, VCR, telephone, etc. SWR is below 1.5 to 30 MHz into 50 Ohms. Perfect for barefoot transceivers -- handles 200 Watts with less than 0.5 dB insertion loss. Attenuation is 50 dB at 54 MHz. SO-239 connectors. 3x2x1.5 inches.



### MFJ 2500 Watts Low Pass TVI Filter



MFJ-705  
\$119.95

Ship Code B

**Suppress**

TV interference

at the source with the MFJ-705 *Low Pass Filter*. Use between Transmitter and Antenna or Tuner. Reduces TV interference (TVI) radiated by transmitters operat-

ing below 30 MHz. Suppresses harmonics appearing in the TV bands. Additional attenuation to TV IF frequencies above 40 MHz. Low loss to 30 MHz. 9-pole inverse Chebyshev.

**SPECIFICATIONS:**

**Passband:** 0-30 MHz

**Cutoff freq:** 35 MHz

**Attenuation:** 52.25 MHz (Channel 2 Video), -60 dB, Worst case at 65 MHz, -60 dB

**Power Capacity:** 2500 W Key Down -

MFJ-705 Frequency Response

50% Duty

**Impedance:**

52 Ohms

**Insertion**

**Loss:** 0.25

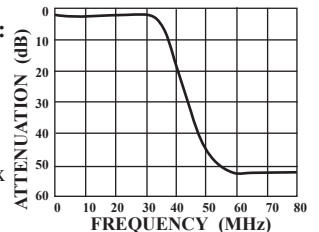
dB @ 30

MHz.

**Size:** 9 1/2" W x

2 1/4" H x 4 1/4" D

inches.

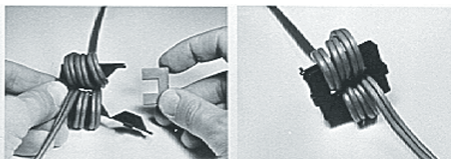


### MFJ RFI Free Choke Kit for RFI Suppression

MFJ-701  
(Set of 4)  
\$16.95

Ship Code A

It's easy to eliminate common RFI problems. Simply wind the offending cable around MFJ's RFI suppressing toroid to get rid of RFI. Four square ferrite toroids are formulated espe-



cially for eliminating RFI from 0.5 to 200 MHz. Wind on all kinds of cable, computer ribbon, TV coax, power, telephone, etc.

### Ferrite RFI Suppression Chokes

These RFI snap-on Chokes are selected for RFI suppression. Install on DC power line to keep ignition noise from your mobile rig and amplifier. Remove RF on cables and wires to your radio station. Isolate RFI on feedline from your station. Two-piece design, snap and lock securely around your cable. Install end to end along rigid cable or loop multiple turns with smaller soft cable. Select from four sizes, .25" ID to .75" ID.

Model # - Price each	Model# - Price 4-Pk	Hole Size	Typical Cable Use
MFJ-700A, \$2.25	MFJ-700A4, \$7.95	.275 inches diameter	RG58/59/6U/8X
MFJ-700B, \$3.25	MFJ-700B4, \$12.95	.402 inches diameter	RG213/6X
MFJ-700C, \$4.50	MFJ-700C4, \$17.95	.528 inches diameter	RG11/8U
MFJ-700D, \$4.95	MFJ-700D4, \$18.95	.750 inches diameter	LMR600
MFJ-700P8, \$27.95	Combination Pack of 9;	consists of 4-A, 2-B, 2-C and 1-D RFI chokes.	

### High Pass Filter for TV sets

MFJ-711B,

\$24.95. MFJ's

*ShieldBreaker™*

high pass filter

effectively suppresses annoying

TVI! Wipe out TVI caused by 2-

way, broadcast, commercial, amat-

eur and CB radios operating below 30 MHz.

Use between cable/antenna and TV/VCR. 75

ohm cable. Type F male/female connectors.



MFJ-711B  
\$24.95

Ship Code A



Ferrite RFI Suppression Chokes



# MFJ Compact HF, VHF, UHF SWR/wattmeters



MFJ-860  
\$49.95

Ship Code A

MFJ-862  
\$59.95

Ship Code A

MFJ-864  
\$89.95

Ship Code A

**This MFJ  
Cross-Needle**

**SWR/wattmeter covers HF thru VHF --  
1.8-60 MHz, 144 MHz, and 440 MHz  
bands -- for only 89.95!**

**MFJ-864, \$89.95**, Cross-Needle Meter reads forward and reflected power and SWR *simultaneously* and features separate HF and VHF/UHF directional couplers, each with its own SO-239 connectors.

This lets you connect your HF and VHF/UHF (1.8-60, 144, and 440 MHz bands) 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, \$15.95.

The all metal cabinet has a tough vinyl cladding. You won't find a tougher, longer lasting finish anywhere. **MFJ-864** measures a compact 7 1/4 Wx2 1/2 Hx2 1/4 D inches.

**MFJ-862, \$59.95**, similar to MFJ-864 but covers 144/220/440 MHz. 30/300 Watts forward, 6/60 Watts reflected ranges. 5 3/4 x 2 1/2 x 2 1/4 in. Has one sensor for all 3 bands.

**MFJ-860, \$49.95**, similar to MFJ-864 but for 1.8-60 MHz only. Push button selects 30/300 Watts forward, 6/60 Watts reflected. Compact 4 1/2 x 2 1/4 x 3 inches.

## MFJ GrandMaster™ SWR/wattmeter Series



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

**1.8-30 MHz SWR/Wattmeter  
with TrueActive™ Peak Reading circuit**



**New!** MFJ-815C now reads *true-peak* or average power on a large illuminated three-inch Cross-Needle Meter. Has

**TrueActive™** peak reading circuit.

**MFJ-815C** covers 1.8 to 30 MHz and reads SWR and *true peak/average* forward and reflected power *simultaneously*. Has 3000 and 300 Watts forward and 600/60 Watts reflected power ranges. SWR from 1:1 to 8:1. SO-239 Connectors. 6Wx3 1/2 H x 4 1/2 D inches. Black aluminum cabinet.

**VHF/UHF SWR/Wattmeter  
with TrueActive™ Peak Reading circuit**

**New!** Like MFJ-815C

MFJ-817C \$99.95  
Ship Code A



but for 144/220/440 MHz, VHF/ UHF bands. Reads SWR and *true peak/average* forward and reflected power in two ranges: 300/30 Watts and 60/6 Watts *simultaneously*. SWR 1:1 to 8:1.

makes it quick and easy to read SWR, forward or reflected power. Lamp requires 13.8 VDC or 110 VAC operation.

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 extends the full view of the meter. 3:1 SWR is centered at mid-scale to give you precision, wide-range measurements.

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

Each **GrandMaster™** 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. 7 1/2 Wx3 1/8 Hx4 1/4 D inches.

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

**GrandMasters™** are precisely factory calibrated for accurate measurements.

**Choose from four MFJ GrandMasters™**

**MFJ-870, \$134.95.** HF, covers 1.6 to 60 MHz. 30, 300, 3000 Watt power ranges.

**MFJ-872, \$94.95.** HF/VHF, covers 1.8 to 200 MHz. 5, 20, 200W power ranges.

**MFJ-873, \$114.95.** VHF/UHF, covers 125-525 MHz. 5, 20, 200W power ranges.

**MFJ-874, \$169.95.** HF/VHF/UHF, covers 1.8-525 MHz. 5, 20, 200W power ranges.

**VHF SWR Wattmeter  
plus Field Strength**



MFJ-812B  
\$39.95  
Ship Code A

**MFJ-812B** is the world's

most popular -- and most affordable -- VHF SWR/Wattmeter. Has a built-in field strength meter. Covers 2 Meters and 220 MHz. Reads forward and reflected power in two ranges -- 30 or 300 Watts.

**Reads SWR** from 14 MHz through 220 MHz. Also reads relative field strength from 1 to 220 MHz. Has binding post for field strength antenna. Black. 4 1/2 Wx2 1/4 Hx3D inches.

**Econo HF SWR/Wattmeter**

MFJ-816  
\$39.95  
Ship Code A

**MFJ-816** HF SWR/Wattmeter



lets you read forward and reflected power on two scales -- 30 and 300 Watts -- and SWR from 1.8 to 30 MHz. Toroid current pickup gives uniform sensitivity. Easy push-button operation. Sturdy black aluminum cabinet. SO-239 connectors. 2-color meter scale. 4 1/2 Wx 2 1/4 Hx3D inches -- makes it ideal for portable use.

**Compact Cross-Needle SWR/Wattmeters**



MFJ-822/MFJ-842  
\$59.95  
Ship Code A

**New!** Compact HF/VHF and VHF/UHF SWR/Wattmeter. Has huge 3" Cross-needle meter.

Read forward/reflected power and SWR simultaneously. Perfect for mobile or portable operation. Two selectable power ranges, built-in meter light (+12 VDC). SO-239 connectors. 3 1/4 Wx3 1/8 Hx3 1/4 D in.

**MFJ-822** covers 1.8-200 MHz, 30 or 300 Watts. MFJ-842 covers 140-525 MHz, 15 or 150 Watts.

**SWR/Wattmeters for Handhelds**

**MFJ-841** connects directly in line between your handheld and antenna. Reads SWR up to 6:1 and power output to full 5 Watts. 3-position toggle switch selects SWR, SWR set, or forward power. Compact 2x2 1/4 x 1 1/2 inches.



**MFJ-840, \$29.95**, checks power output of your 2 Meter handheld into a 50 ohm dummy load and check battery charge, too. BNC connector, small 2x2 1/4 x 1 1/2 inches.

# MFJ *in-line* Calibrated **RF Ammeters**

... for tuning your antenna tuner/xmtr/amp for maximum radiated power ... for determining antenna feedpoint impedance... for comparing antennas and tuners ... for trouble shooting ... checking for changes



## MFJ-834 Coax In-Line Calibrated RF Ammeter

MFJ-834  
\$69<sup>95</sup>

Ship Code A

Connect the MFJ-834 Coax In-Line RF Ammeter between your antenna and tuner/ transmitter/amplifier and measure antenna feedline current in 3 calibrated ranges.

Use it ... for tuning your antenna tuner/transmitter/amplifier for maximum radiated power ... for determining antenna feedpoint impedance... for comparing antennas and tuners ... for trouble shooting ... and for checking for changes.

Tuning for maximum feedline current for any given antenna always gives maximum radiated power!

Any adjustment -- transceiver or amplifier tuning/loading controls, antenna tuner settings, whatever -- that increases feedline current improves power transfer and gives you a stronger radiated signal.

Radiated power increases rapidly because power increases as the square of the current.

Minimum SWR does not always mean maximum radiated power -- your tuner or lossy coax may be dissipating power -- and you may not get peak output power even if your tuner or amplifier is properly tuned.

Use the MFJ-834 to determine best antenna tuner settings and to compare various tuners.

Calculate your antenna feedpoint impedance by dividing your applied power by the square of the feedpoint current.



Your antenna can change when you apply power -- insulators break down, traps heat up, capacitors leak -- and your feedpoint impedance may be drastically different from your SWR Analyzer measurements.

MFJ RF ammeters are rugged, read accurately over 1-30MHz in three linear ranges (.3, 1, 3 Amps) and barely perturb the antenna.

Large 3-inch lighted meter. Use 12 VDC or 110 VAC with MFJ-1312D, \$15.95.

SO-239 connectors. 6Wx3½Hx4½D inches.

MFJ-834H. \$79.95. Like MFJ-834, but 3, 10, 30 Amps high current ranges.

## MFJ-836 all-in-one RF Ammeter/SWR/Wattmeter

The MFJ-836, \$129.95 is an all-in-one RF Ammeter/SWR/Wattmeter! You can quickly determine feedpoint impedance and monitor antenna system for detrimental changes under power.

Read RF current in three calibrated ranges -- 1, 3, 10 Amperes. A large 3-inch lighted easy-to-read Cross-Needle meter lets you read SWR, forward (300/3000W) and reflected power (60/600W) simultaneously.

MFJ's exclusive TrueActive™ circuit gives you true peak or average power readings. SO-239 connectors. Use 9 Volt battery and/or 12 VDC or 110 VAC with MFJ-1312D, \$14.95. 6Wx3½Hx4½D inches.

MFJ-836H, \$139.95. Like MFJ-836 but



## MFJ-835 Balanced Line RF Ammeter

MFJ-835  
\$119<sup>95</sup>

Ship Code A

How do you detect imbalance in open-wire or ladder line? By measuring and comparing each feedline wire current -- your feedline is balanced if the currents are equal.

The MFJ-835, \$119.95 BalancedLine RF Ammeter™ is two identical calibrated RF ammeters using an MFJ Cross-Needle meter.

Feedline currents are simultaneously displayed on separate calibrated scales in three ranges (.3, 1, 3 Amperes).

Balance is clearly revealed on MFJ's exclusive BalancedBar™ -- when currents are balanced, the dual needles cross in the center -- no matter the actual current.

If the needles cross within the vertical BalancedBar™ the balance is within 10%. If not, you know which line is unbalanced and by how much.

Equal currents in the feeder wires minimize feedline radiation and reduces pattern distortion, RFI, TVI and wasted power. You could lose up to 10% of your power.

Imbalance is due to feedline not being perpendicular to antenna, if one side runs close to metal or is shorter or closer to ground.

The MFJ-836 helps you solve all your unbalanced problems.

Heavy-duty 5-way binding posts for feedlines. Use 12 VDC or 110 VAC with MFJ-1312D, \$15.95. 6Wx3½Hx4½D in.

## Calibrated **Clamp-On** RF Ammeter



MFJ-854 Clamp-On RF Ammeter quickly snaps over wires and cables to measure RF currents flowing in antenna elements, radials, ground wires and on outside of coax.

Tune counterpoises, radials and ground systems. Balance your radials. See how much signal is radiating from your antenna, feedline or ground wire. Study/optimize your antennas for peak performance. Find current peaks/nulls on antennas/ feedlines. Plot current profile, measure and tweak current flow at each antenna element in phased arrays.

Determine your antenna feedpoint impedance, radiated power, power losses and efficiency. Track down RFI-causing currents on coax shield, rotator cable, guy wires, house wiring, telephone and television cables.

MFJ-854 \$109<sup>95</sup> Ship Code A Has five calibrated ranges to 3 Amperes including sensitive 30 mA range with linearity compensation to assure accuracy at low currents. It's sensitive enough to use an MFJ SWR Analyzer as the source to drive your antennas.

Less than 1 mA on super-sensitive Variable Range yields usable meter deflection for tracking RFI on household wiring and cables. 1-30 MHz plus. ½ inch diameter cables. 2 ½ Wx5½Hx1½D in.

## Calibrated **mini Clamp-On** RF Ammeter



MFJ-853  
\$49<sup>95</sup>

Ship Code A

MFJ-853 calibrated mini Clamp-On RF ammeter accurately measures RF current in antenna elements, radials, ground wires, coax shield. Non-metallic lightweight case minimizes electric field disturbances for accurate

readings -- clamp on mobile whip/vertical. Adjust for maximum radiated current. Determine radiated power/losses. Profile its current distribution -- it's maximum at base and tapers to zero at end.

Use like MFJ-854 to do many of its tasks. 0.3, 1, 3 Ampere ranges. Small 2¼Wx3¾Hx1D in.

MFJ-853H, \$59.95. Like MFJ-853, but has 3, 10, 30 Ampere high-current ranges.



MFJ-805  
\$89<sup>95</sup>

Ship Code A

## MFJ Super-Sensitive **RFI Sniffer**

MFJ-805 works with mobile installations, ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads. Isolate cables picking up RFI and

know when you've suppressed the problem. Easy-to-use. Clamp current transformer over suspected cable or wire (up to ¼ in. dia.) to detect RFI causing common-mode currents. 2¼Wx4¼H x1D inches fits in shirt pocket. Use 9 Volt battery. Usable VLF to VHF. Gain adjustable over 50 dB range.



# MFJ-868 *World's largest SWR/Wattmeter* has giant 6½ inch meter

**New!**

MFJ-868  
\$139<sup>95</sup>  
Ship Code B

**Giant 6½" Meter!!!**



**World's largest HF SWR/Wattmeter** measures a giant 6½ inches diagonally across meter scale!

**This one you can See!** Its huge scale gives you ultra-fine resolution and its big high-contrast numbers makes reading a breeze -- even across your shack.

The meter needle position and motion gives you an accurate indication for what's going on *quickly* without actually reading the scale -- like your analog watch.

MFJ's exclusive **TrueActive™**

peak reading circuit captures *true* peak or average forward and reflected power readings. Has 20/200/2000 Watt ranges makes it valuable for QRP or QRO operation.

The full SWR scale makes reading SWR much more accurate and easier to read.

**Exclusive MFJ Wattmeter Power Saver™** circuit turns on meter only when RF power is being measured.

**Covers** 1.8-30 MHz. Use 9 volt battery or 12 VDC or 110 VAC with optional MFJ-1312D, \$15.95. Measures 7Wx5½"Hx5D inches.

## Ruggedized flat Mobile/portable SWR/Wattmeter



MFJ-818  
\$69<sup>95</sup>  
Ship Code A

**New!**

MFJ's new flat, compact

SWR/Wattmeter is plenty rugged to take abuse of brutal mobile/portable operation.

The meter is fully enclosed in a strong aluminum case with just the scales exposed.

Only two small switches are slightly protruding so there's little to break.

**Simultaneously** read SWR/forward/reflected power on full size 3-inch lighted *Cross-Needle* Meter.

Use 12 VDC for meter lamp or plug into cigarette lighter with MFJ-5510, \$6.95. 30/300 Watt ranges. 1.8-30 MHz, SO-239 connectors. 5Wx3Hx2D inches.

See pages 15-16 for more wattmeters!

## High-accuracy Digital SWR/Wattmeter, 1.8-60 MHz

MFJ's high-accuracy digital SWR/Watt-

meter/Frequency Counter

measures 100 milliwatts to 1500 Watts. You get three high-resolution ranges with 10-bit accuracy in each range from 1.8 to 60 MHz!

**True** peak or average forward and reflected Watts, SWR and frequency can be simultaneously displayed.

You can also select auto-ranging *bargraph modes* to display forward and reflected power or forward power and SWR *twin bargraphs* or SWR only bargraph. Frequency, SWR and forward power are also displayed numerically.

**PeakHold™** feature freezes the highest forward power displayed bar segment for one second.

These digital-analog displays make it *visually*



**New!**

easy to tune antenna tuners, amplifiers and transmitters.

You get three high-resolution forward/reflected power ranges that are automatically selected: a *true QRP* range (100 mW to 25W), a mid-range (250 Watt full scale) and a high-range (1500 Watts full scale). Each range has

excellent 10-bit resolution.

MFJ's **TrueActive™** peak reading circuit gives you *true* peak or average power on all modes.

**Built-in** frequency counter gives any transmitter digital frequency readout in continuous carrier mode. Perfect for older and QRP rigs such as MFJ-9420 travel radios and MFJ-9340 *QRPCubs™*.

All information is displayed on a 2-line, 16-character, high-contrast *backlit* LCD display.

Use 12 VDC or 110 VAC with optional MFJ-1312D, \$15.95. 4Wx3Hx4½"D inches.

## Find Power Line Noise Fast!



**New!**  
MFJ-856  
\$149<sup>95</sup>  
Ship Code B

Choose the highly directional 3 element *Yagi* (MFJ-856, \$149.95) for pinpoint accuracy or the compact telescoping *dipole* (MFJ-852, \$109.95) for quick noise finds.

Walk or drive around with these *handheld* power line noise meters to search out leaky insulators, loose hardware and corroded ground lines quickly. Track noise right down to the pole, transformer or insulator, or other source.

**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!*



MFJ-852  
\$109<sup>95</sup>  
Ship Code A

Plug in headphones and hear the noise you're tracking or plug in a tape recorder. 2Wx4Hx1.5D inches. Use 9 Volt battery.

Use this ultra-sensitive pocket-sized RFI Detector to track down and eliminate RFI caused by radiating cables and wires. It'll tell exactly which cable is radiating RFI so you can eliminate it with a simple toroid or clamp-on filter.

Use it to find RFI generated by consumer devices, computers and office equipment. When you eliminate the RFI source, hash, birdies, whistles and transient noise miraculously disappear.

MFJ-1767, \$69.95.

Add this 3-element beam to your existing MFJ-852, and turn it into a *highly directional* RFI finder.

**Determine** radiation pattern; make changes to your antenna and see if it radiates better or worse. Adjust a ground lead, artificial ground, counterpoise or tune your transmitter or antenna tuner for maximum field strength. Check for floating RF. Use from 100 KHz to 500 MHz.

## Balanced Dipole Field Strength Meter

MFJ-802, \$39.95. Sensitive telescoping 40-inch balanced dipole is ground independent and reduces influence of surroundings. Big 3-inch meter. Sensitivity control lets you handle milliwatt to kilowatt signals. Jack for MFJ-802R remote RF sensing head.

2½"Wx4Hx1½"D inches. MFJ-802R, \$29.95.

Read your field strength remotely where you can control

## MFJ Field Strength Meters



MFJ-802  
\$44<sup>95</sup>  
Ship Code A

## 40-inch Balanced Dipole FS Meter

your transmitter or rotate your beam. Requires shielded two conductor cable (not included). 2½"Wx3¾"Hx1D inch.

MFJ-802X, \$69.90, MFJ-802 field strength meter and MFJ-802R, remote sensor combination.

## Telescoping Whip Field Strength Meter

Take *quick* field-strength readings with this compact telescoping whip field strength meter. 1¾ inch meter. Sensitivity control. 20 inches (extended) monopole. Finger contact on side increases



MFJ-801 sensitivity when needed. 2¾"x3½"x1 in. \$24<sup>95</sup>  
Ship Code A

# MFJ 1.8-170 MHz SWR Analyzer™

## Reads 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 read-out . . . 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 . . .**



MFJ-259B 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-by-side meters clearly display your information. Built-in frequency counter, Ni-Cad charger circuit, battery saver, low battery warning and smooth reduction drive tuning, 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, impedance.

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

**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 sig-

nal generator, SWR Analyzer™, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance/ 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, \$15.95. 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.

### SWR Analyzer Accessories



**MFJ-29C, \$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, it cushions blows, deflects scrapes, and protects knobs, meters and displays from harm. Clear protective window for display and cutouts for knobs and connectors. *Authentic MFJ logo!*

**MFJ-99, \$60.85.** Carrying pouch, dip coil adaptors and power supply.

**MFJ-99B, \$88.80.** Deluxe Accessory Pack has 10 Ni-MH batteries, power supply, pouch and dip coils. *Save \$7!*

**MFJ-92AA10, \$24.95.** 10-pack MFJ NiMH AA rechargeable batteries.

**MFJ-5510, \$9.95.** 12 VDC cigarette lighter adapter lets you use your MFJ SWR Analyzer *on-the-road* to make quick adjustments to your HF/VHF/UHF mobile antennas! 18" retracted curly cord, 60 inches fully stretched. Easily fits in glove compartment.

### MFJ-249B SWR Analyzer™

**Save a few bucks!** Like MFJ-259B, but less analog meters. Reads SWR, true impedance magnitude and frequency only on LCD module. Has charging circuit, can use MFJ-259B accessories.



### Analyzer Current Balun

**This** new 1:1 Current balun lets you use your MFJ SWR

and Antenna Analyzers on balanced line antennas and other loads. Covers 1.8-30 MHz. 2Wx3 3/4Hx1 1/2D in. SO-239 for analyzer input. **MFJ-7702, \$3.95.** PL-259 to PL-259 barrel connector.



*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 MHz.

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

### MFJ Analyzer Dip Coils



**MFJ-66, \$19.95.** Plug these MFJ dip meter coupling coils into an MFJ SWR Analyzer™ and turn it into a sensitive and accurate *band switched* dip meter. Set of two coils cover 1.8-170 MHz depending on SWR Analyzer™.



**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 by the analyzer. Works with all SWR Analyzers.



# 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 ...

MFJ-269 covers 1.8 to 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 much more!

**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 Coax Calculator™** -- 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 exclusive!**

**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 Impedance 1.8 to 170 MHz. Built-in frequency counter.

**Read** Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees).

**Also** reads parallel equivalent resistance and reactance (Rp+jXp) -- **an MFJ-269 exclusive!**

**Determine** velocity factor, coax loss in dB, length of coax and distance to short/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!** More info see page 11.

## 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

MFJ-269  
\$379<sup>95</sup>  
Ship Code B



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 anywhere

**Fully** portable, take it anywhere -- on remote sites, up towers, on DX-peditions. Has built-in "N-type" connector. Includes **Free** N-to-SO-239 adaptor. Use 10 AA Ni-MH or Ni-Cad or alkaline batteries (not included -- alkalines cannot be charged internally) or 110VAC with MFJ-1312D, \$15.95. Compact 4Wx2Dx6 3/4 H inches.

## MFJ-269PRO™ Analyzer

**MFJ-269Pro, \$409.95.** Like MFJ-269, but has extended coverage in UHF range (**430 to 520 MHz**) and an extended commercial-style cabinet for lab work (helps protect knobs and connectors from damage).



## MFJ-269 SWR Analyzer Accessories

**MFJ-39C, \$24.95.** Tote your MFJ-269 anywhere with this **genuine** MFJ custom carrying case. Back pocket with security cover for carrying dip coils, adaptors and accessories. A special foam-filled fabric 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 Analyzer™ without ever taking it out of your case.

## MFJ-269 SWR Analyzer Accessories

**MFJ-99C, \$40.90.** SWR Analyzer Power Pack. 10-Pack SuperCell™ Ni-MH batteries, & MFJ-1312D Power supply for MFJ-259B/MFJ-269 analyzers.

**MFJ-98, \$60.85.** MFJ-269 Accessory Pack. Same as MFJ-99 but has MFJ-39 custom Carrying Pouch for MFJ-269. With power supply, dip coils.

**MFJ-98B, \$88.80.** Complete accessory pack! Pouch, batteries, dip coils, power cube.

**MFJ-92AA10, \$24.95.** MFJ 10-Pack AA SuperCell™ Rechargeable Ni-MH Batteries.

**MFJ-5510, \$9.95.** 12 VDC Cigarette lighter adapter cord for using your MFJ SWR Analyzers *on-the-road*. 18" retracted curly cord, 60" fully stretched.

## MFJ-269 Adaptors for HT Antennas

**MFJ-7730, \$5.95.** N-Male to SMA Female.

**MFJ-7731, \$5.95.** N-Male to BNC Female.

## MFJ-259B Adaptors for HT Antennas

**MFJ-7727, \$5.95.** PL-259 to SMA Female.

**MFJ-7737, \$5.95.** PL-259 to BNC Female.

## Super High Capacity 2300 mAh Ni-MH AA Batteries

**MFJ-92AA01, \$2.99 each.** MFJ-92AA01 MFJ's super high capacity \$2<sup>99</sup> each Ni-MH "AA" batteries have twice the power of standard Ship Code A Nicads at about the same price!

**MFJ** batteries have *no* detrimental memory effect that are the trademark of Ni-Cad batteries so you can use them to their full potential. **MFJ-92AA10, \$24.95.**

**10-Pack** of MFJ SuperCells™, perfect for your MFJ SWR Analyzer!



## MFJ POWERHaus™ Ultra-fast Intelligent Charger

**Charges** AA-AAA-C-D and 9V Ni-MH or Ni-Cd Battery types. **MFJ-633, \$29<sup>95</sup>** Active intelligent IC detects positive/negative, and monitors the voltage level during charging process. 2 separate sets of charging compartments optimize energy efficiency. Auto switches to trickle when full charge is completed. Deep conditioning mode helps rescue batteries damaged by memory effect. Charging status LEDs, removable dust cover and 12V, 500 mA AC adapter is included. Quick charges 2-4 AA Ni-MH cells in an hour or less! Ship Code B



# HF/VHF/UHF SWR Analyzers for all Your Building Needs

## MFJ Analyzers Measure SWR from 270-480 MHz Basic HF/VHF SWR Analyzer™



MFJ-229  
\$199<sup>95</sup>  
Ship Code A

**Read SWR of any antenna from 270 to 480 MHz.**

**Just** plug in your antenna coax, set the frequency and read SWR!

**Easy-to-read** LCD displays frequency and SWR and has a *logarithmic* SWR bargraph

for precision tuning. Two line high-contrast LCD has 32 hudge 1/4 inch characters.

### HF 10-160M SWR Analyzer™



MFJ-207  
\$99<sup>95</sup>  
Ship Code A

**This compact MFJ HF SWR Analyzer** will help you build the antennas you need for DX work.

**Just** plug in the coax to measure the SWR of any HF antenna, 160 to 10 Meters. Has jack for external frequency counter. 9VDC or 110 VAC with **MFJ-1312D, \$15.95.**

**Plug** in coax to find the SWR of any HF antenna on any band 10-160 Meters.

**Jack** for external frequency counter. 9 V battery or 110 VAC with **MFJ-1312D, \$14.95.** Measures 7/2Hx2 1/2Wx2 1/4D in.

### MFJ Antenna Bridge

**New & Improved!** Now has AGC for constant readings.

MFJ-204B  
\$89<sup>95</sup>  
Ship Code A

**No other equipment** needed. Take it to your antenna site. Determine if your antenna is too long or too short, measure its resonant frequency, and its resistance to 500 ohms. It's the easiest, most convenient way to determine antenna parameters. Resistance bridge, null meter, tunable oscillator-driver (1.8 to 30MHz). 9 VDC or 110 VAC with **MFJ-1312D, \$15.95.** 7 1/2Hx2 1/2Wx2 1/4D inches.



**Select** any desired frequency range for tuning. Examples: Tune from 280 to 295 MHz, 320 to 350 MHz or 400 to 450 MHz.

**Tuning** knob has a built-in 10:1 vernier reduction drive for 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.

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

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

**Use** as signal source for testing and alignment. Measures 3 1/4Wx6 1/2Hx1 3/4D".

### MFJ VHF SWR Analyzer™



MFJ-208  
\$99<sup>95</sup>  
Ship Code A

**VHF SWR Analyzer™** finds the SWR of any antenna from 138-156 MHz.

**Jack** for external frequency counter.

**Measures** 7 1/2Hx2 1/2Wx2 1/4D in. 9 V battery or 110 VAC with **MFJ-1312D, \$15.95.**

### 6-Meter SWR Analyzer

**MFJ-217, \$89.95,** same as MFJ-208 but covers 30-56 MHz for 6 Meters and commercial VHF. Jack for external frequency counter. Dimensions, power requirements same as above.

### MFJ RX Noise Bridge

**Quickly** adjust almost any antenna for maximum performance, 1 to 100 MHz.

**Lengthen** or shorten your antenna for minimum SWR. Measure resonant frequency, feedpoint resistance and reactance.

**Works** with any receiver or transceiver. **Hand-calibrated** resistance scale, expanded capacitance range and exclusive built-in range extender. 4 1/4Wx2Hx4D in.

**Use** 9 Volt battery (not included).



MFJ-202B  
\$69<sup>95</sup>  
Ship Code A



### Custom 24-350 MHz Analyzers

\$269<sup>95</sup>  
Ship Code A

**For commercial applications.** Select a specific frequency range and MFJ will customize an analyzer for you. Choose the model below for your needs. Specify frequency range and allow 4 weeks for these models.

**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

### Foam-Padded carrying case

**Great** for portable, dxpeditions, traveling, hotels, etc. Heavy-duty case takes a beating but keeps electronics safe with its universal foam insert. Pre-separated tear-away fit your gear. Eggshell type padding on top-side. Handle, carrying strap, two key sets, left/right snaps. 10 3/4Dx16Wx4H in. **MFJ-6404F, \$12.95.** Extra foam insert for MFJ-6404. Accessories in picture not included.



### Economical Dip Meter covers 1.5-250 MHz

**Back** in the vacuum tube days they called these babies *grid* dip meters and every ham and experimenter either had one or wanted one. The MFJ-201 solid state (hence no "grid") is smaller, lighter, and vastly more versatile than its ancestor.



MFJ-201  
\$129<sup>95</sup>  
Ship Code A



Use it as a traditional dip meter to find a coil's resonant frequency.

resonant frequency.

**Couple** it to an antenna, or to coax lines to get their electrical length.

**Or** use it as an absorption wavemeter for measuring transmitter output, neutralizing tank circuits, or a field strength meter.

**Other** traditional dip uses include: crystal oscillator, monitoring audio signal output (it includes a headphone jack), and measuring inductance and capacitance.

**This** solid-state grid dip meter covers 1.5-250 MHz in 6 bands, has thumb wheel tuning, color code readout, 6 coils, ear-phone jack and battery check. Uses a 9V battery for operation. Measures a compact 2Wx2 1/2Dx7H" including coils.



# MFJ Frequency Counters Cover 1 MHz to 3 GHz, or 10 Hz to 3 GHz



**MFJ-886**  
\$119<sup>95</sup>  
Ship Code A

**MFJ-886** Frequency Counter covers 1 MHz to 3 GHz. It features 300 MHz direct count with 0.1 Hz-per-second resolution.

**Incredible deal also includes Ni-Cd battery pack, charger and telescopic whip!**  
**10-digit** high-contrast LCD display is easy-to-read. Huge 3/4 inch digits are highly visible. Hold switch locks display. Synchronous detector gives ultra-sensitive RF Signal Strength LCD bargraph. 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.

**Rechargeable Ni-Cd battery pack** (included) gives up to 6 hours of use. Low battery LED indicator. Rugged aluminum cabinet (2<sup>3</sup>/<sub>4</sub>Wx3<sup>1</sup>/<sub>4</sub>Hx1<sup>1</sup>/<sub>4</sub>D inches) fits in shirt pocket and has black anodized finish. Order **MFJ-886** for 110 VAC, order **MFJ-886 "X"** for 240 VAC.



**MFJ-888**  
\$189<sup>95</sup>  
Ship Code A

**NEW! MFJ-888** covers 10 Hz to 3 GHz with a 10-digit LCD and an ultra-sensitive synchronous detector with 16-section bargraph to show RF signal strength.

It features a Hi-Z low range, auto-hold, measures frequency and period, has LED backlight, beeper, low power consumption, hold switch to lock display, low battery indicator and more. A high-speed 300 MHz direct counter with 0.1 Hz resolution has four selectable gate speeds.

**Built-in Ni-Cd battery pack** will operate up to 6 hours and recharges with the external charger. **MFJ-888** (2<sup>3</sup>/<sub>4</sub>Wx4<sup>1</sup>/<sub>4</sub>Hx1<sup>1</sup>/<sub>4</sub>D") is complete with Ni-Cd battery pack, charger, and telescopic whip. **Housed** in a handsome stamped aluminum cabinet with black anodized finish. Order **MFJ-888** for 110 VAC, order **MFJ-888 "X"** for 240 VAC.

## Pocket-size Function Generator



**MFJ-5000**  
\$89<sup>95</sup>  
Ship Code A

This unique unit is the only compact, battery-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. 4Hx3Wx1D inches. Frequency range switch, external power jack, 5-way binding posts. Use 9V battery.

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. 4Hx3Wx1D inches. Frequency range switch, external power jack, 5-way binding posts. Use 9V battery.

## Professional Function Generator



**MFJ-5004**  
\$139<sup>95</sup>  
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 -6 to +6 VDC. Output is short circuit protected with output impedance of 400 Ohms. Sturdy black all metal cabinet. 110 VAC.

## Portable Signal Tracer-Injector

**Multi-purpose Portable Signal Tracer-Injector**

**MFJ-5012**  
\$89<sup>95</sup>  
Ship Code A



quickly finds defective stages in all kinds of signal amplifiers, radio receivers and transmitters. Includes home theaters, hi-fi amplifiers, public address systems, guitar amplifiers, AM/FM/ TV transceivers, phones, scanners, shortwave, etc. Use to find opens and shorts in cables and wires, identify and locate individual wires in multi-conductor cables. Has an AM detector and variable gain audio amplifier. 3Wx4Hx1D inches.

## Portable Variable Power Supply

This MFJ power supply is portable

**MFJ-4105**  
\$89<sup>95</sup>  
Ship Code A



enough to fit in any toolbox 3Wx4Hx1D". It's so light you can carry it anywhere. Provides fixed 5 VDC output along with a variable 1.5-12 VDC output. Total output is 500 mA. Output terminals and ground are convenient 5-way binding posts. Easy output voltage setting. Input 110 VAC.

**MFJ AC Line Monitor MFJ-850B, \$24.95.** Color coded scale lets you read voltage from 95-135 Volts. 2% Accuracy. Built-in AC socket, so you don't lose the outlet. 2<sup>1</sup>/<sub>4</sub>Wx2<sup>1</sup>/<sub>4</sub>Hx1<sup>1</sup>/<sub>2</sub>D inches. It's perfect for the ham shack and motorhomes!



## Tune-Up Matchmaker™



**MFJ-212**  
\$89<sup>95</sup>  
Ship Code A

**Adjust** your antenna tuner for 1:1 SWR without transmitting!  
**Avoids** overheating/arcing caused by high SWR and long tune-ups.

**Your MatchMaker™** inserts between transceiver and antenna tuner. Simply tune your transceiver to the desired frequency, then power-up the *MatchMaker™*. Then adjust your tuner for a null in the pulsing "white noise" in your receiver. **Automatic** T/R switch bypasses MFJ-212 to prevent damage. Handles 300 Watts. Works with all radios, 160 through 6 meters. Measures a compact 3<sup>1</sup>/<sub>2</sub>x1<sup>1</sup>/<sub>4</sub>x4 inches. Use MFJ-1312D, \$15.95.

## 81 dB Step Attenuator



**MFJ-762**  
\$79<sup>95</sup>  
Ship Code A

**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. 6<sup>1</sup>/<sub>2</sub>Wx2<sup>1</sup>/<sub>2</sub>Hx1<sup>1</sup>/<sub>2</sub>D inches.

This will be your most useful ham

## 2-Meter FM Signal Analyzer



**MFJ-224**  
\$169<sup>95</sup>  
Ship Code A

**MFJ's** handheld Two Meter FM Signal Analyzer™ 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. 4Wx2<sup>1</sup>/<sub>2</sub>Dx6<sup>3</sup>/<sub>4</sub>H". Use 9V battery.

## Safely tune your amp with this MFJ AmplifierSaver™ Interface



**MFJ-214**  
\$59<sup>95</sup>  
Ship Code A

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 overheating power supply stress.

**Relieves** temperature related stress on amplifiers, tuners, and dummy loads too.

It also can be used as a valuable diagnostic tool for tests of QSK systems, wattmeters, and more. Plugs into rig's CW key jack (for convenience you can use a "Y" connector).

**Simply** press the Pulse Tune button and

tune your amplifier normally for maximum power output. Use 9V battery, not included.

## MFJ Deluxe AmplifierSaver™



**MFJ-216**  
\$69<sup>95</sup>  
Ship Code A

The MFJ-216 Deluxe AmplifierSaver™ includes front panel adjustments of pulse rate and duty cycle.

**Allows** for easy performance testing of wattmeters, QSK systems and other electronic equipment.

**Measures** 3<sup>1</sup>/<sub>2</sub>Wx1<sup>1</sup>/<sub>2</sub>Hx4D inches.

# MFJ High Current DC Multi-Outlet Strips

Choose super heavy-duty 5-way binding posts AND/OR Anderson PowerPole® connectors

Provide multiple high current DC outlets for transceivers and accessories from your transceiver's main DC power supply – keeps you neat, organized and safe. Prevents fire hazards. Keeps wires from tangling up and shorting out. Outlets are fused/switched/RF bypassed.

## MFJ DC Multi-Outlets with versatile 5-way binding posts

MFJ-1118  
\$79.95  
Ship Code A



MFJ-1116  
\$54.95  
Ship Code A



MFJ-1112  
\$39.95  
Ship Code A



MFJ-1117  
\$59.95  
Ship Code A



**MFJ-1118, \$79.95.** Lets you power two HF and/or VHF rigs and six or more accessories from your transceiver's main 12 VDC supply. Two pairs of super heavy duty 35 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

light. 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 x 2 3/4 x 2 1/2 inches.

**MFJ-1117, \$59.95.** For powering four HF/VHF radios (two at 35 Amps each and two at 35 Amps combined) simultaneously. Tiny 8x2x3 inches.

**MFJ-1116, \$54.95.** Similar to MFJ-1118. No 35 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total.

**MFJ-1112, \$39.95.** Similar to MFJ-1116. No on/off switch, LED, meter, fuse.

Anderson PowerPole® is a registered trademark of Anderson Power Products.

## New! MFJ DC Multi-Outlets with Anderson PowerPole® connectors

Genderless, polarized and color coded connectors conform to ARES & RACES emergency 12V connector standard

Each Anderson PowerPole® outlet can carry up to 40 amps. You can fuse each outlet as needed to protect your accessories or transceiver. The main fuse is 40 amps.

The standard color coded fuses simply plug in from outside. They are widely available ATC/ATO automobile fuses and can be used for 6, 12, 24 VDC systems.

The heavy duty DC input cable is built-in – you don't have to pay extra just to use it! It's a high-current carrying capacity eight gauge, flexible, stranded, six foot (can be shorten) cable with 5/16 ring terminals. It's color coded Red and Black.

Extra Anderson PowerPole® connectors, contacts and fuses are included at no extra cost, unlike lesser competitive products.

A massive 0.062 inch thick double sided plated through PC board with wide traces is used. The current path has an equivalent current carrying capacity of an enormous 4 ounce trace.

RF-tight aluminum cabinet has mounting ears and ground post with wing nut.

### HF Transceiver Power Cord



**MFJ-5535, \$14.95.** Replace your HF Radio original power cord at a fraction of the original cost. Two super-flex, 12 gauge,

multi-strand, soft wires 8 feet in length. Two in-line fuse holders with fuses. Power plug is keyed to prevent reverse polarity. Get extra cords for each operating station, mobile/base. Fits Yaesu, Icom, Kenwood & compatibles.

**MFJ-5535M, \$19.95.** HF radio Power Cord, HF Molex to Anderson PowerPole®.

### UHF/VHF Transceiver Power Cord



**MFJ-5512, \$12.95.** Two super-flex, 14 gauge, multi-strand, soft wires 15 feet in length. Single in-line fuse holder with fuse. Power

plug is keyed to prevent reverse polarity. Fits Yaesu, Icom, Kenwood & compatibles.

**MFJ-5512M, \$17.95.** VHF/UHF radio power cord. T-connector to Anderson PowerPole®.

## All PowerPoles®



**MFJ-1128, \$99.95.** 12 outlets. Factory installed fuses: three 1A, four 5A, four 10A, one 25A, one 40A. Built-in

0-25 VDC Voltmeter. ON/OFF switch controls outlet 4 through 12, handles 20 Amps total. Outlet 1, 2 and 3 are unswitched, handle 40 amps total. Includes 12 pair of Anderson PowerPole® 24 35A contacts, 10 fuses (2 each: 1,5,10,25,40A). 12Wx1 1/4Hx2 3/4D inches.



**MFJ-1126, \$79.95.** 8 outlets. Factory installed fuses: two 1A, three 5A, two 10A, one 25A, one 40A. Includes 6

pair of Anderson PowerPole® 12 35A contacts and 5 fuses: (1 ea. 1,5,10,25,40). 9Wx1 1/4Hx2 3/4 inches.

**MFJ-1126, \$79.95.** Ship Code B

## PowerPoles® AND 5-Way Binding Posts



**MFJ-1129, \$109.95.** Get the best of both connectors! 10 outlets. Installed fuses:

two 1A, three 5A, three 10A, two 25A, one 40A. Outlets 1, 2, 4-8 are Anderson PowerPole®. Outlet 3 is a 35A high current binding post; outlet 9, 10 are 15A binding posts. Built-in 0-25 VDC Voltmeter. ON/OFF switch for outlets 4-10, 20 amps total. Outlets 1, 2, 3 unswitched, handle 40 amps total. Includes 7 pairs of PowerPole® 14 35A contacts, 10 fuses (2 ea. 1,5,10,25,40). 12 1/2Wx1 1/4Hx2 3/4D in.

**MFJ-1124, \$59.95.** Ship Code B



**MFJ-1124, \$59.95.** 6 outlets. Installed fuses: one 1A, one 5A, two 10A, two 25A, one 40A. Outlets 1-4 are PowerPole®. Outlets 5, 6 are 35A high current binding posts. Includes 4 pair PowerPole® 8 35A contacts, 5 fuses (1ea. 1,5,10,25,10) 8Wx1 1/4Hx2 3/4D inches.

## Accessories for MFJ High Current DC Multi-Outlet strips

### Anderson PowerPole® with 35A contacts



**MFJ-11C06, \$ 5.49, 6 pairs.**

**MFJ-11C12, \$10.49, 12 pairs.**

**MFJ-11C25, \$19.95, 25 pairs.**

**MFJ-11C100, \$79.95, 100 prs.**



**MFJ-7602, \$14.95.** Tool for crimping Power-Pole® connectors.



**MFJ-11F20, \$9.95.** 10 ATO Fuse pack. 2 each: 1,5,10,25,40 amp.

### Banana Plugs for binding posts



**A. MFJ-7713, \$4.95.** One red, one black high current banana plug. Solderless and Thumb Screw. Fits 10 to 12 gauge wire.



**B. MFJ-7709, \$5.95.** High current dual banana plug, has Black and Red polarity rings. Solderless and Thumb screw. Has standard .75 inch spacing to fit MFJ DC power strip outlets and others. Fits 10-12 gauge wire.



**C. MFJ-7700P, \$5.95.** Six red and black solderless banana plugs.



# MFJ Switching Power Supplies

Power your HF transceiver, 2-Meter/440 MHz mobile/base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies! No RF hash, Super lightweight, Volt/Amp Meters . . .

MFJ's new adjustable voltage switching power supplies do it all! Power HF/ 2M/ 440 MHz radios and accessories. No more hauling around heavy, bulky supplies that can cause a hernia.

MFJ's 25 Amp MightyLite™ weighs just 3.7 lbs. -- that's 5 times lighter than an equivalent conventional power supply. MFJ-4225MV measures a super compact 5 1/4"Wx4 1/2"Hx6D inches. MFJ's 45 Amp is even more dramatic -- 8 times lighter and weighs just 5.5 pounds! It measures just 7 1/2"Wx4 3/4"Hx9D inches.

## 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™ meet all FCC Class B regulations.

## Low Ripple . . . Highly Regulated

Less than 35 mV peak-to-peak ripple

## NO RF HASH!



MFJ-4225MV  
25 Amp  
\$149.95

Ship Code B

MFJ-4245MV  
45 Amp  
\$199.95

Ship Code C

## NO RF HASH!



under 25 or 45 amp full load. Load regulation 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-panel voltage control. It lets you vary the output voltage from 9 to 15 Volts DC and gives you

a highly regulated voltage output.

Easy access front-panel with 5-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 illuminated to make it easy to monitor load voltage and current. Whisper quiet internal fan cools your power supply for long life.

About the MFJ-4225MV, QST (January 2000) said, "its external control for varying the output voltage is very handy for testing bench applications," and noted, "overall, noise generated by this supply is very low".

## Super Compact MightyLite™ 25 Amp Switching Power Supply

The smallest and lightest power supply in ham radio! Tiny 5 3/4"Wx3Hx5 3/4"D fits anywhere --

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

5-way binding posts are for high current radio connects and pair of speaker type push-on terminals are for low current accessories.

Super protection modes include Over Voltage and Over Current. Whisper quiet

MFJ-4125  
\$109.95

Ship Code B  
Internal cooling fan generates tremendous air



## NO RF HASH!

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. Worldwide versatility allows it to work AC input 85-135 VAC or 170-260 VAC.

Weighs only 3.5 lbs. and measures an un-believable 5 1/2"Wx2 1/2"Hx5 3/4"D -- it's the smallest and lightest power supply in ham radio!

**New!** MFJ 75 Amp Switching Power Supply  
MFJ-4175 is perfect for Ameritron's ALS-500M, 500W solid state amplifier, it gives 75 Amps output continuously! It's tiny, (6 1/2"Wx3 1/2"Hx10D in.) and weighs just 7.8 lbs. Less than 100 mV peak-to-peak ripple under 75 Amp full load. Load regulation is better than 1.5% under full load. Reverse polarity protection, brown out input protection, over-current and over-temperature protection. Thermal-controlled quiet fan. Output Boost steps output from 13.8 to 14.2 VDC to compensate the voltage drop to the amp and gives you more output power. Input 108- 132 VAC, 50/60 Hz. Draws 11 Amps. Can be used to charge car battery.

MFJ-4175  
\$359.95  
Ship Code D



MFJ AC Line RFI Filter squashes computer hash  
Squash obnoxious power line computer hash/noise 6 S-units!

Filters and reduces AC power line RFI, hash, noise, transients, surges generated by computers, motors, RF transmitters, static/ lightning by 30 db and up to 60-80 dB with good earth ground. Super fast, nano-second overvoltage protection.

Provides inductive isolation, capacitive decoupling, RFI rejection, overvoltage protection of both common mode and differential signals. Rejects/shunts undesired signals to ground.

Four 3-wire, 15 Amp, 120 VAC outlets spaced for large adapters. 25 Amps/3000 Watts maximum. Fused. 5 1/2' cord. Wing nut ground. Mounting holes. Rugged aluminum case, 12Wx3 1/2"Hx2D inches.

MFJ-1164  
\$59.95  
Ship Code B



## MFJ 30/22/12 Amp Regulated DC Power Supplies

Massive 19.2 pound transformer, Adjustable 1-14 VDC, Quick connects, cigarette lighter socket . . .

MFJ's heavy duty power supply is excellent for powering your rig/accessories.

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

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

MFJ-4035MV  
\$149.95  
Ship Code F

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. 9 1/2"Wx6Hx9 3/4"D inches.



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

delivers 22 Amps surge and 20 Amps continuous at 13.8 VDC. Its massive transformer, heatsink and heavy duty construction weigh over 19 pounds. 8Wx4 3/4"Hx11 3/4"D in. 110 VAC. Ship Code F.

MFJ 12/10 Amp Power Supply  
MFJ-4312, \$69.95.

Weighs over 13 1/2 lbs. 8Wx4 3/4"Hx10 1/4"D". Delivers 12 Amps surge & 10 Amps continuous at 13.8 VDC. 110 VAC. Ship Code E.



# MFJ-4416 Super Battery Booster

*Keeps your transceiver operating at full efficiency and performance by eliminating low or marginal voltages in the mobile environment . . .*



MFJ-4416  
**\$139<sup>95</sup>** **New!** Today's compact 100-watt HF transceivers are designed to operate from about 12-16 volts, with output signal distortion, output power problems, and transceiver reset often occurring when voltage drops below 12 volts.

In the mobile environment, low voltage is caused in two ways: First - even low resistance DC wiring can result in a noticeable voltage drop. For a 100-watt transceiver with a 20-amp typical current requirement, just 1/10th of an ohm resistance in your DC cable and connectors results in a 2-volt drop! And second - when you turn your car off, the battery voltage drops from around 13.8 volts to close to 12 volts after a short period of time. Couple this with any voltage drop in the cables, and you have a problem.

The MFJ-4416 Super Battery Booster eliminates low voltage problems by boosting input voltages as low as 9 volts up to the desired 13.8 volts at up to 25 amps peak with a typical efficiency of close to 90%.

It is compact at just 7<sup>3</sup>/<sub>4</sub>Wx4Hx2<sup>1</sup>/<sub>8</sub>D" and lightweight at 1.3 lbs. And the MFJ-4416 Super Battery Booster is designed to

be rugged, reliable, and easy to use.

MFJ-4416 includes Anderson PowerPole™ connectors and high-current 5-way binding posts for both the DC input and regulated output. An internal 30-amp input fuse protects the unit from excess output current demands.

There are also selectable limits on the minimum voltage that the unit will accept: 9-volts, 10-volts (default), and 11-volts.

This protects you from over-discharging a battery and possibly damaging it. MFJ-4416 also includes output over-voltage crow-bar protection should regulation be lost.

Two additional features offer ways to increase efficiency even more! First, there is an RF sampling port which can be connected to your transceiver's transmission line with a UHF-T connector.

When this feature is enabled, the MFJ-4416 is bypassed unless RF is sensed so no regulator switching efficiency penalties are incurred during receive.

The second efficiency enhancement feature is a user-adjustable output voltage control which lets you set the output voltage anywhere between 12- and 13.8-volts.

When setting the output at 12-volts, input voltages greater than 12V will pass through, but the efficiency of the regulator is higher. And lower input voltage means your transceiver will run cooler!

Typically save over 30 watts in heat dissipation during transmit, and even 3-4 watts during receive. So it can actually be good to let the voltage sag to 12 volts, then let the MFJ-4416 protect you from lower voltages.

## Anderson PowerPole™ Cables

**MFJ-5535M, \$19.95.** HF radio power cable to Anderson PowerPole™. Fits Yaesu, Icom, Kenwood and compatibles. 2 super-flex, 12-gauge, multi-stranded, 8 ft. cables with two in-line fuse holders and fuses.

**MFJ-5512M, \$17.95.** VHF/UHF radio power cable to Anderson PowerPole™. Fits Yaesu, Icom, Kenwood and compatibles. Two super-flex, 14-gauge, multi-stranded, 15-foot long cables with single in-line fuse holder and fuse.

## MFJ 6-Way Desk-Top DC Power Distribution Unit

*Convenient planar design optimizes DC distribution on your desk or workbench*

MFJ-1106 is \$29<sup>95</sup> **New!**

MFJ-1106 is an inexpensive, compact, and low profile DC distribution platform designed for your operating station desk/workbench.

It contains seven Anderson Power Pole™ connectors all connected in parallel, permitting one DC input to be shared by six DC outputs.

Includes seven sets of mating connectors for your cables.

Any connector may be used as an input or output, and the total current carrying capability is 30-amps.

Unit measures 2<sup>1</sup>/<sub>4</sub>Wx1Hx3<sup>3</sup>/<sub>4</sub>D inches, not including the PowerPole™ connectors sticking out on three sides.



# MFJ Transceiver Voltage Conditioner

*Protects against -- Reverse Voltage . . . Over-Voltage . . . Voltage Transient . . . Short Circuits. Super noise and ripple filtering . . . Power supply buffering . . . Lets you run 100 Watt SSB from your vehicle cigarette lighter socket . . .*



The MFJ-4403 Transceiver Voltage Conditioner provides reverse voltage, over-voltage, voltage transient and short circuit protection. Gives super noise and ripple filtering and power supply buffering for your base, portable or mobile transceiver.

The MFJ-4403 really shines in mobile and portable operation where your non-ideal voltage source could cause extensive damage.

If you accidentally reverse your voltage connection, the MFJ-4403 protects your

MFJ-4403 \$119<sup>95</sup> transceiver against instant destruction and alerts you with a bright warning LED. Once the DC polarity is corrected, the MFJ-4403 recovers and operates normally.

Heavy-duty transient suppressor handles peak currents up to 200 Amps -- protects your transceiver from vehicle and poorly regulated power supply start-up voltage spikes.

MFJ brings high-end automotive audio technology to ham radio!

Four Farads of ultra high-value capacitors filters off virtually all power supply noise and ripple, and provides enough power supply buffering so that even under-rated and marginal power supplies will run your HF transceiver.

For temporary mobile operation -- rental car, weekend trips, vacations, etc. -- the ultra high-value capacitors in the MFJ-4403 provide enough power supply buffer-

ing to let you run full 100 Watts SSB from your 10-15 Amp cigarette lighter socket.

Standard Anderson Powerpole™ connectors are used for the DC input and output. MFJ-4403 measures a compact 4Wx3Hx2D inches.

## Anderson PowerPole™ Cables

**MFJ-5535M, \$19.95.** HF radio power cable to Anderson PowerPoles®. Fits Yaesu, Icom, Kenwood & compatibles. Two super-flex, 12 gauge, multi-strand, 8 ft long. Two in-line fuse holders with fuses.

**MFJ-5512M, \$17.95.** VHF/UHF radio power cable to Anderson PowerPoles®. Fits Yaesu, Icom, Kenwood & compatibles. 2 super-flex, 14 gauge, multi-strand, 15 feet long. Single in-line fuse holder with fuse.

**MFJ-5510M, \$14.95.** Power cable with Cigarette Lighter Plug on one end and Anderson PowerPoles™ on other end.



# MFJ/Curtis/Bencher is a winning CW combo!



MFJ-422D  
\$179<sup>95</sup>  
Ship Code B

**The Best** of all CW worlds -- a MFJ/Curtis keyer™ in a compact package that fits on the Bencher iambic paddle! Buy the combination or just the keyer for your Bencher or MFJ paddle.

MFJ's most popular keyer is small but big in features giving you adjustable weight and tone and has front panel volume and speed controls (5-65 wpm). Has built-in dot-dash memories, speaker,

sidetone and auto or semi-auto/tune modes.

Keys solid state or tube transmitters. Fully shielded. 9 volt battery or 110 VAC with MFJ-1312D, \$15.95.

MFJ-422DX  
\$89<sup>95</sup>  
Ship Code A

Keyer mounts on the paddle base to form a small 4x2 1/4x4 1/4". Buy the combo or just the MFJ keyer (MFJ-422DX) to fit on your Bencher or MFJ-564 or MFJ-564B iambic paddle (see below).

### Paddles to use with MFJ-422DX

MFJ-564 Black or Chrome, \$69.95 (see below).

BY-1, \$129.95. Black Bencher.

BY-2, \$149.95. Beautiful chrome Bencher paddle.



## MFJ Curtis Iambic Keyer has Dot, Dash Memory



MFJ-407D  
\$69<sup>95</sup>  
Ship Code A

**Everything** you need to send great CW from this MFJ Curtis Keyer™ - easy access front panel controls, all keyer modes, dot-dash memories, jam-proof spacing, weight

control, sidetone, built-in speaker and more. Speed, weight, tone and volume controls, and tune, semi-auto and on/off switches are on the front panel.

A dual paddle key such as the MFJ-564, lets you use the *iambic mode*. In this mode, you can insert a dot before a dash finishes or insert a dash before a dot finishes. Also, squeezing both paddles generates alternating dots and dashes. This lets you send characters such as C, K, and R with a single squeeze. It turns an inexperienced fist into a professional.

You can use the *automatic* mode with a single or dual paddle. You automatically generate dots and dashes by pressing the paddle.

You can switch into a *semi-automatic "bug"* mode to generate dots automatically and dashes manually. Or you can use a *"straight key"* and manually generate your own dots and dashes.

You get dot-dash memory, self-completing dots and dashes, jam-proof spacing and instant start keying.

Select Type A or Type B keying to match your sending style.

### MFJ Nano-size Keyer/Paddle Combination



MFJ-402  
\$69<sup>95</sup>  
Ship Code A

**Ham radio's tiniest electronic keyer** has a built-in iambic paddle! It's just 2x3x1 inches and weighs 3 1/2 ounces!

Fully-enclosed paddle has a "bug" feel for smooth CW. It's precision formed from resilient phosphorous bronze.

It's easy-to-use. Just set one button and send one letter to change your keyer settings -- speed 5-65 WPM, weight 25%-75%, iambic mode A/B, normal or "bug" mode and reverse paddle.

**Screwdriver** adjustment for easy speed change. Tune mode for tuning antenna tuner or transmitter. RF proof. 4 foot cord with 3.5 mm plug. Keys nearly any rig.

No on/off switch -- keyer turns off between dits! Battery lasts nearly shelf life.

**Weight** control lets you adjust your dot-dash space ratio to make your signal sound distinctive to bust through pile-ups. It also lets you compensate for the turn-on delay of your transmitter.

Has tune switch for tuning your transmitter or antenna tuner. RF proof. Built-in speaker for sidetone.

Keys solid state and tube transmitters. Use 9 volt battery or 110 VAC with MFJ-1312D, \$15.95. Attractive black cabinet measures 5 3/4x1 3/4x4 3/4 inches.

### MFJ/Curtis ECONO Keyer™

MFJ-401D is the same as MFJ-407D except weight and tone controls are

MFJ-401D  
\$59<sup>95</sup>  
Ship Code A



adjusted internally and doesn't have a tune switch. Use 9 volt battery or 110 VAC with MFJ-1312D, \$15.95. 4x1 1/4x3 1/4 inches.

### Build Your Own Keyer with this Curtis Chip

Revolutionary new Curtis Chip. Choose . . . 28 pin skinny DIP or SMT SOIC package. MFJ-8045ABM, \$24.95.



### New! Pre-Wired Keyer to Rig Cables



MFJ-5164, \$11.95. Keyer to radio keying cable. Has phono plug on keyer end to fit MFJ keyers and a 3.5 mm plug with 1/4" phone plug adaptor to fit most transceivers.

### Pocket Travel Keyer has Built-in Paddle



MFJ-403P  
\$79<sup>95</sup>  
Ship Code A

This MFJ Travel Keyer is a full-featured CW keyer with a built-in iambic paddle.

Ultra-compact size 3 3/4x

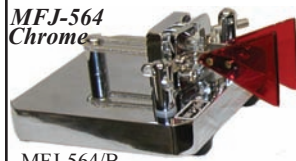
1H x2 1/4D" is perfect for traveling or for home use with QRP or "big" rigs. Throw it in your briefcase along with your MFJ Cub™ or other favorite on your next trip. A built-in sidetone with

LM386 audio amplifier, speaker and volume control makes monitoring your sending easy. Speed adjustable from 3 to 60 WPM. Sidetone pitch is adjustable 300 to 1000 Hz. Weight adjustable from 25% to 75%. Tune mode, RF proof, Battery Saver feature. Select a keyer mode to suit you -- iambic mode A or B, fully automatic or semi-auto "bug" mode. Use 9 Volt battery, not incl.

MFJ-403, \$59.95. MFJ ultra compact CW Travel Keyer only.

### MFJ Deluxe Iambic Paddles

MFJ-564  
Chrome



MFJ-564B  
Black

MFJ-564/B  
\$69<sup>95</sup>  
Ship Code B

MFJ deluxe iambic paddles feature a full range of adjustments in tension and contact spacing, self-adjusting nylon and steel bearings, contact points that almost never need cleaning, precision machined frame and non-skid feet on heavy base. Use with MFJ-422DX/MFJ-490X keyers. MFJ-5166, \$11.95, (left). Paddle to Keyer cable. Has pre-wired solder lugs on paddle end and 3.5 mm plug with 1/4" phone plug adaptor to fit MFJ keyer.



### MFJ Miniature Iambic Paddle



MFJ-561  
\$24<sup>95</sup>  
Ship Code A

This miniature, lightweight iambic paddle is just 1 3/4x1 3/4x3 3/4 inches and weighs just 2 1/2 ounces. Tiny enough to fit in an Altoids® tin (cord and all!) for protection. It's perfect for traveling or for home use with QRP or "big" rigs. Perfect companion for MFJ or other key-

ers. Great for any QRP or QRO rig! The paddle is precision formed from special phosphorous bronze spring material with an A150 temper. This gives you an excellent feel so you can send smooth CW. Mounted on rugged metal base with non-skid rubber feet. Has 4 foot cord and 3.5 mm plug -- ready to plug into keyer or rig! MFJ-561K, \$19.95. Build your own! MFJ iambic paddle kit with instructions, cord, hardware needed to build your paddle.

# MFJ Millenium™ CW Memory Keyer

*Is CW dead?*

**Not at MFJ! MFJ's menu driven LCD display makes it so easy to use, you don't need an instruction manual.**

The MFJ-495 combines the latest millenium microprocessor technology with non-volatile EEPROM memory for a full-featured, low cost, high reliability design.

Send CW or load messages using a paddle, keyboard or computer serial port.

Easy-to-use menus and LCD display let you set all keyer functions merely by pushing buttons. Keyer functions can also be changed from your paddle, keyboard or computer.

The LCD also shows the message as it's being sent from memory or live from your paddle, keyboard or computer.

The MFJ-495 has 32 message memories of 256 characters each. You can repeat messages continuously, insert timed pauses within messages, insert an auto-incrementing serial number, have messages call other messages or insert embedded commands to change speed, weight, etc. automatically.

MFJ-495 supports both direct and grid-



block outputs and has a port for an optional remote control. PTT output, built-in speaker, sinewave sidetone, more!

MFJ-495  
\$169.95  
Ship Code B

### Features include:

**Iambic** keyer with dot and dash memories; automatic, semi or hand-key mode.

**Keyboard Input** lets you plug in any AT keyboard for type ahead buffer. All commands, functions, and memories can be done through the keyboard!

**Message** editing capability.

**Input** queue to store multiple messages.

**Auto-incrementing** contest serial numbering from 001 to 9999.

**Digital** and linear analog speed control from 5 to 99 wpm (3:1 to 20:1 speed range)  
**Farnsworth**, speed from 10 to 99 wpm  
**Ultra** speed sets messages up to 990 wpm  
**Adjustable** weight 25% to 75%  
**Adjustable** sidetone from 300 to 1000 Hz  
**Keying** output delay up to 20 ms  
**Push-to-talk** (PTT) hang time up to 5 sec.  
**Direct** (positive) or grid-block (negative) keying

**Timed** tune for XMTR adjustment  
**Timed** pauses in messages/message loop  
**Internal** speaker with adjustable volume  
**Supports** Qwerty and Dvorak keyboards  
**190 characters** type-ahead keyboard buffer with low buffer warning  
**Dual** user mode supports operators with different configuration settings

**Compact** and handsome all-black metal cabinet measures just 6 1/4" W x 2 1/2" H x 6 1/4" D in. Use 12 VDC or 110 VAC with MFJ-1312D, \$15.95 AC adapter.

### RFI-Suppressed Keyboard

MFJ-551, \$39.95. RFI suppressed keyboard.

## Menu Memory Keyer/Bencher Paddle



MFJ-490  
\$209.95  
Ship Code B

**The MFJ Menu Driven Memory Keyers™** are the easiest memory keyers to operate. You can even operate them without

an instruction manual! There's no keypad, no complex sequence, nothing to remember. Just select a menu by pressing a button. An LED lights to indicate which menu is active. Then select a feature by pressing a Feature button. It's as easy as using a computer touch screen.

Each menu is clearly printed on the front (or top) panel -- no confusion. From the menu you can save and play messages, decrement serial numbers, set Speed, Weight, Sidetone, enter Iambic, Semi-auto, Handkey, Message Queue, Paddle command modes, turn Sidetone on and off, transmitter Tune, and set keying output on or off.

You can select iambic A or B, reverse paddle, Morse trainer, and store starting serial number for contests. Bypass the menu by keying in simple two-letter commands. The keyer tells you its status in CW.

You can adjust CW speed, 5 to 100 wpm, by pressing the dot or dash paddle smoothly or by knob control. The powerful Morse trainer lets you practice or teach in Farnsworth or normal mode. Select letters,

## Super Menu Driven Memory Keyer

numbers, prosigns, or any combination for practice using five character groups, or more realistic 1-8 character groups.

MFJ-492  
\$109.95  
Ship Code B



And more! You get contest serial numbering (0-9999) with auto-increment, built-in sidetone, speaker, front panel volume control and adjustable 300-3000 Hz tone. You can use automatic, semi-automatic or bug or handkey modes, reverse dot/dash paddles, adjust weight from 5 to 95%, and compensate for transmitter distortion. You can key direct or grid-block keying transmitters, solid state or tube rigs. Special MARS characters recognized.

The MFJ Menu Driven Memory Keyer™ has 192 character (8K) memories. The memories are divided into four soft sectors. Uses 9V battery (not included) or 110 VAC with MFJ-1312D, \$15.95. Memories are backed up by a lithium battery.

Order MFJ-490, \$209.95, Memory Keyer/Bencher paddle combination, 5X3X5 1/2 in. MFJ-490X, \$119.95, is the keyer only.

MFJ-492, \$109.95, stand alone keyer, 6 1/2 X 2 1/2 X 6 3/4 inches.

MFJ-492X, \$124.95 (MFJ-492 with 8K additional memory installed), MFJ-80, \$21.95, (8K memory for MFJ-492 only).

MFJ-78, \$34.95, full function wired remote control.

## MFJ Slimline™ Electronic Keyers with Memory

Tired of sending the same phrase on CW over and over? "QTH, name..."

But you don't want to pay the price of a memory keyer, or they're too confusing to use. The MFJ Slimline keyers have the answer -- a Slimline™ keyer and an iambic paddle are your entry into real CW, at a price not much higher than a plain keyer, with enough memory to store the essential day-to-day messages.

Weight control lets you lengthen or shorten dots and dashes. It compensates your transmitter for a proper 1:3 ratio. Dot/dash lengths are adjustable for a distinctive "touch." Has

MFJ-442  
\$179.95  
Ship Code B



MFJ-447  
\$89.95  
Ship Code A



Type A and B keying, too.

The Slimlines have MFJ's 500 character non-volatile MessageMemory™.

You can embed Message Loop, Extra Word Space, pause and serial number increments after each sending.

LED blinks during programming and blinks faster for low memory.

SlimLine™ keyers have sidetone volume and tone control, and CW speed (5 to 65 wpm) and weight controls.

Semi-auto lets you make dashes manually for "bug" operation. Use dual or single lever

paddle. Positive and negative keying. 9V battery or 110 VAC with MFJ-1312D, \$15.95.

MFJ-441  
\$69.95  
Ship Code A



MFJ-442, SlimLine™ Keyer and MFJ paddle combo. Front panel speed, volume controls.

MFJ-442X, \$99.95. Keyer only. 4x1 3/4 x 2 3/4 inches. Fits on your Bencher or MFJ-564/B iambic paddle.

MFJ-442X, \$99.95. Keyer only. 4x1 3/4 x 2 3/4 inches. Fits on your Bencher or MFJ-564/B iambic paddle.

MFJ-441. SlimLine™ Econo Keyer. Just 1 1/4 inches tall. Has volatile 89 character MessageMemory™. Front panel speed/volume controls. 4x1 3/4 x 3 1/4 inches.



## MFJ Pre-Wired Keyer-to-rig and Paddle-to-Keyer Cables

MFJ-5166, \$11.95. Paddle to Keyer cable. Has pre-wired solder lugs for MFJ, Bencher and other iambic paddles and 3.5 mm plug with a 1/4" phone plug adaptor to fit most MFJ and other keyers.

MFJ-5164, \$11.95. Keyer to radio keying cable. Has phono plug on keyer end to fit MFJ keyers and a 3.5 mm plug with 1/4" phone plug adaptor to fit most transceivers.





# Morse Code Reader has Built-in Memory Keyer

**Is your CW rusty?** Relax and plug-in this MFJ Morse Code Reader with built-in keyer at your operating position. Then watch CW turn into solid text messages as they scroll across an *easy-to-read* LCD display.

It makes working high speed CW a breeze - - even if you're rusty. Type-ahead buffer, message memories and adjustable speed get you ready to compete with the world's best hi-speed CW operators -- and they won't even know you just passed the code test!

The MFJ-464 gives you everything you need to have the ultimate CW Station: sends and Reads 5-99 WPM . . . Automatic speed tracking . . . Large 2-line LCD shows send/receive messages . . . single or iambic paddle or computer keyboard operation . . . Front panel speed, volume controls . . . 4 message memories . . . type ahead buffer . . . read again buffer . . . adjustable weight & sidetone . . . RFI proof . . . much more!

## Reader has Auto Speed Track

MFJ AutoTrak™ automatically locks on, tracks and displays CW to 99 wpm.

Simply plug-in your MFJ-464 to your receiver speaker until the lock LED flashes in time with the CW.

## High performance modem

Consistently get solid copy from MFJ's high performance PLL (phaselock loop) modem. Digs out weak signals. Even tracks slightly drifting signals. Of course, nothing can clean and copy a sloppy fist, especially weak signals with lots of QRM/QRN.

## Built-in keyer features

The MFJ-464 combines the latest millenium microprocessor technology with non-volatile EEPROM memory for a full featured, low cost, high reliability design. You can send CW or load messages using a paddle, keyboard or through your computer serial port.

Easy-to-use menus and LCD display let you set all keyer functions merely by pushing buttons. Keyer functions can also be changed from your keyboard or computer.

The LCD also shows the message as it's being sent from memory or live from your paddle, keyboard or computer.

The MFJ-464 has 4 message memories of 256 characters each. You can repeat mes-



MFJ-464  
\$189<sup>95</sup>  
Ship Code B

(Keyboard, paddle not included)



sages continuously, insert timed pauses within messages, insert an auto-incrementing serial number, have messages call other messages or insert embedded commands to change speed, weight, etc. automatically.

## Sinewave Sidetone . . . More!

MFJ-464 supports Direct keying output. Has PTT output, built-in speaker, sinewave sidetone and more! Iambic keyer with dot and dash memories; automatic, semi or hand-key mode. Input queue lets you store multiple messages. Auto-incrementing content serial numbering from 001 to 9999.

## Adjustable Speed 5-99 WPM

Digital linear speed control, 5-99 wpm Farnsworth Mode with speed adjustable from 10-99 wpm.

Ultra speed sets messages up to 990 wpm.

Adjustable weight 25% to 75%.

Adjustable sidetone from 300-1000 Hz.

Keying output delay to 20 milliseconds.

Push-to-talk hang time to 5 seconds.

Timed tune function for XMTR adjusting.

Timed pauses in messages/message loop.

Internal speaker with adjustable volume.

Qwerty & Dvorak keyboards.

## Type-Ahead Buffer

190 character type-ahead keyboard buffer with low buffer warning.

Keyboard Input Use any AT keyboard to program functions & memories.

Compact black metal, 6 1/4"Wx2 1/2"Hx6 1/4"D". 12VDC or 110VAC w/ MFJ-1312D, \$15.95.

## MFJ-464 Accessories

MFJ-5161, \$16.95. MFJ-464 to computer serial port cable (DB-9).

MFJ-5162, \$7.95. Connects MFJ-464 to radio's external speaker 3.5 mm jack.



MFJ-5163, \$10.95. Connects MFJ-464 and another accessory to your radio speaker.

MFJ-5164, \$11.95. Keyer to radio keying cable. Has phono plug on keyer end to fit MFJ keyers and 3.5 mm plug with 1/4" phono plug adapter to fit most transceivers.



MFJ-551, \$39.95. RFI suppressed keyboard, a must to avoid RFI problems when operating CW keyboard mode.

## MFJ Deluxe Iambic Paddles



MFJ-564 Chrome

MFJ-564/B  
\$69<sup>95</sup>  
Ship Code B



MFJ-564B Black

MFJ deluxe iambic paddles feature a full range of adjustments in tension and contact spacing, self-adjusting nylon and steel bearings, contact points that almost never need cleaning, precision machined frame and non-skid feet on heavy base. MFJ-422D and MFJ422DX/MFJ-490X keyers can be used with these paddles. MFJ-5166, \$11.95. Iambic Paddle to keyer cable. Has pre-wired solder lugs on paddle end and 3.5 mm plug with 1/4" phone adapter to fit MFJ keyer.

# Super CW Keyboard -- No Computer Required!

MFJ-452 MFJ-452X  
\$149<sup>95</sup> \$119<sup>95</sup>  
Ship Code B Ship Code A  
No Keyboard

MFJ Super CW Keyboard lets you send effortless CW as soon as you turn it on -- no computer to boot, no program to load -- just start typing.

You get a standalone MFJ CW Keyboard that includes an RFI suppressed keyboard, a two line 16 character LCD display, eight 250 character nonvolatile message memories, a 150 character type-ahead buffer, iambic keyer, plus a powerful Morse Code trainer, more!

Variable speed from 5 to 100 WPM, adjustable weight from 5



to 95%, sidetone from 300 to 3000 Hz and serial number from 0 to 9999. Has buffer and memory full audible indicators. Keys solid state and tube rigs. AT101 compatible keyboard plugs into compact 3 1/2"x2 1/2"x3 1/2" inch interface. Use 12 VDC or 110 VAC with MFJ-1312D, \$15.95. MFJ-452X, No keyboard.

Use MFJ-5164, \$11.95, keyer to rig keying cable.

## MFJ Dedicated CW Keyboard

MFJ-451, like MFJ-452 but without LCD display and has two 100 character memories. MFJ-451X, no keyboard.



MFJ-451  
\$119<sup>95</sup>  
Ship Code B

MFJ-451X  
\$99<sup>95</sup>  
Ship Code A  
No Keyboard

# MFJ Pocket Size Morse Code Tutor

Learn Morse code fast, anywhere . . . LCD display lets you check your copy instantly . . . easy no-code beginner's course . . . plain English QSOs .

## Beginner's Course

ARRL/VEC format. **\$89<sup>95</sup>**

Learn small fixed sets of characters. Previously learned sets are combined with new sets to reinforce all you have learned.

Practice copying, then instantly replay to check your copy on the LCD display.

## Custom Character Sets

Having trouble with certain characters? Build and save 3 custom sets of 16 characters for extra practice -- an MFJ exclusive.

Practice copying realistic on-the-air style plain English QSOs. Gets you ready to pass your FCC test and upgrade. Also builds confidence for your first real contact.

## MFJ Word Recognition Mode™

MFJ's Word Recognition Mode™ gives you hundreds of commonly used words in ham radio. Practice recognizing entire words instead of individual letters.

Select letter, number, punctuation, prosign or FCC character sets (has only letters, numbers and prosigns required on FCC tests), random call signs, random words, QSOs or combo sets for practice -- you'll never run out of study material!

## MFJ Interactive Mode™

Interactive Mode™ lets you decide when to copy the next or previous group and how many -- great for beginners!

MFJ-418  
Ship Code A



Select normal or Farnsworth spacing.

Farnsworth makes it easier to learn entire characters. Stop counting individual dots and dashes that slows learning! Adjustable 10 to 60 WPM for high-speed.

Use fixed length or more realistic random length groups (up to 8 characters).

You can change speed on-the-fly while playing a session 3 to 60 words-per-minute.

## SettingSaver™

Settings are automatically saved, ready to use next time--just turn on and replay.

Check your copy, select from menus



MFJ-418 top view

and program custom characters and words on 2 line LCD display with 32 huge 1/4 inch high-contrast characters -- powerful sound and sight learning!

Only MFJ gives you SilkySmooth Sidetone™ with TruTone™ sinewave and SoftStart™ dots/dashes -- lets you concentrate on learning without distracting, harsh keyclicks. Use earphones for private practice or built-in speaker for groups. Volume control. Variable pitch 300-1000 Hz.

Fits in your shirt pocket with room to spare -- smaller than a pack of cigarettes. Tiny 2 1/4 x 3 3/4 x 1 in., weighs less than 5 1/2 ounces. Uses 9 volt battery (not included).

Tapes play the same old boring stuff over and over. Unlike tapes, you'll never memorize MFJ-418's random sessions.

## Pocket Tutor Accessories

MFJ-26B, \$9.95. Soft leather protection for MFJ-418 with pocket/belt clip.



MFJ-281, \$12.95. Speaker for group practice. Loud, powerful audio! 3 3/4 x 3 x 2 1/4"

## More pocket size MFJ Morse Tutors

MFJ-417, \$69.95. Similar to MFJ-418, but no LCD. Most software features.

MFJ-413, \$49.95. Similar to MFJ-417, less random words, QSOs, SettingSaver™.

## Deluxe Morse Key and Oscillator for Code and Sending Practice



MFJ-557  
\$39<sup>95</sup>  
Ship Code B

MFJ-557 Deluxe Code Practice Oscillator features a Morse straight key on a non-skid heavy steel base -- stays put and doesn't move around while you're sending.

MFJ-557 lets you practice sending code at home, work, riding in your car -- practically anywhere -- because it's so easy to take it wherever you go.

Volume control adjusts from barely audible to blaring full sound.

MFJ-550  
Telegraph key only  
\$14<sup>95</sup>  
Ship Code A

You can practice without bothering anyone.

Tone control gives you a wide adjustment, from high "squeaky" to low "booming" tones. You even get an earphone jack for private listening times.

Plug in an external speaker (MFJ-281, \$12.95, powerful compact speaker) for high volume in the classroom.

MFJ-557 runs on a 9 volt battery (not included) or 110 VAC with MFJ-1312D, \$15.95. Plugs into jack on the side.

When you're finished cleaning up your fist with the MFJ-557, hook up the straight key to your transmitter and go on-the-air.

Don't pass up a super buy! Built-in speaker, adjustable contacts. 8 1/2 x 2 1/4 x 3 3/4 inches. Black.

## Use HT for on-the-air CW Fun

MFJ's JimHandy™ CW interface plugs into your 144/440 MHz handheld and converts it into a modulated CW transceiver -- just plug in your key.



MFJ-552  
\$89<sup>95</sup>  
Ship Code A

Get your ham buddies together on-the-air and enjoy some fantastic CW fun. Run a little code practice on your repeater. Start your own FM CW Net. Have fun and upgrade! A transmit/receive switch automatically switches your HT to transmit when you send CW and returns you to receive when you stop keying.

Built-in speaker, volume control and great sounding true sinewave sidetone -- no harsh keyclicks. 4W x 1 1/4 H x 3 3/4 D inches. Use 9V battery (not included). Pre-wired patch cables, \$17.95 for your HT on page 38. MFJ-550 key only, \$14.95.

## Classroom Code Oscillator

The world's finest code practice oscillator is designed for demanding classroom use and abuse.

MFJ-554  
\$89<sup>95</sup>  
Ship Code A



It produces a true pure sinewave sidetone with no trace of harsh keyclicks. You'll hear the clearest, sweetest sounding CW you have ever heard. Delivers full 1 watt into built-in 3" speaker -- fills an entire room. Low distortion -- less than .2% total harmonic distortion from its BTL (Bridge-Tied-Load) amplifier. Volume control, 400-1000 Hz tone control, on/off switch, power on LED, 1/4 inch key jack, 3.5 mm external speaker jack, uses 12 VDC. All metal enclosure 4 3/4 x 1 1/2 x 5 in.

Save \$15.85! MFJ-554X, \$109.95.

Includes MFJ-554 Code Oscillator, MFJ-281 ClearTone™ speaker, MFJ-550 Telegraph Key, & MFJ-1312D AC adapter.

## Classroom Morse Code Tutor

MFJ-414  
\$209<sup>95</sup>  
Ship Code B



The Cadillac of all Morse Code trainers! For VECs, Elmers, teachers, ham clubs, schools and hams who want the best. Has everything in the famous MFJ-418 Pocket Size Morse Code Tutor™ plus . . . Hear powerful classroom audio from its built-in speaker/ amplifier with true sinewave sidetone and no harsh keyclicks. Down/upload custom practice groups from PC with serial port . . . Store 16 FCC exams for VECs . . . Print correct answers using printer port . . . Record quality code tapes with tape output . . . Send on-the-air CW practice with HF/VHF radio interface. . . Use full featured memory keyer with 1000 character memory. Serial port and open end HT cables included. 110 VAC /12VDC operation. 8 1/2 W x 2 1/4 H x 6 D inches.



# 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 your receiver's speaker . . .

MFJ-461  
**\$89.95**  
 Ship Code A

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

Use it as a backup in case you mis-copy 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™ 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, then that entire line is displayed on top line until bottom line refills -- makes reading text extra easy! Automatically displays 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 slightly drifting signals.

Of course, nothing can clean up and copy a sloppy fist, especially weak signals with lots of QRM/QRN.

### 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 pick-up, connect it 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. Tiny 2 1/4 x 3 1/4 x 1 in. 5 1/2 ounces.

### Accessories

MFJ-26B, \$9.95. Soft leather protective pouch for MFJ-461. Clear plastic overlay for display, push button opening, strong, durable pocket or belt clip secures MFJ-461.



MFJ-5161, \$16.95. MFJ-461 to computer serial port cable (DB-9).

MFJ-5162, \$7.95. Connects MFJ-461 to radio external speaker 3.5 mm jack.

MFJ-5163, \$10.95. Connects MFJ-461 and another accessory to radio external speaker, 3.5mm.



## Switch any two Mics to any two Rigs

MFJ's new MFJ-1263 Microphone Control Center lets you mix and match any two microphones to any two transceivers.

The microphones or transceivers can have 8-pin round or 8-pin modular connectors. You don't have to change connectors or rewire -- just push buttons. Your favorite microphones will never become obsolete.

You can use your favorite microphone with your present or new rig by pushing a button. You can instantly switch from a hi-fi ragchewing mic to a hard-hitting DX mic when a rare one suddenly pops up.

### Free your hands with external PTT

You can plug in an PTT foot switch (MFJ-1709, \$24.95) or let your computer or voice keyer (MFJ-434, \$189.95) control your PTT line to free your hands for contesting and DXing.

### Perfect for Boom-Mic/Headset

Plug in a boom mic/headset (MFJ-393, \$69.95) to save the day during noisy field day or multi-operator contesting.

You can plug in your headphones and an external speaker (MFJ-281, \$14.95).



A headphone volume control eliminates the need to readjust your rig's volume when you switch the speaker on. The headphones are always active. A push button turns the speaker on or off.

When you want to use your desk or hand mic just push a button.

### Auxiliary audio input

An input jack and On/Off switch is provided to insert external audio into the microphone audio input line. Great for inputting sound card, SSTV, AFSK, TNC and other audio sources.

### Works with any radio

The MFJ-1263 works with any radio - Kenwood, Yaesu, Icom, Alinco and com-

patible transceivers - using an 8-pin round or modular microphone jack. Internal jumpers configure the MFJ-1263 for your radio -- your mics never become obsolete! 6Wx1 1/2 Hx5D inches. Includes one MFJ-5398 and one MFJ-5397MX radio cables.

MFJ-1261 \$99.95  
 Code A

MFJ-1261, \$99.95. Like MFJ-1263 but has one mic input and two radio outputs. One MFJ-5398, MFJ-5397MX included.

MFJ-1260 \$89.95  
 Code A

MFJ-1260, \$89.95. Same as MFJ-1263 but has two microphone inputs and one radio output. One MFJ-5398 and one MFJ-5397MX radio cables included.

ORDER Extra Radio Cables!  
 MFJ-1261/1260/1263 to transceiver cables, \$17.95. Order MFJ-5398 for 8-Pin Round; MFJ-5397MX for 8-Pin Modular.

# MFJ SpeechArticulator™ improves transmit speech intelligibility

MFJ-653 hamProAudio™ Speech Articulator™ greatly improves transmit speech intelligibility for super punch! **\$149.95**

Based on extensive speech research, the MFJ-653 uses optimized frequency shaping to concentrate the energy in the band of frequencies where speech intelligibility is concentrated. It also removes powerful low frequencies that overwhelms the important high frequencies that carry intelligibility.

You can boost the highly intelligible band of frequencies centered around 2 kHz by up to 16 dB and gently remove the powerful, low frequencies that have little intelligence. The high-pass filters cutoffs are 1.1 kHz and 500 Hz.

Using a SSM-2166 broadcast industry speech compression IC the MFJ-653 syllabic compressor with its adjustable 15 to 1 compression ratio can nearly double your



RF output power with low distortion.

A highly effective noise gate (downward expansion) with front panel level and delay controls smoothly removes annoying background noise picked up during speech pauses.

**The results?** You'll be heard and understood. Powerful, highly intelligible speech gives you a commanding presence that slices through DX clutter!

You can use any transceiver and with its UniversalMic™ Interface, you can use almost any microphone (high/low impedance, dynamic and electret) with the MFJ-653, regardless of whether or not the

microphone was designed for your particular transceiver.

**Microphone** input jacks include a RJ45 modular, an 8 pin round and MFJ's exclusive programmable 3.5-mm. MFJ's programmable 3.5 mm jack lets you use Heil series, MFJ-393 boom-mic headphones or even an inexpensive computer boom-mic headset and provides phantom voltage when needed.

An adjustable preamplifier lets you even use low-level output microphones.

**Compact size** -- 5Wx1 1/4Hx4 3/4D inches. Takes little room on your desk and small enough to use mobile where you really need it.

**Output** cables to connect transceivers with 8-pin round or 8-pin modular microphone connectors are included.

Use 12 VDC or 110 VAC with optional MFJ-1312D, \$15.95 power supply.

## SO2R switches Mic/PTT/keyer/soundcard for 2 radios

Have you got two radios, but only one keyer, one headphone set, one paddle and other accessories? MFJ's Single Operator/Two Radio Switch (SO2R) is at your rescue! Save money, reduce clutter . . .



MFJ-643 **\$139.95**  
Ship Code A

Have you got

two radios, but only one keyer, one headphone set, one paddle and other accessories? MFJ will unclutter your operating position and save you money -- you only need one microphone, keyer, soundcard interface, iambic paddle, etc.

MFJ-643 lets you operate two radios with the following accessories: Desktop and headset Microphones, keyers/keys/paddles, soundcard interfaces, modems, etc.

The MFJ-643 is designed for easy use. Just set the internal jumpers for the MFJ-393 Professional Boom-Mic Headphones, Heil series headphones, a computer boom-mic or computer boom-mic Headset.

You get instant LED visual indication of the transmit audio path so you know which radio your audio is being sent to.

On receive, you can instantly choose

between Mix, Radio 1, Stereo or Radio 2 depending on how you want the audio presented to your headphones.

The input source connector is a 3.5mm stereo jack. Your input source can be a dynamic or electret mic (low or high impedance), stereo or monaural receiver audio, sound card or modem, or key or keyer.

You have a choice of PTT functions: Use your microphone's PTT switch, a foot

or hand switch or the convenient PTT switch located on the front of the MFJ-643.

There are also additional inputs, dual outputs for your keyer, and two lines to switch an antenna between your radios, key an amplifier, or anything else you want to use them for.

Use 12 VDC or 110 VAC with optional MFJ-1312D, \$15.95 power supply. Compact 7 1/4Wx2 3/4Hx5 1/2D inches.

## MFJ hamProAudio™ Universal SO2R Switch

Enhanced version of the MFJ-643 interfaces with virtually any mic connector



MFJ-644 **\$159.95**  
Ship Code A

MFJ-644 is similar to the MFJ-643, but is enhanced with the UniversalMic™ Interface. This MFJ exclusive lets you use any mic with any radio. Internal jumpers configure any microphone to any radio.

MFJ-644 also gives you three additional input sources: 1) An 8-pin modular (RJ-45) input jack, 2) An 8 pin round input jack, and . . . 3) MFJ's own input 3.5 mm jack. The 3.5 mm jack allows the user to choose audio and PTT functions from the Heil series of Boom-Mic Headsets and also provides phantom voltage on the tip for the MFJ-393 Boom-Mic Headphones or on the ring for a computer Boom-Mic or computer Boom-Mic headset. Compact 7 1/4Wx2 3/4Hx5 1/2D inches.

## MFJ hamProAudio™ Computer-controlled SO2R Switch



MFJ-645 **\$249.95**  
Ship Code A

Universal computer interface provides seamless interaction with computer logging and SO2R programs for effortless "Single Operator/2 Radios" operation.

MFJ-645 extends capabilities of MFJ-644 and includes computer control --

Permits MFJ-645 to interoperate with WinEQF, CT, NA, TRLog, and Write-Log.

Its UniversalMic™ Interface lets you use any mic with any radio. Internal jumpers configure any microphone to any radio.

MFJ-645 easily interfaces with the MFJ-1275 and MFJ-1279 Sound Card Interfaces giving you full control over your digital modes. You can choose which radio is in the digital mode, or you can even operate dual digital modes. And besides the normal manual PTT capabilities as those of

the MFJ-644, when connected to the MFJ-1275 or MFJ-1279 Sound Card Interfaces your digital mode can also control the key line.

Use 12 VDC or 110 VAC with optional MFJ-1312D, \$15.95 power supply. Measures 11 1/4Wx5 1/2Hx2 1/2D inches.

All MFJ hamProAudio™ accessories are designed with the serious ham in mind. The choice of components and extensive RF filtering and bypassing allow for a unit that is designed to be used in an RF environment.

## MFJ hamProAudio™ 2-Radio Headphone Selector/Mixer



MFJ-640 **\$49.95**  
Ship Code A

MFJ-640 combines or selects

audio from two different receivers -- Great for operating "split" for HF contests and

DXing, or cross-band for VHF/UHF satellite.

Just connect the audio output of two receivers to the two 3.5mm audio connectors on back of the unit. Then plug in your stereo headphones and you are ready to go.

MFJ-640 provides both 1/4" and 3.5mm stereo headphone jacks -- no need for adapters!

From the front panel you can select the

audio output desired - Mix, Radio 1, Stereo, or Radio 2. In the Mix mode both radios are combined in both the left and right earphones, and the audio mixing levels between the two radios are controllable. In the Stereo mode, Radio 1 is heard in the left ear and Radio 2 is heard in the right ear.

Compact 4 3/4Wx2 1/8Hx5D inches.

MFJ . . . The World Leader in Ham Radio Accessories



# MFJ *hamProAudio*<sup>TM</sup> Equalizer/Conditioner

*MFJ hamProAudio*<sup>TM</sup> console gives you . . . 8-Band Equalizer . . . Downward Expansion noise gate . . . Smooth, clean Compression . . . Limiter . . . Low noise Preamp . . . Universal Mic-Interface . . . VU Meter . . . Headphone Monitor . . . Auxiliary Input . . . Push-to-Talk jack . . .



**MFJ brings Pro Audio to ham radio!**  
MFJ makes sophisticated Pro Audio gear user friendly, affordable and RF bullet-proof. MFJ adapted Pro Audio's heart and soul to ham radio communications.

The MFJ-655 all-in-one audio console gives you Pro Audio processing that makes your audio professional sounding.

It gives you all the capabilities you'll ever need . . . 8-Band Equalizer . . . Downward Expansion noise gate . . . clean Compressor . . . smooth Limiter . . . low noise Preamp . . . universal microphone interfacing . . . impedance matching . . . level control . . . and RF/audio isolation.

Its processing is so smooth and transparent, no one will detect its presence. All they will hear is your outstanding audio that brings you unsolicited compliments.

A built-in headphone monitor lets you hear improvements as you make them and a VU-meter lets you accurately adjust levels.

An auxiliary input lets you use other audio sources and a push-to-talk jack lets you use microphones without PTT.

The MFJ-655 uses the Analog Devices SSM2166. This professional quality audio conditioner gives outstanding performance over an exceptionally wide bandwidth with very low noise and very low total harmonic distortion, typically .25%.

An 8 Band Equalizer lets you adjust your voice for full quality ragchewing audio or powerful, pileup penetrating audio.

An adjustable Downward Expansion noise gate gives you transparent background noise reduction.

A clean, low-distortion Compressor gives you more powerful, richer, fuller sounding speech with more talk power.

A smooth Limiter keeps instantaneous audio peaks from overdriving your transmitter and

prevents SSB distortion and splatter.

Front panel controls let you easily adjust input and output levels.

You can use nearly any microphone with any transceiver with its Universal Mic-Interface, pre-amp, mic element voltages, impedance matching and PTT jack.

Plug in your headphones to hear your rig's received audio or plug in your MFJ, Heil or computer boom-mic headset to talk and hear.

**New!** The Compressor and Equalizer can be used independently of each other.

## 8 Band Equalizer

The MFJ-655 voice band equalizer divides the speech frequencies into eight bands -- 50, 100, 200, 400, 800, 1600, 2400 and 3200 Hz. You can increase or decrease the gain of each band by 16 dB.

For ragchewing, you can adjust for rich, full quality audio. And for Dxing, you can increase the high and reduce the low frequencies for a highly intelligible signal that lets you punch through DX pileups.

You can turn ordinary, even poor microphones into pricy professional sounding ones.

Equalization compensates and improves your entire audio chain -- from your voice to your microphone and through your radio.

## Downward Expansion noise gating

Downward expansion noise gating eliminates or greatly reduces background noise when you stop speaking -- no more amplifier fan noise, dogs barking, kid's music or traffic.

Downward expansion is a professional audio technique. When you stop talking it smoothly attenuates low-level noise by reducing gain instead of abruptly cutting off like a noise gate -- background noise smoothly vanishes.

You control the level at which downward expansion starts and the delay when it ends.

## Clean, Smooth Compression

## MFJ *hamProAudio*<sup>TM</sup>

transmit audio Conditioner



MFJ-651  
\$129<sup>95</sup>  
Ship Code B  
Transmit audio Microphone Conditioner. Downward Expansion noise gate, Compressor, Limiter, low noise Preamp, Universal Mic-Interface, headphone monitor, PTT, Auxiliary-in, RF proof, aluminum case. 9Wx2<sup>1</sup>/<sub>4</sub>Hx5D in.

Natural unprocessed voice has peaks and valleys. The average power of SSB speech is only 15 to 30 percent of peak power.

If instantaneous peaks are reduced, average power increases significantly.

The superb Analog Devices SSM2166 provides smooth, clean, almost transparent compression over a very wide bandwidth. It reduces speech peaks as much as 15 times.

Just a small amount of clean compression is impressive and gives you more powerful, richer and fuller sounding audio.

For DXing where every ounce of power counts, you can use more compression to increase average power.

Most of the speech power is in the lower speech frequencies.

Attenuating these lower frequencies with the equalizer reduces their power.

This lets you increase compression for weaker high frequencies -- where most of the speech intelligibility lies.

The MFJ-655 compressor does a superb job in creating an exceptionally clean, higher average power SSB signal.

## Limiting -- splatter prevention

If occasional large audio peaks exceed a fixed set level, the compressor's limiting function quickly attenuates them.

Limiting prevents over-driving your microphone input, transmitter and amplifier causing SSB distortion and splatter.

In the MFJ-655, compression and limiting work jointly to provide a level, constant output.

## Universal Mic-Interface/Pre-Amp

Standard XLR, 8-pin round or 8-pin modular microphone jacks are provided on the back panel. You can also plug in your MFJ, Heil or computer boom-mic headset.

A PTT jack for a foot switch or other lets you use microphones without push-to-talk.

Its Universal Mic-Interface lets you use any mic with any radio. Internal jumpers configure any microphone to any radio.

A front panel controlled low noise pre-amp gives you up to 20 dB gain.

Select 600 Ohm, 200 Ohm or Hi-Z input impedances to match dynamic, electret or high impedance crystal/ceramic microphones. Has 8, 5, and 1<sup>1</sup>/<sub>2</sub> VDC mic voltages.

One MFJ-5398 for 8-pin round and one MFJ-5397/MX for 8-pin modular included.

Use 12 VDC or 110 VAC with MFJ-1312D, \$15.95. 10<sup>3</sup>/<sub>4</sub>Wx3<sup>1</sup>/<sub>4</sub>Hx5D inches.

## MFJ *hamProAudio*<sup>TM</sup>

transmit audio Equalizer



MFJ-652  
\$129<sup>95</sup>  
Ship Code B  
Voice Band Equalizer (300, 600, 1200, 2400 Hz center frequencies), low noise Preamp, Universal Mic-Interface, headphone monitor, PTT, Auxiliary-in, RF proof, aluminum case. 7<sup>1</sup>/<sub>4</sub>Wx2<sup>1</sup>/<sub>4</sub>Hx5D inches.



MFJ-654  
\$199<sup>95</sup>  
Ship Code B  
More compact and has everything that the MFJ-655 has except for the built-in VU meter. Measures 9Wx3<sup>1</sup>/<sub>4</sub>Hx5D inches.

# Save Your Voice with the MFJ Contest Voice Keyer

## NEW! Use 8-pin modular or 8-pin round microphone plug! NEW!

Let this microprocessor controlled MFJ Contest Voice Keyer™ call CQ, send your call and do contest exchanges for you in your own natural voice!

Store frequently used phrases like "CQ Contest this is AA5MT", "You're 59" ... "QTH is Mississippi" and more! Contest by pressing a few buttons and save your voice.

You can record and play back five natural sounding messages in a total of 75 seconds. EEPROM technology keeps messages stored for up to 100 years -- no battery backup needed.

You can repeat messages continuously and vary the repeat delay from 3 to 500 seconds. Makes a great voice beacon and calling CQ is so easy. A receive audio jack lets you record and play back off-the-air signals -- great help if you didn't get it right the first time! No more "Please repeat".

A playing message can be halted by pressing the Stop Button, your PTT mic button or



by your VOX PTT line. A closure to ground via remote control or computer also halts messages.

Has jack for remote or computer control (using CT, NA, TR or other program and its interface). Lets you select, play and cancel messages.

The MFJ-434B is transparent to your microphone -- your mic's audio characteristics do not change when your MFJ-434B is installed. Dual controls make it easy to tailor

MFJ-434B  
\$189.95  
Ship Code B

audio level to match your voice.

All audio lines are RF filtered to eliminate RFI, audio feedback and distortion. An audio isolation transformer totally eliminates hum and distortion caused by ground loops.

It's easy to use -- just plug in your 8 pin microphone cable and plug the MFJ-434B shielded cable into your transceiver's mic connector. Internal jumpers let you customize it to Kenwood, Icom, Yaesu, Alinco or Radio Shack rigs. Use your station or built-in microphone for recording.

Built-in speaker-amplifier lets you monitor stored messages. 3.5 mm speaker/headphone jack. SMT technology.

Use 9 Volt battery, 9-15 VDC or 110 VAC with optional MFJ-1312D, \$15.95. Measures a compact 6 1/2"Wx2 1/2"Hx6 1/2"D inches.

MFJ-73, \$34.95. Remote Control Head with cable for MFJ-434B lets you set the MFJ-434B out of the way.

## MFJ Desk Mic/Ham Station Console

A high-sensitivity ceramic microphone element (10.5 inches with FlexNeck™) bends and stretches to your most comfortable operating position. A fine mesh metal grill helps to eliminate background noise.

MFJ-299 has a high quality compressor amplifier with high, medium, and low selection switches. It always sends out a constant and optimum level without distortion, regardless of audio input level.

Equipped with a built-in graphic equalizer with center frequencies of 270, 540, 1000 and 2000 Hz. Gives best audio quality for FM mode and max efficiency for SSB.

Has On-Air indicator and an output level volume control.

On-Air blinks on and off when in receiving mode and will light up continuously when transmitting.

MFJ-299 is equipped with PTT momentary and PTT lock switches that allow you to switch between long one-sided QSOs and fast two-sided conversations.

The frequency up/down switches let you operate your transceiver at your desktop microphone. 4 function keys (CALL, VFO, MR, PF) are for Kenwood transceivers only.

An output level meter lets you adjust the output level NOT to exceed 0 dB.

A revolutionary triple radio input socket makes it super easy to install for any model transceiver: Icom, Yaesu, Kenwood and compatible transceivers. See cable chart below.

Built-in battery check circuit. Press power switch and the level meter shows battery condition with power voltage for a few seconds.



## MFJ-297 Desk Mic

MFJ-297 speech frequency tailored microphone cuts through noise and QRM. Switch for powerful SSB punch or full range broadcast quality FM/AM. Has Silibant Sound Shield™, momentary/locking PTT switch, On-Air LED, frequency up/down button, output level control and more! 4Wx11/2H6D inches with 11 inch flexible boom. 1 lb. Use 2 "AA" batteries. Select cable from chart, below.

MFJ-299  
\$99.95  
Ship Code B

MFJ-297  
\$69.95  
Ship Code A

**GooseNeck™ Microphone Holder**

- Heavy-duty all-metal base stays put!
- GooseNeck™ gives super flexibility to move your mic where you want!
- Tough, Durable plastic microphone clip holds tight!
- Turns your favorite handheld microphone into a super attractive desktop mic!

MFJ-390  
\$14.95  
Ship Code A  
**New!**

## MFJ Professional Boom-Mic Headphones

MFJ-393  
\$69.95  
Ship Code A



This professional grade MFJ Boom-Mic Head-phone set is for contesting, DXing and traffic nets. Comfort designed leatherette padding lets you operate for hours at the rig.

Superb 3/4 inch thick padding on each ear and headband. MFJ-393 is so super lightweight, you won't even know they're there!

Headband adjusts for perfect fit to keep out external noise. Frequency response is enhanced for communications to bring out speech fidelity you never knew existed. Signals never sounded so clear!

The flexible microphone boom lets you position the mic comfortably at an optimum distance to minimize silibant sounds. MFJ's frequency tailored microphone element lets you bust through noise and QRM! 6 feet of cable lets you move about your ham station!

Even casual operators will appreciate the advantages of MFJ's superbly crafted Boom-Mic headphones for hands-free operating and DXing at an incredibly low MFJ price.

MFJ-393, \$69.95, comes with pre-wired adapter cable. Order MFJ-3931 for Icom and compatibles, MFJ-393Y for Yaesu and compatibles, MFJ-393K for Kenwood and compatibles. **New!** MFJ-393MI for Icom 8 pin modular rigs. MFJ-393MI for Icom and compatibles, MFJ-393MY for Yaesu and MFJ-393MK for Kenwood.

8 Pin Round Mic Plug - \$17.95 each				8 Pin Modular Mic Plug - \$17.95 each		
MFJ Desk Mic	ICOM	Kenwood	YAESU	ICOM	Kenwood	YAESU
MFJ-297	MFJ-5397I	MFJ-5397K	MFJ-5397Y	MFJ-5397MX	MFJ-5397MX	MFJ-5397MY
MFJ-299	MFJ-5397I	MFJ-5397K	MFJ-5399Y 5399Y2 (FT-847)	MFJ-5397MX	MFJ-5397MX	MFJ-5397MX

## MFJ-624D Hybrid Phone Patch gives crisp, clear hum-free audio

MFJ-624D Deluxe Hybrid Phone Patch gives you crisp, clear, hum-free audio, and that's what phone patching is all about. It's jumper selectable for Kenwood, Icom, Yaesu, and Alinco rigs with 8 pin mic connectors.

Use VOX or push-to-talk. RF pi-filters and PC board eliminates RF feedback. Use with virtually any rig. Built-in VU meter monitors phone line levels to prevent cross talk. Adjust null depth for maximum isolation between rig. Separate XMTR/receiver gain controls elimi-

MFJ-624D  
\$139.95  
Ship Code B

MFJ-624DM  
\$139.95  
Ship Code B



nate need to read-just your rig after patching. Null control, standard phone connection, RJ-11. Jacks for speaker, audio in/audio out. 8x2x6". Use 12 VDC, 9V battery or 110 VAC with optional MFJ-1312D, \$15.95.

MFJ-624DM has RJ45 8-pin modular plug.

## MFJ PTT Foot Operated Switch

Add the luxury of foot control PTT transceiver operation.

MFJ-1709 keeps your hands free for logging, computer operation and tuning. Greatly reduces fatigue and improves your efficiency -- could be the difference between winning and losing a contest. 2 1/2"Wx3 1/2"Dx1 1/2"H" with non-skid pad foot pedal. 1/4 in. phone plug. Ten ft. cord.



MFJ-1709  
\$24.95  
Ship Code A



# MFJ Speech Intelligibility Enhancer

...makes barely understandable speech highly understandable!



**"What did you say?"**

**Can you hear but . . . just can't always understand what people are saying?**

As we get older, high frequency hearing loss reduces our ability to understand speech. Here's why . . .

**Research** shows that nearly *half* the speech intelligibility is contained in 1000 to 4000 Hz range, but contains a miniscule 4% of total speech energy.

On the other hand, the low frequencies, 125 to 500 Hz have most of the speech energy (55%) but contribute very little to intelligibility -- only 4%.

To dramatically improve your ability to understand speech, you must:

**First**, drastically increase the speech energy above 500 Hz, where 83% of the speech intelligibility is concentrated.

**Second**, drastically reduce speech energy below 500 Hz where only 4% of speech intelligibility lies.

centered at 300, 600, 1200 and 2400 Hz. You can boost or cut each by nearly 20 dB.

A balance control and separate 2½ Watt amplifiers let you equalize perceived loudness to each ear so both ears help.

By boosting high and cutting low frequencies and adjusting the balanced control, speech that you can barely understand become highly understandable!

**Even** if you *don't* have high frequency hearing loss, you'll dramatically improve your ability to understand speech.

*QST* for April, 2001 said "I expected a subtle effect at best, but I was astonished . . . The result was remarkably clean, understandable speech without hissing, ringing or other strange effects . . . made a dramatic improvement . . ."

**Immune** to RFI. Has phone jack, on/off speaker switch, 2 inputs, bypass switch. 10Wx2½Hx6D". Needs 12 VDC.

**MFJ-1316, \$21.95.** For 110 VAC operation. Provides 12 VDC/1.5 Amps.

MFJ-616  
\$ 179<sup>95</sup>  
Ship Code B

The MFJ-616 splits the audio speech band into four overlapping octave ranges

**MFJ-72, \$69.80.** All-in-one MFJ-616 Accessory Pack. Includes MFJ-392B headphones, two MFJ-281 speakers and MFJ-1316 power supply. **Save \$7!**

## MFJ CyberEAR™!



MFJ-388  
\$ 29<sup>95</sup>  
Ship Code A

**Tiny** powerful MFJ 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.

**Super CyberEAR™**

MFJ-389  
\$ 59<sup>95</sup>  
Ship Code A



Hear everything! Capture and amplify sounds up to 50 dB! Left or right ear plugs, volume control, extremely small. Not a hearing aid.

## MFJ Audio Products for Better Communication



### MFJ ClearTone™: Our most Popular Speaker

MFJ-281 Plug  
\$ 12<sup>95</sup> in this  
Ship Code A MFJ  
Clear

**Tone™** speaker and bring out speech fidelity that you never knew existed.

**MFJ-281** restores the smooth sound of sinewaves that CW naturally generates and makes it easy to under-

stand and copy.

The MFJ-281 **ClearTone™** speaker was carefully designed to improve the intelligibility of speech in the frequency range of 600 to 4000 Hz while reducing undesirable noise, static and hum.

**3-in.** speaker handles 8 Watts. 8 Ohms impedance, has six feet of cord terminated with a 3.5 mm mono plug.

**Tiny**, compact 3½x3x2¼ inches, but powerful booming sound!

### MFJ Compact Mobile Speaker

Enjoy superb audio and convenience with this economical mobile speaker.

MFJ-280  
\$ 19<sup>95</sup>  
Ship Code A



**Matches** 8 and 4 ohm impedances. Handles 3 Watts. 30-in cord lets you get it to your rig's speaker output. Tiny 2½x2x3 inches fits anywhere. Tough ABS plastic cabinet is built to last.

### Amplified ClearTone™ Speaker

MFJ's Deluxe **ClearTone™** speaker is an excellent 1-watt amplified speaker for many uses.

MFJ-382  
\$ 39<sup>95</sup>  
Ship Code A



The MFJ-382 gives superb, loud and powerful **ClearTone™** audio. Speaker is 3-in. diameter.

**Adjustable** from barely audible to high volume, this rugged speaker is sturdy and compact. All metal cabinet with rubber feet. 3½x1¾x4½ in. 9 volt battery (not included) or 110 VAC with MFJ-1312D, \$15.95.

## MFJ Deluxe Communication Station Speaker

MFJ brings you ultra high quality communication audio with ham radio's most advanced communication speaker.

**How?** By using *America's most modern speaker design, advanced speaker cone and voice coil materials and construction, and a carefully crafted, acoustically-rigid cabinet.*

**Handsome** black cabinet measures 5¼Wx9¾Hx6½D in. You won't believe the clarity and depth of the audio when you hear the incredible improvements in speech intelligibility and CW tone. 4-in. full range speaker.

It also reduces listening fatigue. It can literally transform your transceiver!

The smooth, wide range response of the MFJ-385B

MFJ-385B  
\$ 39<sup>95</sup>  
Ship Code C

gives you faithful reproduction with no hint of unwanted resonances and sound coloration. Speech becomes more intelligible and easier to understand.

**Pure** sine wave tones of CW make copying and tuning in signals easier and faster.



## MFJ Shortwave Radio Communication Headphones

MFJ-392B is perfect for amateur radio and shortwave radio listening. Great for all modes -- SSB, FM, AM, data and CW.

**Each** earphone its own volume control.

**Superb** padded headband and *ear cushioned* design makes listening extremely comfortable.

You'll forget they're even on as you listen to stations all over the world!

**High-performance** driver unit reproduces

enhanced communication sound. Signals never sounded so *crystal clear!*

**Bring** out speech fidelity you never knew existed. Has free ¼ inch phono adaptor.

**Has** gold plated plug and cord. Super lightweight earphones (8 ounces) come with 9 feet of cord for roaming around.

**MFJ-392B** handles 450 mW and has a frequency response of 20-20,000 Hz.

Impedance is 32 ohms, sensitivity is 102

MFJ-392B  
\$ 24<sup>95</sup>  
Ship Code A

dB/mW.

**Works** in stereo mode with 3.5 mm plug. Works mono with 1/4 inch adaptor.



**MFJ...The World Leader in Amateur Radio Accessories**

# MFJ Noise-Canceling Filters Wipe Out Interference



MFJ-1026  
\$189<sup>95</sup>

Ship Code B

**WIPE**  
Out Noise!

Wipe out noise and interference before it gets into your receiver with a 60 dB null!

Eliminate all types of noise -- severe power line noise from arcing transformers and insulators, fluorescent lamps, light

dimers, touch controlled lamps, computers, TV birdies, lightning crashes from distant thunderstorms, electric drills, motors, industrial processes.

It's more effective than a noise blander because interference much stronger than your desired signal can be completely removed without affecting your signal.

It works on all modes -- SSB, AM, CW, FM, frequencies from BCB to lower VHF.

Null out strong QRM on top of weak rare DX and then work him! You can null out a strong local ham or AM broadcast station to prevent receiver from overloading.

Use MFJ-1026 as an adjustable phasing network. You can combine two antennas to give you various directional patterns.

Null out a strong interfering signal or

peak a weak signal at a push of a button.

**Easy-to-use!** Plugs between transmitting antenna and transceiver. To null, adjust amplitude and phase controls for minimum S-meter reading or lowest noise. To peak, push reverse button.

Use built-in active antenna or an external one. MFJ's exclusive *Constant Amplitude Phase Control*™ makes nulling easy.

**RF-sense** T/R switch automatically bypasses your transceiver when you transmit. Adjustable delay time. 12 VDC or 110 VAC with MFJ-1312D, \$15.95. Measures 6½X1½X6¼ inches.

**MFJ-1025, \$169.95.**

Like MFJ-1026 less built-in active antenna, use external antenna. Same size, power requirements.



# MFJ Tunable, Programmable Brick Wall DSP Filter

MFJ's tunable super DSP filter automatically eliminates heterodynes, reduces noise and interference simultaneously on SSB, AM, CW, packet, Amtor, PACTOR, RTTY, SSTV, WeFAX, FAX, weak signal VHF, EME, satellite.

You get MFJ's tunable FIR linear phase filters that minimize ringing, prevent data errors and have "brick wall" filter response with up to 57 dB attenuation 75 Hz away.

Only MFJ gives you 5 tunable DSP filters. You can tune each lowpass, highpass, notch, and bandpass filter including optimized SSB and CW filters. You can vary the bandwidth to pinpoint and eliminate interference.

Only MFJ gives you 5 factory pre-set filters and 10 programmable pre-set filters that you can customize. Instantly remove QRM with a turn of a switch!

MFJ's automatic notch filter searches for and eliminates multiple heterodynes.

You also get MFJ's advanced adaptive noise reduction. It silences background noise and QRM so much that SSB signals sound like FM.

The automatic notch and adaptive noise reduction can be used with all relevant tunable pre-set filters.

Automatic gain control (AGC) keeps audio level constant during signal fade.

### Tunable bandpass filters

Narrow band signals like CW & RTTY jump out of QRM when you switch in MFJ's tunable FIR bandpass filters.

You can tune the center frequency from 300 to 3400 Hz, and vary the bandwidth from 30 Hz to 2100 Hz -- from super-tight CW filters to wide razor-sharp Data filters.

You can use two tunable filters together.

### Add DSP to any Multimode

MFJ-781, \$139.95. Add DSP filtering to any TNC/multimode data controller. Copy signals buried in QRM. AGC, On/Off Bypass. Plugs between rig & multimode. 4½x2½x5".

MFJ-780, \$109.95. "Brick Wall" DSP filtering for MFJ-1278/B multi-mode. Copy signals that other multi-modes can't. Soldering is required for this plug-in board.



For example, tune one to mark, one to space and set bandwidth tight for a super sharp RTTY filter.

You can tune the lower cutoff frequency 200 to 2200 Hz and the upper cutoff frequency 1400 to 3400 Hz. This lets you create custom filters for voice, data and other modes. Signals just 75 Hz away literally disappear -- they are reduced 57 dB!

### Automatic notch filter

MFJ's automatic notch filter searches for and eliminates multiple heterodynes in milli-seconds. It's so fast, that even interfering CW and RTTY signals can also be eliminated. Selectively remove unwanted tones using the two manually tunable notch filters -- an MFJ exclusive. Knock out unwanted CW stations while you're on CW.

### Adaptive Noise Reduction

Noise reduction works in all filter modes and on all random noise -- white noise, static, impulse, ignition noise, power line noise, hiss.

The LMS algorithm gives you up to 20 dB of noise reduction. Noise reduction is adjustable to prevent signal distortion.

### 15 Pre-set filters, or customize

Select from 15 pre-set filters. Use for SSB, AM, CW, packet, Amtor, Pactor, RTTY, SSTV, WeFAX, FAX or any mode.

If you don't like our pre-set filters, you can program your own -- an MFJ exclusive! Save center frequency/bandwidth, lowpass/highpass cutoffs, auto/manual

MFJ-784B  
\$269<sup>95</sup>  
Ship Code B

notch, noise reduction -- all filter settings -- in 10 programmable filters.

### More MFJ DSP Filter Features

MFJ's tunable *Spotting Tone*™ -- accurately tunes even the narrowest CW filter.

MFJ's exclusive *Adaptive Tuning*™ -- tuning rate automatically becomes finer as you narrow bandwidth -- makes narrow filters easy-to-use.

MFJ's exclusive *FilterTalk*™ -- sends precise filter settings in Morse code.

Automatic notch with variable aggressiveness, quieter 2½ Watt audio amplifier, speaker switch keeps phones always active.

Manual and auto notch can be used together. Noise reduction, automatic notch & custom filter saved in memory is selected.

Accurate easy-to-use input level indicator, improved manual notch in the CW mode, adjustable line level output, more Mark-Space frequencies and baud rates for data filters and automatic bypass during transmit for monitoring CW sidetone, voice/data by sensing the PTT line.

A push-button bypasses your filter -- lets you hear the entire unfiltered signal. 2½ W amplifier, volume control, input level control, speaker jack, PTT sense line, line level output. Measures 9½x2½x6 inches.

Plugs between your transceiver or receiver and external speaker or headphones. 12 VDC or 110 VAC with MFJ-1312D, \$15.95.

### Cable Pack, MFJ-5184, \$9.95.

Includes receiver cable, DC cable, 2 open-end TNC cables and power plug.

### Original 784 Upgrade Chip, \$34.95

MFJ-55, \$34.95. Upgrades your original MFJ-784 with most of the new software features of the MFJ-784B model.

### MFJ's SSB/CW Audio Filters

MFJ-752C, \$109.95.

All mode dual tunable filter has variable bandwidth 40 Hz to almost flat, eliminates noise and heterodynes notch depth to 70 dB, inputs for two rigs, selectable, noise limiter, plus more. MFJ-752C measures 10x2x6 inches.



MFJ-722, \$89.95. MFJ SSB/CW tunable 70 dB notch filter. Has 8 poles active IC filtering, uses cascaded low-Q stages. 3 bandwidths: 80/110/180 Hz. Center frequency: 750 Hz. Up to 15 dB. 5½x2½x5".

MFJ-751B, \$79.95. Zero in SSB/CW with tunable peak/notch filters. Tune 300-3000 50 dB notch. Tiny 1½x4¼x5 inches fits anywhere.





# Multireader™ Taps Into Secret Signals



MFJ-462B

Ever wonder what those mysterious chirps, whistles, and buzzing sounds are on the short-wave bands? Ship Code B

\$189.95

Much of it is RTTY, ASCII, CW and AMTOR (FEC) signals passing commercial, military, diplomatic, weather, aeronautical, maritime, amateur and other traffic.

### Tap into these "secret" signals

Plug this self-contained MFJ MultiReader™ into your shortwave receiver's earphone jack. Then watch these mysterious signals turn into exciting text messages as they scroll across an easy-to-read LCD display. No computer, interface, special cables or other equipment is needed.

Eavesdrop on the latest breaking news as press agencies from all over the world relay them on RTTY -- it's like having a private wire service in your home. Copy RTTY

weather stations from Antarctica, Mali, Congo and many others.

Listen to military traffic passing from Panama, Cyprus, Peru, etc. Catch diplomatic, research, commercial and maritime traffic. Listen to maritime users, diplomats and amateurs send and receive error free messages using various forms of TOR (Telex-Over-Radio).

Monitor Morse code communications from hams, military, commercial, aeronautical, diplomatic and maritime coastal stations from around the world.

There's plenty of exciting non-voice traffic on shortwave that'll keep you fascinated... traffic you can't read unless you have a decoder.

### Printer monitors 24 hours a day

MFJ's exclusive TelePrinterPort™ lets you monitor any station 24 hours a day by printing their transmissions. Plug your Epson compatible printer into the MFJ-462B printer port and you're ready to print. Save several pages of text in 8 K of memory for later review or re-reading.

Consistently get solid copy from MFJ's high performance PLL (phaselock loop) modem technology. Digs out weak signals buried in noise and even tracks slightly drifting signals. Mark and space tones are copied

to give you greatly improved decoding under adverse conditions.

### Easy to use, tune and read

Just push a button to select modes and features from a menu. A precision tuning indicator makes tuning your receiver for best copy on all modes quick and easy.

The 2 line 16 character LCD display has contrast adjustment. One line comes in at speed of signal, second line is delayed so you catch every exciting word!

Copy most standard shifts and speeds in all modes. MFJ's AutoTrak™ automatic Morse Code speed tracking helps MFJ-462B to track and decode high speed CW.

### MultiReader™ Accessories

Use 12 VDC or use 110 VAC with MFJ-1312D AC adapter, \$15.95. MFJ-462B measures 6 1/4 W x 2 1/2 H x 6 1/4 D inches.

MFJ-5162, \$7.95. Receiver cable connects MFJ MultiReader™ to your radio's external speaker (3.5mm jack).

MFJ-5412, \$11.95. Printer Cable is 25-pin cable for Epson compatibles.

MFJ-5163, \$10.95. Speaker "Y" cable.

MFJ-5300, \$6.95. Three foot, 3.5 mm stereo extension cord with volume control. Can use for mono radio speaker output to set audio level to external devices. Has pocket clip for portable use.

## MFJ Shortwave Regenerative Receiver Kit

Remember hunching over your regenerative receiver for hours with a pair of headphones pressing uncomfortably against your ears? Ship Code B

MFJ-8100K  
\$69.95

You could hear just about anything that fancy superhets could hear. Sure, you had to play around with the regeneration control just right and have a steady hand to tune but you could hear 'em.

Don't you wish you could relive some of this fun and excitement of your youth -- share some of it with your kids and grandkids? Well, you can -- with the MFJ-8100 World Band Shortwave Radio Kit.

Spend a fun evening with your child or grandchild and help him put this simple kit together. When the two of you finish, watch his glow of excitement as he tunes the world bands -- just like you did -- and remember for life. It might even inspire him into a career in electronics.

This baby performs. It has an RF stage that really picks up the weak ones and it goes



• Listen to AM, SSB, CW, WWV, RTTY, etc.

• Smooth vernier reduction drive

• Smooth regeneration control, RF stage

B: 5.95-7.40 MHz, Range C: 9.56-12.05 MHz, Range D: 13.21-16.4 MHz, and Range E: 17.6-22 MHz.

Has vernier reduction drive, bandswitch, volume and RF gain controls, uses 9V battery and is built into a rugged aluminum cabinet.

Two earphone jacks let you and your child or grandchild listen together with your Walkman style earphones or plug-in speakers. Measures 7Wx6Hx2 1/2 D inches.

MFJ-8100K, \$69.96. Shortwave regenerative receiver kit. You stuff the components, solder and assemble!

MFJ-8100W, \$99.95. Shortwave Regenerative receiver, wired and tested at MFJ and ready-to-operate!

into regeneration smoothly without pops or dead spots. Stations all over the world will come in loud and clear with just a 10 foot wire antenna strung outside or across the room.

With a 10 foot wire antenna, you'll be amazed at what you can hear -- stations all over the world will come in loud and clear.

Listen to international shortwave broadcasts, hams on SSB and CW, WWV, RTTY, packet and much more. Covers all or part of 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15, and 13 Meters in five bands.

Range A covers: 3.51-4.31 MHz, Range

### AM/FM to Shortwave Converter



MFJ-306  
\$99.95  
Ship Code A

MFJ-306, \$99.95, turns your AM/FM car radio into a World Band receiver at the push of a button. It covers the entire 19,

25, 31, and 49 Meter international shortwave broadcast bands. Hear stations all over the world at various times -- Europe, Middle East, Asia, Australia, more! Easy to install -- Just unplug your car radio antenna and plug it into MFJ-306. Then insert the MFJ-306 cable into your radio antenna jack and connect 12 VDC. 5Wx1 1/2 Hx3 1/2 D inches.

### RTTY/ASCII/CW/WeFAX Decoder



MFJ-1214PC  
\$159.95  
Ship Code A

MFJ-1214PC, \$149.95 is a complete package, receives and transmits RTTY, ASCII, CW, also WeFAX weather maps with all 16 gray levels. Complete package

includes DOS only software, power supply and all cables needed.

### Multimode Computer Interface

MFJ-1213, \$59.95, MFJ Computer Interface Decoder includes J/FAX and HamComm software

MFJ-1213  
\$59.95  
Ship Code A

on a 3.5 inch disk. The MFJ-1213 receives and decodes multimode digital data with your receiver or transceiver. You can decode Color FAX/SSTV pictures, Baudot, ASCII, AMTOR, ARQ/FEC, SITOR, NAVTEX, SHIP, SYNOP and more.



### RTTY/ASCII/CW Decoders

MFJ-1224, \$119.95.

Turns IBM compatible into a RTTY/ASCII/CW station for transmit/receive with HF/VHF rig. Has tuning indicator, normal/reverse switch.

MFJ-1224  
\$119.95  
Ship Code B



MFJ-1285, \$19.95. MFJ-1224 DOS software. MFJ-1225, \$79.95. This is a receive only unit. MFJ-1285B, \$19.95, For MFJ-1225 DOS software.

# Indoor Tuned Active SWL Antenna Covers 0.3 to 40 MHz

**MFJ invented the tunable active antenna! New technology uses cascode FET/bipolar transistor and a gigahertz bandwidth buffer**

MFJ invented the tunable active antenna! Numerous copies have been made with out success -- including most recent ones.

**Why?** Because MFJ has made continuous improvements where others have not. The MFJ-1020C has been completely redesigned with new technology.

New technology uses a cascode FET/ bipolar transistor and a gigahertz bandwidth buffer.

It improves gain and selectivity, reduces noise and intermod, and is NOT prone to self-oscillations that can severely damage your receiver.

With the MFJ-1020C tuned indoor active antenna you'll rival reception of outside wire antennas hundreds of feet long and pick up signals loud and clear from all over the world.

*World Radio TV Handbook* says MFJ-1020 is a "fine value . . . fair price . . . best offering to date . . . performs very well indeed."

MFJ's unique

MFJ-1020C  
\$89<sup>95</sup>  
Ship Code A

tuned circuitry minimizes intermod, improves selectivity and reduces noise outside the tuned band. You can also use it as a tuned preselector with an external antenna.

**Covers** 0.3 to 40 MHz including VLF, AM broadcast, all shortwave and all amateur radio bands.

**Has** Tune, Band, Gain, On-Off/Bypass controls and SO-239 coax connectors. Use 9 volt battery, or 12 VDC or 110 VAC with **MFJ-1312D**, \$15.95. 6Wx2Hx5D inches. Includes telescoping whip.



## 54" Active Outdoor Antenna

MFJ-1024  
\$149<sup>95</sup>  
Ship Code B

*World Radio TV Handbook* says MFJ-1024 is a "first rate, easy-to-operate active antenna . . . quiet . . . excellent dynamic range . . . good gain . . . very low noise factor . . . broad frequency coverage . . . excellent choice . . ."

**Mount** it outdoors away from electrical noise for maximum signal and minimum noise. Has convenient mounting holes for easy installation.

**MFJ-1024** covers 50 KHz to 30 MHz. 20 dB attenuator, gain control, ON LED.

**Switch** selects two receivers and auxiliary or active antenna. **Control** unit measures a compact 6Wx3Hx5D inches.

**Remote** unit has a 54-inch telescoping whip, 50 feet of coaxial line and PL-259

connector. Measures 3Wx2Hx4D inches. Use 12 VDC or 110 VAC with **MFJ-1312D**, \$15.95.



## Compact 0.3 to 200 MHz antenna

Your ham band only antenna does great on the ham bands . . . but this MFJ all band active antenna will help you hear strong signals from all over the world from 300 KHz to 200 MHz -- including low, medium, shortwave and VHF bands.

**Enjoy** shortwave newscasts, ship-to-shore, airline, commercial RTTY and others.

It also improves weak noisy scanner radio reception from high to low band VHF -- hear signals you couldn't hear before.

A J-310 FET handles strong signals and noiseless feedback circuit gives you excellent low noise reception. 4.5 GHz MRF-901 transistor lets you receive weak signals well into VHF.

**On/off** switch, power on LED, SO-239 coax connector and detachable 20 inch telescoping antenna. 9 volt battery or 110 VAC with **MFJ-1312D**, \$15.95. Measures 3Wx1 1/4Hx4D inches.

MFJ-1022  
\$59<sup>95</sup>  
Ship Code A



# High Dynamic Range Passive Preselector Can't Overload



MFJ-1046  
\$109<sup>95</sup>  
Ship Code A

**MFJ's new Passive Preselector has extremely high dynamic range!** It improves the performance of nearly any HF or shortwave receiver/transceiver. It vastly improves the most expensive receivers. Especially helpful to those with broadband front-ends that are prone to overload.

**Protects** your sensitive receiver input from damage (including switching diodes and attenuator resistors) caused by very strong signals from multi-transmitter, multi-band operation -- contests, field-day,

nearby hams, CBers, TV/FM/AM stations. It eliminates phantom signals by suppressing strong out-of-band signals that cause intermod, blocking and cross modulation. Completely eliminates second order intermod problems.

**MFJ's** unique Hi-Q series tunable circuit gives you superb performance.

The tunable series tuned circuit works into a very low impedance formed by broadband toroid transformers.

**Has** narrow bandwidth, excellent stop-band attenuation, very low loss, constant bandwidth and gain over each band.

**Excellent** attenuation in adjacent bands. The entire 1.6 to 33 MHz HF band is covered in five overlapping bands.

An air variable tuning capacitor, 1.8 to

1 tuning range and a vernier reduction drive gives you precision tuning.

**Measures** 7 1/2x2 1/2x3 1/4". Use 12 VDC or 110 VAC with **MFJ-1312D**, \$15.95.

**MFJ-1048**, \$129.95.

Same as MFJ-1046 but adds an RF sense transmit/receive

switch with adjustable time delay to automatically bypass your MFJ-1048 when you transmit.

**Also** adds PTT line T/R switching; connects between antenna and transceiver. Use 12 VDC or 110 VAC with **MFJ-1312D**, \$15.95



## MFJ All-Band Preselector



MFJ-1040C  
\$109<sup>95</sup>  
Ship Code A

out-of-band signals, images. 1.8 to 54 MHz. Up to 20 dB gain. Gain control. Uses a cascode FET/bipolar transistor for

low noise, high gain. 20 dB attenuator. Connect 2 antennas, 2 receivers. SO-239 connectors. Automatic bypass when transmitting to 125 watts. Jack for push-talk. 9-18 VDC or **MFJ-1312D**, \$15.95.

Lets you copy weak signals. Rejects

## LW/MW/SW Preselector/Tuner

**MFJ-956** boosts favorite stations while rejecting images, intermod and phantom signals.

**Greatly** improves reception from 0.15 to 30 MHz, especially below 2 MHz. Tuner bypass/ground receiver positions. 2x3x4 in.

MFJ-956  
\$59<sup>95</sup>  
Ship Code A



## Receiver Antenna Tuner/Preamp

**Don't** miss rare DX due to signal power loss between your receiver and antenna. The MFJ-959C provides proper impedance matching to transfer maximum signal from antenna to receiver.

Covers 1.6 to 30 MHz. 20 dB preamp with gain control boosts weak stations. 20 dB attenuator prevents overload. Select from 2 antennas and 2 receivers. Measures 9x2x6 inches. Use 9-18 VDC or 110 VAC with optional adapter, **MFJ-1312D**, \$15.95.



MFJ-959C  
\$109<sup>95</sup>  
Ship Code A

**MFJ-1045C**, \$79.95. No attenuator, transmitter auto bypass, delay, or PTT.





# MFJ-890 DX Beacon Monitor

Get up-to-the-minute worldwide DX band conditions in minutes on 14, 18, 21, 24, 28 MHz bands using the International Beacon Network of 18 transmitters around the world!

MFJ-890  
\$109.95  
Ship Code A

MFJ's DX Beacon Monitor lets you see which beacon you're hearing on your transceiver -- an LED lights on its world map to show you the beacon location and where to point your antenna.

It's fascinating to hear and watch each beacon location light up as they become active across the world. Great for DXers, contesters, ragchewers and SWLers.

The International Beacon Network provides a reliable source of signals for determining HF propagation 24 hours a day.

It consists of 18 beacons around the world. Each beacon transmits on 14.1, 18.11, 21.150, 24.93 and 28.2 MHz. The transmit sequence moves westward from New York across North America, Asia, Pacific to Africa, Europe, South America.

On each frequency, each beacon transmits for ten-seconds -- its call sign at 22 wpm CW and a one-second dash at 100 watts and three one-second dashes at 10, 1, and 0.1 watts.



When each beacon completes a transmission it goes silent on that band and switches to the next higher band.

For more information see Oct/Nov, 1994, Sept, 1997 QST and Jan 1999, Sept/Dec 2001, Jan 2002 Practical Wireless of U.K.

The more beacons you hear, the more

open the band is to different parts of the world.

The more dashes you hear per beacon, the better the quality of propagation and the more robust the band is. If you hear the 100 milliwatt dashes from many beacons you know the band is wide open!

In just three minutes you'll know how band conditions are worldwide.

You don't have to copy CW at 22 wpm to identify a beacon. As you hear a beacon, an LED instantly lights on a world map to show you its location. You can positively identify each beacon -- even if the signal is weak, fluttery or distorted.

The MFJ DX Beacon Monitor has a built-in WWVB atomic clock receiver to provide ultra precise synchronization with the GPS-synchronized beacons. You also may manually sync the Monitor (the Monitor is not a receiver).

MFJ-890 is a self-contained standalone unit. 6 3/4 W x 5 1/4 H x 3 D". Use 12 VDC or 110 VAC w/optional MFJ-1312D, \$15.95. No antenna/radio connection required.

MFJ-890UK, \$109.95 (for England).

## MFJ Micro ATV Transmitter Transmits Live Pictures on Cable TV Channels



MFJ-8708  
\$159.95  
Ship Code A

This tiny MFJ Micro ATV Transmitter™ lets you transmit a high quality Amateur Television video signal on 433.97 MHz (cable channel 58, 59, or 60). All you need to do is plug in an antenna and a video source -- your camcorder, camera, VCR or other video source.

With an antenna and a TV set (or down

converter/ TV) tuned to cable channel 58, 59, or 60, you'll have a complete ATV video station.

The MFJ-8708 puts out a solid 50-100 mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. By using a suitable UHF power amplifier and high-gain antenna, you can enjoy two way ATV communications over many, many miles with fellow ATV hams.

To transmit video simply connect video to the RCA phono connector and antenna to the BNC connector and connect a 9 volt battery or other 9 VDC source.

You can use any standard NTSC or PAL composite video (1V pk-pk) source.

The MFJ Micro ATV Transmitter™ can only be operated by a Technician class or

higher licensed Radio Amateur. All transmissions must be directed to at least one other licensed Radio Amateur.

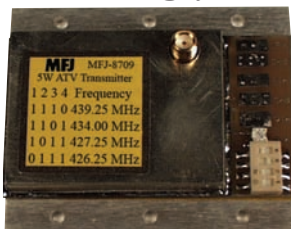
MFJ-8708, 4 channel, cable channels 58, 59, 60 and test channel. Weight only 1 1/2 ounces, less battery. Has audio and video inputs.



MFJ-8704  
\$119.95  
Ship Code A

MFJ-8704, cable channel 59 video only. Weighs only one ounce, less battery (battery, quarter not included).

## MFJ 4.5 Watts ATV Transmitter Amazingly compact 2.35Wx2.8Dx.75H inches, but super powerful!



MFJ-8709  
\$199.95  
Ship Code A

This super high performance amateur radio ATV transmitter

module is capable of putting out a whopping 4.5 Watts! The RF power output is controlled by an analog potentiometer from near zero output to 4.5 Watts maximum. Current draw varies with power level selected.

Frequency control is provided by means of a digital integer-N, phase locked loop. Dual PLLs provide a frequency locked video carrier and an audio sub-carrier. Transmit frequency is selected via a four position dip switch. Four standard US ATV frequencies 426.25, 427.25, 434.00, and 439.25 MHz on channels 58, 59 and 60.

Video modulation is accomplished by a 12-bit digitally controlled DAC-digital to analog controller. A specially embedded software algorithm controls the modulation depth and pre-distortion level to deliver an ultra-clean video signal to the final RF amp.

High power transmitting over 0.5 Watt

output requires an external heatsink. When provided with an external heatsink, MFJ-8709 can be used for extended key down operation. Reverse polarity protected.

**RF power output:** 4.5W Max, 50 Ohm  
**Audio Subcarrier:** 4.5 MHz  
**Spurious Outputs:** Better than -40dBc  
**Phase Noise:** -75 dBc/Hz @ 500 KHz  
**DC power in:** 12-13.5 V Max, (+/-100mV)  
**Current Draw:** 2.2 Amps @max output  
**Frequency control:** XTAL ref. to 4 MHz  
**Frequency stability:** +/-20 PPM  
**Video In:** Composite NTSC 1V P-P  
**Audio In:** Line level 200-250 mV RMS  
**Operating Temp:** -20° to +85° Celsius  
**Size:** 2.35Wx2.8Dx.75H inches

# MFJ 5-watt CW Transceivers

New improved ultra-hot receiver...enjoy DXing or ragchewing wherever you go...brush up on CW and upgrade...no-compromise performance...at a terrific price!

**Easy Operation:** The most user-friendly radio you'll ever own. Sets up in seconds -- no microprocessor mumbo jumbo.

**Great Sensitivity:** New *hotter-than-ever* superhet receiver brings weakest signals in at full volume (super-quiet FET post amp stage in the IF filter makes this the best CW receiver going).

**Excellent Selectivity:** Tight CW bandwidth crystal ladder filter fights unwanted QRM and noise to the maximum.

**Smooth and Stable VFO:** Wide-spaced reduction drive VFO capacitor glides slowly across the easy-to-read dial.

**True RIT:** RIT control has center-detent - makes listening or calling off-frequency a snap!

**Easy on your Ears:** Smooth AGC tracks only the signals you want to hear -- it never locks onto strong signals outside the audio bandpass. MFJ's *InstantRecovery AGC™* snaps the receiver back at full gain after transmitting.

**Built-in speaker:** High efficiency 3" speaker driven by 100 mW of audio gives great volume.

**Rugged Transmitter:** Motorola power amplifier transistor delivers full QRP output, tolerates opens and accidental shorts without damage.

**Sinewave Sidetone:** Pure 700 Hz CW sidetone makes sending as much fun

MFJ-9040/9030/9020  
MFJ-9017/9015  
**\$199<sup>95</sup>**

Each. Choose band.  
Ship Code B



as receiving!

**Semi-QSK:** Set adjustable hold transmit/receive switching to suit your normal sending speed or set it for full QSK during contests.

**Easy to Power:** It uses little power -- only 50 mA average on receive and 1.2 amp peak on transmit. Perfect for battery operation in remote locations!

**Rugged Construction:** MFJ CW radios are built on G-10 double-sided plate-through PC boards in our plant. Rugged all-metal cabinet with brushed aluminum front panel and vinyl clad cover.

## Integrated CW Station

**Radio, tuner, power pack fasten together to form a tiny 6X6.5X8.5-in. integrated CW station.**

**\$374.80** buys complete CW station. Includes CW transceiver, MFJ-4114 power pack, \$79.95; portable antenna, \$39.95. . . . order: MFJ-9140B, 40M; MFJ-9130B, 30M; MFJ-9120B, 20M; MFJ-9117B, 17M; MFJ-9115B, 15M. <sup>3</sup>9990 if purchased separately.

**MFJ-27, \$6.95**, carry handle. **Save \$30!**



## Frequency Coverage:

Choose your favorite band! 40 & 15 Meter models cover Nov- ice and TechPlus band segments -- makes a perfect "first radio" for new upgrading hams. **MFJ-9040** covers 7.000-7.150 MHz; **MFJ-9030** covers 10.100-10.150 MHz; **MFJ-9020** covers 14.000-14.075 MHz; **MFJ-9017** covers 18.068-18.110 MHz; **MFJ-9015** covers 21.000-21.200 MHz.

## Great SSB/CW Accessories for your 90 Series MFJ Transceivers

**MFJ-902,** **\$89.95.** Tiny Travel Tuner, 4 1/2x2 1/4x3 inches, fits in the palm of your hand!



Handles a full 150 Watts, covers 80-10 Meters, has tuner bypass switch, tunes nearly anything! Perfect for backpacking, traveling, camping, etc. Great for rigs like IC-706MKIIG, Yaesu FT-100D, Kenwood TS-50. *See page 6!*



**MFJ-971, \$109.95.** 200 Watt PEP Antenna Tuner also has 6 Watt range setting for QRP. Covers 1.8-30 MHz. 4:1 Toroid Balun is built in for balanced lines. Stackable with your MFJ-90 Series Transceivers. *See Page 5!*



**MFJ-561, \$24.95.** Miniature light-weight iambic paddle is just 1 3/4 Wx1 3/4 D 3/4 H inches and weighs just 2 1/2 ounces -- tiny enough to fit in an Altoids<sup>®</sup> tin (cord and all!) -- great for traveling with QRP or "big" rigs!



**MFJ-402, \$69.95.** Ham radio's tiniest electronic keyer with built-in iambic paddle! It's a *nano-size*

2x3x1 inches and weighs just 3 1/2 ounces! Speed adjusts 5-65 WPM, weight 25-75%, has Iambic mode A or B, normal or "bug" mode and reverse.

## Folded Dipole Antennas for Your Portable Station

**Single band, light-weight, folded dipoles.** Low SWR, direct coax feed, 200 Watts. **MFJ-1774** (40 Meters), **MFJ-1773** (30M), **MFJ-1772** (20M), **MFJ-1771** (17M), **MFJ-1770** (15M), **MFJ-1770A** (10M).



**\$39<sup>95</sup> each!** Perfect for MFJ Rigs!

## Hip-pocket size QRP Cub CW transceiver



MFJ-93XXK  
**\$89<sup>95</sup>**

Kit, Ship Code A

**MFJ QRP-Cub™**  
Transceivers use

surface mount technology to achieve big performance in a pocket-sized package.

The kit version has all SMT parts mounted and soldered. You just insert and solder the "through-hole" parts such as the connectors, inductors and trimmer caps.

Designed by QRP-ARCI hall-of-famer K1BQT for real world low-power operating conditions. Buy all or choose from 80, 40, 30,

20, 17, or 15 Meters. Specify band in "XX" area of model number.

**Hot** receiver with 0.2 uV sensitivity, low noise, sharp passband crystal filter, Differential mode AGC, rock steady, over 80 dB signal range, robust AF output, 2 Watts thru 20 Meters, 1 Watt 15/17 Meters.

**Power** adjustable to zero, full QSK for smooth break-in, natural sidetone, shaped keying, custom TX offset, receiver passband center, low power drain. Tiny 3 3/4 Wx1 1/2 Hx4 1/2 D inches. Wired unit covered by MFJ's *No Matter What™* warranty.

**MFJ-93XXW, \$139<sup>95</sup>.** Wired & tested cub. Specify band in "XX" portion of model #.

## Portable and QRP Power Supplies and Accessories

**MFJ-4110, \$59.95.**

Portable AC power supply. Connect to MFJ radios. LED indicates when power is applied. Output is approximately 13.8 VDC at 1.2 amps.



**MFJ-416, \$49.95.**

CW option kit for your MFJ-9406 six meter and your MFJ-9402 two meter adventure transceivers.

**MFJ-726, \$49.95.** Narrow audio filter built for MFJ CW transceivers.

**MFJ-4114, \$79.95.**

AC Power supply/Battery Pack uses Ni-Cd D cells or alkaline D cells (not included). Matches MFJ radios. Output is 13.8 VDC at 1.2 amps. Voltage regulated. Ni-Cd charge circuit.



**MFJ-412, \$49.95.** Curtis Chip Iambic Keyer Module for your MFJ 90 Series Transceivers. Use your MFJ paddles with the MFJ-412 and your transceiver for *complete CW fun!*



# HF SSB Travel Radios™ are Feature-Packed

...the most powerful 12 watt radios you'll ever own ... hot receiver ... potent speech processing ... rugged transmitter ... proven on-air design ... real analog S-meter ... powerful audio

Turn on your new MFJ SSB transceiver and you'll marvel at how well it performs.

**Weak stations** roll in with surprising clarity, faithfully reproduced by a single conversion receiver. On transmit, MFJ's exclusive *ConstantCurrent™* speech processor cuts through noise and QRM like a far more complex radio.

Take this performance along on your next vacation or business trip -- the MFJ transceiver, microphone, power supply, and antenna can easily fit into your brief case or carry-on bag.

**Simple operation:** No microprocessor mumbo-jumbo -- on the air in minutes!

**Great sensitivity:** Features a quiet double balanced mixer front-end, single conversion clarity and plenty of gain. If a signal is there, you'll get it loud & clear!

**Analog S-Meter:** A real calibrated S-meter -- not a useless bargraph -- that makes adjusting an antenna tuner or finding the best



beam heading clear-cut.

**Excellent Selectivity:** Eight poles of tight IF filtering cuts adjacent chatter and focuses transmitter power where you need it.

**Smooth VFO:** No annoying synthesizer jump or obscure keypad commands to deal with. Effortless tuning, custom reduction-drive ball-bearing capacitor.

**Powerful audio:** Big audio -- even in noisy locations from a special Signetics audio

chip and rugged 3 inch speaker.

**Low Current Requirements:** You'll never have to lug around a heavy power supply to run this radio.

**Rugged Transmitter:** Bullet-proof output transistor runs cool, easily tolerates 3:1 VSWR and feedline shorts or opens.

**Built to last:** Conservative design, plate-through PC board, quality components, hand-some brushed-aluminum panel and a tough vinyl clad case ensure years of dependable service.

**MFJ-9420** covers 14.150-14.350 MHz, **MFJ-9440** covers 7.150-7.300 MHz, **MFJ-9475** covers 3.750-4.000 MHz. One Watt audio output at 10% THD.

**Draws** 50-100 mA on receive and 1.2 amps peak on transmit at 13.8 VDC. 21/2x6 1/2x6 inches.

**MFJ-415B, \$49.95.** Install this CW module and operate CW, a must for DXers. Provides semi-QSK break-in and sidetone.

MFJ-9420,  
MFJ-9440/MFJ-9475  
**\$249<sup>95</sup>**  
\$259.95 with mic  
Ship Code B

## MFJ SSB Adventure Radios



**MFJ-9406** for 6 Meters can economically open to you the exciting propagation at 50 MHz, not to mention local ragchews. And you can take this little set anywhere.

You get full coverage of 50.0 to 50.3 MHz with power output of 10 watts PEP.

**MFJ-9402** for 2 Meters operates SSB and (optional) CW with 7 watts output, 144.0 to 144.3 MHz.

**MFJ-9410** for 10 Meters packs 20 watts SSB PEP output and you'll be amazed at the clarity of its receiver. It covers 28.3 to 28.6 MHz.

**Adventure radios** are easy to operate: just turn on and go!

They all sport MFJ's exclusive *ConstantCurrent™* syllabic speech processing for an added 4 to 6 dB of punch.

All three Adventure radios feature single-conversion superhet receivers with a low-noise front end and double-balanced mixer to fight intermod and dig deep, and

MFJ-9402  
**\$299<sup>95</sup>**  
(\$309.95 with  
MFJ-290 mic)  
Ship Code B

MFJ-9406/9410  
**\$269<sup>95</sup>**  
(\$279.95 with  
MFJ-290 mic)  
Ship Code B

a 2.3 kHz crystal ladder filter.

All *Adventure* radios include a built-in low pass filter to help avoid TVI.

You also get real analog S-meters that double as speech processing level monitors, analog tuning with no unexpected rate shifts or stair-stepping, powerful one-half watt of audio from their 3 1/2 inch top-mount speakers, and a solid-state FET switch to key an external amplifier.

They're energy efficient, operating from a 2 amp AC supply (3A for the model 9410) or from a 12 volt battery.

**MFJ-416, \$49.95.** Optional CW module for all *Adventure* Radios.

**MFJ Adventure Radios** are built to last through their conservative design, premium quality, plate-through PC boards, quality components, handsome brushed aluminum faceplate and tough cabinets.

Fit an *Adventure* Radio just about anywhere: each is just 2.5X6.5X6 in.

**Special offer --** add an **MFJ-290** microphone for just \$10 more.

### MFJ 6-Meter FM Communicator™



MFJ-9606  
**\$169<sup>95</sup>**  
MFJ-9606X  
\$179.95 w/Mic  
Shipping Code A

The most inexpensive way to get on 6 Meter FM voice or packet! Potent 10 watt transmitter and *CrystalClearVoice™* puts fun and fidelity back into ham radio with true-to-life speech quality and ultra-clean AFSK data signals.

Super fast PIN diode switching, no compromise dual-conversion FM receiver with quiet LNA, factory installed 52.525 MHz calling crystals.

Additional plug-in crystals, \$24.95 per frequency.

### MFJ 2-Meter FM Receiver Kit

Put together the **MFJ-8400K** and you'll have a go-anywhere 2-Meter FM receiver for pennies. Features include a low noise, high gain RF preamp, smooth reduction drive tuning, and a 19-inch telescopic antenna. Has tune, squelch, and volume controls, and speaker. Quality components with glass epoxy PC board and all metal cabinet. Power requirement, 9 VDC. A tiny 4 1/4"Wx2Hx4D in. **MFJ-8400W** available as a wired and tested unit.

MFJ-8400K  
**\$89<sup>95</sup>**  
Ship Code A  
MFJ-8400W  
**\$109<sup>95</sup>**  
Ship Code A

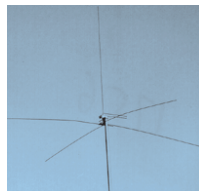


### MFJ Adventure Accessories

**MFJ-1762, \$89.95.** 3-element 6 Meter yagi quadruples your effective radiated power over a half-wave dipole. 6 foot boom, 2 lbs. Can use TV rotator and mast. Handles 300 Watts PEP SSB. Mounts vertically or horizontally. Current balun decouples feedline. Great front-to-back ratio.



**MFJ-1756, \$89.95.** Omnidirectional low-angle vertical radiator lets you work plenty of DX in all directions even with low power. *GroundIsolated™* radial system eliminates common mode current paths. Reduces undesirable feedline/supporting structure radiation. 55-inch. strong aluminum radiator.



**MFJ-1736, \$29.95.** Hang this 6 Meter J-pole in the clear. Omnidirectional full size 1/2 wave antenna with low angle radiation beats 1/4-waves.



**MFJ-1776, \$39.95.** Low SWR 6-Meter folded dipole. **MFJ-1770A, \$39.95.** (10 Meters).



**MFJ-906, \$89.95.** 6 Meter antenna tuner with lighted cross-needle meter (with **MFJ-1312D**, \$15.95). 100 Watts FM, 200 Watts SSB PEP. **MFJ-903, \$59.95,** Same as MFJ-906, less meter (See Page 6).



**Mirage A-1015-G** 150 watt output 6-meter amplifier with built-in GaAs FET receiver preamp. \$389. Page 59.



**MFJ -290** dynamic handheld mic for all MFJ SSB radios, \$39.95 when ordered separately.



**MFJ-4110 Portable AC Power Supply, \$59.95,** fits in your pocket and is a perfect companion for radio-on-the go. 13.8 VDC output at 1.2 Amps.



**MFJ-4114 Rechargeable AC Power Supply, \$79.95,** with battery pack uses Ni-Cad D cells or alkaline D cells (not included). Switch-selectable AC or batteries. Output 13.8VDC, 1.2A. Page 31.



# MFJ TNC Accessories, Pre-wired Cables, Antenna Wires . . .

## MFJ-1272B/M TNC/Microphone Switch



MFJ-1272B/M **Switch**  
\$49<sup>95</sup> *between*  
Ship code A *your TNC*  
*or Mic by*  
*pushing a button!*

**Plug** these pre-wired cables into your rig's microphone connector and into your TNC and you are ready to go -- no more hard-to-find connectors and wiring up cables -- no more plug-

TNC to Radio  
Prewired Cables  
\$17<sup>95</sup>  
Ship code A

## Pre-Wired Radio-to-TNC Cables

**MFJ** takes all the hassle and soldering out of wiring your rig to your TNC with these radio accessory port cables. Pre-wired cables save you time, money and aggravation. *Plug and play!*

Radios	TNC TYPE	All MFJ TNCs and Multimodes	KAM VHF <sup>9</sup> / KAM HF <sup>9</sup> / KPC3 <sup>3</sup> / KPC9612 <sup>2</sup>	PK-232	PK900/PK96/ PK12/DSP232 /PacComm/ other TNC-2 compatibles
Alinco <sup>9</sup> /Strd HT		MFJ-5022	MFJ-5022YV	MFJ-5022X	MFJ-5022
Icom <sup>9</sup> /Yaesu/ RadioShack HTs		MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood <sup>9</sup> HTs		MFJ-5026	MFJ-5026YV	MFJ-5026X	MFJ-5026
Yaesu R-Series HT		MFJ-5020	MFJ-5020YV	MFJ-5020X	MFJ-5020R
Yaesu 8-pin		MFJ-5080	MFJ-5080YV MFJ-5080YH	MFJ-5080X	MFJ-5080
Icom <sup>9</sup> 8-pin		MFJ-5084	MFJ-5084YV MFJ-5084YH	MFJ-5084X	MFJ-5084
Kenwood/Alinco 8-pin		MFJ-5086	MFJ-5086YV MFJ-5086YH	MFJ-5086X	MFJ-5086
Yaesu 8-pin modular		MFJ-5080M	MFJ-5080MYV	MFJ-5080MX	MFJ-5080M
Icom <sup>9</sup> 8-pin modular		MFJ-5084M	MFJ-5084MYV	MFJ-5084MX	MFJ-5084M
Kenwood 8-pin modular		MFJ-5086M	MFJ-5086MYV	MFJ-5086MX	MFJ-5086M
Radio Shack 8-pin modular		MFJ-5088M	MFJ-5088MYV	MFJ-5088MX	MFJ-5088M

1. does not include IC-W2A  
2. does not include 2500  
3. does not include 25A, 255A  
4. does not include IC-100H, IC-2700H  
5. VV for KAM VHF port, YH for KAM HF port. Other Kenwood use YV  
6. VV for KP9612 1200 baud port  
7. YH models for KP9612 9600 baud port  
8. Excludes DJ-100, 120T, 200, 500

## Pre-wired Accessory Port-to-TNC cables . . . \$21<sup>95</sup>

Radios	TNC TYPE	MFJ TNC/MMC PK900/PK12/DSP 232/PacComm TNC2 Compatibles	KAM VHF KAM HF KPC3	KPC-9612
ICOM HF 8 Pin DIN		MFJ-5063	MFJ-5063YH	-----
ICOM VHF 8 Pin DIN		MFJ-5064	MFJ-5064YV	MFJ-5064YV
ICOM 706 13-Pin DIN		MFJ-5065	MFJ-5065YH MFJ-5065YV	MFJ-5065YV
KENW/YAESU, AZDEN VHF 6-Pin mini DIN		MFJ-5060	MFJ-5060YV	MFJ-5060YV
KENW HF 13-Pin DIN		MFJ-5066	MFJ-5066YH	-----

## Open End Cables with Radio Connectors

MFJ-5082, \$11.95. 8 pin round mic.  
MFJ-5106, \$6.95. 6 pin mini DIN.  
MFJ-5205, \$6.95. 5-pin DIN. MFJ TNC.  
MFJ-5208, \$11.95. 8 pin DIN. Acc. Port.  
MFJ-5213, \$11.95. 13-pin DIN, Acc port.  
MFJ-5220, \$11.95. Yaesu FT-50R cable.  
MFJ-5222, \$11.95. Split conn. Alinco.  
MFJ-5224, \$11.95. IC/YA/AL/RS HTs.  
MFJ-5226, \$11.95. Kenwood Handhelds.  
MFJ-5268, \$11.95. 8 pin modular mic.

## Pre-Wired Radio to Computer Interface

**Convenient** pre-wired transceiver to computer interface cable has serial interface built-in! **MFJ-5383K**, Kenwood and compatibles. **MFJ-5383I**, Icom and compatibles. **MFJ-5383Y** for Yaesu standard 6-pin DIN, **MFJ-5383YB** for Yaesu 6 pin Mini DIN.

## MFJ Cigarette Lighter Adapter

**Plug** in your favorite accessories and operate off your auto's 12 VDC cigarette lighter socket. Or operate from your power supply in the shack! Provides power to your MFJ analyzer, keyer, meter or tuner lamp, counter, etc. Perfect for making quick adjustments to HF/VHF/UHF mobile antennas with the analyzer in hand! **MFJ-5510**, \$9<sup>95</sup>. 18" retracted curly cord, 60" fully stretched.

ging and unplugging to work voice/packet!

**Works** with HF, VHF and UHF radios with 8 pin mic connectors -- including Kenwood, ICOM, Yaesu, Alinco, Radio Shack, and others.

**Plug-in** jumpers let you quickly set-up for any radio. Factory set for Kenwood and Alinco. Audio-in and speaker jacks. 3/16x1/4x4 in.

TNC TYPE	All MFJ TNCs/PK900 PK12/PK96/PacComm Other TNC2 compatibles	KAM VHF KAM HF / KPC3 KP9612	AEA PK-232
8 pin round mic plug	MFJ-1272B	MFJ-1272BYV MFJ-1272BYH	MFJ-1272BX
8 pin modular mic plug	MFJ-1272M	MFJ-1272MYV MFJ-1272MYH	MFJ-1272MX

## MFJ PacketOnly™ data transceivers

**Why** tie up your expensive 2 Meter rig on a single packet channel? Enjoy dedicated high quality packet 1200 to 9600 baud on 2 Meters, 24 hours-a-day!

MFJ's data radios are compatible with all TNCs with hardware DCDs and most TNCs with software DCDs. It couldn't be easier -- just plug in appropriate cable your antenna, 12 VDC and you're ready to go!

**MFJ-8621**, \$159.95. Ready-to-operate on 145.01 MHz. Order other plug-in crystals for just \$24.95 per frequency.

**MFJ-8621X2**, \$169.95. Ready-to-use for APRS. Crystals pre-installed and transceiver precisely aligned. 144.390 MHz.

**MFJ-8631**, \$179.95. *PacketOnly™* 220 MHz. Has all the features of the 2 Meter version, ready-to-operate on 223.700 MHz.

**MFJ-9606X**, \$179.95. Voice or packet with MFJ's new 6 Meter *FM Communicator™* Transceiver. Crystallized for 52.525 MHz calling frequency. Easy crystal re-channel.



## MFJ TNC Software and Accessories

**MFJ-1289W**, \$59.95. *MultiCom™* for Windows. Control 2 TNCs at the same time in separate windows! Send, receive *true color* SSTV Scotty 1, Scotty 2, Martin 1, Martin 2, Robot 72 pictures. Great Multi-gray level FAX, maps, etc. **MFJ-1289M**, \$49.95, dos only version.

**MFJ-1284W**, \$49.95. MFJCom for Windows, MFJ-1270C TNCs and compatibles. **MFJ-1284M**, \$29.95, dos only version for TNC2s.

**MFJ-43**, \$9.95. Real-time clock. *New low price!*

**MFJ-44**, \$14.96. Plug-in scope tuner.

**MFJ-780**, \$99.95. Plug-in DSP board MFJ-1278/B.

**MFJ-2400**, \$19.95. *Great new low price!* 2400 baud packet modem. Faster communication lessens congestion on crowded bands. TNC still gets 300/ 1200 baud for compatibility with other TNCs.

## MFJ RS232 to USB Adapter and others

**MFJ-5429**, \$24.95. DB9 Male RS-232 Serial Port to USB 1.1 port adapter cable. Includes a driver for Win98/ME/2000/XP on a 3.5 inch floppy disk. Use this to connect serial port devices to a computer with no serial ports.



**MFJ-5427**, \$24.95. Use computer USB port to print on a parallel printer. 6 ft. cable, USB and DB-25 Female. Driver included.

**MFJ-5428**, \$24.95. Same as MFJ-5427, but has USB and Centronics 36 Male.



## Audio Cable Accessories

**MFJ-5302**, \$11.95. 3.5 mm stereo cord-ed audio extension cord and adapter set. Has 3.5 mm stereo splitter (Y), 3.5 mm stereo plug to 1/4 phone stereo plug, 3.5 mm mono plug to 2.5 mm mono plug, and 2.5 mm mono plug to 3.5 mm mono plug adapters.

**MFJ-5300**, \$6.95. 3 foot, 3.5 mm stereo extension cord with volume control. Can use for headphones on radio speaker output to set audio level to external devices. Pocket clip for portable use.

## Soundcard Extension Box



MFJ-5420  
\$14<sup>95</sup>  
Ship Code A

5 foot cord plugs into sound card on back of your computer. Provides at your fingertips, jacks for speaker, microphone and headphone and gives you speaker volume control, speaker/headset switch and microphone on/off switch. 3Wx2Hx3/4D inches.



# MFJ Sound Card-to-Rig Interface

*Use sound card and rig for all digital modes!*

**Plug and Play -- includes software, all cables, AC power supply . . . RFI-proof . . . Isolation transformers -- no hum, noise, distortion . . . Operate PSK-31, packet, APRS, AMTOR, RTTY, SSTV, CW, Meteor Scatter, EchoLink . . . Use as Voice Keyer, CW Contest Memory Keyer . . . Monitor On/Off Switch . . .**

Plug this new MFJ-1275/M/T sound card interface between your rig and computer and enjoy operating all digital modes.

Everything you need is included -- software, audio cables, RS-232 serial cable and AC power supply.

Provides fully automatic operation with audio and push-to-talk control. Matches sound card audio, eliminates ground loops and provides mic override.

Models available for all transceivers with 8-pin round and 8-pin modular (MFJ-1275) or 4-pin round (MFJ-1275T) microphone plugs.

Operate PSK-31, packet, APRS, AMTOR, RTTY, SSTV, CW, high speed CW Meteor Scatter and many others. Also use as Contest Voice Keyer and CW Contest Memory Keyer.

### Digital Modes or Normal Operation

Select the ON digital mode -- all connections are made between your rig and computer for instant digital operation.

Select BYPASS normal mode -- your transceiver and computer connections are restored for their normal operation.

### Audio Isolation Transformers

Audio isolation transformers and relay eliminate ground loops, audio hum, noise and distortion.

### RFI-Proof

Extensive RF suppression and line isolation eliminates RF feedback problems.

### Automatic Microphone Override

Transmit mic audio at any time by pressing PTT to override digital modes -- great for SSTV and Contest Voice Keyer.

### More Impressive Features

**Serial port** -- lets computer control radio to override/interrupt digital transmissions.

**VOX Control** -- lets you use VOX control when not using computer serial port control.

**Level Controls** -- for transmitter drive and for receiver-to-sound card drive level. No need to adjust microphone gain or sound card level when you change modes.

**Stereo or Mono Audio Input** -- A front panel switch selects left, right, or both



MFJ-1275/T \$109<sup>95</sup> Ship Code B

sound card audio output channels to accommodate various programs.

**New! Selectable** positive logic or negative logic COR input -- provides EchoLink interface.

**Off-the-air recording** -- for replaying or for use with spectrum analyzer programs.

**Monitor** on/off switch lets you have a normal QSO and receive SSTV pictures at the same time in the "monitor on" position. This is great for modes like SSTV and Voice Keyer operation that may require listening to receive audio during operation.

**Rugged Construction** -- All aluminum cabinet and surface-mount construction gives you years of trouble-free service.

### Use any Transceiver

**Internal jumpers** program microphone wiring for any brand or model radio -- no

soldering required. Order MFJ-1275 for 8-pin round and 8-pin modular (RJ45) mic-plugs. MFJ-1275T is for 4-pin mic plugs.

### Plug and Play!

Everything you need is included -- audio and RS-232 cables, AC power supply and a CD with a collection of the most popular amateur radio software to operate PSK-31, RTTY, SSTV, PACKET, AMTOR, CW, HSCW Meteor Scatter, Contest Voice Keying and other modes. Use 12 VDC or 110 VAC.

**USB to RS-232 Adapter Cable**



MFJ-5429. Allows MFJ Sound-card Interface to be used with USB Port computer. DB9M RS-232 to USB 1.1 with driver. Supports Windows programs 98/98SE/ME/2000/XP.

### No Matter What™ Warranty

We'll repair/replace for 1 year.

## Super Sound Card Interface



MFJ-1279/T This super sound card interface has all of the features of the MFJ-1275 plus . . .  
\$139<sup>95</sup> Ship Code B

**Auxiliary Input Jack:** Lets you switch your sound card from MFJ-1279 so you can use your sound card for something else. No more plugging/unplugging!

**Direct CW/FSK Keying Jack:** Allows direct CW or FSK keying operation.

**Headphone Jack:** Use your stereo headphones so you won't disturb your XYL (also turns off external speaker).

**Footswitch jack:** Use footswitch (not included) for PTT when not using VOX.

**Plug and Play!** Includes software CD, RS-232 and audio cables, AC power supply.

**Order** MFJ-1279 for 8-pin round and 8-pin modular (RJ-45) mic plugs, or MFJ-1279T for 4-pin round mic.

Add "X" suffix for 220VAC.

## Basic Digital Interface



MFJ-1273B \$59<sup>95</sup> Ship Code A  
Has sound card, radio, speaker, RS-232 jacks. Includes: software CD and RS-232, audio, mic cables. No external power needed. Has no mic jack or mic switch. **Order** MFJ-1273B for 8 pin round mic, MFJ-1273BM for 8-pin modular (RJ-45) mic, MFJ-1273BT for 4-pin round mic.

## DSP Sound Card Programs



**MFJ-1296. RadioCom4** integrates PSK31, SSTV, FAX/Sat FAX, RTTY, SITOP, DSP audio filters and radio control.

**MFJ-1298. RadioCom5** -- all features of RadioCom4 plus DSP Audio Filter analyzer, Spectrum Analyzer, Dual Scope Display, Sound Recorder, Time and Frequency Management, Frequency Analyzer, 3D Scanner, Satellite tracking, Rig Control for over 80 radios, more! **Free demo at:**

[www.mfjenterprises.com/freedemo.php](http://www.mfjenterprises.com/freedemo.php)

# MFJ ATOMIC 24/12 HOUR CLOCKS

• **Automatically receive WWVB radio signal from National Institute of Standards and Technology in Ft. Collins, Colorado for millisecond accuracy** • **Choose 24/12 Hour time format or simultaneous dual times** • **Choose from huge selection of wall or desktop mounts**

**MFJ Atomic Alarm Clock -- SUPER DEAL!**



MFJ-132RC  
\$15.95  
Ship Code A

MFJ-132RC has an unbelievable number of features for such a low price! You get HUGE 0.563-inch height LCD digits, atomic-controlled for absolute pin-point accuracy, 24/12 hour selectable, running seconds display, dual alarms, 5-minute ID (snooze), fabulous backlight, month and date display, an indoor thermometer (range 32 to 122 degrees Fahrenheit), uses just two AA 1.5V batteries (not included) and has MFJ's famous one year limited warranty. MFJ will repair/replace (at their option) your clock for one complete year.

**MFJ Dual Time Display Atomic Clock**



MFJ-133RC  
\$34.95  
Ship Code A

MFJ-133RC dual time zone LCD clock can display two time zones at once. Choose to show UTC and local time or other dual time format! Lets you read any two time zones in 24 or 12 hour format. Atomic-controlled for absolute pin-point accuracy! Features HUGE 1 1/8 inch high-contrast LCD numerals easily read from 6 feet away . . . but is a super compact 4Wx3Hx3/4D inches. Super attractive silver clock folds up and slides in your shirt pocket for great travelability -- hamfest proven to wake you up on time.

**Solar Atomic Clock never needs batteries**



MFJ-136RC  
\$29.95  
Ship Code A

This fabulous solar-powered 24/12 Hour atomic clock never needs batteries, has a large LCD display (time digits 1 5/8x2 1/4") and gives precision accurate time from WWVB. Handsome desktop. Alarm. 3Wx4 1/4Hx1 1/2D inches.

## Large Display Wall Mount Atomic 24/12 Hour Clocks

**Time/Calendar/Temp Atomic Clock**



MFJ-130RC  
\$29.95  
Ship Code B

This 24/12 hour wall or desk mount atomic clock has got all the information you need at a single glance!

Auto daylight savings time can be turned off, when setting clock for UTC. Metallic blue/silver colored clock (8 1/2x9 inches) has easy-to-read LCD display. Time digits are 2 1/4 inches tall. Running seconds display. Month, date, day and indoor temperature is displayed on bottom LCD display.

Easy-to-program. Choose C or F for temperatures. Use two AA batteries. Mounts on wall or includes desk mount. Measures 10 3/4Wx6Hx3/4 inches.

**Dual Time Zone Atomic Clock**



MFJ-121  
\$79.95  
Ship Code B

Read both UTC and local time at-a-single-glance with this MFJ-121 dual atomic clock. Displays 24/12 hour time simultaneously. Mounted in a handsome black, hard-plastic frame, the MFJ-121 features HUGE, easy-to-see 2" tall by 1 1/2" wide LCD numerals and also has running seconds display. 10 1/2Wx8Hx3/4D inches mounts on wall or desk mount.

Use two AAA batteries -- long lasting! This is the clock true ham radio operators have been waiting for a long time!

**Solar Powered Eternity Atomic Clock**



MFJ's exclusive solar powered Eternity Atomic Clock™ works for an "eternity"! No need for batteries or to set time! Receives WWVB signal. Display is a whopping 2Hx6 3/4W inches. Choose 24 or 12 hour time. Huge running seconds display. Calendar format. 10 3/4Wx6Hx3/4D" looks great on the wall or desk mount. Attractive tan metallic!

MFJ-123  
\$79.95  
Ship Code B

## MFJ Indoor/Outdoor Temperature/Calendar Atomic Clock



MFJ-134RC  
\$39.95  
Ship Code B

monster size 2 1/4" time digits -- are easily seen from across the room.

MFJ-134RC automatically sets itself via WWVB from Fort Collins, Colorado and daylight savings time can be disabled so the clock can be set to UTC.

It has various alarm settings, calendar display, day-of-week and choice of English, French, or Spanish languages.

You can mount it on the Wall or set it on your desk. Wireless outdoor sensor is

housed in a compact 1 1/2Wx5 1/4Hx1D inches durable plastic. Hardware is included for easy mounting just about anywhere.

Indoor clock is 12Wx7 3/4H inches in a handsome dark wood frame with black display and green illuminated background.

**12 Vdc LED Mobile Clock**

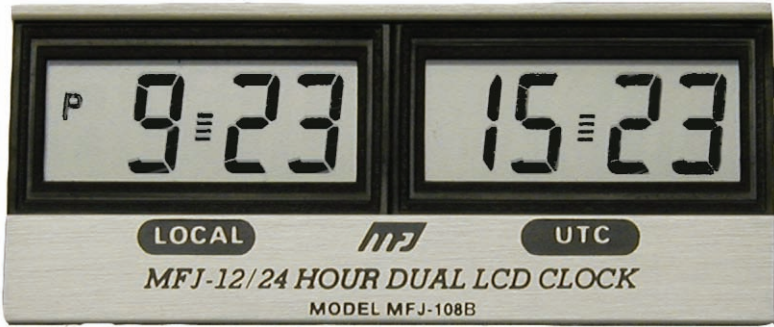


MFJ-116DC, \$19.95. 12 VDC, plugs in cigarette lighter. Huge .562" green LCD digits! Great

for motor-homes and truckers! 12 hour time only. Attractive black cabinet, long cord.



# MFJ 24/12 Hour Clocks



## Dual Displays: 24 and 12 Hour Clock

**MFJ-108B**  
**\$21.95**  
 Ship code A

**MFJ-108B** dual clock has separate 24 hour and 12 hour displays. Lets you read both UTC and local time simultaneously. Features huge high-contrast 5/8 inch LCD numerals that makes it easy to read across the room. Mounted in attractive solid brushed aluminum frame with sloped face for easy viewing. Synchronizable to WWV for split-second timing. Quartz controlled for excellent accuracy. Long life button battery included. 4 1/2"Wx1D x2H". MFJ one year limited warranty.

## DXer's Wall Clocks

## Hi-Contrast LCDs

## 24/12 Atomic Clock



**MFJ-135, \$39.95.** 12 inch world time Quartz clock gives five time zones in a single glance. UTC, Local, Honolulu, Tokyo, and Moscow. 5 independently settable dials. Highly visible, easy-to-read. Black outer trim, gold inlet with gold hands and black numbers, beautiful white face.



**MFJ-125, \$34.95.** 12 inch DXer's Quartz wall clock gives 24 hour time plus more. Has three smaller independently settable dials for 12 hour time, day of week and date. No more day/ date confusion when logging DX! Highly visible, easy-to-read dials! Seconds hand.



**MFJ-115, \$24.95.** Set this 24 hour Quartz clock to UTC/ GMT and you can determine the time in any time zone of the world at any time of the day. Premier world cities encircle its colorful world map face to indicate time zone. 12 inch face is easy to see across room. Seconds hand.



**MFJ-105C, \$24.95.** This is the world's most popular ham radio wall clock! True 24 hour Quartz movement. Huge 12 inch black face with large white numerals give excellent visibility across room. Attractive gold colored hour, minute and seconds hands looks great on any wall!



**MFJ-126B, \$19.95.** New! 12 hour Quartz movement gives 12 hour time on inner dial (for XYL) and 1200 to 2400 hour time on its outer dial (for you). Attractive clean, white face is highly visible. Handsome black trim shows 24 hour time format, looks great in any decor.

### MFJ-107B, \$12.95.



24 hour UTC Clock has large 5/8 inch LCD numerals. 2 1/4"x1x2 inches. Synchronizable to WWV. Solid brushed aluminum frame lasts for years. Long life button battery included.



**MFJ-118, \$29.95.** MFJ's Jumbo LCD™ shows time in 24 UTC or 12 hour format with huge 1 1/4" high-contrast LCD digits. 5 3/4"Wx2 1/2"Hx1 1/2"D in. Also has year, month, date, and day of week. Choose English, Spanish, German or French for day-of-week display. Easy-to-operate. Has 100 year full calendar. Quartz controlled for excellent accuracy. Manually synchronize to WWV. Black scratch resistant case. Mounting holes for wall mount/flip stand for desk mount. Use "AAA" battery (not included).



**MFJ-112B, \$29.95.** This DXer's World Map Clock shows you the time at any QTH throughout the world on an attractive LCD

world map. Also shows day of week, month, date and year. Time displays hour/minute/second. Choose 12/24 Hour. Easy push-buttons move you east and west on the map to display a QTH in every time zone. Daylight saving time feature. Attractive grey. Cool blue backlight for night viewing. Great for gift or use as logging clock. 4 1/2"Wx3 3/8"Hx2 1/4"D in. 1 year No Matter What™ limited warranty.

Read 24 and 12 hour time at a single glance on dual time displays! This huge 12-inch diameter atomic wall clock can be seen from across the room! It'll liven up any hamshack wall and automatically receives the WWVB signal from Ft. Collins, Colorado. Has second hand with clearly marked seconds display points. Attractive, clean, white, real glass face is highly visible and will improve the decor of any room.



**New!**  
**MFJ-131RC**  
**\$39.95**  
 Ship Code B

## 14" Atomic Wall Clock

**New!** This huge 14" 12-hour clock is easy-to-see! Automatically sets itself, accurate to the second! Daylight savings time can be disabled. Handsome black with white face looks great in your hamshack, office, hospital, etc. Use single AA battery (not incl.). Can also be manually set.



**MFJ-137RC**  
**\$29.95**  
 Ship Code B

## Huge 2.5" LED Clock

**MFJ-117, \$39.95.** This 12/24 hour clock has the biggest and brightest LEDs of any clock we have ever seen! Giant 2.5 inch super bright LEDs are nearly the width of a 2-Meter HT -- you can see them from across the street, day/night! Perfect for decreasing eyesight. 12/24 hour switch. Wall/ desk mount. Black with bright red LEDs! 12Wx7 1/2"H in. Use 9V battery for backup. Hour/minute set buttons. 110 VAC, 60 Hz.



**MFJ-113, \$19.95.** Switchable 12/24 hour display with HUGE 1.8" red LEDs. Absolutely shines from across the room. Super compact 11Hx 9Wx2 1/2"D in. 9 minute ID timer, alarm, 9V battery back-up. Use 110 VAC, 60 Hz. Great for sight impaired!





# MFJ Radio-Controlled (Atomic) WristWatches

## BREAKTHROUGH LOW PRICE!!!



MFJ-186RC  
\$29<sup>95</sup>  
Ship Code A

**MFJ-186RC** has broken through the high price of Atomic Wrist Watches!!!

For an unbelievable \$29.95, you get a beautiful full-featured atomic watch -- rivals the one your buddies paid \$99.95 for!

**This MFJ Radio-Controlled Wrist Watch** automatically receives the WWVB Signal generated by the US Atomic Clock located in Fort Collins, Colorado.

**MFJ-186RC** lets you switch from 24 hour format or 12 hour format and to different time zones (Pacific, Mountain, Central, and Eastern). Also has running seconds display and day-of-week and date display.

**This MFJ radio-controlled wrist watch**

has an alarm function and also can be used as a stopwatch for standard, accumulated, split-time, or competitor measurements. A backlight will illuminate the LCD display for about three seconds in a brilliant blue.

**Year, Month, and Day** can be displayed in calendar mode. MFJ-186RC is water-resistant up to 3 ATM - no more fear of the rain as you work hamfest security.

**Protected** by MFJ's famous *No Matter What™* One year warranty. MFJ will repair or replace (one option) your atomic wrist watch for one full year.

### Atomic watch/stainless band



MFJ-187RC  
\$39<sup>95</sup>  
Ship Code A

**Like the famous MFJ-186RC**, but has *stainless steel band!* 24/12 hour switchable format, manual time setting, alarm function, time zone display, backlight, 3 ATM water resistance, and lithium battery included. Silver face/band, large digits, running seconds, day/date -- for easy QSO logging.

**Choose** a great-looking stainless steel band or a handsome brown leather band!

**Gives** precision 12 hour time format (accurate to +/- 1 second per day) and automatically receives and updates itself from the WWVB signal from Fort Collins, Colorado daily.

**MFJ-188** has back-light, automatic daylight savings time feature, manual time setting, 5 ATM water resistance, and includes lithium battery. Beautiful Silver-metallic face with *huge*



MFJ-188LRC  
\$49<sup>95</sup>  
Ship Code A



MFJ-188MRC  
\$49<sup>95</sup>  
Ship Code A



MFJ-189RC  
\$39<sup>95</sup>  
Ship Code A

analog digits give *time in-a-glance*. Second hand/second notches on face.

**MFJ-188MRC** has a stainless steel band. **MFJ-188LRC** has a *genuine* brown leather band.

**MFJ-189RC** is like the others but has a *genuine* black, leather band and *stylish* non-numerical 12-hour and second notches on the silver-metallic face.

## Compact Atomic Wireless Weather Station . . . \$59<sup>95</sup>!



MFJ-193RC  
\$59<sup>95</sup>  
Ship Code B  
**New!**



An incredible \$59.95 gives you wireless indoor and outdoor temperatures, humidity,

atomic clock, date/day display, back-light and forecast icons: sunny, slightly sunny, cloudy, rainy, stormy.

**You** get all of this in one compact package -- it'll look great and be one of the most useful accessories at your operating position -- we know you like to discuss the weather and other conditions when ragchewing with your ham buddies.

**This unit has HUGE 2 1/4" time digits!** Get quick, accurate forecasts in a single glance! It'll quickly tell you if you need to grab a sweater, rain coat or dress down for sunny weather -- now you can play weatherman and get it right!

**Storm** alarms warn you when conditions become threatening -- gives you a chance to unplug your equipment in case of lightning, or severe wind storms. This is just the thing for hams that don't know when to quit and protect the shack!

**Use** up to three separate sensors. Outdoor remote sensor has LCD display. Requires batteries (not included).

**Inside** unit is a super-compact 8Wx8 1/4H inches but has a huge beautifully laid-out LCD display, highly illuminated with a green background. Housed in a handsome tan metallic, tough, durable plastic -- it'll give you years of service.

## MFJ Atomic Wireless Weather Station

**Be your own Meteorologist! MFJ-196RC gives accurate time and date, in/out temps, in/out humidity, weather forecast icons, pressure, wind speed, wind direction with LCD compass, wind chill, . . . more!**



MFJ-196RC  
\$259<sup>95</sup>  
Ship Code D

**New!**

**This professional Atomic remote wireless weather station** gives you a base LCD display station, three sensors: thermo-hygro

transmitter, wind and rain sensors, computer control RS-232 port, CD Rom software, and an AC power adaptor. All of the weather information is simultaneously displayed on the large user-friendly LCD for up-to-the-minute weather conditions.

**MFJ-196RC** receives and displays the WWVB radio-controlled time and date. Indoor/outdoor relative humidity displays, air pressure, wind speed, wind direction with LCD compass, wind chill temperature, dew point temperature, weather tendency indicator, storm warning alarm, 2 1/8x4 1/2" backlit LCD display, a COM port makes an easy connection to your computer with programmable alarm functions for certain weather conditions as well as records of all minimum and maximum values along with time and date of their recordings. A

detailed display of rainfall data in 1 hour, 24 hours and total since last reset.

**MFJ-196RC** is a stand-alone unit.

Connection to your computer is optional. It is wireless, but it can be installed with wire connections when wireless operation is not possible.

Three cables provided. Wireless coverage is approximately 330 feet in open space from transmitter to base.

**Base** station uses three AA batteries or AC power input 120 VAC, 60 Hz (provided adaptor). The thermo-hygro sensor uses two AA batteries or AC adaptor. Base is 6.7Wx1.37Dx5.43H inches.





# MFJ Accessories for FT-817 and Other QRP rigs

## MFJ Walkabout Antenna 80 through 6 Meters

MFJ-1899T *Work DX walking about!*  
 \$69.95  
 Ship Code A *This MFJ Walkabout antenna is designed for the FT-817 and other QRP rigs. Covers all bands 80 Meters through 6 Meters including WARC Bands. Its ten section telescoping whip is 52 inches fully extended and is 7 inches when collapsed. The whip unscrews from the 12 inch base loading coil. It is ultra-compact for easy traveling. Handles 25 Watts. You change bands by plugging the "wander lead" into the appropriate socket on the base coil. Fine tuning is done by adjusting the telescopic whip. Has BNC connector. Use adapter for SO-239.*

## Single Band Walkabouts 6/10/12/15/17/20/30/40/80

10,12,15,17,20M 30/40/80 M 6 Meters  
 \$19.95 \$24.95 \$29.95  
 Ship Code A Ship Code A Ship Code A  
**Highly efficient single band Walkabout antennas for the FT-817 and other QRP rigs let you work exciting DX no matter where you are -- hotel, mountain top, etc.!**  
**Each 10 section telescoping whip is 51 inches fully extended and collapses to 5 1/2 inches and screws into a base loading coil. Handles 25 Watts. Has BNC connector. Use adapter for SO-239. MFJ-7703, \$6.95, below.**  
**MFJ-1806T (6M) \$29.95**  
**MFJ-1810T (10M) \$19.95**  
**MFJ-1812T (12M) \$19.95**  
**MFJ-1815T (15M) \$19.95**  
**MFJ-1817T (17M) \$19.95**  
**MFJ-1820T (20M) \$19.95**  
**MFJ-1830T (30M) \$24.95**  
**MFJ-1840T (40M) \$24.95**  
**MFJ-1880T (80M) \$24.95**

## Tiny 10 oz. Switching Power Supply for Yaesu FT-817 and QRP Rigs.

MFJ-4103 *Miniature Switching Power Supply* can deliver up to 40 Watts (13.8 VDC at 2.89 Amps) of reliable power anywhere in the world.



**Incredibly tiny -- 4 1/8 X 2 5/8 X 1 3/8" and weighs just 10oz., including power cord, connector. Output DC cable with a standard coaxial DC power connector (2.1mm ID, 5.5mm OD).**

**Sturdy adapter cable included for Yaesu radios. The MFJ-4103 has excellent specs and out performs all other switching power supplies made for the FT-817. Perfect for QRP rigs needing up to 2.89 Amps.**

**Works for input voltages 100-240 VAC and power line frequencies 47-63 HZ. Use the MFJ-4103 almost anywhere in the world by plugging in an AC power cord with an appropriate wall plug for that country (Not incl. Laptop computer AC cord recommended).**

**Overvoltage, overcurrent and overtemp protected. Excellent 1% line and 5% load regulation and 1% peak to peak ripple/noise. Op temperature is 0-40° C. Mean time between failure is 100,000 hours at full load at 25° C ambient. Meets FCC part 15 class B, UL 1950 and CSA 22.2.**

MFJ-4103  
 \$39.95  
 Ship Code A

**2-Meter / 440 MHz "Back-of-Radio" Antenna**  
 MFJ-1717PL, \$24.95.  
 Foldover dual band flex-duck 16 1/2 inch antenna with quality PL-259 connector. Hearty 2.15 dBi gain on 440 MHz and full size 1/4 Wave on 2 Meters.

## PL-259-to-BNC right angle

MFJ-7703, \$7.95. Sturdy, adapter for your FT-817 and multimode HF antennas like MFJ-1899T. Reinforced elbow for less stress on radio connector.



## MFJ Miniature Travel Iambic Paddle



**MFJ-561, \$24.95.**  
 1 3/4 W x 1 1/4 D x 3/4 H inches. Full size feel for smooth, easy CW. Precision formed from resilient phosphorous bronze. Stainless steel base with rubber feet. 3 foot cord, 3.5 mm plug.

## MFJ Pocket Repeater

Extend range of any radio 2 Meter, 440 MHz, Handhelds, Mobile, Base!!



MFJ-662  
 \$79.95  
 Ship Code A

**When you and your buddy are out of radio range, the MFJ Simplex Pocket Repeater™ greatly extends your range. You can have your own private, portable repeater within your neighborhood or when hunting, fishing, camp-**

ing, hiking, caravanning on-the-roadside.

**During a disaster,** your MFJ-662 can provide emergency communications when repeaters are down. You can communicate way beyond the normal range of your handheld or mobile.

**Works** with virtually any radios in any mode or frequency in any ham band or business band. *It's Legal!* As a simplex repeater, MFJ-662 with another radio digitally records audio from an out-of-range HT/Mobile, then retransmits to other HT/Mobiles. Tiny, pocket -size 2 1/4 W x 3 3/4 H x 1 D".

**Repeats** up to 32 second messages. LED lights when recording. On/Off switch. 5 pin header for radio cable (connector included). Use 9 volt battery, 9-15 VDC or 110 VAC with optional MFJ-1312D, \$15.95. Pre-wired cables for most radios, \$17.95. See cable column on page 38.

## MFJ JimHandy™ CW Interface lets you use your HT for on-the-air CW Fun

MFJ's JimHandy™ CW interface plugs into your 144/440 MHz handheld and converts it into a modulated CW transceiver -- just plug in your key.

**Get** your ham buddies together on-the-air and enjoy some fantastic CW fun. Run a little code practice on your repeater. Start your own FM CW Net. Have fun and

upgrade!  
 MFJ-552  
 \$89.95  
 Ship Code A  
 transmit/ receive switch automatically switches your HT to transmit when you send CW and returns you to your receive signal when



you stop keying.  
**Built-in** speaker, volume control and great sounding true sinewave sidetone -- no harsh keyclicks. 4 W x 1 1/4 H x 3 3/4 D inches. Use 9V battery (not included).  
**Pre-wired** patch cables, \$17.95 for your HT on page 38.  
**MFJ-550** key only, \$14.95.

## MFJ Radio Voice Mail



MFJ-664  
 \$129.95  
 Ship Code A

**Two way radio voice mail** lets you and your friends or family leave and retrieve voice messages for each other.

**When** in radio range, stay in touch 24-hours-a-day no matter where you are. Program custom access codes and security codes so you can decide who uses your Radio voice mail. It's your own private, portable repeater. MFJ-664 can provide emergency communications when repeaters are down.

**Test** your own signal quality by repeating your transmission thru another radio. Automatically repeat recorded message continuously. Great for determining band openings, foxhunting and public service announcements.

**Non-volatile** memory -- up to 2 full minutes of voice messages. Keypad can be used for remote operation with Morse code verification of functions. End-of-message beep and output level control for clean audio. Use 9V battery or 9-15 VDC or 110 VAC with MFJ-1312D, \$15.95. 4 W x 3 1/2 D x 1 1/2 H inches. Use any radio. With PTT or mic closure sensing. Pre-wired cables for Yaesu. (See page 38).

# MFJ Deluxe Headset Microphone™ adds professionalism



MFJ-288 (K, I, Y, R)  
\$24.95  
Ship Code A

**This deluxe headset microphone gives hams the professional look they deserve -- great for public service**

**This MFJ Deluxe Headset Microphone™** lets you carry on a private QSO while in a noisy environment. The microphone can pick up your voice, whether booming or at a quiet whisper

when placed appropriately near your mouth.

The earphone gives superb tonal quality so even distant stations will come in loud and clear. Made of sturdy black plastic and strong metal sliders, one size fits all!

Superb speaker and mic foaming make it super comfortable for long ragchews.

Small PTT switch attaches to your shirt

or pants pocket. Six foot cord.

MFJ-288I fits Icom, Radio Shack, older Yaesu, ADI, Alinco, other compatible HTs.

MFJ-288K fits Kenwood and compatible handheld radios.

MFJ-288Y fits VX-5R series, IC-Q7A & compatibles.

MFJ-288R fits new Yaesu VX-7R series handheld transceivers.

## MFJ Featherweight earbud Boom Microphone™

**Features rubber flex earloop design for security and comfort and 5-inch boom mic**



MFJ-293 (K/Y/I/R)  
\$24.95  
Ship Code A

**Finally** ... a secure and comfortable

earbud and boom microphone that's as small and inconspicuous as your radio! No more gaudy, oversized headsets or massive handheld speaker microphones!

This tiny earbud features a secure and comfortable rubber flex earloop design and 5 inch flexible boom microphone that adjusts perfectly to your mouth. The earloop secures your earbud for a comfortable fit so there's no more worrying about it falling out of your ear.

It's perfect for monitoring your receive audio when you are in a loud environment. MFJ-293's special rubber flex earloop design adjusts to fit the right or left ear (big or small) very securely and comfortably.

Made of a sturdy black polyurethane and

comfortable rubber earloop, it'll give years of dependable use. Tiny thumb-sized PTT switch is built right into the 6 feet of cord.

MFJ-293I fits Icom, older Yaesu, Radio Shack, ADI, Alinco and compatible HTs.

MFJ-293K fits Kenwood and other compatibles.

MFJ-293Y fits Yaesu FT10R/40R/50R/VX-1R, Icom IC-Q7A, and other radios using single plug-ins.

MFJ-293R fits Yaesu VX7R series.

All MFJ speaker microphones have MFJ's one year no matter what warranty.

## MFJ Featherweight Vibration earbud Microphone™

**Picks up the vibration of your earbone and translates it into a signal through your HT**

**Be the coolest!**

The speaker and microphone are both integrated into the earpiece -- it picks up the vibration of your earbone and then translates the vibration into a signal through your handheld transceiver!

**Super Audio Quality!** It only transmits the vibrations from your ear -- no background noise!

It's perfect for high-ambient environments like hamfests, traveling through airports, on the bus, riding motorcycles, ATVs, etc. It truly is amazing!

Older competitive versions of earbud vibration mics sounded terrible -- there was

background noise and transmissions sounded like a robot was on the other end. With the new MFJ-283 technology only your natural-sounding voice is transmitted.

The PTT switch has velcro for attaching to wool clothes or your belt.

Two clips on the cord let you position and secure the earpiece/PTT to your shirt or coat comfortably and a 42-inch durable cord lets you snake it a-round your body the way you want.

You can also almost totally conceal your cord, PTT and earpiece. You'll look like a detective, airport security or even a government spy -- nobody will even realize you

are on MFJ-283 your (I,K,Y) hand- \$34.95 held Ship Code A radio talking.

MFJ-283I for Icom, Shack, Alinco, ADI and older Yaesu transceivers. MFJ-283K for Kenwoods.

MFJ-283Y for Yaesu VX5R series, Icom Q7A, and other single plugs.



## MFJ Featherweight Earbud Speaker Microphone

**Tiny earphone and thumbsize microphone/PTT switch is built right into the cord! New! MFJ-291 model with VOX NOW available!!!**



MFJ-292 (I,K,Y)  
\$17.95  
Ship Code A

**Be Cool!**  
MFJ's

**Featherweight Earbud/Mic** has a tiny earphone and thumb-size microphone/PTT switch built right into the cord.

It's barely noticeable and so lightweight you won't know it's there -- people will think you are a detective or airport security or even a government spy!

Get crystal clear receive/transmit audio out of an ultra-light (30 grams) speaker. Non-directional electret condenser mic has

MFJ-292R VX7R series \$19.95  
Ship Code A

-64 dB sensitivity, 1.1K Ohm impedance. Has 4 foot cord.

MFJ-292I fits ICOM, older Yaesu, Radio Shack, Alinco, other compatibles.

MFJ-292K for Kenwood.

MFJ-292Y for Yaesu FT-10R/40R/50R, and VX-1R/VX5R series.

MFJ-292R, \$19.95, fits new Yaesu VX-7R series handhelds.

**Featherweight VOX Earbud/Mic**

This MFJ Featherweight has VOX capability for hands-free

operation. Requires compatible handheld radio with VOX feature. Switch between PTT or VOX. No "R" model. See above for other VOX models.

MFJ-291 I, K, Y \$21.95  
Ship Code A



New!

## MFJ BoomMic/FM Scan

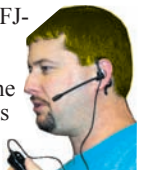
MFJ-284, \$39.95, same as MFJ-293, but adds an FM broadcast scan radio inside the tiny PTT switch. Lets you catch up on the news or listen to music or sports while monitoring a 2-Meter operating frequency! Auto switches from FM to HT audio when monitoring frequency is detected. Batteries included. Order MFJ-284I (Icom), MFJ-284K (Kenwood), and MFJ-284Y for Yaesu VX5R series and Icom Q7A single plug Handhelds.

**MFJ Neckset Microphone**

MFJ-282, \$24.95.

Don't mess up your hair and you can still wear your cap! Naturally hidden behind your neck. Super audio, lightweight and comfortable! MFJ-282I fits Icom and older Yaesu; MFJ-282K fits

Kenwood; MFJ-282Y fits Yaesu R-series, Icom Q7A; MFJ-282R fits VX7R series.





# MFJ Speaker Microphones for New Yaesu, Icom, Kenwood HTs



MFJ-295  
(Y, I, K, Y)  
Fits Yaesu, Icom and  
Kenwood and compatibles.  
\$ **16<sup>95</sup>**  
Ship Code A

**Here's** a top quality handheld speaker mic that fits snugly in your hand! It's perfect for new Yaesu, Icom, Radio Shack, Kenwood, Alinco, ADI and compatible handheld transceivers. **Fits** perfectly in your hand and

MFJ-295R gives booming receive audio so you can monitor stations while the microphone is attached to your lapel -- no more holding the speaker up to your ear!  
Compact 2Wx3Hx1/4D inches.

**MFJ's** high-quality non-directional electret condenser microphone gives your handheld crystal clear transmit audio. **The MFJ-295 Microphone** has -53 dB sensitivity and 1K Ohm impedance.

**Excellent** top quality speaker produces 83 dB of crystal clear and loud, booming receive audio. 8 Ohm impedance.

**Includes** a built-in 3.5 mm earphone jack lets you continuously monitor receive audio and it lets you hear your radio in a loud, noisy environment (see MFJ-301,

\$6.95 or MFJ-302, \$9.95, below right). A top quality PTT thumb switch with an eight-position swivel lapel clip rotates 360 degrees. 3 1/2 feet of durable, stretchable cord. Made of high-impact plastic -- it can take some casual bumps and a even a few drops. It is water resistant.

**The** microphone and cord are all black and it has protective rubber at all of the bending points, so it won't break easily.

### Choose your model . . .

**MFJ-295Y, \$16.95** is for newer Yaesu single prong plugs like Yaesu VX5R and Icom single pin plugs like Q7A.

**MFJ-295I, \$16.95** is for Icom, Radio Shack, Alinco, ADI and compatibles.

**MFJ-295K, \$16.95** is for Kenwood, Alinco and other compatibles.

**MFJ-295R, \$19.95** fits new Yaesu VX-7R handheld radios.

## MFJ Mini Speaker/Microphone for HTs

**This** is the "Perfect-size" speaker mic for tiny new HT radios on the market! **Super** compact 1 3/8"Wx2 1/2"Hx1/2"D inches. **It** matches new tiny handheld radios and fits perfectly in the palm of your hand.

**Sturdy** PTT switch, 3.5 mm earphone jack to monitor receive audio (see MFJ-301/MFJ-302 right) and long, curly cord.

**MFJ-285I, \$15.95**, fits Icom, Alinco, Radio Shack, older Yaesu and compatibles.

**MFJ-285K, \$15.95**, fits Kenwood and

**New!**

MFJ-285 MFJ-285R  
(I, K, Y) for VX7R  
\$ **15<sup>95</sup>** \$ **19<sup>95</sup>**  
Ship Code A Ship Code A

other compatibles. **MFJ-285Y, \$15.95**, fits Yaesu R-series, Icom Q7A and other compatibles.

**MFJ-285R, \$19.95**, fits VX7R series handheld radios.



## MFJ HandyPa™ Earphone for HT mics



MFJ-301  
\$ **6<sup>95</sup>**  
Ship Code A

**This** new MFJ earphone earpiece is the perfect companion for your MFJ or other brand speaker

microphone. You can continuously monitor receive audio and it lets you hear your radio in a loud, noisy environment. A comfortable foam earpiece fits securely in your ear and doesn't hurt. It's super lightweight. Fits in 3.5 mm jack on speaker/mic.

**New!**

MFJ-302  
\$ **9<sup>95</sup>**  
Ship Code A

**MFJ-302** is similar to MFJ-301 but has a soft earloop speaker that wraps around your entire ear -- gives more natural-sounding audio and cuts out more background noise -- also has more comfort and security. 3.5 mm jack and cord.



## Speaker/Mic has PTT Lock, Volume control



**New!**

MFJ-296 MFJ-296R  
(I, K, Y) for VX7R  
\$ **21<sup>95</sup>** \$ **24<sup>95</sup>**  
Ship Code A Ship Code A

**This** new, deluxe speaker microphone has a PTT lock (for carrying on long, one-sided conversations) -- you won't wear out your thumb pressing while you talk!

**It** also has a volume control knob that allows you to set it for a super quiet room or noisy environment like a hamfest or banquet.

**MFJ-296** has a 360 degree rotating lapel clip, a first-rate electret mic element and a full-size speaker that gives you superb receive audio.

**It** also gives you excellent transmitting audio -- no more muffled sounding audio or scratchy voice transmissions!

**Also** has 3.5 mm earphone jack (see MFJ-301/MFJ-302 right), momentary PTT switch, and retractable cord.

**MFJ-296, \$21.95**, fits Icom, Radio Shack, older Yaesu, Kenwood, Alinco and other compatibles.

**MFJ-296R, \$24.95**, fits VX7R handheld series only.

## MFJ MightyMic™ speaker microphone



MFJ-294 (I, K, Y) it's tiny size.  
\$ **16<sup>95</sup>**  
Ship Code A

**MFJ's** **MightyMic™** is a super tiny speaker microphone for those tiny and very popular miniaturized handheld

radios. Most new radios on the market today like Yaesu's VX5R and Icom's Q7A are so small, they are tinier than most of the speaker microphones sold!

**Not** anymore with the MFJ-294! It's a perfect match for those radios because of

**Tiny** PTT thumb switch with speaker/microphone and lapel clip all fits between two fingers! Yet it gives booming receive audio and great for transmitting too! Tiny 19" retractable cord stretches to 4 feet.

**This** is the perfect speaker/microphone for concealment. You'll look like an FBI agent when you work with this streamlined, innovative product!

**An** eight-position swivel lapel clip lets you position and secure the microphone to your shirt or coat comfortably.

**MFJ-294I** is for Icom, Radio Shack, Alinco, older Yaesu HTs and compatibles.

**MFJ-294Y** is for Yaesu FT10R/40R/50R /VX-1R/VX-5R series HTs, Icom IC-Q7A, and other radios using single plug-ins.

**MFJ-294K** is for Kenwood and compatibles handheld radios.

### Identify your speaker/mic model

**MFJ** uses the letters I, K, Y and R to denote what connector is on the speaker mic. **I** is for Icom, some Yaesu, Radio Shack, ADI and most Alinco. **K** is for most Kenwood. **Y** is for Yaesu VX5R series and Icom Q7A. **R** for new Yaesu VX7R series.



I K Y R

**CLOSEOUT! SPEAKER MIC**

MFJ-286 for Kenwood  
\$ **9**  
While they last!!!  
Ship Code A

# MFJ's handheld "Rubber Duck" antennas



## High Gain Dual Band HT Flexible Duck Antennas

**A. MFJ-1717, \$21.95.**

**The World's best selling HT antenna!** When other rubber ducks just give you noise, you'll enjoy dependable QSOs with the MFJ-1717. Only 15 3/4 inches in length, it's a halfwave on 440 MHz that gives you a hearty 2.15 dBi gain. On 2 Meters, you get an efficient full-size 1/4 wave antenna for full size performance.

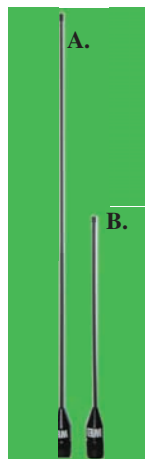
**MFJ-1717** is precisely tuned at the factory for low SWR. High-Q, low loss construction gives you maximum radiated power! BNC connector. It's rugged! It'll take all the bending, twisting, flexing and tugging you can dish out, and just pop right back up.

The radiator is protected by a durable synthetic rubber compound and has a hard protective safety tip.

A strong rigid base protects the matching network from flexing and changing frequency. Tough, durable construction. Order MFJ-1717 for BNC connector. Order MFJ-1717S for SMA connector.

**B. MFJ-1716, \$16.95.** Dual band 144/440 MHz Flexible rubber duck antenna is similar to MFJ-1717. 7 1/2 inches length, 1/4 wave on 440 MHz and loaded 1/4 wave on 2 Mtrs. Tough, durable construction. MFJ-1716 has BNC connector. Order MFJ-1716S for SMA connector.

## MFJ SuperFlex ThinDucks™

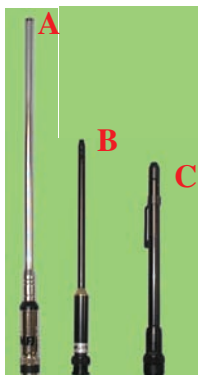


**A. MFJ-1715, \$24.95.** Tie it in a knot . . . when you use it, it'll bounce back in shape -- you can't break it! It'll take all the bending, twisting, flexing and tugging you can dish out, and just pop right back up.

This MFJ-1715 12 1/2" SuperFLEX™ radiator is a 1/2 wave on 440 MHz -- gives a hearty 2.15 dBi gain. On 2 Meters, you get an efficient full size 1/4 wave antenna. Safety tip, durable synthetic rubber compound. Add "S" for SMA connector.

**B. MFJ-1713, \$19.95.** 5 1/2" radiator is similar to MFJ-1715 except for gain on 440 MHz. Quarter wave on 440 MHz and an efficient loaded Quarter wave on 2 Meters. Add "S" for SMA connector.

## MFJ Telescopic Handheld Antenna Range Extenders



**A. MFJ-1714, \$16.95.** For really long range this ended halfwave 2-Meter is hard to beat! Outperforms a 5/8 wave on an HT because the 5/8 wave needs a ground plane. Collapsed (10.5 inches) it performs like a rubber duck. 40 inches extended gives you **LongRanger™** performance!

**B. MFJ-1712, \$14.95.** This telescopic **Dual Band** (144/440 MHz) is a 1/4 wave on 2 Meters, 5/8 wave with gain on 440 MHz. Just 7 1/4" collapsed. Acts like a rubber duck. 19" extended gives superior performance. **New! MFJ-1712S, \$14.95.** Like MFJ-1712, but has SMA connector.

**C. MFJ-1710, \$9.95.** **The PocketLinear™** is a pen sized 3/8 wave for 2 Meters! Carry this antenna in your shirt pocket like a ball point pen with pocket clip. When you rubber ducky on your HT just won't receive well, pull it out, extend to 24" and carry on your QSO. Tiny 5 1/4 inches collapsed.

## MFJ Triple Band FlexiDuck™



**MFJ-1720S, \$29.95.** MFJ's Triple Band HT **FlexiDuck™** antenna is a whopping 19 inches tall -- it's big enough to deliver a powerful signal for 2 Meters, 440 MHz, and 6 Meters! It's a 5/8 Wave on 440 MHz to give you a hearty 3.2 dBi gain. On 2 Meters you get a 1/4 Wave antenna with 2.15 dBi gain. On 6 Meters you get an efficient full size 1/4 Wave antenna for full-size performance. Precision-tuned at the factory for low SWR. High-Q, low loss construction gives you maximum radiated power. 10 Watts. SMA Connector only.

## SmallWonder™ HT Antenna



**MFJ-1719/MFJ-1719S, \$19.95.** This HT Antenna is truly amazing for its size! Pound for pound, it's the best antenna around. Less than 1" tall, it's great for traveling and monitoring calls. It doesn't get in your way! Receives and transmits on 2 Meter/440 MHz. Also receives great signals at 1200 MHz. **MFJ-1719, BNC connector or MFJ-1719S, SMA connector.**

## Back-of-Radio 144/440 Base



**MFJ-1717PL, \$24.95.** Plug into a 2 Meter/440 MHz mobile/base rig - not a 10-element yagi but it'll get you out in a hurry! Fold-over, flexi-duck, PL-259. 2 dBi gain on 440 MHz, full-size 1/4 wave 2 Meter. Hi-Q, low loss construction. 16 1/2", hard safety tip. Watts PEP. **MFJ-1717P, \$24.95.** Like MFJ-1717PL, but no fold-over. Has straight PL-259.

## Foldover Telescopic HT antenna



**MFJ-1812, \$19.95.** Dual band 144/440 MHz HT antenna combines telescopic and foldover features in a single antenna. Extends to improve range plus it folds over to get out of the way of your gut. MFJ-1812 is just 6" retracted and 16" extended. High Q low loss construction, super durability for years of use.

## MFJ 2-Meter Pocket Roll-up



**MFJ-1730, \$24.95.** Roll up this 1/2 wave 2-Meter antenna and stick it in your pocket. Vacations, camping, etc. Get home station performance **on-the-go!** Just 51"

long. Hang in a tree, plug the BNC into your HT and enjoy some great QSOs. Omni-directional, has significant gain over a 1/4 wave. Doesn't need a cumbersome ground plane so it's convenient for indoors.

## MFJ 440 MHz Pocket Roll-up

**MFJ-1731, \$24.95.** 440 MHz pocket roll-up antenna, 1/2 wave. Roll-up J-pole for 440 MHz is like MFJ-1730, but shorter. Hang it and operate with MFJ roll-up J-pole antennas **anywhere and everywhere!**



## MFJ "Long-John" HT Antenna



**MFJ-1818, \$24.95.** This "Long-John" HT antenna gives you a whopping gain on 2-Meters! You get 2.15 dBi gain in a 1/2 Wave, super efficient antenna. 9 inches collapsed and 38 1/2 inches fully extended. Has a **FlexSpring™** base that prevents your connector from breaking. It's tough, durable and well-protected for years of dependable service. 50 Ohms, BNC connector. Handles maximum 10 Watts.

## MFJ Scanner/Receiver Antenna



**MFJ-1811, \$14.95.** This antenna can be dedicated to your Scanner or Receiver operations. It features both telescopic and foldover attributes. It folds-over to create a right angle connection to the back of a base or mobile, and it telescopes/collapses for your handheld. It's 24-inches extended and 7-inches collapsed. Covers 1.8 to 1800 MHz and has 2.15 dB gain. Handles 10 Watts. 50 Ohms. BNC connector. VSWR is 1.5:1.

## MFJ Compact Magnet Mounts for Handheld Antennas

Put your flexible HT rubber duck on the roof of your car!

**Compact** but powerful magnet is 2 3/4 inches in diameter -- super strong!

**MFJ-332S, \$14.95.** HT Antenna Magnet Mount with SMA on



each end. Has 12 feet of tough, flexible RG-58AU coaxial line.

**MFJ-332B, \$14.95.** HT Antenna Magnet Mount with BNC on each end. Has 12 feet of tough, flexible RG-58AU coaxial line.



# MFJ VHF/UHF MAGNET MOUNT MOBILE ANTENNAS

## Magnet Mount Dual Band 144/440 MHz Mobile



MFJ-1724B This MFJ-1724B is the world's best selling \$19<sup>95</sup> dual band 2 Meter/440 MHz magnet mount mobile antenna! It's perfect for your dual band mobile or HT. Free BNC handheld adapter. MFJ's powerful 3 1/2 inch magnet base holds your antenna firmly even at highway speeds. The base has a scratch resistant rubber guard to protect your car. The MFJ-1724B black stainless steel whip looks like an attractive cellular antenna. Only 19 inches tall, you can park in your garage without knocking is over. Low SWR across both bands keeps your transceiver safe from overheating. Get excellent gain on 440 MHz band and 2 Meters. Handles 300 Watts PEP. 15 feet coax, PL-259.

## MFJ 5/8 Wave 2/6 Meter Magnet Mount Mobile



MFJ-1728B MFJ's 5/8 wave on 2 Meters give you \$29<sup>95</sup> the maximum possible theoretical gain of any single element mobile antenna, no matter how much others cost. On 6 Meters, the MFJ-1728B is a high performance full quarter wave antenna. It's an excellent companion for your MFJ-9406, MFJ-9606 or other 6 Meter mobile or handheld transceiver. Give you great "magic band" signals used mobile or as a base station antenna. It's perfect for your mobile or HT. Free BNC handheld adapter. It's rated at 300 Watts PEP. It's amplifier ready. Low SWR lets your transceiver deliver full power safely. A heavy duty magnet mount holds your antenna tight at highway speeds. You get 12 ft. of coax and a stainless steel radiator that'll endure years of harsh mobile use. Easy to take down with an allen wrench.

## Power\*Gain™ Dual Band 144/440 MHz Mobile



MFJ-1729 MFJ's Power\*Gain™ is ham radio's most \$34<sup>95</sup> powerful dual band magnet mount mobile antenna! Outstanding gain on 440 MHz and 2 Meters. Low SWR lets your rig deliver full power safely. Get a whopping 2.6 dB gain on 2 Meters and 6.3 dB gain on 440 MHz. Perfect for dual band mobiles or HTs. Free BNC adapter. Handles 300 Watts PEP. MFJ's exclusive 27 1/2 inch stainless steel SlimLine Radiator™ minimizes wind vibration for less SWR flutter giving you longer range and better readability. Includes 15 feet of coax with PL 259 Connector, heavy duty magnet mount. **New! MFJ-1723, \$34.95.** Similar to MFJ-1729, covers 220 MHz, 2.6dB gain. 22.5 inch radiator.

## MFJ Glass Mount Dual Band 144/440 Mobiles



**A** MFJ-1734 Dual Bander \$44<sup>95</sup> Glass mount dual band 144/440 MHz mobile. A 6 inch counterpoise mounted inside lowers SWR and makes tuning easy. Excellent gain on 440 MHz and 2 Meters. Low SWR lets your transceiver deliver full power safely. MFJ's Exclusive 26 inch stainless steel radiator minimizes wind vibration for less SWR flutter. Longer range and better readability. Handles 50 Watts. 12 Ft. tough coaxial line, cleaning pad and mounting hardware. **MFJ-1738, \$34.95.** Similar to MFJ-1734 but 2 Meter mobile glass mount antenna. **MFJ-94, \$4.95.** Remount Kit for Glass Mounts. Avoid factory tint placement.



## MFJ UltraLite™ Mag Mounts

MFJ-1721 Two Meters \$15<sup>95</sup> MFJ-1721, (left) is an UltraLite™ Mobile magnet mount antenna. 12 ft. RG-174U coax. 1/4 wave on 2-Meters. Weighs less than 2 oz. 1/8" rare earth magnet. Thin 20 inch flexible whip. BNC. MFJ-1722, (right) is similar to MFJ-1721, but dual Band UltraLite™. 5/8 Wave on 440 MHz. 1/4 Wave on 2 Meters. **New!** MFJ-1722S, similar to MFJ-1722 but has SMA.

## MFJ Mobile Antenna Ground Plane Kit



MFJ-1401 \$24<sup>95</sup> Ship Code B

**MFJ-1401** converts most mobile antennas into a ground plane base station antenna. 200 Watts. Accepts VHF/UHF mobile

antennas with PL-259 connector. Includes stainless steel mounting hardware, two hose clamps, allen wrench, and four 20.5 inch radials. Easy install on any 2" pipe with clamps or mounting holes.

## MFJ Handheld Antenna Window Mount



MFJ-310/MFJ-310S \$19<sup>95</sup> Ship Code A

This Handheld Antenna Window Mount gets your antenna *outside* where it can radiate freely -- takes away the auto shielding effect and gives increased signal strength and reception.

Use 144/440 MHz handheld radio with BNC or SMA connector.

**Includes** 10 feet of mini RG-58 coaxial line. The indoor portion of the mount safely rolls up inside your auto's window.

Your antenna is mounted outside where it can radiate freely and provide you with great performance! Order "S" for SMA.

## New SMA to BNC Adaptors



MFJ-7716, \$4.95 each. SMA female to BNC male adaptor.



MFJ-7718, \$4.95 each. SMA male to BNC female adaptor.



MFJ-7719, \$4.95 each. SMA male to SO-239 adaptor.

## MFJ-844 VHF/UHF SWR Mobile Power Meter



MFJ-844 MFJ-844 \$79<sup>95</sup> covers 144 and 440 MHz. Ship Code A Insertion loss is 0.3 dB or lower with 50 Ohm impedance. SO-239 connectors. Tiny size lets you put it just about anywhere in your operating position. 3.75Wx3H x1.25D inches.

**Handles** 200 Watts and measures SWR and Power in three power ranges: 15W, 60W, and 200W. A multi-colored white, orange, and black meter makes for easy reading. **Extra large**, highly visible meter. Die-cast metal, quality connectors for years of use.

## MFJ-916B HF/VHF/UHF Duplexer, handles 200 Watts



MFJ-916B This MFJ duplexer lets you use an HF or 2 Meter/440 MHz antenna with separate HF or 2 Meter and 440 MHz transceivers without a built-in duplexer. You can also use two dual band antennas with a dual band transceiver with only one RF output.

**Heavy duty** diecast enclosure houses low pass networks that separate/combine 144/440 MHz signals.

**Low loss** SO-239 connectors. Ports are 50 Ohms, unit handles 200 Watts PEP.

**MFJ-916BN, \$39.95.** Same as MFJ-916B, but has low loss type "N" connectors instead of SO-239.

916B, but has low loss type "N" connectors instead of SO-239.

# MFJ Programmable Screwdriver Antenna Controller

## 10 Memories ... Super Accurate ... AutoPark™ ... StallProtector™ ... Super bright LEDs



Tuning your mobile screwdriver antenna couldn't be easier or more reliable!

The MFJ-1924 lets you save 10 of your favorite screwdriver antenna positions in memory -- that's more than enough for all HF bands. Then, with a push of a button, you can quickly return to any saved position.

Up/Down buttons let you manually move the antenna to any desired position. A 4-digit turns counter gives you precise

MFJ-1924 antenna position -- you can see its *super bright LEDs* even in direct sunlight!

Returning to a position from memory is extremely accurate for three reasons ...

A. The antenna always moves to its desired position from the bottom, insuring that the motor is always loaded the same -- moving the antenna up is harder than moving it down. It's harder to walk up a hill than down a hill.

B. MFJ's exclusive *AutoPark™* feature automatically bottoms your antenna for parking in your garage and *resets and calibrates* your counter each time to eliminate antenna slippage and turns count errors.

C. The momentum of the moving antenna causes it to overshoot its stop point. MFJ's exclusive *Dead-OnSTOP™* feature automatically reverses the motor briefly just before it stops to eliminate overshoot and come to a precise stop.

MFJ's exclusive *StallProtector™* feature prevents your expensive motor from burning out. Automatically detects motor stall

and completely shuts off power to motor.

Motor current can be monitored on the LEDs to look for signs of trouble and to determine stall current.

If you wire the motor backwards, you can reverse its direction from the MFJ-1924 front panel so the UP button is always up and the DOWN button is always down.

Compatible with single and dual magnetic turns sensors. Requires 12 VDC. 3½Wx3¼Hx1¼D inches. Power, motor control and sensor lines included for connection to your screwdriver antenna.

### Automatic Screwdriver Antenna Controller for Icom Radios

MFJ-1926 is perfect for your Icom radio equipped with a CI-V interface.

Connect the controller to your Icom radio and the MFJ-1924 receives the frequency data and will automatically tune your screwdriver antenna. Has all features of the MFJ-1924. 3½Wx3¼Hx1¼D in.



MFJ-1926 screwdriver antenna. Has \$139.95 Ship Code A

MFJ-82, \$29.95. Magnetic sensor kit for High Sierra antennas to use MFJ-1924.

MFJ-83, \$9.95. Magnetic sensor kit for Hi-Q Antennas to use MFJ-1924.

## Use any rig with Yaesu ATAS Screwdriver Ant



MFJ-1925/12 MFJ lets you use the popular Yaesu ATAS series screwdriver antenna with Icom, Kenwood, Alinco radios, others.

MFJ-1925 I2 plugs directly into the Icom IC-706. Up/Down switch puts the Icom 706 in low power and tunes antenna.

Simple to install. No modification to radio/antenna needed. SO-239 connectors.

Order MFJ-1925 I2 for Icom 706. Order MFJ-1925 for Kenwood, Alinco and others.

## SWR/Power Meters and Intermod Fighters™



MFJ-840 \$19.95 Ship Code A

MFJ-840 accurately checks the power output of your 2-Meter HT into a 50-Ohm dummy load. Also checks battery charge. 5 Watts full scale. BNC connector. Compact 2Wx2¼Hx1½D inches can go with you anywhere.

MFJ-841, \$39.95. Ship Code A. This connects directly in-line between your HT and antenna. Reads SWR up to 6:1 and power output to a full 5 watts. A three-position toggle switch selects SWR, SWR set, or forward power. Compact 2Wx2¼Hx1½D inches.



MFJ-713 shown MFJ-713 \$59.95 Ship Code A For handhelds

MFJ-713 HT Intermod Fighter™. BNC connectors. Your rubber duck antenna sits on top of the MFJ-713. Uses 9 volt battery. To eliminate intermod, place MFJ-713 on your HT and attach HT antenna and turn it on. On/off switch, LED. RF-free. 2Wx2½Hx1½D".

MFJ-714 Mobile Intermod Fighter™ plugs between mobile rig and antenna coax. Has SO-239 connectors. Uses external 12 VDC for power. On/off switch, LED, power jack. RF-Free cabinet. Compact 2Wx2¼Hx1½D inches.

MFJ-714 \$59.95 Ship Code A For Mobiles



MFJ-1922 Tells you \$89.95 exactly where your antenna is positioned! Re-tune exactly -- fast, no more guessing. Super bright 40" high-intensity 4-digit LED display and precision micro-controller gives digital count range -999 to +999.

On/off/reset switch for easy calibration. 4Wx1½Hx2D inches. Use 13.8VDC.

MFJ-82, \$29.95. Magnetic sensor kit for High Sierra antennas to use MFJ-1922.

MFJ-83, \$9.95. Magnetic sensor kit for Hi-Q Antennas to use MFJ-1922.

## MFJ Classic HamGear™ Apparel



MFJ-6200, \$19.95. This MFJ waistpack is the perfect hamfest, DXpedition or field day hands-free carry-all. It has an amazing 9 spots to put your ham radio gear, tools, accessories, refreshments, etc.

MFJ-15, \$14.95. Durable HT pocket with elastic cord and velcro closure fits on your belt -- keeps radio secure.

MFJ-18, \$29.95. This MFJ Radio chest harness holds your handheld radio or cell phone snugly for no worries, hands-free operation. Great for rugged action use like DX peditions, field day, biking, hiking, hamfests, search & rescue, etc. Accessory pockets. One size fits all.



## Flashlight Tool set



MFJ-7224, \$9.95. Flashlight tool-box. 24 piece nut/screwdriver set.

## MFJ Coffee Mug



MFJ-9-102, \$3.95. Porcelain MFJ Coffee Mug, with other purchase.

## MFJ Gift Certificate

Call 1-800-647-1800. Any amount gift certificate can be purchased. Allow 2 weeks.

## RapidBattery™ Charger



MFJ-641 \$59.95 Ship Code A

This Rapid-Battery™ Charger has Quick/trickle charges for Ni-Cad/Ni-MH. Status LED, Quick/Trickle Auto-switch. 3½x5½x3 inches. One charger slot included. (I2) for BP-131/132; (I3) BP-173/180; (Y2) FNB-10/11/12/17/27; (Y3) FNB-31/33; (Y4) FNB-40/41/V47/V49; (K) Kenwood PB and KNB. Additional slots, \$9.95 each.



# MFJ *RuffRider*™ High Gain Mobile Antennas

Use any SO-239 or NMO mount. **FREE NMO adapter!**



A. B. C. D. E. F. G. H.

MFJ's *RuffRider*™ High Gain multi-banded mobile antenna series is for serious mobile hams demanding the highest quality products at reasonable prices. *RuffRiders*™ feature finest quality construction using precision machined components. *RuffRiders*™ battle the elements, handle rugged rides and day-to-day highway abuse. They have a PL-259 base mount for quick installation to your heavy duty SO-239 magnet, trunk/hatch, gutter or mirror mount. A free NMO adapter is included for use with an NMO mount. MFJ tri-magnet mount is recommended for big antennas.



Each MFJ *RuffRider*™ mobile antenna comes with MFJ's unique 90 degree "fold-over" feature -- lets you pull into your garage without knocking your antenna over! MFJ's heavy duty bases are extremely strong to handle super rugged rides and day-to-day highway abuse.

Choose from several different length and gain antennas . . .

- A. *RuffRider Junior*™.**  
Premium, short 16 1/2" antenna fits in any garage on MFJ-1402 \$34.95 any auto. 1/4 Wave on 2 Meters, 1/2 Wave, 3 dB gain on 440 MHz. 100 Watts. No fold-over.
- B. *RuffRider High Power*™.**  
Just 40" long handles full 200 Watts. Great for high power mobile amp. 1/2 Wave, 3 dB gain on 2 Meters, 3/8 Wave, 5.5 dB gain on 440 MHz.
- C. *RuffRider High Gain*™.** 41 1/2" long antenna gives extra gain with little height increase. MFJ-1422 \$49.95 Handles 150 W. 1/2 wave, 3.2 dB gain on 2 M, 3/4 Wave, 5.7 dB, 440 MHz.
- D. *RuffRider Hyper Gain*™.** 62 1/2" brute gives a whopping 5 dB gain on 7/8 Wave 2 Meters, 5/8 Wave, 7.6 dB gain on 440 MHz. Our highest gain dual band antenna. Handles 150 Watts. MFJ-1432 \$69.95 Ship Code B

- E. *RuffRider Triple Threat*™.** 59 inches of stacked elements with high-Q phasing coils give a whopping MFJ-1436 \$79.95 7.2 dB gain on 440 MHz, 4.5 dB on 2 Meters and 2.15 dB on 6 Meters. Handles 150 Watts. Ship Code B
- F. *NEW! Covers 220 MHz! RuffRider Triple Threat II*™.** Slim 38 inches, similar to MFJ-1436, but 2.15 dB on 2-Meters, 3.5 dB on 220 MHz, and 6 dB gain on 440 MHz. 100 Watts. MFJ-1434 \$79.95 Ship Code A
- G. *NEW! VHF/UHF & 10 Meters! RuffRider QuadBand*™.** MFJ-1438 \$99.95 52", 7.2 dB - 440 MHz, 4.5 dB - 144 and 2.15 dB on 6. Go HF with 10 Meters! 150 Watts. Ship Code B
- H. *New! Covers 40 through 6, Plus 144/440 MHz! Covers 40/20/15*** MFJ-1456 \$149.95 Covers 40/20/15 /10/6/2 Meters & 440 MHz! Use up to 4 coils at one time. See page 41 for more details. Tri-magnet mount recommended. Ship Code B

## MFJ super heavy duty *RuffRider*™ mobile antenna mounts

### MFJ Trunk/Hatchback Lip Mount

MFJ's *RuffRider*™ Mounts feature extra-wide four inch lip and large reinforcing tabs on each side safely distribute load over your vehicle's lip. 2 large set screws on each end locks your mount in place. A scratch proof rubber guard protects your vehicle's finish. Secures large VHF/UHF and medium size HF antennas. Adjustable angles. 10 ft. loss coax has PL-259 connector. Has Allen wrenches and weather protection caps.

MFJ-345S SO-239 \$34.95 Ship Code A  
MFJ-345T 3/8x24 \$39.95 Ship Code A

### Deluxe Trunk/Hatchback Lip Mount

This heavy-duty trunk/hatchback fold-over lip mount has a wide 3.3 inch lip and reinforcing tabs on each side to safely distribute the antenna load. Convenient thumb/finger lay-over knob lets you lay down your antenna to clear garages and low over-hangs -- several position detents in either direction. Scratch-proof foam guard protects your vehicles finish. 17 feet of coaxial line is terminated with PL-259 connector.

MFJ-348S SO-239 \$36.95 Ship Code A  
MFJ-348T 3/8x24 \$42.95 Ship Code B

### Mirror/Luggage Pipe Mounts

MFJ-342 \$9.95 Ship Code A  
MFJ-344 \$9.95 Ship Code A  
3/8 inch threaded HF antenna pipe /mirror mount fits MFJ's HF mobile *HamTennas*™ or any 3/8" style whips. Stainless steel clamps can mount to 1/4 or 1/2" pipe. SO-239 connector w/lock washer feeds coaxial line underneath 3/8 inch connector. MFJ-344 is similar to MFJ-342, but is vertical mount for 3/8 inch antennas.

### MFJ 5" Magnet Mount with coax

MFJ-335BS SO-239 \$21.95 Ship Code B  
MFJ-335BM NMO  
5-inch super strong black magnet mount with 17 feet of coaxial line terminated with PL-259 connector. SO-239 (BS) or NMO (BM) or 3/8 inch (BT). All are jet-black in color.

### MFJ 3" Magnet Mount with coax

MFJ-333BS SO-239 \$14.95 Ship Code A  
MFJ-333BM NMO  
3-inch black magnet mount with 17 feet coaxial line terminated with PL-259 connector. SO-239 (BS) or NMO (BM). **NMO-to-3/8x24 Adapter** Quality adapter lets you use an HF whip with an NMO style mount. MFJ-7707 \$9.95 Ship Code A

### Triple Magnet Mount

#### 3 super-strong 5-Inch Magnets

MFJ *Goliath*™ Tri-Magnet Mount has three super strong 5-inch magnets bolted to 1/4 inch triangular mount. 17 feet coax. **Caution:** once on, it's difficult to get it back off! Select SO-239, NMO or 3/8x24:

MFJ-336S SO-239 \$34.95 Each Ship Code C  
MFJ-336M NMO  
MFJ-336T 3/8x24

### MFJ HT Antenna Mag Mounts

MFJ-332S, \$15.95. HT Antenna Magnet Mount with SMA on each end. 12 ft. flexible RG-58AU coaxial line.  
MFJ-332B, \$15.95. HT Mount with BNC on each end.

### MFJ Mirror/Luggage Pipe Mount

MFJ *RuffRider*™ Mounts on support rod of mirror, luggage rack or spare tire carrier of your vehicle (up to 5/8 in. diameter). Secures large VHF/UHF and medium size HF antennas. 2 axis of rotation position your antenna to any desired angle. Serrated swivel joint locks secure with huge 3/8" set screw. Convenient thumb/finger turn knob. 10 foot coax with PL-259.

### MFJ GumDrop™ 3/8x24 Mount

*GumDrop*™ 3/8" antenna hard mount. MFJ-343 \$9.95 Ship Code A  
Tough, durable plastic, rubber seal protects vehicle finish.

### MFJ Hard Mount Coaxial Line

MFJ-341S/M SO-239 or NMO \$19.95 Ship Code A  
Hard mount coaxial line, 16.5 feet. SO-239(S) or NMO (M).

# MFJ 5/8 Wave Ground Plane

For an incredible \$29.95, you get a 300 Watt 5/8 Wave ground plane 2 Meter home station antenna. Other 5/8 wave ground planes can't work any better -- no matter how much they cost . . .



MFJ-1750  
\$29.95  
Ship Code B

**Look** at all you get at an incredible \$29.95!  
**You** get a 300 Watt 5/8 wave ground plane base antenna for 2 Meters that gives you the maximum possible calculated gain of any single element antenna.

**Other** 5/8 waves can't work any better -- no matter how much they cost.

**You** get *shunt fed matching network* for

lowest possible SWR over entire 2 Meter band. Plus, it bleeds off unwanted static.

**You** get MFJ's *RapidTuneRadiator™* for quick accurate tuning.

**You** get a ceramic insulator for low RF loss. Result? Maximum radiated power is achieved.

**Easy** installation to any 1 to 1½ inch mast, (not included) with a single U-bolt (included).

**You** get strong lightweight aluminum construction that's protected by MFJ's

*PermanentMolecularBonding Technology™*. This super durable finish actually bonds itself to aluminum molecules -- it won't come off unless metal comes off!

**You** get MFJ's famous *No Matter What™* one year limited warranty.

**Just** \$29.95 gets you the most incredible value in a 5/8 wave base station ground plane. Remember, other 5/8 wave ground planes can't work any better.

**MFJ-1750, \$29.95.** 2 Meter 5/8 Wave.  
**MFJ-1752, \$29.95.** 220 MHz 5/8 Wave.

## Dual Band 144/440 Ground Plane



MFJ-1754  
\$34.95  
Ship Code A

**MFJ's** dual band 144/440 ground plane antenna is small, lightweight and super easy to mount to any 1 to 1½ inch mast, (not included) with a single included U-bolt -- you'll have it up and operating anywhere in just minutes. Great for backpacking.

**Mount** it inside to get on-the-air quickly. You get extra long range on 440 MHz with a high gain halfwave over quarter wave antenna and solid 1/4 wave performance on 2 Meters.

**Ground** plane is sloped to give low SWR across both bands and to minimize feedline radiation. This gives you more useful radiated power, reduced TVI and noise pickup by the coax shield.

## MFJ Dual Band 144/440 MHz Yagi



MFJ-1760  
\$79.95  
Ship Code B

**MFJ-1760** gives a whopping 8 dBi gain on 2-Meters and 6 dBi gain on 440 MHz. Has 3-elements on two meters and 5-elements on 440 MHz. Requires only one feedline for *true* dual band performance. Point in direction of your QSO for more direction of your output power. This reduces interference and increases signal strength. Has 17 dB

front-to-back ratio on 2-Meters and 10 dB on 440 MHz. Handles 500 Watts. The longest element is 40.5 inches and the boom is 45 inches. Mast diameter is 1.5 inches. Weighs just 2 pounds.

## Improved 1/4 Wave Ground Plane



MFJ-1740  
\$24.95  
Ship Code A

**For** \$24.95, you get an *improved* 300 Watt 1/4 Wave Ground Plane for 2 Meters that'll bring up repeaters as well as or better than any 1/4 wave ground plane -- even if it costs twice as much.

**The improved** MFJ 1/4 wave ground plane minimizes feedline radiation for more useful radiated power, reduced TVI and noise pickup by the coax shield.

**You** get MFJ's *Fast-Tune-Radiator™* that makes tuning to your favorite part of the band a snap. U-bolt and mounting hardware included. Easy to install on 1½" mast. Can be cut for 220 or 440 MHz. A cutting chart is included.

## MFJ 7 element 144/440 MHz Yagi



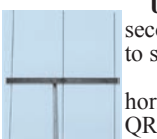
MFJ-1768  
\$89.95  
Ship Code C

**Get** 7 elements on 440 MHz and 4 elements on 2 Meters.

**Exclusive** dual band advanced feed with *FerriteChoke™* decoupling prevents pattern skewing-- gives low SWR. 1/4 inch diameter driver elements give wide bandwidth. *National Bureau of Standards* design is optimized for maximum gain, high front-to-back, clean symmetrical pattern. Mounts vertically for FM/Packet or horizontally for SSB with single included U-bolt on 1 to 1½ inch mast or tower leg.

**Includes** a 5 foot, 1½ inch diameter boom, antenna weighs in at 2 pounds. Elements are electrically isolated from boom.

## Portable 3-element 2-Meter beam



MFJ-1763  
\$49.95  
Ship Code B

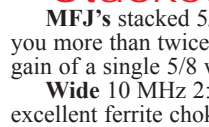
**Unique** design lets you set it up or take it down in seconds! Elements simply screw into the boom. Easy to store and sturdy enough to use as your base antenna.

**Center** mount it and use it vertically on FM or horizontally for SSB. By rotating it you can minimize QRM. You can also mount it vertically or horizontally on the leg of a tower . . . great for Packet and *PacketCluster™*.

**Compact** 2¾ foot boom gives you calculated gain within 1 dB of a four element Yagi with a boom nearly twice as long. Extra thick elements maintain high gain and directivity over virtually the whole 2-Meter band. Ferrite choke balun gives excellent feedline decoupling. Coax coupling is further reduced by mounting the SO-239 connector behind the reflector.

**Weighs** just 2 lbs. Boom is 30½x1¾x1¼ in. Mounts easily to mast or tower leg with single included U-bolt. Mast not included.

## Stacked 2-Meter 5/8 Wave



MFJ-1764  
\$54.95  
Ship Code B

**MFJ's** stacked 5/8 wave radiators give you more than twice the omni-directional gain of a single 5/8 wave radiator!

**Wide** 10 MHz 2:1 SWR bandwidth . . . excellent ferrite choke balun feedline decoupling . . . shunt choke for bleeding off unwanted static . . . strong lightweight aluminum.

**Works** as an excellent 6 Meter full half-wave centered antenna. Great for MFJ's 6 Meter radios! Mounts vertically for FM/packet or horizontally for SSB. U-bolt (included) to any 1 to 1½ inch mast or tower leg.

**MFJ-1766, \$119.95.** Gives you *four* times the gain of a single 5/8 wave. 2 MFJ-1764 antennas, phasing cables. Double gain on 6M.  
**MFJ-1765, \$34.95.** Includes phasing cables for two MFJ-1764s.

## MFJ Discone Antenna receives 25-1300 MHz, transmits 50-1300 MHz



MFJ-1868  
\$59.95  
Ship code C

**Ultra** wide-band antenna receives 25-1300 MHz. Perfect for scanners. Transmit 50-1300 MHz. Handles 200 Watts. Ideal for 6/21¼ Meters, 70/33/23 CM ham bands. Excellent for testing various transmitters on

single coax. Includes SO-239 connector, 50 feet coax, stainless steel elements and mounting hardware.



MFJ-1866  
\$39.95  
Ship code C

**Same** as MFJ-1868, but transmits from 144 to 1290 MHz. Coax and hardware is not included.

## MFJ Six Meter Antennas

MFJ-1762, \$89.95.  
6 Meter Yagi quadruples your effective radiated power over ½ wave

dipole. 6 foot boom, 3 elements, 2 pounds. Handles 300 Watts PEP SSB. Mounts vertically or horizontally. Great front-to-back ratio.

**MFJ-1756, \$89.95.** Omni-directional low-angle vertical radiator lets you work plenty of DX in all directions even with low power. 55" strong aluminum radiator. Ship code C.



# MFJ Pulsar™ Base/Repeater Antenna Series

MFJ's Pulsar™ Base/Repeater Antenna series is built to last! Heavy duty fiberglass radomes and overlapping shells add strength and stability. Stainless steel hardware and waterproof joints eliminate moisture and pollution. *Super high wind load resistance.*

**MFJ-1526 - \$149.95.** Pulsar ULTRA MightyGain™. Dual Band 144/440 MHz Base/Repeater Antenna. Our highest gain Pulsar™ antenna. Great 8.3 dB on 2 Meters and 11.7 dB on 440 MHz. 17 ft., shipped in two sections. SO-239 Connector, handles 200W.

**MFJ-1526N - \$149.95.** Same as MFJ-1526, has "N" connector.

**MFJ-1524 - \$119.95.** Pulsar Hyper MightyGain™. Dual Band 144/440 MHz Base/Repeater Antenna. You get high gain with little weight. Just 10 feet

tall. Features 6.5 dB gain on 2 Meters and 9 dB gain on 440 MHz. Shipped in two sections. SO-239 connector, handles 200 Watts. *All are ship code C.*

**MFJ-1522 - \$79.95.** Pulsar Economy Priced Dual Bander™ Base/Repeater Antenna. Only 5.5 ft. tall, but big on gain. Get 4.5 dB gain on 2 Meters and 7.2 dB gain on 440 MHz. Great for antenna restricted households and apartments. Easy to hide on Balcony or backyard. Great Price! SO-239 Connector. Handles 200 Watts.

**MFJ-1516 - \$99.95.** Pulsar VHF Base Station™. The ultimate 2 Meter Base/Repeater Station Antenna! Great 7.8 dB gain is perfect for dedicated repeater or home use. 15ft. shipped in three sections. SO-239 Connector. Handles 200 Watts.

**MFJ-1536 - \$119.95.** Pulsar VHF TriBander™. The Perfect Base/Repeater Antenna for VHF work. Covers 2 Meters, 6 Meters, and 440 MHz. You get 2 dB on 6 Meters, 6 dB gain on 2 Meters, and 8 dB gain on 440 MHz. Only 8.2 ft., shipped in two sections. SO-239 Connector. Handles 200Watts.

**Quadbander covers 220 MHz**

**MFJ-1538 - \$119.95.** Pulsar VHF Quad-Bander™. Like MFJ-1536, but covers 6M/144/220/440 MHz.

**MFJ-1532N - \$99.95.** Pulsar VHF/UHF and 1.2 GHz TriBander™ Base/Repeater Antenna. VHF operation plus exciting 1.2 GHz!! 4.5 dB gain on 2 Meters, 8.3 on 440 MHz, and a whopping 11.7 dB 1.2 GHz. 5 1/2 ft. Type "N" connector. Handles 200 Watts.

## MFJ HF Mobile HamTenna™ Whips

### Your Choice:

MFJ-1675T - 75 Meters  
MFJ-1640T - 40 Meters  
MFJ-1620T - 20 Meters  
MFJ-1617T - 17 Meters  
MFJ-1615T - 15 Meters  
MFJ-1610T - 10 Meters  
MFJ-1606T - 6 Meters

**\$1995 Each**

Ship Code B

Each is ruggedly constructed. A heavy duty 4 foot, 3/8 inch diameter fiberglass rod; a nearly indestructible .125 inch diameter PH-17-7 stainless steel whip and chrome plated brass fittings will give you years

of dependable service.

It's sleek, low profile construction has low wind loading and its semi-rigid fiberglass eliminates the need for springs or guys.

**Black** anti-static jacket protects the loading coil and blends with any vehicle. Stainless steel whip is adjustable for lowest SWR.

**Includes** allen wrench and complete tuning and matching instructions. Handles 250 Watts PEP.

**These** whips are about 7 feet tall fully extended, and they collapse to about 4 feet for easy storage.

**Simply** screws into any 3/8x24 female mount for quick band-changing.

Thin, sleek **base-loaded** 4 1/2 ft Mobile HF whips

**Efficient, base-loaded**

MFJ-2620T (20 Meters) \$2995

4 1/2 foot HF Whip Antenna is thin, sleek, and low profile with very low wind resistance.

MFJ-2640T (40 Meters)

Lightweight. A 3/8x24 trunk lip or 5-inch magnet mount holds it tight and secure. Handles 125 Watts. *Enjoy your road trip on HF!*

**Whip** collapses to 22 inches for easy parking or storage in trunk. Easy-on, easy-off 3/8x24 stud. Use as center loaded antenna with bottom mast to improve efficiency.

## HF mini-Bugcatcher

MFJ-1624 \$7995 Ship Code C

**Become** an "HF Mobileer" almost instantly with almost no effort! Have tons of fun rag-chewing and DXing on the HF bands. Turn boring drives into fun-filled ham adventures.

It only takes minutes to attach a trunk lip mount (MFJ-345T, \$39.95), mirror or luggage mount (MFJ-342, \$9.95) or tri-magnet mount (MFJ-336T, \$34.95).

**Screw** in your MFJ-1624 mini bugcatcher HF mobile antenna.

**Throw** your rig into your car, plug it in the cigarette lighter and turn the power down to 20 Watts or so (to avoid overloading your cigarette lighter; handles 300 Watts PEP).

**Operate** HF mobile and enjoy DXing!

**Bugcatcher** design uses large highly-efficient air-wound inductor --it will far out perform other compact HF mobile antennas.

**Exclusive built-in** inductive matching network keeps SWR low. 5 1/2 foot whip collapses to 2 1/2 feet for easy storage and garages. Base loaded for minimum wind load and stress. Change bands by moving "wander lead". 3/8 by 24 inch mount.

## HF/VHF/UHF Mobile

MFJ-1456 \$14995 Ship Code C

**This** new mobile antenna lets you operate all of your favorite HF/VHF/UHF bands as a base station antenna or great as a mobile.

MFJ-1456 HF Loading Coils

Covers 40/20/ 15/ 10/6/2 Meters/440 MHz with automatic bandswitching! Now you can DX and rag-chew just like the big boys with their fancy screwdriver antennas at almost three times less the cost! Use one or up to four loading coils for ultra low profile.

Adjustable whip for tuning. Handles 100 Watts. SO-239 connector quickly screws onto mirror, luggage or tri-magnet. Antenna is 75" with the tallest coil mounted vertically. Great for Icom-706 series. Tri-mag recommended.

### 3/8-24 Mount Dual Band Whip

**MFJ-1414** is a tall 58 1/2 in. It's a 3/8-24 Stud-Mount Dual Band Whip antenna with 2.15 dB gain on 2-Meters (1/2 wave) and 3.5 dB gain on 440 MHz. Handles 200 Watts. Sleek, stainless steel, heavy duty construction (no plastic coils to break). Lets you use just one mount for all of your HF/VHF/UHF antennas.

**New!** MFJ-1414 \$1995 Ship Code C

## 3/8x24 Antenna Mounts



**MFJ-336T, \$34.95.** Three strong 5" magnets, 17 ft coax.  
**MFJ-345T, \$39.95.** Trunk lip Mount, 3/8x24, 10 ft. coax, rubber guard.  
**MFJ-348T, \$42.95.** 3/8x24 deluxe trunk lip mount with extra-wide 3.3" lip, 17' coax.  
**MFJ-342, \$9.95.** Vertical 3/8x24 pipe mount for mirror or luggage rack.  
**MFJ-344, \$9.95.** Horizontal 3/8x 24 pipe mount for mirror or luggage rack.  
**MFJ-343, \$9.95.** Through-hole bumper, trunk mount, rubber seal, lock washer.

*See page 51 for more mount info.*

## Replacement HF Radio Handheld Microphones

MFJ now offers dynamic HF Radio replacement handheld microphones with 8 or 4 pin screw-on plugs.

**Extra** long cord is perfect to replace your old, beat-up Icom, Kenwood, Yaesu, Alinco, or TenTec microphones.

**Gives** PTT and quality mic audio. Heavy-duty construction. Specify MFJ-290K/Y/I/T for 8-pin round mic connector.

**Choose** MFJ-290K4/Y4/14/T4 for 4-pin round mic connector.



**New!** MFJ-290K/Y/I/T MFJ-290K4/Y4/14/T4 \$1995 Ship Code A

# HF Portable/Mobile Manual Screwdriver Antennas

**MFJ's new Manually Tuned Screwdriver Antennas lets you operate all bands between 80 and 6 Meters continuously including all WARC bands and the new 60 Meter bands (depends on model). It far outperforms other HF compact antennas.**

MFJ's new **Manually Tuned Screwdriver Antennas** let you operate *all bands* 80-6 Meters *continuously* including all WARC bands and the new 60 Meter bands (depends on model). It far outperforms other HF compact antennas.

An extra long 10 foot (19" collapsed) telescoping whip lets you really get out and work rare DX! A 4½ foot (23" collapsed) telescoping stainless steel whip is included for mobile and limited space operation.

It has a highly efficient loading inductor. For highest Q, the coil is wound with heavy gauge wire with wide spaced turns on a core that is mostly air.

A tuning sleeve electrically removes turns to eliminate detrimental self-resonance effects that "wander leads" cause. The tuning sleeve is on the low impedance side of the coil to minimize power robbing stray capacitance and detuning hand capacitance effects. Tuning is smooth, easy and sure -- the frequency stays put after you tune it. No tedious back & forth trial & error tuning procedure.

It's extremely rugged -- the whole coil assembly is one unit and does not move. A separate movable sleeve adjusts frequency. A nylon-tipped thumb-screw locks sleeve. Wing nut lets you connect a matching capacitor or inductor for 1:1 SWR. Standard 3/8x24 mounting hardware is used for loading coil and both whips. Use any 3/8x24 mount.

**Works** great in/outdoors. Handles 200Watts PEP. Add coax, connect ground/counterpoise and you're ready!

## Portable Manual Screwdriver Antennas

The MFJ-1661 (40-6 Meters) and the MFJ-1664 (80-6 Meters) are termed *Portable Antennas* because they cover their respective frequency ranges with the *long 10 foot* (19 inches collapsed) telescoping whip for fixed operation. They are smaller and lighter than the mobile versions.

A short 4½ foot (23 inches collapsed) telescoping whip is included for limited space or mobile operation.



MFJ-1661 Covers 40-2 Meters with 10 foot whip. Covers 6-20 Meters with 4 ½ foot whip. 12 inches long by 2 inches in diameter. Weighs one pound.

Portable Versions

New!

Covers 80-6 Meters with 10 foot whip. Covers 6-40 Meters 4½ foot whip. 24 inches long by 2 inches in diameter. Weighs just 1.8 pounds.



## Mobile Manual Screwdriver Antennas

The MFJ-1662 (40-6 Meters) and the MFJ-1668 (80-6 Meters) are termed *Mobile Antennas* because they cover their respective frequency ranges with the *short 4½ foot* (23 inches collapsed) mobile telescoping stainless steel whip. A 10 foot telescoping whip (19 inches collapsed) is included for *fixed* mobile operation only. It vastly increases efficiency when you are stopped at a hotel or rest stop, etc.



MFJ-1662 \$139<sup>95</sup> Covers 40-2 Meters

with 4½ foot *mobile* or 10 foot *fixed operation* telescoping whip.

Continuously adjustable loading coil is 15 inches long by 2 inches in diameter and weighs 1.3 pounds.

Mobile Versions

Covers 80-6 Meters with 4½ foot *mobile* or 10 foot *fixed operation* telescoping whip. Continuously adjustable loading coil is 36 inches long by 2 inches in diameter and weighs 2.6 pounds.



## 12/10/4.5 feet telescoping whips

12 and 10 Foot whips are durable 1/2 inch diameter plated brass. Standard 3/8 inch by 24 threaded stud for all standard mounts.

**Replace** screwdriver antenna whip for highly efficient *fixed* mobile operation.

**Telescopes** for full 1/4 wave operation 2 to 12/15 Meters. Cover 17, 20, 30, 40, 60, 80, 160 Meters with loading coil. Use two for multi-band dipoles.

**A. MFJ-1956, \$29.95.** Telescopic, 12 feet fully extended, 22.5 inches collapsed.

**B. MFJ-1954, \$22.95.** Telescopic, 10 feet fully extended, 19 inches collapsed.

**C. MFJ-1952, \$14.95.** Telescopic, 4.5 feet extended *stainless steel* whip. 22 inches collapsed. 3/8x24 threaded stud. Super durable for mobile or base operation.

## 108 and 72 inches stainless steel whips

**Solid** stainless steel 108 inch and 72 inch whips with corona discharge caps. Super durable whips for mobile screwdriver antennas. 3/8x24 threaded stud.

**D. MFJ-1966, \$24.95.** 108 inches.

**E. MFJ-1964, \$19.95.** 72 inches.

## MFJ Portable Antenna Tripods

MFJ-1918 \$49<sup>95</sup> Ship Code C

MFJ-1919 \$89<sup>95</sup> Ship Code D

Each have black *steel* base forms with strong braced equilateral triangles on a side. They have non-skid feet and strong base and mast locks. You can easily add a mount or mast extension for even greater heights.

**MFJ-1918, \$49.95,** holds 66 pounds of antenna steady and extends up to 6 feet. One inch diameter steel mast extends height to six feet. Strong base and mast locks. Collapses to 38 inches by 4 inch diameter. Weighs just 6¾ pounds.

### HEAVY DUTY TRIPOD!

**New! MFJ-1919, \$89.95,** holds 100 pounds of antenna steady and extends to a *whopping* 7.8 feet. Base extends to 693 inches squared. 1.4 inch diameter mast easily accepts most U-bolt antenna applications. Collapses to 38 inches by 4 inch diameter. 9¾ pounds.

## Ultimate Portable HF Vertical Antenna

MFJ-1964K \$54<sup>95</sup> Ship Code A

You get Phil Salas, AD5X "Ultimate Portable Antenna" article, from QST, 2005; a 2.5" diameter, 5-inch length coil; a ten foot telescopic whip antenna; six special silver plated tap clips for the coil, and a chassis mount SO-239 connector to build the antenna. The rest of the parts needed to build the antenna are described in AD5X' article. The antenna is a full quarter-wave on 20-10 Meters, and also works 60, 40 and 30 Meters.



# ← 33 Foot Telescoping Fiberglass Mast ← Collapses to 3.8 feet . . . Weighs 3.3 lbs.

- ← MFJ-1910 **Just** pull out each section and twist \$79<sup>95</sup> to lock. It extends to a whopping 33 feet -- a full quarter wave on 40 Ship Code D Meters! It collapses to just 3.8 feet and weighs a light 3.3 pounds for true portability. Bottom section is large 1 3/4-inch diameter. **Super** strong fiberglass flexes to resist breaking. Black resists UV.
- ← **Great** for portable, temporary use and semi-permanent use -- traveling, camping, from hotels, hamfests, field day, DX-peditions.
- ← **Put** up a full size inverted Vee, dipole or vertical antenna in minutes and get full size performance.
- ← **Use** to construct other types of antennas like loops, quads, rotatable dipoles even beams.

## True 1:1 Current Balun/Center Insulator



MFJ-918 **True 1:1 Current Balun/Center Insulator** forces equal antenna currents in dipoles for superior performance. **Reduces** coax feedline radiation and field pattern distortion -- your signal goes where you want it. **Reduces** TVI, RFI and RF hot spots in your shack. *Don't build a dipole without one!* 50 hi-permeability ferrite beads on high quality RG-303 Teflon<sup>®</sup> coax and Teflon<sup>®</sup> coax connector. **Handles** full 1.5kW 1.8-30 MHz. Stainless steel hardware with *direct* 14 gauge stranded copper wire connection to antenna. 5x2 inches. Heavy duty weather housing.

## MFJ-915 RF Isolator



MFJ-915 **MFJ-915 RF Isolator** prevents unwanted RF from traveling on the outside of your coax shield into your transceiver. This unwanted stray RF can cause painful RF "bites" when you touch your microphone or volume control, cause your display or settings to go crazy, lock up your transceiver or turn off your power supply. In mobile installations, stray RF could cause your car to do funny things even blow your car computer. Clear up these problems, plug an MFJ-915 between your antenna and transceiver. 5x2 inches. Handles 1.5 kW. Covers 1.8-30 MHz.

## True 4:1 Current Balun/Center Insulators



MFJ-913 **The MFJ-913/MFJ-919 are true current baluns/antenna center insulators** that transforms 200 ohms to 50 ohms. Transmission Line Transformer construction using 100 ohm characteristic impedance transmission line gives flat 160-10 Meter response. Large low permeability ferrite cores easily handle full power. SO-239, stainless steel hardware with direct 14 gauge stranded copper wire connection to antenna. Heavy duty weather housing. **MFJ-913, \$29.95.** Handles 300 Watts. 4 1/4" Hx2" dia. **MFJ-919, \$59.95.** Handles 1500 Watts. \$59<sup>95</sup> Sturdy, cube shaped housing measures 3 1/2"Wx3 1/4"Hx2 1/2"D inches. Ship Code A

## MFJ W9INN Balun Box

MFJ-912 \$59<sup>95</sup> Ship Code B

**Converts** unbalanced coax line to balanced ladder transmission line. *Giant* 2-core 4:1 balun wound with Teflon<sup>®</sup> wire. 3 1/2"x2 1/4"x7 in. Heavy duty ceramic feed-thru insulators. 1500 Watts full legal limit. SO-239. Ground post, mounting holes.



## Switchable 1:1 or 4:1 Current Balun/Unun

**Switchable. New!** MFJ-911H 1:1 or 4:1 current balun/unun. This \$29<sup>95</sup> transmission line transformer uses low-permeability ferrite cores to give amazingly flat response 1.8-30 MHz. Transforms 200 or 50 ohm balanced or unbalanced loads to 50 ohms. Change balanced to unbalanced with ground post. 300 Watts. 2 1/2"Wx4 3/4"Hx1D inches. Ship Code A



## True 4:1 Current Balun/Unun

**True 4:1** MFJ-911 current balun/unun \$19<sup>95</sup> transforms 200 ohm balanced and unbalanced loads to 50 ohms. True transmission line transformer gives an amazingly flat response 1.8-30 MHz. Two low-permeability ferrite cores easily handles 300 watts. Change balanced to unbalanced with ground post. Compact 2 1/2"Wx4 3/4"Hx1D inches. Ship Code A



## MFJ 10-40M Portable Antenna

**DXCC, WAZ, WAC, WAS won with MFJ-1621!** MFJ-1621 lets you operate anywhere -- apartment, campsite, resort hotel, even at the beach. **Work** 40-10 Meters using included 54-inch telescoping whip antenna. The antenna is mounted on a sturdy, self-standing 6x3x6 inch cabinet. Features a *built-in* antenna tuner, field strength meter, 50 feet of RG-58 coax. Handles 200 Watts PEP SSB. **MFJ-1621** is a complete portable multi-band antenna system -- use it in practically any location. The whip has a 3/8x24 threaded connector to disengage easily and collapses to 22-inches for easy portability.

**Just** place in any electrically clear location, set the bandswitch, tune the capacitor for maximum field strength and sit back, relax, and operate!



## Whip Tuner/Artificial Ground gives instant 80-10M, 150 Watt Antenna



**Just** add short whip and counterpoise wire and *instantly* get an effective portable 150 Watt all band 3.5-30 MHz antenna. **MFJ-1644** \$149<sup>95</sup> Ship Code B **It's** effective, compact and simple to use for portable, fixed station and emergencies. **High** power, hi-Q 3-core variable loading coil efficiently resonates short whip or random wire. Identical inductor tunes counterpoise. Operates 30-10 Meters with included 4 1/2 foot telescoping whip antenna and counterpoise assembly. **Add** longer whip/random wire and external loading coil for more efficient operation especially on

80-30M. 12 foot whip, hamstick, Hustler antennas all work great. **Tune** for low SWR with built-in reversible L-network. *Current balun* decouples radiating elements. **Tune** for maximum current on *RF Current Meter* to give you maximum radiated power and minimum SWR. Sensitivity control lets you use QRP to 150 Watts QRO. **Ultra** low capacitance fiberglass antenna/counterpoise insulator minimizes shunting antenna current to ground for maximum radiated power. **Standard** 3/8x24 female connector for whip antennas and wing-nut for counterpoise. SO-239. 7 1/4"Wx2 1/4"Hx2 1/2"D in. **MFJ-1642, \$119.95.** Like MFJ-1644 but less *RF Current Meter.*



# MFJ Antennas for Restricted Areas

## MFJ's Super High-Q Loop™ Antennas



MFJ's tiny 36 inch diameter loop antenna lets you operate 10 through 30 MHz continuously --

ly tune to your exact frequency. All welded construction, no mechanical joints, welded butterfly capacitor with no rotating contacts, large 1.050 inch diameter round radiator -- not a lossy thin flat-strip -- gives you highest possible efficiency.

Each plate in MFJ's tuning capacitor is welded for low loss and polished to prevent high voltage arcing, welded to the radiator, has nylon bearing, anti-backlash mechanism, limit switches, continuous no-step DC motor -- gives smooth precision tuning.

Heavy duty thick ABS plastic housing has ultraviolet inhibitor protection.

**MFJ-1788, \$449.95.** Same as MFJ-1786 but covers 40 - 15 Meters continuously. Includes super remote control.

**MFJ-1782, \$359.95.** Like MFJ-1786 but fast, slow tune button control.



**MFJ-1780, \$269.95.** This Box Fan Portable Loop is about the same size (2x2 foot) as a box fan, complete with handle. Covers 14-30 MHz. Remote Control box has fast/slow tunes.

including the WARC bands!

**Ideal** for limited space -- apartments, small lots, motor homes, attics, or mobile homes. Enjoy both DX and local contacts mounted vertically. Get both low angle radiation for excellent DX and high angle radiation for local, close-in contacts. Handles 150 watts.

**Super** easy-to-use! Only MFJ's super remote control has *Auto Band Selection™*. It auto tunes to desired band, then beeps to let you know. No control cable is needed. Fast/slow tune buttons and built-in two range Cross-Needle SWR/Wattmeter lets you quick-

## MFJ Vertical for Antenna Restricted Areas

40, 20, 15, 10 Meters, Automatic BandSwitching

Perfect for permanent or portable operation in antenna restricted areas.



WARC Band Version Now Available!

MFJ-1795 \$159.95 Ship Code E  
Hide behind trees, fences, buildings, in bushes -- only 7 to 10 feet tall (adjustable).

**Low** angle of radiation for DXing, omnidirectional, handles 1500 watts PEP.

**Highly** efficient end-loading. Entire length radiates. Low SWR.

**Ground** mounts with suitable ground such as MFJ-1904 Ground-Coupled Antenna Base, radials or ground rods. Roof mount with radials.

**MFJ-1795W, \$159.95.** WARC band version for 12, 17, 30, 60 Meters only.

**MFJ-1904 P95, \$229.00.** MFJ-1904 with MFJ-1795 Combination. *Saves \$30.90!*

**MFJ-1904HG18, \$184.90.** MFJ-1904 with AV-18VS. *Saves \$15!* See page 67.

## Portable Antenna Base

MFJ-1904 \$99.95 Ship Code E



Shown with multi-band Hy-Gain antenna and mount, (not included).

**The MFJ Ground-Coupled Portable Antenna Base™** gives you a stable way to mount your vertical antenna and provides an effective ground by just plopping down the base and standing on it to push the legs firmly into the ground. It'll support many multi-band verticals.

It's perfect for traveling or for semi-permanent summer/winter homes. You can easily set it up and take down your vertical antenna for stealth operation if you live in an antenna-restricted area.

**The MFJ-1904 Ground-Coupled Portable Antenna Base™** is a 2x2 foot stainless steel square with reinforcing bends that greatly strengthens it. There is a folded and tapered six-inch stainless steel leg on each corner.

**Two** antenna mounts let you use a variety of vertical antennas.

## MFJ Apartment Antenna

Covers 40 thru 2 Meters . . . Mounts outdoor to windows, balconies, railings . . . works great indoors mounted to desks, tables, bookshelves



MFJ-1622 \$99.95 Ship Code C

**MFJ-1622** Apartment Antenna lets you operate 40 through 10 Meters on HF and 6/2 Meters on VHF with a single antenna! Its universal mount/clamp lets you easily

attach it to window frames, balconies and railings. It also works great indoors mounted to a desk, table or bookshelf. It's not a 5-element yagi, but you'll work your share of exciting DX!

**Highly** efficient air wound "bug catcher" loading coil and telescoping 5 1/2 foot radiator lets you really get out! Radiator collapses to 2 1/2 feet for easy storage and carrying.

It includes coax RF choke balun, coax feed line, counterpoise wire and safety rope.

The operating frequency is adjusted by moving the "wander lead" on the coil and adjusting the counterpoise for best SWR.

## 80-6 Meter Window/Balcony Antenna, built-in Tuner

**Complete** antenna system mounts on window frames, balconies, and railings. Perfect for apartment dwellers. Covers 80-6 Meters. Includes universal mount/clamp, built-in antenna tuner with RF isolator, long 12 foot telescoping whip (22.5 inches collapsed), high efficiency loading coil for 40/80 Meters, counterpoise wires, and safety rope. Handles 200 Watts. **MFJ-1623, \$179.95.** Like MFJ-1625, but covers 6 through 30 Meters.



MFJ-1625 \$199.95 Ship Code C

**Two** handles make carrying and removing the base fast and easy.

**You** can also attach radials for improved performance.

**Stainless steel** construction means you'll get trouble-free service for years.

The base is anchored into the ground by stepping on each corner and forcing each leg into the ground. Each stainless steel leg is designed to keep the base from tilting.

The base can support a lightweight multi-band vertical antenna -- like the all band Hy-Gain 18AVS and the bandswitching MFJ-1795 -- and provide a semi-permanent installation. You can even hide the base by covering it with dirt.

**Built-in** antenna mount with SO-239 coax connector and two U-bolts lets you mount most standard and homebrew vertical antennas.

**Standard** 3/8-inch x 24 mobile antenna mount built-in for MFJ Mobile Whips, bug catchers, Hustlers and screwdriver antennas.



# MFJ All-Band G5RV Antennas

Operate all bands through 10 Meters, even 160 Meters, with a single wire antenna!



MFJ-1778 *The famous G5RV antenna is the most popular ham radio antenna in the world!* You hear strong signals from G5RVs day and night, 24/7.

And it's no wonder . . . it's an efficient, all band antenna that's only 102 feet long - shorter than an 80 Meter dipole. Has 32.5 foot ladder line matching section ending in

SO-239 connector for your coax feedline. Use as Inverted Vee or Sloper, and it's even more compact and needs just one support.

With an antenna tuner, you can operate all bands 80 Meters through 10 Meters and even 160 Meters with an antenna tuner and a ground.

MFJ's fully assembled G5RV handles 1500 Watts. *Hang and Play™* -- add coax, some rope to hang and you're on the air!

**MFJ-1778M, \$34.95.** Half-size, 52 foot *G5RV JUNIOR* covers 40-10 Meters with tuner. Handles 1500 Watts.

## MFJ All Band Doublet

MFJ-1777 is a 102 foot all band doublet antenna that covers 160 through 6 Meters with a balanced line tuner. Super strong custom fiberglass center insulator provides stress relief for ladder line (100 ft. included). Authentic *glazed ceramic* end insulators. Handles 1500 Watts.



MFJ-1777 \$49.95 Ship Code B

## MFJ Single Band Dipole Antennas



MFJ-1779A \$59.95 265 ft., 160M Ship Code C

MFJ-1779B \$39.95 135 ft., 80-40M Ship Code C

MFJ-1779C \$29.95 35 ft., 20-6M Ship Code C

Ultra high quality center fed dipoles will give you trouble-free operation for years. Custom injection-molded UV-resistant center insulator has built-in coax connector and hanging hole. Heavy duty 7-strand, 14-gauge hard copper antenna wire. Extremely strong solderless crimped construction. Authentic *glazed ceramic* end insulators. Use as horizontal or sloping dipole or inverted vee. Handles full 1500 Watts. Simply cut to length for your favorite frequency with cutting chart.

## Dual Band 80/40 Meter and 40/20 Meter Dipole Antennas



MFJ-17758 \$79.95 Ship Code C

MFJ-17754 \$59.95 Ship Code C

**MFJ-17758, \$79.95.** Short 85 foot long *dual band* 80/40 Meter dipole antenna is *full-size* on 40 Meters and has ultra-efficient end-loading on 80 Meters. Handles 1500 Watts. Super-strong injection-molded center insulator with built-in SO-239 connector and hang hole. Solderless, crimped construction. 7-strand, #14 gauge hard copper antenna wire. Connect your coax feedline directly, no tuner needed.

**MFJ-17754, \$59.95.** Short coax fed 42 foot long *dual band* 40/20 Meter dipole antenna. *Full-size* on 20 Meters, ultra-efficient end-loading on 40 Meters. Same construction as MFJ-17758. Coax not included.

## 80 Meter End-Fed Zepp

High performance, no compromise **MFJ-1748 \$69.95** Ship Code B  
*End-fed Zepp.* Use when center feed is not possible or desirable. 125 feet long, includes 100 foot ladder line. Strong fiberglass insulator provides ladder line stress relief. *Glazed ceramic* end insulator. 1500 Watts. Requires balanced line antenna tuner or tuner/balun.



## 20 Meter Extended Double Zepp

90 foot long, 20 Meter *Extended Double Zepp.* Whopping 3 dB gain doubles your power! 80-10 Meters with tuner. 100 foot ladder line, *glazed ceramic* end insulators, ladder line stress relieving fiberglass center insulator, 7-strand, #14 gauge hard copper wire. 1500 Watts. Requires balanced line tuner or tuner/balun.



MFJ-1742 \$79.95 Ship Code B

## Folded Dipole Antennas for Your Portable Station

Single band, light-weight, folded dipoles. Low SWR, direct coax feed, 200 Watts. **MFJ-1774** (40 Meters), **MFJ-1773** (30M), **MFJ-1772** (20M), **MFJ-1771** (17M), **MFJ-1770** (15M), **MFJ-1770A** (10M).



\$39.95 each! Perfect for MFJ Rigs!

## MFJ Dipole Antennas -- the biggest signal for your money!

Wire Dipoles and their variations are the most popular antennas in the world! They are hard to beat -- they give you the biggest signal for your money, take little room, are easy and simple to put up and need only two or even one support. Hang as a horizontal doublet, inverted vee or sloper. MFJ 1500 Watt dipoles use super-strong solderless, crimped construction, custom fiberglass or UV-resistance, injection-molded center insulator/coax connector, glazed ceramic end insulators, 7-strand, #14 gauge hard copper wire. Handles 1500 Watts. Some MFJ dipoles require a tuner/balun.



**Center Insulator** -- fiberglass, ladder line stress-relief, hang hole, wire tie points, strong solderless, crimped. **MFJ-16D01, \$8.95.**



**Center Insulator** -- injection molded, UV resistant, built-in SO-239 connector, hang hole, super strong, wire tie points. **MFJ-16B01, \$19.95.**



**End Insulator** -- authentic *glazed ceramic*, super strong, high-voltage ridges, smooth wire holes. **MFJ-16C01, 79 cents each.**



**450 Ohm Ladder Line Feedpoint End Insulator** -- super strong fiberglass, double weave ladder line stress relief, SO-239 connector. **MFJ-16E01, \$9.95.**



**Copper Antenna Wire** -- Flexible 7-strand, #14 gauge hard copper wire. **MFJ-18G100, 100 ft, \$11.95**  
**MFJ-18G250, 250 ft, \$27.95**

# MFJ Hang & Play™ Collinear Array Antennas

2-elements, 2 dB gain . . . 4-elements, 4.5 dB gain . . . Handle 1500 Watts . . . Very Quiet . . .

## When Radio was King . . .

MFJ reached back into time when radio was king and brought back to life some of the most popular, classic antennas that gave the most powerful signals.

These classic high-performance antennas give you a powerful, booming signal and needs just two trees to hang and play!

We have updated them with stronger, more durable modern materials, adapted some to simple, direct coax feed and made them hang and play.

## Two and Four Element Arrays

These MFJ-62XX single band two half-wave element collinear array gives you nearly 2 dB gain -- about 150% power gain -- and twice the receiving capture area of a half-wave dipole. They have direct coax feed and low SWR across the entire band.

The MFJ-64XX four half-wave element collinear array gives you a whopping 4.5 dB gain -- about 300% power gain. You get

four times the receiving capture area of a half-wave dipole -- you'll hear DX you've never heard before! They require a balanced line tuner or a tuner with balun.

## Hang and Play™!

You can virtually hang and play™ when you receive them. No cutting, soldering, tuning, or trimming is required. Just follow the easy installation instructions and you'll be up and running in no time!

They are completely assembled and include super strong custom fiberglass center insulators, authentic glazed ceramic end insulators, heavy duty 7-strand, 14 gauge hard copper element wire and extremely strong, solderless, crimped construction.

## DX the World!

With larger capture area and power gain, you'll hear & work more DX than ever before!

## Worldwide Coverage

A pair of these antennas at right angles can provide worldwide coverage. These arrays radiate bi-directional perpendicular

to the wire and handle full 1500 Watts.

Several single band antennas can provide excellent frequency coverage and gain without towers and rotary beams.

## These Antennas are Quiet!

Their directional properties and polarization reduce noise up to two to three S-units below verticals and inverted vees.

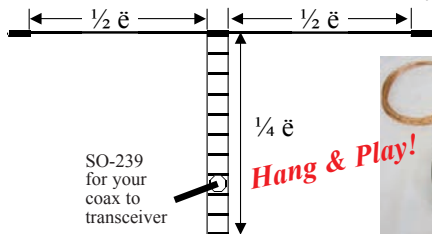
## Simple Installation

These antennas work well even at a 1/4 wavelength above ground, but perform best at 1/2 to 3/4 wavelength above ground. They should be mounted horizontally and pulled tight. Lengths are 55 to 136 feet horizontally.

The feedline and stub simply hangs from the antenna and can be bent at the bottom or pulled away at an angle to make installation convenient. Some twisting of the feedline or stub is okay.

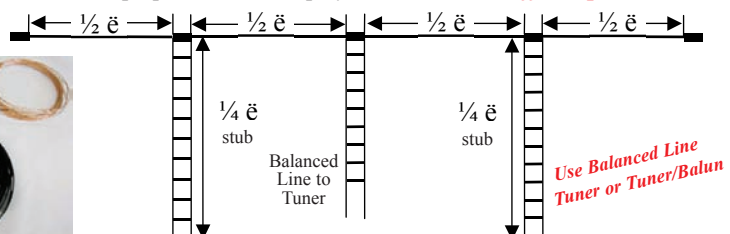
## Free Manuals

Download free instruction manuals and see how easy it is to use these hang and play antennas! [www.mfjenterprises.com](http://www.mfjenterprises.com)



2-Element Collinear Array, 4 models

- MFJ-6215, \$39.95. 15 Meter, 46' hor., 23' vert. stub.
  - MFJ-6217, \$44.95. 17-Meter, 55' hor., 14' vert. stub.
  - MFJ-6220, \$44.95. 20-Meter, 70' hor., 18' vert. stub.
  - MFJ-6230, \$49.95. 30-Meter, 97' hor., 24' vert. stub.
  - MFJ-6240, \$59.95. 40-Meter, 136' hor., 34' vert. stub.
- Coax feedline is not included. All are Ship Code B.



4-Element Collinear Array, 3 models

- MFJ-6415, \$94.95. 15-Meter, 55 feet horizontal, 12 feet vertical stub.
  - MFJ-6417, \$99.95. 17-Meter, 70 feet horizontal, 14 feet vertical stub.
  - MFJ-6420, \$109.95. 20-Meter, 97 feet horizontal, 18 feet vertical stub.
- Each includes 100 feet of 450 Ohm ladder line for connection to your tuner. All are Ship Code B.

# MFJ Hang & Play™ End-Fed Zepp Antennas

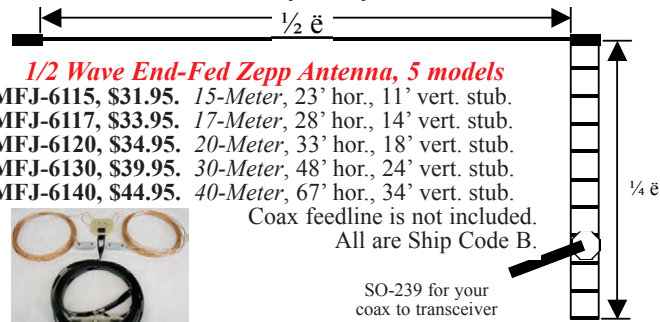
Direct coax feed . . . Handles 1500 Watts . . . Low SWR . . . Heavy Duty construction

When an end-fed antenna is desirable or when a center-fed antenna is not possible or convenient, these hang and play™ end-fed Zepp antennas provide excellent no-compromise performance.

The MFJ end-fed Zepp is a completely assembled single band half-wave antenna. It's designed for direct coax feed and handles a full 1500 Watts legal limit with low SWR.

Hang and Play! Just follow the easy installation instructions -- no cutting, soldering, tuning, or trimming.

They radiate in a wide broadside pattern. Feedline/stub can be "bent" at the bottom, pulled away at an angle. Super-strong fiberglass feed point insulator, glazed ceramic insulator, heavy-duty 7-strand, 14 gauge hard copper wire, extremely strong solderless crimped-construction. Super-strong custom fiberglass SO-239 mount provides stress-relief for the ladder line.



1/2 Wave End-Fed Zepp Antenna, 5 models

- MFJ-6115, \$31.95. 15-Meter, 23' hor., 11' vert. stub.
- MFJ-6117, \$33.95. 17-Meter, 28' hor., 14' vert. stub.
- MFJ-6120, \$34.95. 20-Meter, 33' hor., 18' vert. stub.
- MFJ-6130, \$39.95. 30-Meter, 48' hor., 24' vert. stub.
- MFJ-6140, \$44.95. 40-Meter, 67' hor., 34' vert. stub.

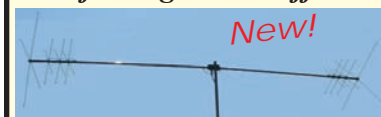
Coax feedline is not included. All are Ship Code B.

SO-239 for your coax to transceiver



# MFJ-1785 80/40/20 Meter Rotatable Dipole

A full legal limit efficient 80, 40, and 20-meter antenna that is shorter than a 20-meter dipole...



MFJ-1785 \$359.95  
Ship Code E

gation of the low bands during the low sunspot cycle.

This rotatable dipole lets you focus your signal in the direction you want so you can work some real DX! Small, low profile, inconspicuous.

The entire antenna length is used on all three bands. The MFJ-1785 is constructed of 6063 T-6 aircraft strength aluminum

tubing with a solid center fiberglass insulator and handles 1500 Watts SSB/CW.

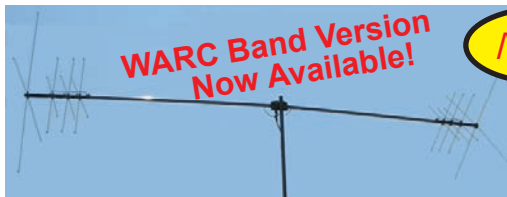
The 80 and 40 meter end-loading coils are wound on fiberglass forms with Teflon™ wire, and resonated with capacitance hats to ensure an extremely low-loss structure.

Balun included! 33 feet wide. Requires a medium-duty rotator such as Hy-gain's AR-40 -- See page 69 for more details.



## 1/2 Wave, 6-Band Rotatable Mini-Dipole

Low profile 14 feet...7 ft. turning radius... 40, 20, 15, 10, 6, 2 Meters  
...1500 Watts... Directivity focuses signal, reduces QRM/noise...



**WARC Band Version  
Now Available!**

**New!**

MFJ-1775  
\$239<sup>95</sup>  
Ship Code D

Features automatic band switching and uses highly efficient end-loading with its entire length always radiating. With 6 and 2

You can hardly see this mini 14 foot rotatable dipole across the street!

Its tiny 7-foot turning radius fits on the smallest roof -- it's perfect for town houses, apartments and condos.

The MFJ-1775 is inconspicuous and low profile -- not much bigger than a TV antenna and can easily be turned by a lightweight TV rotator (see AR-35, page 63).

It's no Wimp! Its directivity reduces QRM/noise and lets you focus your signal in the direction that you want -- so you can work some real DX.

You can operate 6 bands -- 40, 20, 15, 10, 6 and 2 meters -- and run full 1500 Watts SSB/CW on all HF bands!

Meters thrown-in, you have ham radio's most versatile rotatable dipole!

Each HF band uses a separate, efficient end-loading coil wound on fiberglass forms with Teflon™ wire, and capacitance hats at each end (no lossy traps). 6 and 2 meters are full-length halfwave dipoles.

Built-to-last -- incredibly strong solid rod fiberglass center insulator and 6063 T-6 aircraft strength aluminum tubing radiator. Assembles in an afternoon. Adjusting one band has little effect on other bands.

**MFJ-1775W, \$239.95.** WARC band version for 12, 17, 30, 60 Meters only.

## Antenna Feedthrough Panel

Weather-proof window feedthrough panel brings three coax-fed HF/VHF/ UHF antennas, balanced line, random wire and ground into your hamshack without drilling through walls... **New!**



Indoor View



Outdoor View



Stainless Steel Bonding Plate

MFJ-4602  
\$59<sup>95</sup>  
Ship Code D

MFJ's Weather-proof Antenna Feedthrough Panel mounts in your window sill. Lets you feed three coax-fed antennas, balanced line, random wire and ground without drilling through walls.

Simply place in window sill and close window. One cut customizes it for any window up to 48 inches. Use horizontally or vertically. High-quality pressure-treated wood with excellent 3/4 inch thick insulating properties is painted with a heavy coat of white outdoor enamel paint. Edges sealed by weather-stripping. Seals and insulates against all weather conditions. Gives years of trouble-free service. 3/4Dx3 1/2Hx48W inches.

Inside/outside stainless steel plates bond all coax shields to ground. Stainless steel ground post brings outside ground connection inside. Three Teflon® SO-239 coax connectors, ceramic balanced line/randomwire feedthru insulators.



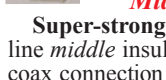
**Coax Center Insulator**  
Built-in SO-239 connector, super strong, UV resistant, custom injection molded, hang hole for inverted vees, wire tie points, light-weight.  
**MFJ-16B01, \$19.95.**



**Ladder Line Center Insulator**  
Super strong fiberglass, 450 Ohm ladder line center insulator. Double weave ladder line stress-relief. Strong wire tie points. Hang hole for inverted vees.  
**MFJ-16D01, \$8.95.**



**Ladder Line Feedpoint End Insulator**  
Super strong fiberglass, 450 Ohm ladder line end insulator. Double weave ladder line stress relief. Built-in SO-239 connector.  
**MFJ-16E01, \$9.95.**



**Ladder Line Feedpoint Middle Insulator**  
Super-strong fiberglass ladder line middle insulator. High-strength coax connection at midpoint. Has SO-239 connector, quadruple weave-through ladder line stress relief.  
**MFJ-16F01, \$8.95.**

## MFJ Glazed Ceramic Insulator

MFJ-16C01 MFJ-16C06  
**79¢** \$4<sup>56</sup>  
each 6-Pack  
Ship Code A Ship Code A



**Authentic glazed ceramic antenna insulator.**

**Extra-strong** -- will not break with long antennas and will not arc over or melt even under full legal power.

**Molded ridges** give extra-long path to prevent high-voltage breakdown.

**Smooth wire holes** prevent wire damage.

**Use as center or end insulator** for dipoles, doublets, G5RVs, guy wires, vees.

## MFJ 2.4 GHz, 15 dBi, 16-element WiFi Yagi Antenna



MFJ-1800  
\$29<sup>95</sup>  
Ship Code A

15 dB, 16-element WiFi Yagi antenna greatly extends range of 802.11b/g WiFi signals 32 times over an isotropic radiator.

**Turns** unusable or slow WiFi into solid, fast connection. Highly directional -- minimizes interfering signals. Works with any 802.11b/g or 2.4 GHz device.

**Unique** mount has built-in standard N-type female connector and screw mount for standard tripod. Rear holes for wall mount-

ing and bottom holes for desk or shelf mounting. Use it vertically/horizontally. Precision punched aluminum antenna. 18Wx 2 3/4H x 1 1/4D in. 2.9 ounces.



**WiFi Antenna-to-Computer Cable**  
**MFJ-5606SR, \$24.95.**

Connects MFJ-1800 and other WiFi antennas to computer, reverse SMA male to N-male, 6 ft. RG-174.

**MFJ-5606TR, \$24.95.** Same as MFJ-5606SR but reverse TNC male to N-male.



## Compression Ceramic Insulators



MFJ-17A01 \$2<sup>05</sup> each  
MFJ-17B01 \$4<sup>19</sup> each  
MFJ-17C01 \$6<sup>25</sup> each

Model	Wire	Hole	Length	Diam.
17A01	3/16"	5/16"	2-5/16"	1-3/8"
17B01	1/4"	5/8"	3 1/2"	2-1/2"
17C01	5/16"	3/4"	4 1/2"	2-7/8"

## Ladder Line, Twin Lead, Copper Wire, Rope

**A. 450 Ohm ladder line.** Two 18 gauge solid copper covered steel. Insulated and spaced by heavy duty black polyethylene. Uniform spacing between conductors insures proper balance, ideal for balanced line and dipole antenna projects.  
**MFJ-18H050, 50 Ft., \$12.95.**  
**MFJ-18H100, 100 Ft., \$22.95.**  
**MFJ-18H250, 250 Ft., \$49.95.**

**B. 300 Ohm TV twin-lead.** Two 18 gauge stranded copper wire. Insulated and spaced by black polyethylene. Best for dipole, j-pole and for most other low power uses.  
**MFJ-18T050, 50 Ft., \$19.95.**  
**MFJ-18T100, 100 Ft., \$34.95.**  
**MFJ-18T250, 250 Ft., \$79.95.**

**C. Copper Antenna wire.** Flexible, 7-strand, 14 gauge, hard solid-copper wire. Strong/long-lasting.  
**MFJ-18G100, 100 Ft., \$14.95.**  
**MFJ-18G250, 250 Ft., \$32.95.**

**D. 3/32 Dacron Wire Rope.** Fine copper wire is webbed into Dacron rope. Makes it extremely flexible but super strong/light. Ideal for wire/dipoles.  
**MFJ-18D120, 120 Ft., \$29.95.**

**E. Wire Antenna Installation Rope.** Select MFJ Nylon or Polyester dacron rope for your wire antenna installations. Black, UV resistant.  
**MFJ-19A100, \$7.95.** 100 feet, 3/32" nylon rope.  
**MFJ-19A250, \$14.95.** 250 feet, 3/32" nylon rope.  
**MFJ-19C100, \$9.95.** 100 ft, 3/16" polyester rope.  
**MFJ-19C250, \$19.95.** 250 ft., 3/16" polyester rope.

gauge, hard solid-copper wire. Strong/long-lasting.  
**MFJ-18G100, 100 Ft., \$14.95.**  
**MFJ-18G250, 250 Ft., \$32.95.**

**C.** **D.**

**E. (nylon)** **E. (polyester)**

Select MFJ Nylon or Polyester dacron rope for your wire antenna installations. Black, UV resistant.  
**MFJ-19A100, \$7.95.** 100 feet, 3/32" nylon rope.  
**MFJ-19A250, \$14.95.** 250 feet, 3/32" nylon rope.  
**MFJ-19C100, \$9.95.** 100 ft, 3/16" polyester rope.  
**MFJ-19C250, \$19.95.** 250 ft., 3/16" polyester rope.

# 10 Bands -- One MFJ Antenna!

Full size performance . . . No ground system or radials

Operate 10 bands: 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 Meters with one antenna  
 Separate full size radiators . . . End loading . . . Elevated top feed . . . Low Radiation Angle . . . Very wide bandwidth . . . Highest performance no ground vertical ever . . .

Operate 10 bands -- 75/80, 40, 30, 20, 17, 15, 12, 10, 6 and 2 Meters with this MFJ-1798 vertical antenna and get full size performance with no ground or radials!

Full size performance gives high efficiency for more power radiated. Results? Stronger signals and more Q-5 QSOs.

Full size performance also gives you exceptionally wide bandwidths so you can use more of your hard earned frequencies.

Full size performance is achieved using separate full size radiators for 2-20 Meters and highly efficient end loading for 30, 40, 75/80 Meters.

### Handles full 1500 watts PEP

Get very low radiation angle for exciting DX, automatic bandswitching, omni-directional coverage, low SWR. Handles 1500 Watts PEP SSB.

MFJ's unique Elevated Top Feed™ elevates the feedpoint all the way to the top of the antenna. It puts the maximum radiation point high up in the clear where it does the most good -- your signal gets out even if you're ground mounted.

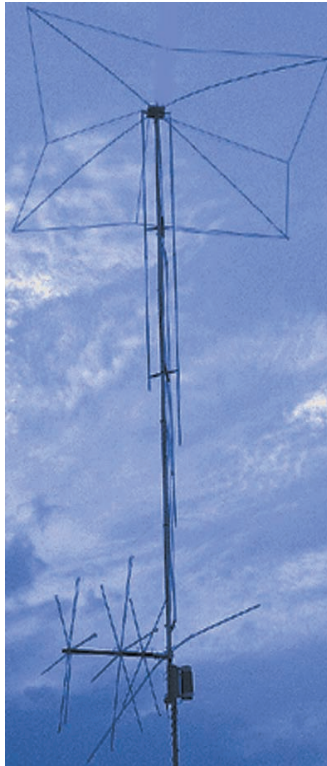
It's easy to tune because adjusting one band has minimum effect on the resonant frequencies of other bands.

Self-supporting and just 20 feet tall, the MFJ-1798 mounts easily from ground level to tower top -- small lots, backyards, apartments, condos, roofs, tower mounts.

### Separate Full Size Radiators

Separate full size quarter wave radiators are used on 20, 17, 15, 12, 10 and 2 Meters. On 6 Meters, the 17 Meter radiator becomes a 3/4 wave radiator.

The active radiator works as a stub to decouple every-



thing beyond it. In phase antenna current flows in all parallel radiators.

This forms a very large equivalent radiator and gives you incredible bandwidths.

Radiator stubs provide automatic bandswitching -- absolutely no loss due to loading coils or traps.

### End Loading

On 30, 40, 75/80 Meters, end loading -- the most efficient form of loading -- gives you highly efficient performance, excellent bandwidth, low angle radiation and automatic bandswitching.

MFJ's unique Frequency Adaptive L-Network™ provides automatic impedance matching for lowest SWR on these low bands.

Tuning to your favorite part of these bands is simple and is done at the bottom of the antenna.

### No Ground or Radials Needed

You don't need a ground or radials because an effective counterpoise that's 12 feet across gives you excellent ground isolation.

You can mount it from ground level to roof top and get awesome performance.

The feedline is decoupled and isolated from the antenna with MFJ's exclusive *AirCore*™ high power current balun. It's wound with TeflonR coax and can't saturate, no matter how high your power.

### Built to Last

Incredibly strong solid fiberglass rod and large diameter 6063 T-6 aircraft strength aluminum tubing is in the main structure.

Efficient high-Q coils are wound on tough low loss fiberglass forms using highly weather resistant *Teflon*® covered wire.

MFJ-1798  
 \$289<sup>95</sup>  
 Ship Code F

## 1/2-wave, 6-Band No-radials Vertical

12 feet tall, Mounts Anywhere, 40 to 6 Meters



MFJ-1796  
 \$219<sup>95</sup>  
 Ship Code F

**Only 12 feet high** with a tiny 24 inch footprint!

Mount anywhere -- ground level to tower top -- apartments, small lots, trailers.

**Perfect** for vacations, field day, DXpeditions, camping.

**Efficient** end-loading, no lossy traps. Entire length always radiating. Full size halfwave on 2/6 Meters.

**High** power *air-wound* choke balun eliminates feedline radiation. Adjusting one band has minimum effect on others. For 40-20-15, 10, 6, 2 Meters.

**Automatic** bandswitching, low radiation angle, omni-directional, handles 1500 watts PEP.

**Goes** together in an afternoon.

**New! MFJ-1796W, \$219.95.** WARC band version for 12, 17, 30, 60 Meters only.

In November 1994 *QST* magazine, Top of the DXCC Honor Roll member and Top 10 contester James D. Cain, K1TN, wrote "This antenna turned out to be a good performer on all bands...a \$200 ground-independent vertical that will get you on segments of four HF bands when there's room for nothing else except a small transmitting loop antenna."

WARC  
 Band  
 Version  
 NOW  
 Available

## Verticals for 80/40/20 Meters 80/40 Meter Vertical

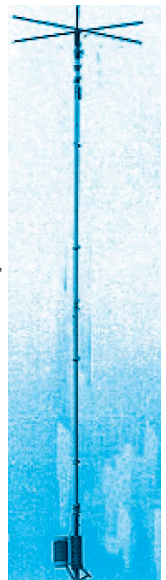
MFJ-1792 is a high-performance 80/40 Meter vertical. Full size quarter wave radiator for 40 Meters -- that's 33 feet of radiating power.

End loading, unique built-in L-network for lowest SWR, low-loss fiberglass form, high strength 6061-T6 aluminum tubing, handles 1500 watts PEP.

Requires guying and radials, counterpoise, or ground screen.

### 80/40/20 Meter Vertical

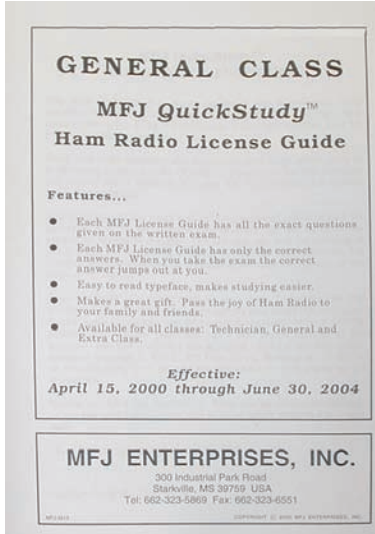
MFJ-1793, \$199.95, like MFJ-1792 but has full size 20 Meter 1/4 wave radiator also.





# MFJ QuickStudy™ Ham Radio License Guide

**New Question Pools!** MFJ Publishing guarantees that you'll pass your written exam on your first try . . . if you don't pass we'll refund your money in full\* . . . you can't lose! \*Send copy of receipt, proof of failure to MFJ within 30 days of failing and we will refund the purchase price of your MFJ QuickStudy™. Limit 1 per license class.



<b>MFJ-3211-Technician</b>	<b>MFJ-3213-General</b>	<b>MFJ-3215-Extra</b>
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MFJ-3211 Use MFJ's QuickStudy™ License Guide and MFJ guarantees that you'll pass the written exam on your very first try or you get your money back\*. See above.

**\$11.95 each**

Technician, General, or Extra Class

**Ship Code A**

**What is MFJ's QuickStudy™ concept?** The objective is to pass the exam

and get your license with a minimum amount of study time so you can start enjoying the hobby right away.

**Each MFJ license guide has all of the exact questions given on the written exam.** Each question on the exam has a multiple choice answer. But why take the extra time to study the wrong answers? It'll just add to the confusion and doesn't help you pass the exam. **MFJ gives you only the correct answers.** When you take the exam the answer jumps out at you -- no confusion, nothing to clutter the mind. It's an instant correct answer because you only studied the right answer.

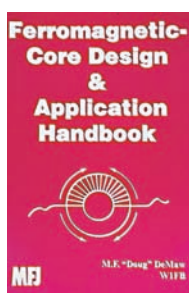
**Study the material thoroughly a few times, pass the test and enjoy the friendship of ham radio -- it couldn't be simpler.**

MFJ QuickStudy™ License Guides are available for all classes Technician, General and Extra Classes. These books only cover the written part of the test, not the five word-per-minute code exam.

**MFJ-3211, Technician, MFJ-3213 General Class, MFJ-3215 Extra Class, \$11.95 each.**



**MFJ-3507, \$19.95.** The late Doug DeMaw, W1FB, gives a wealth of info on circuits, including transmitter and receiver fundamentals, mixers, more.



**MFJ-3506, \$19.95.** Legendary textbook from the late Doug DeMaw, W1FB, emphasizes the practical aspect of ferromagnetic core material.



**MFJ-3400, \$19.95.** By avid CW enthusiast David Finley, N1IRZ. First book to detail the Koch method and training techniques for fastest code proficiency.

**MORE GREAT MFJ SELECTIONS**

**MFJ-3302, \$14.95. 73 Dipole & Long Wire Antennas.** By Ed Noll, W3FQJ. Classic antenna projects for a weekend!

**MFJ-3502, \$14.95. Solid State QRP Projects.** By Ed Noll, W3FQJ.

**MFJ-36, \$12.95. Shortwave Listener's Guide for Apt./Condo dwellers.** Receivers, antennas, other equipment.

**MFJ-3301, \$14.95. Troubleshooting Antennas and Feedlines.** Search it out! By Ralph Tyrell, W1TF.

**MFJ-3504, \$19.95. FET Principles, Experiments and Projects.** By Ed Noll, W3FQJ.

**MFJ-3510, \$19.95. QRP Projects from Down Under.** Paddyboard circuit construction, air wound coils.

**MFJ-3508, 17.95. Radio Components Handbook.** Life's work of Guido Silva, I2EO. 416 ages of circuits, graphs, and theory radio components. *Buku schematics!*

**MFJ-37, \$12.95. Ham Radio Communications Circuit Files.** By Ed Noll, W3FQJ. Many fun items!

**MFJ-3036, \$14.95. PROH: Packet Radio Operators Handbook.** By Buck Rogers, K4ABT.

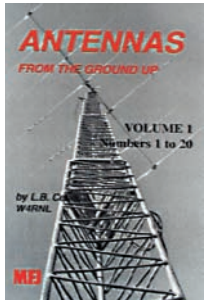
**MFJ-30, \$14.95. Golden Classics of Yesteryear.** By Dave Ingram, K4TWJ. Collins, Heathkit, more!

**MFJ-35, \$9.95. Wonderful World of Ham Radio!** An excellent introduction to ham radio for kids, classrooms. Great start!

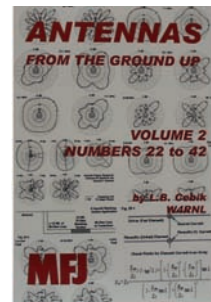
**MFJ-32, \$12.95. Packet Radio is Made Easy.** By Buck Rogers, K4ABT. Packet radio for beginners!

**MFJ-31, \$9.95. Oscar Satellite Review.** By Dave Ingram, K4TWJ. An anthology of CQ articles about oscar stations.

**MFJ-3101, \$9.95. Fox Hunt Adventure.** Relive a sense of mystery as young Ben discovers amateur radio and emergency services. Great gift for a young lad.



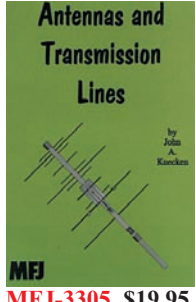
**MFJ-3306, \$19.95.** Volume 1 is a practical level antenna from the ground up book by L.B. Cebik, W4RNL. Concise, clear chapters.



**MFJ-3307, \$19.95.** Volume 2 of L.B. Cebik's Antennas from the Ground Up picks up where volume 1 left off. All new antenna projects!

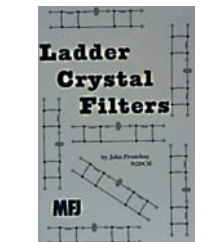


**MFJ-38, \$19.95.** Easy-Up Antennas by Ed Noll, W3FQJ. For hams and SWL. How to build and how to put up. Fully tested designs.



**MFJ-3305, \$19.95.** 320 pages, 37 short concise chapters. Underlying theory, powerful antenna-making techniques, special antenna projects and more!

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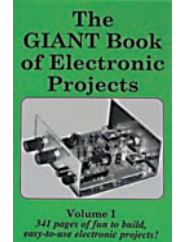
**MFJ-3509, \$19.95.** Ladder Crystal Filters. Generous references, John Pivnichny, N2DCH.



**MFJ-3303, \$14.95.** "73 Verticals, Beams, Triangle Antennas". By Ed Noll, W3FQJ.



**MFJ-33, \$14.95.** Everything you need to know about mobile! By Dave Ingram, K4TWJ.



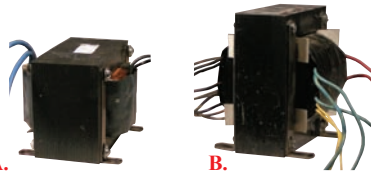
**MFJ-3501, \$19.95.** 30 different electronic kit projects, schematics, part placement. ham toys, etc.

**MFJ-3501, \$19.95.** 30 different electronic kit projects, schematics, part placement. ham toys, etc.

# Select MFJ *hard-to-find* Components for your Homebrew Projects

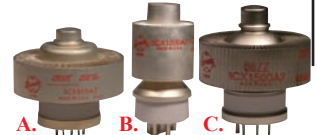
## Power Supply, Amplifier Transformers Ameritron sells Eimac<sup>(R)</sup> Tubes

These transformers are for building power supplies and amplifiers. 406-3800 is designed for linear power supplies, that is capable of delivering current up to 30 Amps at 13.6 VDC. 406-7310 is designed for a single 3-500Z tube 1000 Watt HF amplifier.



Ameritron sells Eimac<sup>(R)</sup> tubes for amateur radio, broadcast and industrial uses. *Call for a quote!*

- A. 3CX800A7, \$559.00
- B. 3CX1200A7, \$795.00
- C. 3CX1500A7, \$849.00



## 811A, 572B, 3-500Zs . . .

Don't just buy any untested tube that can damage your amp. Buy Ameritron *fully tested and warranted* tubes. **A. 350-0811A, \$17.95, 811A tube.** **B. 350-0572B, \$39.95, 572B tube** Match pairs are also available. **C. 380-0500GT, \$189.95, Taylor 3-500ZG tube**

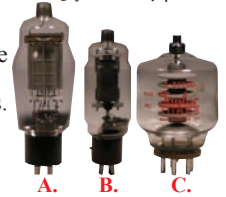


Fig.	Part No. #	Price	Pri. Voltage	SEC Voltage	Current	Dimensions	Weight
A	406-3800	\$34.95	120V	18V	30A	4Wx4Lx3 1/2"H"	11 lbs.
B	406-7310	\$49.95	100/120/240	1. 1200V 2. 20V 3. 5.5V	600 mA 250 mA 15A	5Wx4 1/2Lx6H"	20 lbs.

## Amplifier Power & Filament Transformers

Specially designed for our most popular HF amplifiers. Has unique buck-boost winding to adapt to low or high line voltage conditions.

Use of electrical silicone steel lamination makes these transformers highly efficient, resulting in low loss and producing less heat. Well constructed for low noise and coated with varnish. 110/220 VAC. Usable for 50 or 60 Hz.

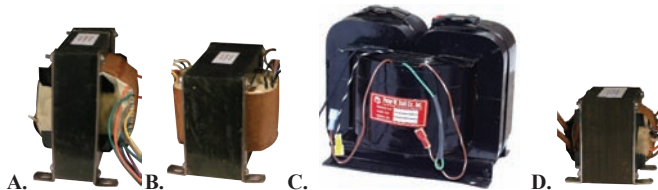


Fig.	Part No. #	Price	Pri. (Volt)	Sec. (Volt)	Dim./Applications	Weight
A	406-1532	\$80.00	110/220 w/ buck-boost	1500V@.5A 12V@1A 6.5V@16A	5Wx4 1/2/Hx6 1/2/D 811A 4-tube amplifier	17 lbs.
A	406-1529	\$46.56	110/220 V	800V@.5A 12V@1A	3 1/2"Wx4 1/2"Hx4 1/2/D 6MJ6 or Equiv.	14 lbs.
B	406-1572	\$112.50	110/220 w/ buck-boost	900V@.5A 12V CT@1A	6Wx5 1/2/Hx5 1/2/D 572B 4-tube amp	23 lbs.
B	406-1248-1	\$116.50	10/220 w/ buck-boost	2250V@ 22VCT@1.5A 12.8V@.5A	6Wx7 1/2/Hx5 1/2/D 3CX800A7 2-tube amp	33 lbs.
C	406-1418-1D	\$340.00	110/220 V	2570 Vac@.8A	8Wx7Hx7D 3CX1500A7 3CX1200A7 2x3-500G amps	32 lbs.
D	406-1419-1J	\$49.95	110/220 V	5.6V@30A 14V@2A	2 1/2"Wx3Hx3 1/2/D 3-500Z filament	5 lbs.
D	406-1419-2J	\$49.95	110/220 V	7.7V@21A 14V@2A	2 1/2"Wx3Hx3 1/2/D 3CX1200A7 Filam	5 lbs.
D	406-1419-3J	\$49.95	110/220 V	5.6V@15A 14V@2A	2 1/2"Wx3Hx3 1/2/D 3CX1500A7 Filam	5 lbs.

## Non-Inductive Resistors



Fig.	Part No. #	Price	Resistance	Rating	Diameter	Length
A*	115-5800	\$3.00	50 Ohm	50 Watts	1/2"x1/2 in.	2.0 inches
B	113-1220	\$22.50	50 Ohm	35W cont.	3/4 inches	2.5 inches
B	113-1350	\$22.50	35 Ohm	35W cont.	3/4 inches	2.5 inches
B	113-1450	\$15.00	45 Ohm	35W cont.	3/4 inches	2.5 inches
C	115-1500	\$20.16	50 Ohm	90W cont.	3/4 inches	5 inches
D	119-1500	\$32.31	50 Ohm	200W cont.	1 inch	6 inches
E	755-3080	.75		Terminal clip for 3/4" dummy load resistor, requires 2 per resistor.		
F	755-4100	2.76		Terminal clip for 1" dummy load resistor, requires 2 per resistor.		

\*Item A is an RCD 620, wire wound. Solder terminals attached, 2 mounting holes.

## Feedthru Insulators

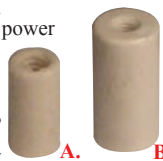
606-1006, \$3.10

Ceramic Feed-through insulator comes complete with hardware. 3/4" diameter x 1 1/4". Fits 7/16" dia. chassis holes.



## Ceramic Spacers

Ceramic spacers are used to properly isolate your dummy load resistor from the chassis. Withstands high power and high frequencies.



## 5-way Binding Post

Nylon Insulation, 30A, 1000 VAC, 10-32 stub is tin plated brass.



606-0013, \$1.98 Red.  
606-0014, \$1.98 Black.

A. 719C-0500C, \$0.50  
1/4" diameter by 1/2" long, 6-32 threaded holes on both ends.  
B. 719D-1000C, \$1.00  
1/2" diameter by 1" long, 8-32 threaded holes on both ends.

## Cooling Fans and Blowers

High output box fans and blowers are ideal for cooling amplifiers.

- A. 410-3583, \$18.85, 80x80x38.5 mm, 1800 RPM, 28 CFM, 30 dBA noise level, sleeve bearing, 120 VAC, 60 Hz, w/ 14" wire lead. Fan guide.
- B. 410-4584, \$9.00.
- C. 410-3138, \$43.06, high quality box fan by EBM, metal housing with metal impeller, extremely quiet 120x120x38.5 mm, 61 CFM, 28 dBA noise level, sleeve bearing, 120 VAC, 60 Hz, wire terminals.
- D. 410-4600, \$33.34, Metal Fan Guards.
- E. 410-4586, \$99, plastic.



A. 410-1200, \$64.95.  
EBM Blower, G2S097-DB61-08, 110 VAC, 5 1/2"Wx5 1/2"Hx1 1/2"D inches, 37 CFM, 45 dBA noise level. Wire leads.  
B. 410-1100, \$39.95.  
Interfan Blower, PMB24-115-4B, 110 VAC, 4 1/2"Wx4 1/2"Hx1 1/2"D inches.



# Select MFJ *hard-to-find* Components for your Homebrew Projects

## Air Variable Capacitors



Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2005	\$23.85	16-208	1000	.032"	50	1.4Wx1Hx3D in.
A	282-8700	\$14.95	10-26	1500	.080"	18	1.4Wx1Hx2.8D in.
B	282-2010	\$17.25	2-10	640	.016"	2	1.4Wx1Hx1.7D in.
B	282-2012	\$16.02	5-51	1000	.032"	13	1.4Wx1Hx1.1D in.
B	282-2150	\$18.90	6-154	640	.016"	20	1.4Wx1Hx1.3D in.
C	282-2006	\$18.51	12-313	640	.016"	40	1.4Wx1Hx1.7D in.
D*	282-5050-1	\$19.62	5-67	1200	.045"	15	1.2Wx1.3Hx1.3D in.
D*	282-5160	\$17.97	6-180	350	.010"	15	1.2Wx1.3Hx1.3D in.

\* Items D are broadcast style variables and are used in MFJ Analyzers and Transceivers. A 8:1 Vernier drive is built into the capacitor.

## High Voltage Air Variable Capacitors

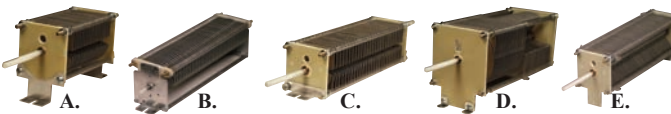


Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2007-1	\$30.94	10-125	3.5 kV	.120"	27	2.5Wx3.6Hx6D"
A	282-2018-1	\$35.68	10-250	1.5 kV	.045"	37	2.5Wx3.6Hx6D"
A	282-2008-1	\$53.68	10-250	3 kV	.120"	53	2.5Wx3.6Hx10.8D"
B	282-2009	\$61.64	12-500	1.5 kV	.045"	112	2.5Wx2.6Hx10.8D"
C*	282-2015	\$53.52	10-300	3.5 kV	.120"	79	2.5Wx2.6Hx10.8D"
D*	282-2020	\$70.56	40-493	1.5 kV	.045"	35	3.5Wx4.5Hx6D"
D*	282-2028	\$100.08	50-996	1.5 kV	.045"	70	3.5Wx4.5Hx9.6D"
E*	282-2016	\$69.95	12-67	1.5 kV	.045"	56	2.5Wx3.5Hx10.8D"
E*	282-2017	\$89.95	18-136	1.5 kV	.045"	112	2.5Wx3.5Hx10.8D"

Item C is a differential capacitor, as used in the MFJ-986 antenna tuner. Items D are dual-gang capacitors, capacitance specified is total capacitance. Item E are butterfly tuning capacitors. They are used in MFJ loop tuners and have no rotating contacts, super low losses.

## Amplifier high-voltage Variable Caps

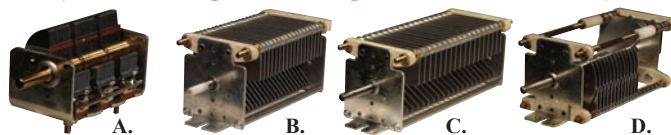


Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2113	\$26.19	20-823	800 V	.017"	23 x 3	1.8Wx1.8Hx3.3D"
B	282-2112-1	\$36.52	20-250	2.5 kV	.075"	37	2.8Wx2.6Hx5D"
B	282-2572-1	\$46.18	20-405	1.5 kV	.045"	37	2.8Wx2.6Hx4D"
B	282-2573-1	\$57.34	25-800	1.1 kV	.030"	53	2.8Wx2.6Hx4.5D"
C	282-2571	\$44.95	20-920	1.1 kV	.030"	49	2.8Wx2.6Hx4.3D"
C	282-2570	\$51.68	20-171	3.5 kV	.120"	37	2.8Wx2.6Hx7D"
C	282-5200	\$44.95	20-801	1.3 kV	.037"	59	2.8Wx2.6Hx4.5D"
D	282-3700	\$39.95	15-176 7-23	2.5 kV	.075"	31	2.8Wx2.6Hx6D"

Used in Ameritron high power linear amplifiers. Items B have delrin insulated shaft. Item D has two capacitance sections.

## MFJ Knobs, Pointers and Ball Drives

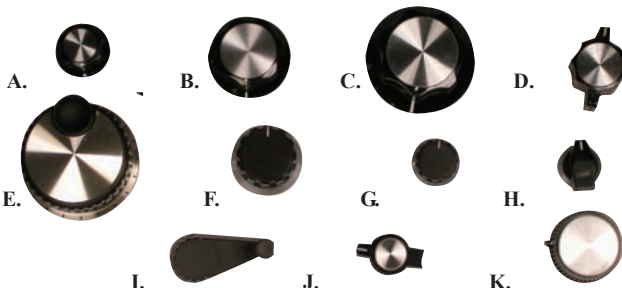


Fig.	Part No. #	Price	Pointer/skirt diam.	Knob dia.	Height
A	760-0035	\$1.25	1 inch	1 <sup>11</sup> / <sub>16</sub> inch	3 <sup>7</sup> / <sub>16</sub> inches
B	760-0125	\$2.80	1 1/2 inches	1 1/4 inches	3 1/4 inches
C	760-2281-1	\$3.50	2 inches	1 1/8 inches	3 1/4 inches
D	760-0550	\$3.00	1 1/4 inches	1 inch	3 1/4 inches
E	760-0275B	\$9.95	2 1/2 inches	1 1/2 inches	1 3/8 inches
F	760-0277	\$2.35	2 1/4 inches	1 1/16 inches	1 inch
G	760-0278	\$1.95	7/8 inches	3/4 inches	11/16 inches
H	760-0276	\$1.95	7/8 inches	13/16 inches	3/4 inches
I	760-2409	\$4.95	1 1/4 inches	3/4 inches	1 1/2 inches
J	760-0176	\$1.95	1 1/4 inches	1 1/8 inches	3/4 inches
K	760-0177A	\$1.78	1 3/4 inches	1 1/4 inches	3/4 inches

MFJ Knobs are made of the highest quality heat and impact-resistant phenolic resin. Shaft holes fit 1/4" round shaft. Knobs have metal inserts. Supplied with set screws.

## Ameritron AirRoller Inductor

**404-1032, \$140.00.** Flat wire, edge-wound, high power air roller inductor. Silver plated Cu coil, silver plate contact discs and contact shaft. Heavy duty 1/4" thick fiberglass frame. 16 uH, 31 turns, 2 1/2" coil diameter, 1/4" round shaft, 3" shaft length. Size: 2 1/4"W x 3 1/8"Hx8D in. Used in Ameritron's ATR-30, which easily handles 1500 Watts, 1.8-30 MHz.



Silver Plated!  
Edge-Wound!

## MFJ AirCore™ Roller Inductors

MFJ's exclusive *super heavy duty 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 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. 12 gauge tin-plated copper wire. Silver plated contact wheels and shaft. Fiberglass frame.

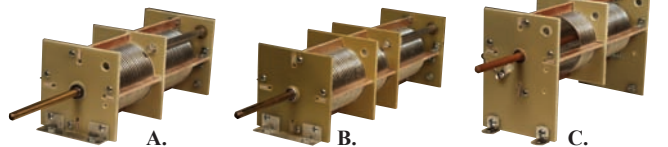


Figure	Part No. #	Price	L. uH	Turns	Coil Dia.	shaft size	Dimensions
A	404-1052	\$59.00	33	43	2"	3/2"	3Wx3Hx7 1/2 D"
B	404-1056	\$62.65	44	57	2"	3"	3Wx3Hx9 1/4 D"
C*	404-1060	\$53.60	22	31	2"	2 1/2"	3Wx4 1/2 Hx7 1/2 D"

\*C item has 1/4" round phenolic tuning shaft, has no "self-resonance-killer". A and B have 1/4" round brass tuning shaft.

## MFJ Air-Wound Coils

MFJ *air-wound* coils are constructed with a solid rigid round acrylic rod and tin-plated solid copper wires embedded into the acrylic rod. They are super strong and superbly crafted. MFJ winds them tough so they stay wound. Select a special MFJ *air-wound* coil for your mobile and portable antennas, antenna tuners, amplifiers and other projects.



Part No.	Price:	Inductance	Coil length	Coil Diameter	Turns per Inch	Wire size (AWG)
404-0811	\$22.95	70 uH	9 1/2 in.	1 1/4 in.	10	14
404-1610	\$37.95	92 uH	10 in.	1 1/4 in.	10	16
404-0600	\$37.95	44 uH	12 in.	2 in.	6	10
404-0669	\$37.95	79 uH	12 in.	2 in.	8	12
404-0700	\$37.95	77 uH	12 in.	2 in.	8	10
404-0008	\$22.95	159 uH	10 in.	2 1/2 in.	10	16
404-0024	\$37.95	35 uH	11 in.	3 in.	4	10
404-0009	\$22.95	230 uH	10.5 in.	3 in.	10	16
755-4001	\$3.00					

Designed to clip on air-wound coil for wire size up to AWG 12. 1/4" wide silver plated contact has set screw to secure. Contact socket for banana plug.

## MFJ high power RF rotary switches

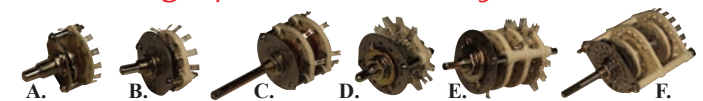


Fig.	Part No. #	Price	Pos's	Pole	Sect.	index deg	Contact	dielectric VAC	material	dia.
A	500-2026	\$24.48	12	1	1	30	9 Amps	1500	glass epoxy	1.44"
B	500-2038	\$43.68	6	1	1	30	9 Amps	1500	ceramic	1.88"
C	500-2027	\$58.32	6	2	2	60	9 Amps	1500	ceramic	1.88"
D*	500-2811	\$45.60	6	2	1	30	9 Amps	1500	ceramic	1.88"
E*	500-2135	\$78.20	6	4	3	30	9 Amps	1500	ceramic	1.88"
F*	500-3557-1B	\$141.90	6	4	2	20	17 Amps	3000	ceramic	2.81"

MFJ high-voltage switches have 3/8-32 bushing and 1/4 inch round shaft. \*D, E, and F are switches that are specially designed for amplifier band switching.

### Vernier Reduction Ball Drive

**729-0142, \$11.92**

6:1 Tuning Ratio.

Used in

Ameritron amplifiers and tuners.

Dial plate mounting flange. Two pre-tap pointer mounting holes, mates with 1/4" shaft, has pre-tap set screw holes. 1/4" shaft, 3 1/4" Length.



### Knob Pointers

**726-0227R, \$1.55**

Red, 1 1/4" Length, matches 2" tuning knob.

726-0230R, \$1.25

Red 1" Length, matches 1 1/2" tuning knob.

Both pointers are made to fit 729-0142, 6:1 reduction drive.



### Turn Counter Set

**780-3169K, \$14.95**

Set includes counter module, two gears and mounting bracket. Driving gear fits 1/4" round shaft. Counter ratio is 3:1. Has 3-digits, counts up to 333 turns.



# Select MFJ *hard-to-find* Components for Repair/Homebrew Projects

## Amplifier Power Supply Electrolytic Caps Precision DC Cross-Needle Meters



High capacitance, computer grade aluminum can electrolytic capacitors. Long life, low ESR and can handle high ripple currents. Thernal-Pak extended cathode foil construction assures cool operation. Great choice for high-capacitor amplifier, power supply and energy storage application. 10-32 screw terminals.

Part No. #	Price	Value (uF)	WVDC	Ripple (I)	Size (DxL) inches
270-6270-7	\$13.53	270 uF	450V	1.5A	1 <sup>7</sup> / <sub>8</sub> x2 <sup>1</sup> / <sub>8</sub>
270-6380-7	\$21.60	470 uF	450V	2.4A	1 <sup>7</sup> / <sub>8</sub> x3 <sup>1</sup> / <sub>8</sub>
270-8270-2	\$33.50	27000 uF	75V	9.0A	2x4 <sup>7</sup> / <sub>8</sub>

## Electrolytic Capacitors



Can-type electrolytic capacitors ideal for amplifiers and power supply applications. They have snap-in PCB terminals.

Part No. #	Price	Cap uF	WVDC	D x L (in.)
270-6220-7B	\$5.44	220	400 V	1 <sup>1</sup> / <sub>16</sub> x1 <sup>1</sup> / <sub>8</sub>
270-7100-5A	\$6.71	1000	250 V	1 <sup>1</sup> / <sub>8</sub> x2
270-8680-2	\$2.21	6800	50V	1 <sup>1</sup> / <sub>16</sub> x2

## RF Ceramic Doorknob Capacitors



RF Ceramic Doorknob Capacitors are manufactured by High Energy. These RF transmitting capacitors are ideal for use in RF amplifiers. Threaded 6-32 ends for easy connection. <sup>3</sup>/<sub>4</sub>" dia. x .625" long.

Part No. #	Price	Description
290-0150-5	\$12.95	HH58, 150 pF, 20%, 5 kV
290-0400-5	\$14.95	HH58, 400 pF, 20%, 5 kV
290-0500-5	\$13.95	HH58, 500 pF, 20%, 5 kV
290-1100-5	\$12.95	HH58, 1000 pF, 20%, 5 kV

## High-Voltage Vacuum Relays

These vacuum relays are ideal for amplifier QSK switches. Contacts are capable of carrying 10 Amps and break down voltage is 5 kV.



- A. 408-8100, \$35.00.** Kilovac S05FJA238, DPST-NO, contact form, 2A, 5kV rating between contacts, current is 10A DC or 5A RF, 12 VDC coil voltage and 500 Ohm coil resistance.
- B. 408-8400, \$7.00.** Kilovac S05FNA238, DPST, 1 pole NO, 1 pole NC, contact Form A&B combined, 5 kV rating between contacts, contacts current 10A DC or 5A RF, 12 VDC coil voltage and 500 Ohm coil resistance.
- C. 408-8500, \$29.95.** Wabash 1017-20-1, DPST, one pole normally open, one pole normally closed. 12 VDC coil voltage.

## Power Relays

Special relays designed for amplifier TR switching, in-rush current protection and other high current applications.

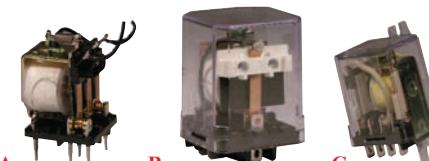


Fig.	Part No. #	Price	Coil Volts	Contacts/Rating	Description
A	408-6140	\$20.34	12 VDC	3PDT -- 10A	PCB terminals, 80B/600/500 T/R
A	408-6148	\$15.30	12 VAC	5PDT -- 10A	Solder lugs, In-Rush, 80B/600
A	408-6240	\$18.24	240 VDC	SPST -- 10A	PCB terminals, amplifier in-rush
A	408-6145	\$15.54	120 VDC	SPDT -- 10A	PCB terminals, amplifier in-rush
A	408-6139-1	\$14.76	12 VDC	3PDT -- 10A	Solder lugs, stub mnt, T/R relay P&B KA-14DG-12
A	408-6077	\$15.99	120 VAC	SPDT -- 10A	Solder lugs, stub mount, general purposes P&B KA5AG
B	408-4700	\$17.64	12 VDC	SPDT -- 15A	Chassis mount, QC terminals, in-rush
C	408-7110	\$15.75	12 VDC	DPDT -- 20A	QC Terminals, dust cover, flange mount, Sigma 45R2C112-12 VDC
C	408-6230	\$12.95	24 VDC	3 PDT -- 10A	Midtex relays 157-33C200, silver contacts, .187" quick connect terminals

## Precision mechanical Deluxe Turns Counter

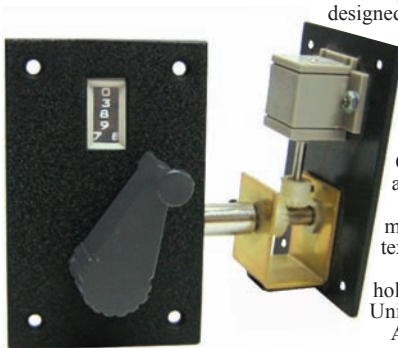
**780-3170, \$69.95.** This Precision designed mechanical deluxe turns counter is for use with roller inductors, vacuum capacitors, air variable capacitors, etc.

**Precision** 5-digit counter is enclosed in a dust-free plastic casing. Counts to 9999.9 turns. Counter is coupled to a 1/4" shaft at right angles with bevel gears.

**1/8** inch thick aluminum mounting plate is coated with texture powder paint.

**Has** #4 counter sink mounting holes. Mount in 1x3" cutout hole. Unit is 2<sup>1</sup>/<sub>4</sub>"x3<sup>3</sup>/<sub>8</sub>"x1/2 inches.

**Assembly** includes 1/4 inch shaft coupler and a 1/4 inch fast-turned crank knob.



Unique, two-meters-in-one Cross-Needle design makes these meters ideal for use in amplifiers and SWR/Wattmeters. Rugged construction with removable clear plastic cover. Has plug-in 12 VDC meter lamp, front panel "zero" adjustment. Raised window for recessed front panel mounting. Solder lug terminals for meter movement and lamp. Linear moving coil movement.

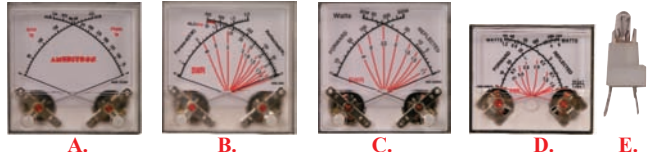


Figure	Part No. #	Price	Sens./Resist./Size	Scale Description
A	400-3580	\$21.60	1mA/120 Ohm 2.8Wx2.8Hx1.4D"	10-250 mA grid current & 0-750 mA plate current
B	400-3581	\$21.60	1mA/120 Ohm 2.8Wx2.8Hx1.4D"	0-2.0 KW Fwd power, 0-500W ref power, 0-35 ALC/ HV, SWR
C	400-3084A	\$21.60	200uA/750 Ohm 2.8Wx2.8Hx1.4D"	0-300W fwd power, 0-60W ref power, SWR curves
D	400-3083A	\$17.82	200uA/750 Ohm 2.1Wx1.8x1.4D"	0-300 fwd power, 0-60 ref power, SWR curves
E	355-2299	\$1.80		Replacement bulb for 400-3XXX meters, above.

## Precision DC Panel Meters

Rugged construction with removable clear plastic cover. Built-in 12 VDC lamp, front panel "zero" adjustment. Raised window for recessed front panel mounting. Solder lug terminals for meter movement/lamp. Linear moving coil movement. 2.7Wx2.7Hx1.4D"



Figure	Part No. #	Price	Sensitivity/Resistance	Scale Description
A	400-2600A	\$16.92	1mA/120 Ohm	0-200 mA Grid Current
B	400-2601A	\$16.92	1mA/120 Ohm	0-2.0 kV plate V, 0-750 mA plate I
C	400-2026	\$16.92	1mA/120 Ohm	0-100 general purpose scale
D	355-0320	\$1.80		Replacement bulb for 400-2XXX meters, above.

## Miniature DC Panel Meters

Quality, compact and inexpensive panel meters. Clear, removable cover, raised window for recessed mounting. Solder lug terminals, moving coil movement. 100 uA movement, 750 Ohm resistance. Size is 1.6Wx1.6Hx1D inches.



Figure	Part No. #	Price	Scale Description
A	400-0014A	\$9.39	0-300 Pwr, 0-30 Pwr, SWR, red/black dual color scale, used in tuners and wattmeters
B	400-0035	\$6.84	SWR, red/black scale used in analyzers
C	400-0047	\$6.84	0-400 Ohm resistance, red/black scale used in analyzers
D	400-0027	\$7.92	-20+3dB, 0-100% VU modulation scale, red/black dual color for line audio monitor
E	400-0090	\$7.92	0-25 DC Volts, red/black scale for DC volt monitors
F	400-0026A	\$7.92	0-100 general purpose scale

## Slug Core Tuning Tool

**965-6204, \$3.00.** Plastic tuning stick for adjusting slug cores. Has .1 inch hex end, 7<sup>1</sup>/<sub>4</sub>" long. Fits all Ameritron tube amplifier input coils.



## Ferrite and Iron Powder Toroidal Cores

Get RFI out of television, telephone and other electronic devices. Use for baluns, chokes, RF coils, transformers, filters and more.

Part No. #	Price	Size: ODxDxH inches	Description
420-6102	.33	.375x.187x.125	#61 Ferrite
420-6103	.72	.500x.281x.188	#61 Ferrite
420-6114	\$1.08	1.00x.610x.320	#61 Ferrite
420-7510	\$2.80	1.00x.610x.320	#75 Ferrite
420-6138	\$10.23	2.40x1.40x.500	#61 Ferrite
421-02037	.40	.375x.205x.128	T-37-2 Iron Powder Mix 2
421-02050	.80	.5x.303x.90	T-50-2 Iron Powder Mix 2
421-02068	.98	.69x.370x.190	T-68-2 Iron Powder Mix 2
421-02094	\$1.08	.942x.560x.312	T-94-2 Iron Powder Mix 2
421-02106	\$1.36	1.00x.57x.437	T-106-2 Iron Powder Mix 2
421-02157	\$3.32	1.57x.950x.570	T-157-2 Iron Powder Mix 2
421-0220	\$6.96	2x1.25x.530	T-200-2 Iron Powder Mix 2
420-7800	\$1.86	1.00x.50x.410	Iron Powder Mix 2



## Select MFJ *hard-to-find* Connectors, Plugs, Adaptors . . .



Fig.	Part No.	Price	Description
A	MFJ-7705	\$5.95 ea.	N-Male to SO-239 Adaptor
B	MFJ-7730	\$5.95 ea.	N-Male to SMA Female Adaptor
C	MFJ-7731	\$5.95 ea.	N-Male to BNC Female Adaptor
D	MFJ-7702	\$3.95 ea.	PL-259 to PL-259 Adaptor
E	MFJ-7703	\$7.95 ea.	PL-259 to BNC Female, Right Angle Adaptor
F	MFJ-7732	\$3.95 ea.	PL-259 to RCA Phono Jack
G	MFJ-7727	\$5.95 ea.	PL-259 to SMA Female Adaptor
H	MFJ-7717	\$5.95 ea.	PL-259 to SMA Male Adaptor
I	MFJ-7737	\$5.95 ea.	PL-259 to BNC Female Adaptor

Fig.	Part No.	Price	Description
J	MFJ-7701	\$4.95 ea.	SO-239 to SO-239 Adaptor, 1 3/4" long
K	MFJ-7719	\$4.95 ea.	SO-239 to SMA Male Adaptor
L	MFJ-7729	\$4.95 ea.	SO-239 to SMA Female Adaptor
M	MFJ-7708	\$3.95 ea.	SO-239 to BNC Male Adaptor
N	MFJ-7716	\$4.95 ea.	BNC Male to SMA Female Adaptor
O	MFJ-7736	\$4.95 ea.	BNC Male to SMA Male Adaptor
P	MFJ-7718	\$4.95 ea.	BNC Female to SMA Male Adaptor
Q	MFJ-7728	\$4.95 ea.	BNC Female to SMA Female Adaptor
R	MFJ-7706	\$10.95 ea.	NMO to SO-239 Adaptor



Fig.	Part No.	Price	Description
1	MFJ-7707	\$7.95 ea.	NMO to 3/8x24 threaded Adaptor
2	MFJ-7720	\$1.50 ea.	SO-239 Screw-on Protector Cover
3	MFJ-7725	\$6.95 ea.	3/8x24 Antenna Mount Quick Connect
4	MFJ-7714	\$4.95 ea.	3/8x24 Chassis Mount with insulating washer
5	MFJ-7721	\$1.49 ea.	SO-239 4-hole Chassis Mount <i>Teflon</i> <sup>TM</sup>
6	MFJ-7722	\$1.95 ea.	SO-239 Single Hole Mount, <i>Teflon</i> <sup>TM</sup>
7	MFJ-7723	\$1.95 ea.	N-Female 4-hole Chassis Mount, <i>Teflon</i> <sup>TM</sup>
8	MFJ-7724	\$2.49 ea.	N-Female Single hole Mount, <i>Teflon</i> <sup>TM</sup>
9	MFJ-7726	\$1.49 ea.	BNC Male Chassis Mount



Fig.	Part No.	Price	Description
10	MFJ-7704	\$7.95 ea.	BNC to dual Binding Posts
11	MFJ-7709	\$6.95 ea.	Dual Banana Plugs, High Current
12	MFJ-7713	\$5.95 ea.	1 Red, 1 Black High Current Banana Plugs
13	MFJ-7700P	\$6.95 pk.	6 Red, 6 Black Banana Plugs / Pack
14	606-0013	\$1.98 ea.	5-Way Binding Post, Red, 30 Amps, insulated
15	606-0014	\$1.98 ea.	5-Way Binding Post, Black, 30A, insulated
16	606-0003	.85 ea.	5-Way Binding Post, Red
17	606-0004	.85 ea.	5-Way Binding Post, Black
18	606-1006	\$3.10 ea.	Feed-through Ceramic Insulator with hardware

### PAYMENT INFORMATION / SALES TAX

**Personal checks** will be held 10 working days upon receipt of order. **FOREIGN ORDERS:** US Funds ONLY. See ship chart for details. Write for quote. **Credit Cards:** We accept Mastercard, Visa, American Express and Discover, government and debit cards. Please write your CC#, expiration date, three-digit security CVV2 code on the back of your card and other information clearly or call 1-800-647-1800; advise if billing address for said card is different than address above. **C.O.D. Fee:** Add additional \$7.50 for sending products C.O.D., above and beyond normal shipping charges. **Bank Transfer:** All wire transfers should be directed to: Amsouth Bank, Birmingham, Alabama, ABA: 062000019, SWIFT: SANBUS4N; For further credit to: Amsouth Bank, Starkville, Mississippi; For the Account of: MFJ Enterprises, Inc., Account Number: 2300236034. **Add** bank fee of \$25.00 for each \$1000 amount. **Sales Tax:** Mississippi and Ohio residents must add sales tax from the county rate that they reside in.

### NO RISK ORDERING

**NO RISK ORDERING:** Order any product "*directly*" from MFJ Enterprises, Inc., Starkville, MS and try it for 30 days. If not satisfied, we'll cheerfully refund your purchase price (less shipping). No books or software.

### MFJ WARRANTY

**WARRANTY INFORMATION:** All MFJ products (except as noted) come with MFJ's famous *No Matter What*<sup>TM</sup> one year limited warranty. The warranty does not include kits, books or software. MFJ will repair or replace (*at our option*) your MFJ product *No Matter What*<sup>TM</sup> for one complete year. **Customer MUST** retain dated proof-of-purchase.

### REPAIRS / TECH SUPPORT

**REPAIRS/TECH Support:** Send unit with copy of purchase receipt to MFJ Enterprises, Inc., 300 Industrial Park Road, Starkville, MS 39759. **TECH:** (662)323-0549 • **E-Mail:** [mfcustserv@mfjenterprises.com](mailto:mfcustserv@mfjenterprises.com)

### UPS / MAIL SHIPPING CHART

Ship Code	UPS	USPS/MAIL	Canada	Foreign
A	\$12.00	\$12.00	\$25.00	\$100.00
B	14.00	20.00	30.00	150.00
C	16.00	25.00	35.00	200.00
D	18.00	30.00	40.00	250.00
E	21.00	35.00	50.00	300.00
F	30.00	*	55.00	*

\*Code F items cannot be sent by USPS/mail. *Foreign orders must call for quote.*  
**All packages 1 lb. and under will be shipped by US MAIL for \$6.00 minimum charge unless otherwise specified.**

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## MFJ Order Form

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# hy-gain ROTATORS

... the first choice of hams around the world!

## HAM-IV

The most popular rotator in the world!

For medium communications arrays

up to 15 square feet wind load area. New 5-second brake delay!

New Test/Calibrate function.

New low temperature grease permits normal operation down to -30 degrees F.

New alloy ring gear gives extra strength up

to 100,000 PSI for maximum reliability.

New indicator potentiometer. New ferrite beads reduce RF susceptibility. New Cinch plug plus 8-pin plug at control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center of rotation scale on meter, low voltage control, max mast size of 2 1/16 inches.

HAM-IV  
\$559<sup>95</sup>



## TAILTWISTER SERIES II

For large medium antenna arrays up to 20 sq. ft. wind load.

Available with DCU-1 Pathfinder digital control (T2XD) or standard analog control box (T2X) with new 5-second brake delay and new Test/Calibrate function.

Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, new weather-proof AMP connectors plus 8-pin plug at control box, triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, North or South center of rotation scale on meter, low voltage control, 2 1/16 inch max. mast.

T-2X  
\$649<sup>95</sup>

T-2XD  
\$1029<sup>95</sup>  
with DCU-1



## CD-45II

For antenna arrays up to 8.5 sq. feet

mounted inside tower or 5 sq. ft. with mast

adapter. Low temperature grease good to -30 F degrees. New Test/Calibrate function. Bell

rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North center scale, lighted directional indicator, 8-pin plug/socket on control unit, snap-action control switches, low voltage control, safe operation, takes maximum mast size to 2 1/16 inches. MSLD light duty lower mast support included.

CD-45II  
\$389<sup>95</sup>



Wind Load capacity (inside tower)	15 square feet
Wind Load (w/mast adapter)	7.5 square feet
Turning Power	800 in.-lbs.
Brake Power	5000 in.-lbs.
Brake Construction	Electric Wedge
Bearing Assembly	dual race/96 ball bearings
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	8
Shipping Weight	26 lbs.
Effective Moment (in tower)	2800 ft.-lbs.

Wind load capacity (inside tower)	20 square feet
Wind Load (w/ mast adapter)	10 square feet
Turning Power	1000 in.-lbs.
Brake Power	9000 in.-lbs.
Brake Construction	Electric Wedge
Bearing Assembly	Triple race/138 ball brngs
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	8
Shipping Weight	31 lbs.
Effective Moment (in tower)	3400 ft.-lbs.

Wind load capacity (inside tower)	8.5 square feet
Wind Load (w/ mast adapter)	5.0 square feet
Turning Power	600 in.-lbs.
Brake Power	800 in.-lbs.
Brake Construction	Disc Brake
Bearing Assembly	Dual race/48 ball brngs
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	8
Shipping Weight	22 lbs.
Effective Moment (in tower)	1200 ft.-lbs.

## HAM-V

For medium antenna arrays up to 15

square feet wind load area. Similar to the

HAM IV, but includes DCU-1 Pathfinder digital

control unit with gas plasma display.

Provides automatic operation of brake and rotor, compatible with many logging/contest programs, 6 presets for beam headings, 1 degree accuracy, auto 8-second brake delay, 360 degree choice for center location, more!

HAM-V  
\$949<sup>95</sup>  
with DCU-1



## AR-40

For compact antenna arrays and large FM/TV up to 3.0 square feet

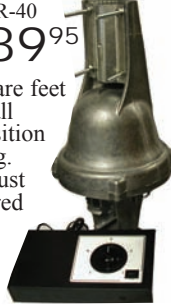
wind load area. Dual 12 ball bearing race. Automatic position

sensor never needs resetting. Fully automatic control -- just

dial and touch for any desired location. Solid state, low

voltage control, safe and silent operation. 2 1/16 inch max mast size. MSLD light duty lower mast support included.

AR-40  
\$289<sup>95</sup>



## HDR-300A

For king-sized antenna arrays up to 25 sq.ft. wind load area. Control

cable connector, new hardened stainless steel output shaft, new

North or South centered calibration, new ferrite beads on potentiometer

wires reduce RF susceptibility, new longer out-p

put shaft keyway adds reliability. Self-centering steel clamp/hardware. Display accurate to 1°. Machined steel output.

HDR-300A  
\$1379<sup>95</sup>



## ROTATOR OPTIONS

MSHD, \$99.95. Heavy duty mast support for T2X, HAM-IV and HAM-V.

MSLD, \$39.95. Light duty mast support for CD-45II and AR-40.

TSP-1, \$34.95. Lower spacer plate for HAM-IV and HAM-V.

## ROTATOR CABLE

879-1608, \$1.10 per foot. 8 conductors PVC cable, 6-18 AWG + 2 -16 AWG, 200V for Hy-Gain<sup>®</sup> rotators.

## ROTATOR POTENTIOMETER

RPM-1, \$34.95. Rotator replacement pot for HAM II, III, IV, V, T2X. 500 Ohm. Same as p/n 5023100.



## AR-35 Rotator/Controller

The AR-35 is designed for the use of small UHF, VHF, 6-AR-35/X Meter, TV and FM antennas. Includes automatic controller, rotator, mounting clamps and mounting hardware. Use 110 VAC. AR-35X for 220 VAC.



## AR-40 Rotator Specifications

Wind load capacity (inside tower)	3.0 square feet
Wind Load (w/ mast adapter)	1.5 square feet
Turning Power	350 in.-lbs.
Brake Power	450 in.-lbs.
Brake Construction	Disc Brake
Bearing Assembly	Dual race/12 ball bearings
Mounting Hardware	Clamp plate/steel bolts
Control Cable Conductors	5
Shipping Weight	14 lbs.
Effective Moment (in tower)	300 ft.-lbs.

## Digital Automatic Controller



DCU-1  
\$649<sup>95</sup>

Controls T2X, HAM IV and HAM V. Auto operation

of brake/ rotor, computer control with RS232 pass-through, compatible with many logging/contest programs, 6 presets for favorite beam headings, 1 degree heading accuracy, Auto 8-sec. brake delay, 360 degree choice for center of rotation!

## HDR-300A Rotator Specifications

Wind load capacity (inside tower)	25 square feet
Wind Load (w/ mast adapter)	not applicable
Turning Power	5000 in.-lbs.
Brake Power	7500 in.-lbs.
Brake Construction	solenoid operated locking
Bearing Assembly	bronze sleeve w/rollers
Mounting Hardware	stainless steel bolts
Control Cable Conductors	7
Shipping Weight	61 lbs.
Effective Moment (in tower)	5000 ft.-lbs.

## Rotator Auto Brake Delay RBD-5

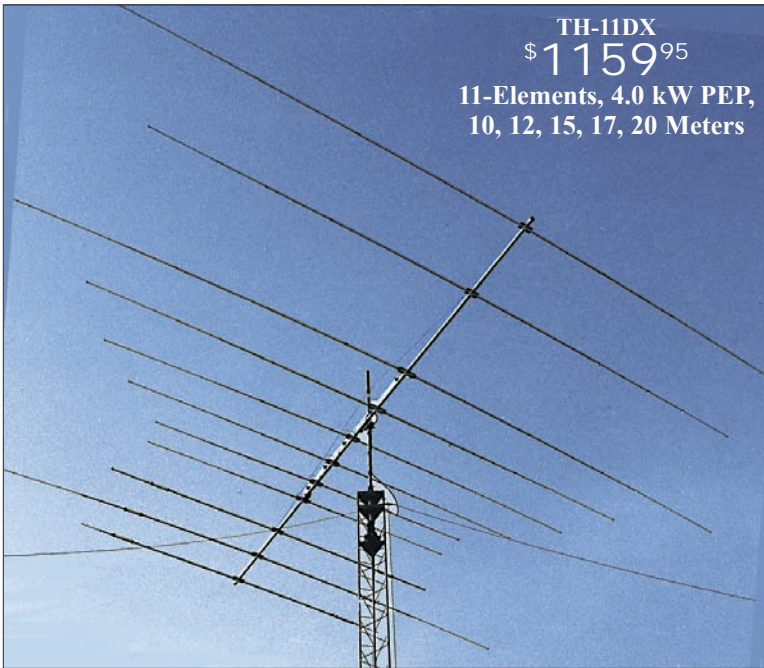


NEW! allows automatic 5 second brake

delay for your Hy-Gain rotator. This delay insures that the rotator is fully stopped before the brake is engaged. No more accidentally engaging brake while the rotator is in movement. Use with HAM II, III, IV, V, T2Xs. Easy-to-install. Includes pre-assembled PCB and hardware.

# hy-gain. HF BEAMS...

... are stronger, lighter, have less wind surface and last years longer.



TH-11DX  
\$1159<sup>95</sup>  
11-Elements, 4.0 kW PEP,  
10, 12, 15, 17, 20 Meters

## TH-11DX, \$1159.95. 11-element, 4.0 kW PEP, 10,12,15,17,20M

The choice of top DXers. With 11-elements, excellent gain and 5-bands, the super rugged TH-11DX is the "Big Daddy" of all HF beams! Handles 2000 Watts continuous, 4000 Watts PEP.

Every part is selected for durability and ruggedness for years of trouble-free service. Features a low loss log-periodic driven array on all bands with monoband reflectors, BN-4000 high power balun, corrosion resistant wire boom support, hot dipped gal-vanized and stainless steel parts.

Stainless steel hardware and clamps are used on all electrical connections.

## TH-7DX, \$869.95. 7-element, 1.5 kW PEP, 10,15,20 Meters

7-Elements gives you the *highest average gain* of any Hy-Gain tri-bander! Dual driven for broadband operation without compromising gain. SWR less than 2:1 on *all* bands. Combined monoband and trapped parasitic elements give you an excellent F/B ratio. Hy-Gain's diecast aluminum, rugged boom-to-mast clamp, heavy gauge element-to-boom brackets, BN-86 balun. For high power, use BN-4000.

## TH-5MK2, \$759.95. 5-element, 1.5 kW PEP, 10,15,20 Meters

The broadband *five element* TH5-MK2 gives you outstanding gain. Separate air dielectric Hy-Q traps let you adjust for maximum F/B ratio on each band. Has Hy-Gain's exclusive BetaMATCH™, stainless steel hardware and compression clamps and BN-86 balun.

## TH-3MK4, \$469.95. 3-element, 1.5 kW PEP, 10,15,20 Meters

The super popular TH-3MK4 gives you the *most gain for your money* in a full-power, full-size durable Hy-Gain tri-bander! Impressive average gain and whopping average front-to-back ratio. Handles 1.5 kW PEP. 95 MPH wind survival. Fits on average lot -- turning radius is just 15.3 feet. 4-piece boom is ideal for DXpeditions. Choose CD-45II or HAM-IV rotator. Hy-Gain BetaMatch™ for DC ground, full power Hy-Q™ traps, rugged boom-to-mast bracket and mounts on standard 2" O.D. mast. Stainless steel hardware. BN-86 balun recommended.

## TH-2MK3, \$369.95. 2-element, 1.5 kW PEP, 10,15,20 Meters

The 2-element TH-2MK3 is Hy-Gain's *most economical* full power (1.5kW PEP) full size tri-bander. Increase your effective radiated power and hear far better! Ruggedly constructed, top-performing, compact 6 foot boom, tight 14.3 foot turning radius. Installs almost anywhere. Rotate with CD-45II or HAM-IV. Use BN-86 balun.

## EXP-14, \$599.95. 4-element, 1.5 kW PEP, 10,15,20 Meters

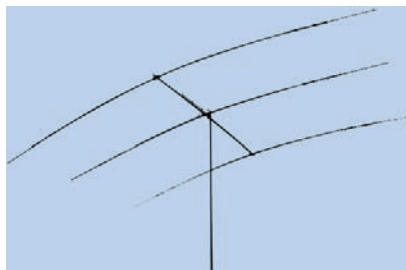
Revolutionary 4-element compact tri-bander can add 40 or 30 Meters! 14 foot boom and tight 17.25 feet turning radius. Fits on roof tri-pod, mast or medium duty tower. Hy-Gain's patented broadbanding ParaSleeve gives you less than 2:1 VSWR. 1.5kW PEP. BetaMATCH™ provides DC ground to eliminate static. Has BN-86 balun.

## DB-1015, \$449.95. 7-element, 1.5 kW PEP, 10 & 15 Meters

This dual band beam for 10 and 15 Meters incorporates Hy-Gain's superior mechanical design and has been computer optimized and range-tested for max performance. DB-1015 features a 14 foot boom in 4 sections. Handles full legal power and has Hy-Gain's rugged boom-to-mast clamp. DB-1217, \$449.95. Similar to DB-1015, but is dual band coverage for 12 and 17 Meters.

## Compact 3-element 10, 15, 20 Meter Tri-Bander

For limited space ... Installs anywhere ... 14.75 ft turning radius ... weighs 21 lbs ... Rotate with CD-45II, HAM-IV



Fits on light tower, suitable guyed TV pole, or roof tri-pod.

## TH-3JRS, \$359.95.

Hy-Gain's most popular 3-element 10, 15, 20 Meter tri-bander fits on most lots!

Same top performance as the full power TH3MK4 in a compact 600 watt PEP design.

Excellent gain and F/B ratio let you compete with the "big guns".

Tooled manufacturing gives you Hy-Gain durability with 80 MPH wind survival.

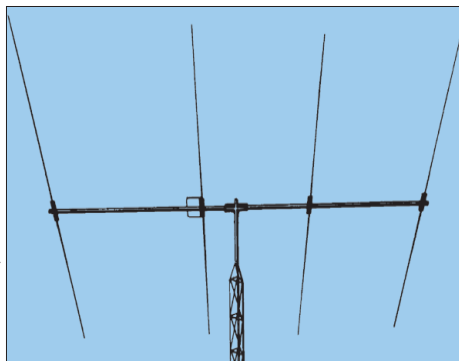
Model No.	No. of elements	avg gain dBi	avg F/B gain	MaxPwr watts PEP	Bands Covered	Wind sq.ft. area	Wind (mph) Survival	Boom (feet)	Longest Elem. (ft)	Turning radius(ft)	Weight (lbs.)	Mast dia O.D.(in.)	Recom. Rotator	Retail Price
TH-11DX	11	8.4	22	4000	10,12,15,17,20	12.5	100	24	37	22	88	1.9-2.5	T2X	\$1159.95
TH-7DX	7	8.77	21	1500	10, 15, 20	9.4	100	24	31	20	75	1.5-2.5	HAM-IV	\$869.95
TH-5MK2	5	8.3	20	1500	10, 15, 20	7.4	100	19	31.5	18.42	57	1.5-2.5	HAM-IV	\$759.95
TH-3MK4	3	8.0	25	1500	10, 15, 20	4.6	95	14	27.42	15.33	35	1.9-2.5	CD-45II	\$469.95
TH-3JRS	3	8.0	25	600	10, 15, 20	3.35	80	12	27.25	14.75	21	1.25-2.0	CD-45II	\$359.95
TH-2MK3	2	5.6	15-20	1500	10, 15, 20	3.25	80	6	27.3	14.25	20	1.9-2.5	CD-45II	\$359.95
EXP-14	4	8.1	25	1500	10,15,20 <sup>30/40</sup>	7.5	100	14	31.5	17.25	45	1.9-2.5	HAM IV	\$599.95
DB-1015	7	9.8	22	1500	10, 15	6.7	115	14	29.5	16.3	40	1.5-2.5	HAM IV	\$449.95
DB-1217	7	9.8	22	1500	12, 17	6.7	115	14	29.5	16.3	40	1.5-2.5	HAM IV	\$449.95



# Hy-Gain Long Johns HF Monobanders

**LJ-105CA, \$289.95.** 10 Meters, 5 elements, Exclusive 50 Ohm *BetaMatch*<sup>™</sup>. Excellent DC Ground. Stainless steel hardware and clamps. BN-4000 Balun recommended.  
**LJ-155CA, \$429.95.** 15/12 Meters, Five Elements, Exclusive 50 Ohm *BetaMatch*<sup>™</sup>. Excellent DC Ground. Stainless steel hardware and clamps. Includes 12 Meter setting. BN-4000 Balun recommended.  
**LJ-205CA, \$769.95.** 20/17 Meters, Five Elements. Exclusive 50 Ohm *BetaMatch*<sup>™</sup>. Excellent DC Ground. Stainless steel hardware and clamps. BN-4000 Balun recommended. Manual has setting for both bands.  
**LJ-204BA, \$539.95.** 20/17 Meters, Four Elements. Exclusive 50 Ohm *BetaMatch*<sup>™</sup>. The LJ-204BA has a tiltable cast aluminum boom-to-mast clamp, heavy gauge

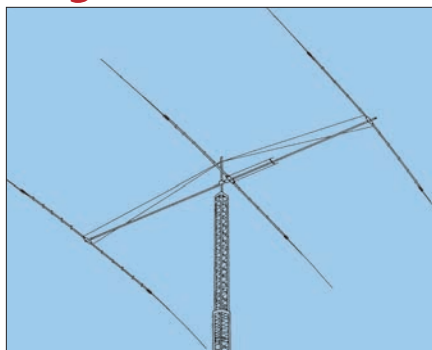
machine-formed element-to-boom brackets and stainless steel hardware and clamps. BN-4000 Balun is recommended. Manual has setting for both bands.  
**LJ-103BA, \$159.95.** 10 Meters, Three Elements. Feeds with 50 Ohm coax, comes factory pre-tuned with Hy-Gain's exclusive *BetaMatch*<sup>™</sup>. BN-86 balun recommended. Includes stainless steel hardware and clamps.  
**LJ-153BA, \$209.95.** 15 Meters, 3 elements. Feeds with 50 Ohm coax, *BetaMatch*<sup>™</sup>, 5.7 dBd gain. BN-4000 Balun recommended. Stainless steel hardware and clamps.  
**LJ-203BA, \$329.95.** 20 Meters, Three elements on a 16 foot boom. The LJ-203BA feeds with 50 Ohm coax, factory pre-tuned with Hy-Gain's exclusive *BetaMatch*<sup>™</sup>.



BN-4000 Balun is recommended. Stainless steel hardware and clamps. Tilttable, cast aluminum boom-to-mast bracket.

Model #	Gain (dBi)	F/B Max	Max Power	Boom Size	element size	turn Radius	Mast diam.	Surface	Wind
LJ-105CA	10.8 dBi	36 dB	1500 W PEP	24 feet	18 feet	15 feet	1.9-2.5 in.	3.9 sq. feet	100 m.p.h.
LJ-155CA	9.8 dBi	25 dB	1500 W PEP	26 feet	25 feet	17 feet, 6 in.	1.9-2.5 in.	5.2 sq. feet	88 m.p.h.
LJ-205CA	8.7 dBi	30 dB	1500 W PEP	34 feet	36 feet	25 feet	1.9-2.5 in.	9.0 sq. feet	99 m.p.h.
LJ-204BA	8.2 dBi	28 dB	1500 W PEP	26 feet	36 feet, 6 in.	22 feet, 6 in.	1.9-2.5 in.	7.3 sq. feet	100 m.p.h.
LJ-103BA	7.9 dBi	24 dB	1500 W PEP	8 feet	18 feet, 7 in.	10 feet, 2 in.	1.625-2.0 in.	2 sq. feet	107 m.p.h.
LJ-153BA	7.9 dBi	25 dB	1500 W PEP	12 feet	24 feet, 11"	14 feet, 3 in.	1.9-2.5 in.	3 sq. feet	80 m.p.h.
LJ-203BA	7.3 dBi	23 dB	1500 W PEP	16 feet, 6 in.	37 feet	20 feet	1.9-2.5 in.	5.4 sq. feet	80 m.p.h.

# Hy-Gain Discoverer Series Antennas



**DISCOVERER 71, \$289.95.**  
**Covers 40/30 Meters.**

This rotatable dipole of low weight and wind surface area so easily fits most existing beam installations. Tuned to 30 or 40 Meters with a front-to-side ratio of 30 dB for a fast, expansion of band capability. Feeds with 50 Ohm coax. Pre-formed mast clamp.

**DISCOVERER 72, \$649.95.**  
**Covers 40 Meters.**

This two-element 40 Meter beam has a unique hairpin loading system. It delivers superior performance. Feeds with 50 Ohm coax and comes factory pre-tuned with Hy-

Gain's exclusive *BetaMatch*<sup>™</sup>. Tilttable boom-to-mast bracket and stainless steel hardware is included. Hy-Gain high power BN-4000 balun is recommended.

**DIR-73K, \$409.95.**

**Add-On 30/40 Meter Director Kit**

**Converts the Discoverer 72 into a three-element beam.** Amazingly, it's all on a 35 foot boom, outperforming the other brands that are much larger. Discoverer 72 with director Kit fits on medium duty towers such as HG-52SS, saving both cost and space. HyGain offers wide bandwidth and Hy-Q efficiency without coils. Handle legal power limits.

Model #	Gain (dBi)	F/B Max	Max Power	Boom size	element size	turn Radius	Mast diam.	Surface	Wind
DIS-71	6.5 dBi	35 dB	1500 W PEP	2.7 feet	45 feet	22.5 feet	1.9-2.5 in.	2.7 sq. feet	100 m.p.h.
DIS-72	6.5 dBi	15 dB	1500 W PEP	22.6 feet	44.8 feet	25 feet	1.9-2.5 in.	6.0 sq. feet	80 m.p.h.
DIR-73K	7.5 dBi	26 dB	1500 W PEP	35 feet	45.7 feet	28.9 feet	1.9-2.5 in.	9.0 sq. feet	80 m.p.h.

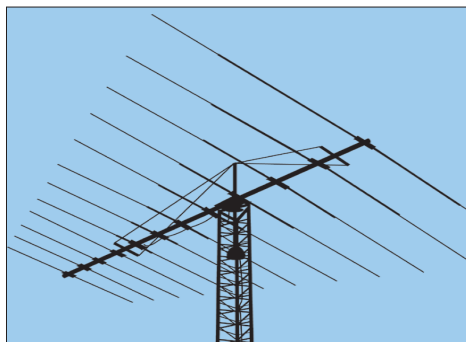
# Hy-Gain HF Log Periodic Antennas

**LP-1009A, \$1429.95.** LP-1009A for UHF connector. LP-1009AN for "N" connector. Covers 10/12/15/17/20 Meters Covers the complete 13-30 MHz HF spectrum under a 2:1 VSWR. Built to commercial specifications, it is used by MARS, monitoring stations, marine and government radio stations around the world and now it's available to Hy-Gain amateur customers. The discerning ham operator will appreciate its performance and ease of use. Just imagine all that spectrum coverage and only one feedline. Exclusive 2KW BN-4000 current type

balun included. Use T2X Tailtwister or HDR-300A rotators.

**LP-1010A, \$1799.95.** LP-1010A for UHF connector. LP-1010AN for "N" connector. Covers 10-30 MHz (10, 12, 15, 17, 20, and 30 Meters)


There are only a few antennas that offer as much HF frequency coverage as the LP-1010A. Like the LP-1009A, this antenna is built to commercial standards using stainless steel hardware and having a wind survivability of 93 mph. Rotatable with use of T2X or HDR-300A rotators.



Model #	Gain (dBi)	F/B Max	Max Power	Boom size	element	turn Radius	Mast diam.	Surface	Wind
LP-1009A/N	7.3 dBi	22 dB	1500 W PEP	27 feet	39 feet	22.5 feet	1.9-2.5 in.	12.5 sq. feet	103 m.p.h.
LP-1010A/N	7.0 dBi	22 dB	1500 W PEP	36 feet	48 feet	28.5	1.9-2.5 in.	16 sq. feet	93 m.p.h.


## Hy-Gain VHF Vertical Antennas

**V-2R** 2 Meter  
\$ **109<sup>95</sup>** vertical with 5.2 dBi gain derived from the famous extended double zepp antenna design. Radiating elements are two collinear 5/8 waves fed in phase. 2 sets of 1/4 wave radials properly decouple lower radiator from the mast. SO-239, handles 500 Watts. 9 ft.




**V-4R** UHF vertical with 5.2 dBi gain derived from double zepp antenna design. Type N, handles 500 Watts, 4 foot. 1 1/4 Meter vertical w/5.2 dBi gain, double zepp design. SO-239, handles 500 Watts. 6ft., 9 in.


**V-3R**  
\$ **119<sup>95</sup>** Covers 216-225 MHz



**V-42R** V-42R is independently tunable at 143-153, and 436-144 and 455 MHz. 440 MHz. Fed through one coax cable, it has sets of 1/4 wave radials which properly decouple 5/8 wave radiators from the mast. Gives 5 dBd gain UHF and 3 dBd gain on VHF. Type N, handles 200 Watts. 9 ft.



**V-6R** V-6R antenna is based on 2 collinear 5/8 wave radials. 500 Watt enclosed coil and 2 sets of 1/4 wave radials provide complete mast decoupling and optimum pattern and gain. Rugged design for severe weather, also DC ground lightning protector. 25 ft., 3 in., UHF female connect, handles 500 Watts.




Model#	Frequenc	Gain dBi	Pwr Input	Wind	Max Mast	Height	Weight
V-2R	138-175	5.2 dBi	500 Watts	105 mph	2 in. OD	9 foot	6 pounds
V-42R	143-153, 436-455	7.2 UHF, 5.2 VHF	200 Watts continuous	100 mph	2 in. OD	9 foot	6 pounds
V-4R	400-475	5.2 dBi	500 Watts	230 mph	2 in. OD	4 foot	4 pounds
V-3R	216-225	5.2 dBi	500 Watts	100 mph	2 in. OD	6 ft. 9 in.	5 pounds
V-6R	51-54	5.2 dBi	500 Watts	80 mph	1.5-2.25	25 ft. 3 in.	15 pounds

## Hy-Gain VHF Ground Planes

**GPG-2B**  
\$ **49<sup>95</sup>** Covers 142-185 MHz

**GPG-1B**  
\$ **39<sup>95</sup>** Covers 144-148 MHz

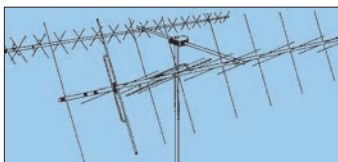


**GPG-2B** is a 5/8 Wavelength Ground Plane for two meters is omnidirectional and tunable from 142-185 MHz. It delivers an omnidirectional gain of 3.2 dBi. Handles 100 Watts. Measures 4 feet, max mast mount accepted is 1.625 in O.D. Wind area is .30 sq. ft.

**GPG-1B** is a 1/4 Wavelength ground plane similar to the GPG-2B. It has unity gain, covers 144-148 MHz.

**GPG-1**, \$39.95, is similar to GPG-1B, but covers 162-174 MHz.

## Oscar Link 435 MHz • 145.9 MHz



**VB-216SAT** \$ **229<sup>95</sup>** Covers 144-148 MHz

**UB-7030SAT** \$ **229<sup>95</sup>** Covers 432-438 MHz

**FB-217SAT** \$ **119<sup>95</sup>** Crossboom Assembly only

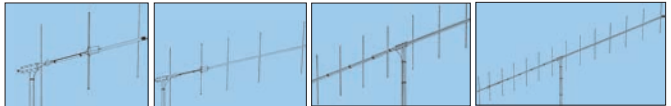
Hy-Gain's Oscar Link antennas are complete with the necessary phasing lines, relays and hardware. Left and right circularity switching reduces fading. True RF switching elements are rated at 200 Watts and improved VSWR for higher efficiency. Feed points are encapsulated, weather protected for long life. The fiberglass crossboom maintains the integrity of the circularity pattern.

**DB-218SAT**, \$559.95. The complete 2 Meter/ 440 MHz Oscar Link antenna system with crossboom assembly with necessary phasing lines, relays and hardware.

Model#	F/B ratio	Gain dBi	Pwr Input	# Element	Boom	Wind	Weight
VB-216SAT	25 dB	13.7 dBi	200 W PEP	16	168.75 in.	1.1 sq. ft.	7 lbs.
VB-7030SAT	25 dB	16.2 dBi	200 W PEP	30	134 inches	.7 sq. ft.	4 lbs.

## VHF-FM Beam Antennas

These 2 Meter FM beam antennas include Hy-Gain's exclusive *Beta Match™* to provide exceptional Front-to-Back ratio and maximum obtainable gains. The VB-23FM (8.3 dBi gain), VB-25FM (11.2 dBi gain), VB-28FM (14 dBi gain), and the VB-214FM (15.2 dBi gain) gives you a wide choice of 2 Meter Beam performance from which to choose. Accepts up to 2 inch mast.



**VB-23FM** \$ **49<sup>95</sup>** 2 Meter FM Beam

**VB-25FM** \$ **59<sup>95</sup>** 2 Meter FM Beam


**VB-28FM** \$ **79<sup>95</sup>** 2 Meter FM Beam

**VB-214FM** \$ **89<sup>95</sup>** 2 Meter FM Beam

## New! Dual Band Yagi Antenna

**DB-2345** \$ **89<sup>95</sup>** 2 Meter/440 Dual Band Yagi

**DB-2345** gives a whopping 8 dBi gain on 2-Meters and 6 dBi gain on 440 MHz. Has 3-elements on two meters and 5-elements on 440 MHz. Requires only one feedline for true dual band performance. Point in direction of your QSO for more direction of your output power. This reduces interference and increases signal strength.



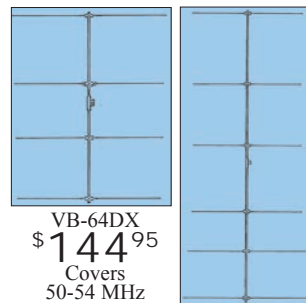
Model#	F/B MAX	Gain dBi	Pwr Input	Long el	Boom	Mast dia.	Weight
VB-23FM	20 dB	8.3 dBi	500 Watts	40.25 in.	43.5 in.	2.0 in.	2 pounds
VB-25FM	20 dB	11.2 dBi	500 Watts	39.625 in.	75 in.	2.0 in.	3 pounds
VB-28FM	20 dB	14 dBi	500 Watts	40.25 in.	148.75 in.	2.0 in.	4 pounds
VB-214FM	20 dB	15.2 dBi	500 Watts	39.5 in.	15 ft. 6 in.	2.0 in.	6 pounds
DB-2345 - 2M	17 dB	8 dBi	500 Watts	40.5 in.	45 in.	1.5 in.	2 pounds
DB-2345 - 440	10 dB	6 dBi	500 Watts	40.5 in.	45 in.	1.5 in.	2 pounds

## 6-Meter DX Beam Antennas

**VB-64DX** \$ **144<sup>95</sup>** Covers 50-54 MHz

**VB-66DX** \$ **264<sup>95</sup>** Covers 50-54 MHz

The VB-64DX and VB-66DX feature a concept in beam construction that provides actual delivered performance equalling maximum theoretical gain. The 4-element VB-64DX generates an impressive 10.4 dBi gain and the 6-element VB-66DX increases the gain to an unprecedented 12.5 dBi.



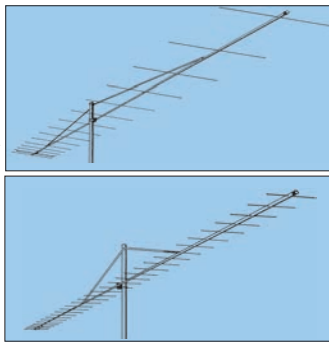
Model#	Frequenc	Gain dBi	Pwr Input	wind area	#Element	Boom	Weight
UB-7031DX	420-438	19.8 dBi	2 kW PEP	1.9 sq. ft.	31	24.06 ft.	9.25 lbs.
VB-215DX	144-146	16.4 dBi	2 kW PEP	2.75 sq. ft.	15	27.88 ft.	13.56 lbs.
VB-64DX	50-54	10.4 dBi	500 Watts	1.1 sq. ft.	4	12 ft.	10 lbs.
VB-66DX	50-54	12.5 dBi	1.5kWPEP	1.8 sq. ft.	6	24.575 ft.	17 lbs.

## VHF/UHF DX Beam Antennas

**UB-7031DX** \$ **219<sup>95</sup>** Covers 420-438 MHz

**VB-215DX** \$ **229<sup>95</sup>** Covers 144-146 MHz

Hy-Gain's DX-Series VHF/UHF Beams are based on the DL6WU element length and spacing and were further refined on Hy-Gain's antenna test range and by computer modeling. Both beams feature encapsulated weatherproof feedpoints with type N connectors for excellent VSWR and power handling. High quality mechanical construction is assured by heavy wall booms and boom supports made of 6063-T832 aluminum tubing, stainless steel hardware, UV stabilized thick-shoulder element insulators and PTFE coaxial baluns.

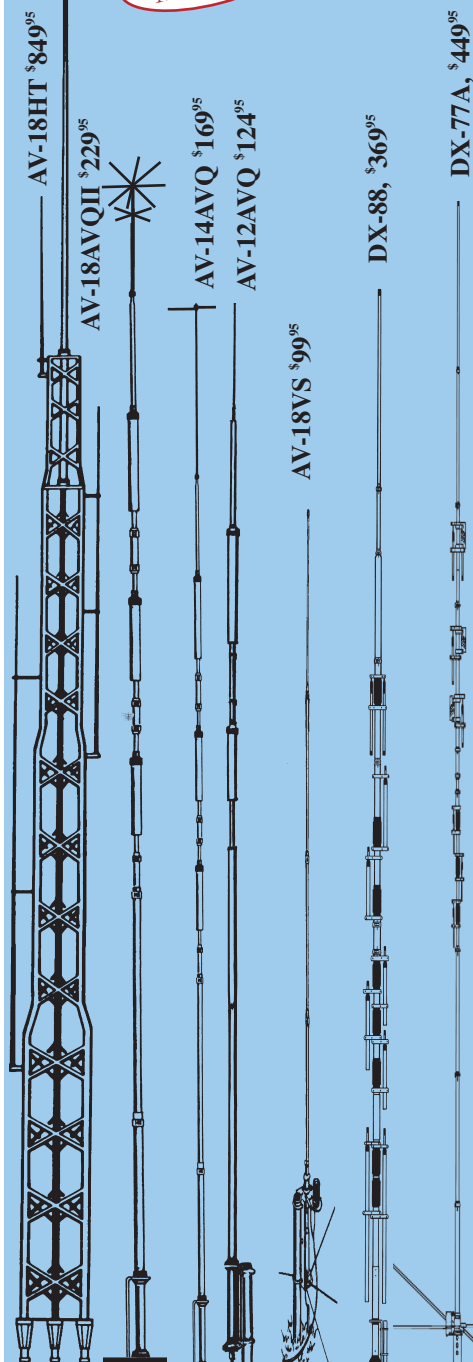




# hy-gain HF VERTICALS

Self-supporting -- no guys required . . . remarkable DX performance -- low angle radiation, omnidirectional . . . 1500 Watts . . . Low SWR . . . 2 year limited warranty

Free Manuals!



All hy-gain multi-band vertical antennas are entirely self supporting -- no guys required. They offer remarkable DX performance with their extremely low angle of radiation and omnidirectional pattern.

All hy-gain vertical antennas handle 1500 Watts PEP SSB, have low SWR, automatic band-switching (except AV-18VS) and include a 12-inch heavy duty mast support bracket (except AV-18HT). Heavy duty, slotted, tapered swaged, aircraft quality aluminum tubing with full circumference compression clamps is used for radiators. Includes all stainless steel hardware. Recessed SO-239 prevents moisture damage.

Hy-gain verticals go up easily with just hand tools and their cost is surprisingly low. All hy-gain Verticals feature a two year limited warranty.

## AV-18HT, \$849.95.

10/12/15/20/40/80 M

### 17 & 160 Meters optional

Standing 53 feet tall, the famous Hy-Gain HyTower is the world's best performing vertical! The AV-18HT features automatic band selection achieved through a unique stub-decoupling system which effectively isolates various sections of the antenna so that an electrical 1/4 wavelength (or odd multiple of a 1/4 wavelength) exists on all bands.

Approximately 250 kHz bandwidth at 2:1 VSWR on 80 Meters. With the addition of a base loading coil LC-160Q or MK-160A, it also provides exceptional 160 Meter performance. The 24 foot tower is all rugged, hot-dip galvanized steel and all hardware is iridized for corrosion resistance. Special tilt-over hinged base for easy raising and lowering. 53 feet, 114 lbs. MK-17, \$89.95. 17M add-on Kit. LC-160Q, \$109.95. 160 M loading coil. MK-160A, \$119.95. 160M 1500W kit.

## DX-88, \$369.95.

10/12/15/17/20/30/40/80M

### 160 Meters optional.

All bands are easily tuned with the DX-88's exclusive adjustable capacitors. 80 and 40 Meters can even be tuned from the ground without having to lower the antenna. Super heavy-duty construction. 25 feet, 18 pounds. DX-88 OPTIONS: KIT-160-88, \$189.95. 160 M add-on kit. GRK-88, \$99.95. Ground Radial System. RRK-88, \$99.95. Roof Radial System.

## DX-77A, \$449.95.

10/12/15/17/20/30/40 M

No ground radials required! Off-center-fed Windom has 55% greater bandwidth than competitive verticals. Heavy-duty tiltable base. Each band independently tunable. 29 feet, 25 pounds.

## AV-18AVQII, \$229.95.

10/15/20/40/80 Meters

**New!** The classic is back with improved design including three separate air dielectric Hy-Q™ traps for 10 through 80 Meters --1.5 kW PEP. A loading coil and an effective radiator is used for 80 Meters --1kW PEP.

## AV-14AVQ, \$169.95.

10/15/20/40 Meters

The Hy-Gain AV-14AVQ uses the same trap design as the famous Hy-Gain Thunderbird beams. Three separate air dielectric Hy-Q traps with oversize coils give superb stability and 1/4 wave resonance on all bands. 18 feet, 9 pounds.

**New!** MK-80, \$79.95. 80 Meter add-on kit for AV-14AVQ. Easy to install. Includes pre-wound loading coil, hardware.

## AV-18VS, \$99.95.

10/12/15/17/20/30/40/80 M

High quality construction and low cost make the AV-18VS an exceptional value. Easily tuned to any band by adjusting feed point at the base loading coil. Roof mount with Hy-Gain AV-14RMQ kit, \$89.95. 18 feet, 4 pounds.

## AV-12AVQ, \$124.95.

10, 15, 20 Meters

The AV-12AVQ also uses Thunderbird beam design air dielectric traps for extremely Hy-Q performance. This is the way to go for inexpensive tri-band performance in limited space. 13 ft., 9 lbs. Roof mount with AV-14RMQ kit, \$89.95.

## AV-14RMQ, \$89.95

### Roof Mounting Kit

The AV-14RMQ roof mounting kit provides rugged support for Hy-gain models AV-18VS, AV-14AVQ and AV-12AVQ. Kit includes base plate, mast, radial/guy wires and mounting hardware.

## Hy-Gain Roof Mount

This Hy-Gain roof mount will support a modest antenna with rotor and thrust bearing, (not included). Measures 4.5 feet tall, weighs just 18 lbs. Maximum load is 100 lbs. Tough aluminum construction.

RT-424  
\$99.95  
UPS  
Shippable



Model #	Price	Bands	Max Power	Height	Weight	Wind Surv.	Rec. Mast
AV-18HT	\$849.95	10,15,20,40,80	1500 W PEP	53 feet	114 pounds	75 MPH	-----
AV-14AVQ	\$169.95	10,15,20,40	1500 W PEP	18 feet	9 pounds	80 MPH	1.5-1.625"
AV-12AVQ	\$124.95	10/15/20 M	1500 W PEP	13 feet	9 pounds	80 MPH	1.5-1.625"
AV-18VS	\$99.95	10 - 80 M	1500 W PEP	18 feet	4 pounds	80 MPH	1.5-1.625"
DX-88	\$369.95	10 - 80 M	1500 W PEP	25 feet	18 pounds	75 mph no guy	1.5-1.625"
DX-77A	\$449.95	10 - 40 M	1500 W PEP	29 feet	25 pounds	60 mph no guy	1.5-1.625"
AV-18AVQII	\$229.95	10,15,20,40,80	1500 W PEP	18 feet	12 pounds	70 mph guy	1.5-1.625"

Hy-Gain . . . Antennas, Rotators and Towers!

# Hy-Gain<sup>®</sup> Multi-Band PATRIOT Vertical Antennas

8-band vertical covers 40/30/20/17/15/12/10/6 Meters

• No radials • No traps • No ground • No tuning • Handles 1500 Watts

hy-gain's new PATRIOT HF verticals are the best built, best performing and best priced multiband verticals available today.

Make full use of your sunspot cycle with the PATRIOT's low angle signal.

**AV-640, \$399.95**, uses quarter wave stubs on 6, 10, 12 and 17 meters and efficient end loading coil and capacity hats on 15, 20, 30 and 40 meters.

Instead of typical traps, the AV-640 resonators are placed in parallel not in series.

End loading of the lower HF bands allows efficient operation with a manageable antenna height.

**No ground or radials needed** -- Effective counterpoise replaces radials, end fed with broadband matching unit.

**Automatic bandswitching** -- Single coax cable feed, each band is individually tunable, wide VSWR bandwidth.

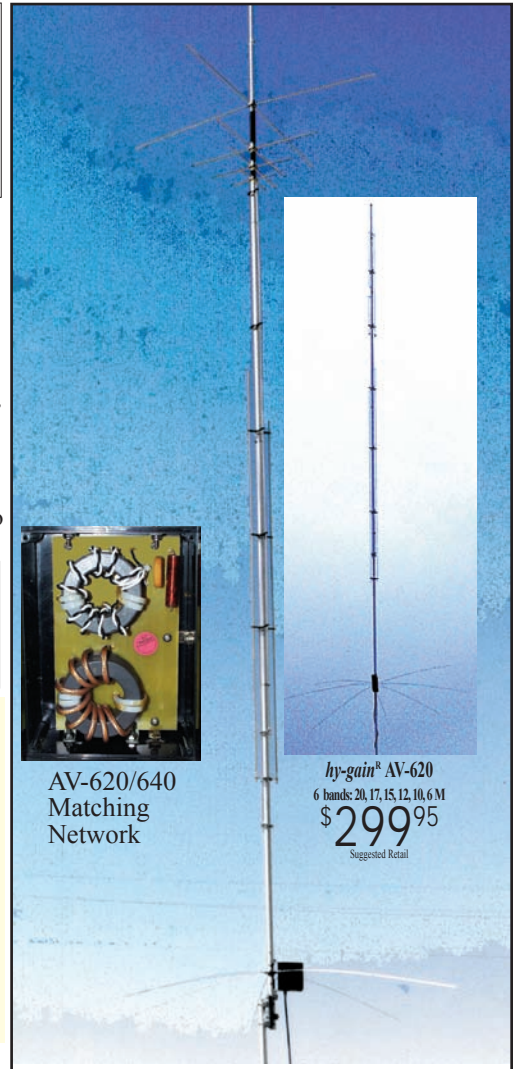
**Sleek and low-profile** -- Low wind surface area, small area required for mounting, mounts easily on decks, roofs and patios.

**Built-to-last** -- Hy-gain's Patriot series antennas boast a high wind survival due to its sleek, but sturdy frame. The matching unit is made from all Teflon<sup>®</sup> insulated wire.

**Hy-gain<sup>®</sup> warranty** -- Two year limited warranty, all replacement parts in stock.

**AV-620, \$299.95**. Covers all bands 6 through 20 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands.

hy-gain<sup>®</sup> AV-640  
8 Bands: 40, 30, 20, 17, 15, 12, 10, 6 M  
**\$399.95**  
Suggested Retail  
**Call your dealer for your best price!**



AV-620/640 Matching Network



hy-gain<sup>®</sup> AV-620  
6 bands: 20, 17, 15, 12, 10, 6 M  
**\$299.95**  
Suggested Retail

Model #	Bands	Max Pwr	Height	Weight	wind surv
AV-620	6B, 6-20	1500W	22.5 feet	10.5 lbs.	80 MPH
AV-640	8B, 6-40	1500W	25.5 feet	17.5 lbs.	80 MPH

## FAMOUS Heavy Duty HY-GAIN BALUNS



**BN-86, \$79.95.** Broadband 50 Ohm ferrite balun. Useable from 3 to 30 MHz. Recommended for all HF Yagi antennas. It provides improved front-to-

back ratio. Comes w/clamp to bolt to boom, SO-239 connector.



**BN-4000B, \$109.95.** Broadband 50 Ohm Beam current balun is potted to seal out moisture. Rated at 4000 Watts for increased power handling capabilities.

Range is 1 MHz to 54 MHz. SO-239 connector. **BN-4000D, \$109.95.** dipoles. **BN-4000N, \$119.95.** "N" connector.

## Hy-gain Antenna Feedpoint Pig Tail Cable

**APT-2, \$12.95.**

Hy-gain's Antenna Feedpoint Pig Tail cable has 2-foot length for connecting between antenna and your coaxial feedline.

Has SO-239 connector on one end and 2 (#10) ring terminals on the other end. Provides an easy and reliable connection for your feedline with PL-259 connector to your antenna feed point.

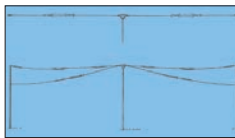
Use this for Hy-gain VB series beams and other antennas without an SO-239 connector feed point.



## HF Multiband Hy-Q trap DOUBLETS

**DP-2BDQ, \$139.95.** 40/80 Meters, 101 feet maximum length of dipole.

**DP-5BDQ, \$259.95.** 10-80 Meters, 94 ft. max length. DP-2BDQ and DP-5BDQ are designed for horizontal or inverted "V" rated at legal power. Each individually pretuned matched traps for each band. 50-Ohm feed, cable not incl.



## ADJUSTABLE HF DIPOLE ANTENNA

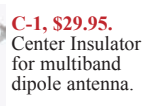


**DP-19PD, \$279.95.** 1.8-30 MHz, 160-10 Meters. Great for field day, camping or anytime. Braided nylon wire rope with conductors woven in. Pre-marked frequencies for easy installation. Includes 100 foot support rope on each end and SO-239 (UHF) connector is on center insulator.

## HY-GAIN INSULATORS FOR MULTIBAND DIPOLE ANTENNA



**E-1, \$6.95.** End Insulator for Multi-band doublet antenna. Set of 2.



**C-1, \$29.95.** Center Insulator for multiband dipole antenna.



**C-1C, \$29.95.** Similar to C-1, but has SO-239 antenna connector.



**E-2, \$6.95.** End Insulator for Multi-band doublet antenna. Set of 2.

## 4 Foot Ground Rod

**GR-1 Durable \$6.95** four foot cop-Ship per bonded Code B steel earth

ground rod is a tough 3/8 in. diameter. Sharp point makes it easy to insert ground. Helps bleed off static, RFI and prevent RF hot spots. Use several to form a good RF ground for long wires.

## Hy-Gain Glazed Ceramic Insulator

**E-2 79¢** each Ship Code A  
**E-26 \$4.56** 6-Pack Ship Code A



**Extra-strong** -- will not break, arc over or melt even under full legal power. Molded ridges give extra-long path to prevent high-voltage breakdown.



## Hy-Gain HyTower-Jr™

Stands 39 feet tall . . . Full 1/4 Wave on 40, 20, 15, 10 Meters . . . Cage loading on 80 Meters . . .  
World's Second Best Vertical Antenna . . .

Standing a tall 39 feet with full-size elements and rated at 5 KW, the AV-18JR Hy-gain HyTower-Jr.™ is the world's second best\* performing vertical!

AV-18HTJr.  
\$349.95  
UPS Shippable

80 Meters.

The HyTower-Jr.™ has almost no losses -- your ground system determines your efficiency.

It is automatic bandswitching, fed with 50 Ohm coax and has low SWR over an exceptionally wide bandwidth with SWR less than 1.2 at resonance.

The main radiator is aircraft high-strength, heavy walled, 2-inch aluminum tubing swaged at the top. Self-supporting in winds up to 40 MPH.

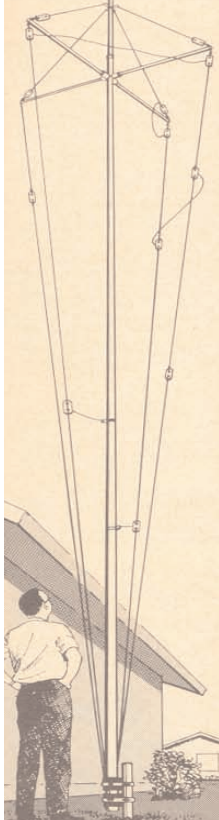
Mounts on 1 1/4 inch plumber's pipe. Heavy duty components will give you years of trouble-free operating pleasure.

Requires good ground system for optimum performance. UPS Shippable.

\*The famous 53 foot Hy-gain HyTower™ is legendary. It's the premier, best performing vertical in the world -- bar none!

At less than half the price with nearly the same performance and based on the same principles, the HyTower-Jr.™ is the poor man's version of its father HyTower.

Of course, Junior™ doesn't have its father's rugged hot-dipped galvanized steel tower and construction!



ATM-65  
\$189.95

## Hy-gain Aluminum Tubing

6063 T832 round, drawn aluminum tubing sold in 2 styles: 6' standard or 6' slitted one end, (.083" gaps, 1-2" slit lengths).

Tubings are sized to allow telescoping into one another from .625 OD to 2 inches OD. Select slitted tubing for telescoping. Use Hy-gain Stainless Steel hose clamps to secure.

OD x Wall-Th x ID	6'strnd; p/n, price/ea	6'slitt; p/n, price/ea.	Ad'v'tf.
.625"x.035"x.555"	810-0625C-6U, \$5.70	810-0625C-6S, \$6.90	\$1.00
.750"x.058"x.634"	810-0750E-6U, \$10.55	810-0750E-6S, \$12.66	\$1.85
.875"x.058"x.759"	810-0875E-6U, \$8.72	810-0875E-6S, \$9.92	\$1.53
1.000"x.058"x.884"	810-1000E-6U, \$11.46	810-1000E-6S, \$12.66	\$2.01
1.125"x.058"x1.009"	810-1125E-6U, \$10.03	810-1125E-6S, \$11.23	\$1.76
1.250"x.058"x1.134"	810-1250E-6U, \$11.57	810-1250E-6S, \$12.77	\$2.03
1.375"x.058"x1.259"	810-1375E-6U, \$13.17	810-1375E-6S, \$14.37	\$2.31
1.500"x.058"x1.384"	810-1500E-6U, \$17.95	810-1500E-6S, \$19.16	\$3.15
1.625"x.058"x1.509"	810-1625E-6U, \$21.32	810-1625E-6S, \$22.52	\$3.74
1.750"x.058"x1.634"	810-1750G-6U, \$27.86	810-1750G-6S, \$29.62	\$4.88
2.000"x.120"x1.760"	810-2000I-6U, \$38.93	810-2000I-6S, \$41.03	\$6.83

## Hy-gain Stainless Steel Hose Clamps

Part No.	Price	Description
745-3106S	\$1.00	#6 Clamp for .75" OD to .875" OD tubing
745-3110S	\$1.00	#10 Clamp for 1" OD to 1.125" OD tubing
745-3116S	\$1.25	#16 Clamp for 1.25" OD to 1.50" OD tubing
745-3128S	\$2.84	#28 Clamp for 1.75" OD to 2" OD tubing



## Hy-gain Telescopic Aluminum Mast

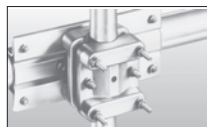
ATM-65, \$189.95. 11-section multi-purpose aluminum telescopic pole can be used for vertical antennas or as a mast, pictured left. Great for portable, temporary use and permanent use -- traveling, camping, etc. Includes one size of each slitted tube listed above and ten hose clamps. 65 ft. fully extended, 6 ft. collapsed without clamps. Guying required if mast is extended beyond 30 feet. Top section is .625" OD. Bottom section is 2 inches OD x .120 wall.

810-2000I-6W, \$44.95 each. Unique tubing has one end slitted and one end swaged to make it stackable. Join one end to other to make a longer pole. Secure with standard host clamp. Strong, 2"OD x .120" wall. Good for base sections of vertical antennas. Standard 6-ft. length, longer sections, to 20 ft. available. Add \$6.83 each add'l foot. 6 ft. lengths ship by UPS, longer units must ship UPS oversize/truck.

Hy-gain Base Mount Assembly Kit  
877200, \$69.95. **New!** Complete ATM-65 base assembly kit with base mounting plate, insulators, hardware, etc.



## Hy-gain Custom Made Precision Antenna Hardware



### BMC-249, \$79.95. Boom to Mast Clamp

Heavy duty 1 1/4" OD thick aluminum die casted boom to mast clamp designed specifically for securing heavy antennas. It is capable of supporting 2" boom antennas, such as the TH-1DX, Long John Monobanders and other beams with a 2" boom. The BMC-249 allows mast to extend past the top of the clamp. This feature allows

stacking of several antennas on one mast. Clamp is adjustable for mast sizes from 1 1/8" to 2 1/4" OD. The tilt-over feature permits easy assembly of the elements and simplifies maintenance of the antenna. 4Wx4Hx1 1/2" thick. Kit comes complete with stainless steel hardware.

**Element Insulators** These element insulators are made to fit the element bracket (right). Precision injection molded with black UV resisted ABS plastic.

Part No.	Price	Fits these Element sizes	Insulator Size	Fits Element to boom clamp
465216	\$3.42	7/16" OD	7/8" OD x 2 1/2"	1634009
461057	\$4.40	3/8" OD	1 1/4" OD x 3"	165919
463767	\$4.40	7/8" OD	1 1/2" OD x 3"	165919
465833	\$4.80	1 1/2" OD	1 1/2" OD x 4"	165920

**Hy-gain TH-series HF Beam Trap Caps**  
A. 464723, \$.75 ea. Trap caps, for large Hy-gain TH-series traps.  
B. 466221, \$1.59 ea. Trap caps for Hy-gain TH-3Jr. traps.



### Element to Boom Clamps

Made from high tensile strength aluminum alloy. Custom die is used to stamp these clamps. No miss-drilled holes. They fit perfect everytime. Required 2 clamps per element. Element Insulators available (left).



Part#	Price	Boom OD"	Element OD		Description	Insulator
			w/o insulator	w/insulator		
161409	\$2.71	2"	5/8"	---	2 1/2"x7"x.08 Thick, #12	None
163764	\$3.80	2"	7/8"	7/16"	2 1/2"x7 1/2"x.08 Thick, #4	465216
165919	\$5.32	2"	1 1/4"	5/8", 7/8"	3 1/2"x7 1/2"x.125 Thick, #13	463767, 461057
165920	\$6.28	2"	1 1/2"	1 1/4"	3 1/2"x9 1/2"x.125 Thick, #14	465833
160055	\$1.22	1 1/4"	7/8"	---	3 1/2"x5"x.063 Thick, #0	None
161422	\$3.63	1 1/4"	5/8"	---	2 1/2"x6 1/2"x.08 Thick, #11	None
165141	\$3.76	1 1/4"	7/8"	7/16"	2 1/2"x6 1/2"x.08 Thick, #12	465216
165138	\$5.20	1 1/4"	1 1/4"	5/8", 7/8"	2 1/2"x6 1/2"x.08 Thick, #1	463767, 461057
872223	\$6.60				Stainless steel screws, nuts and washers for 1 set of element-to-boom clamp	

## Hy-gain Vertical Antenna Mounting Hardware

- A. 463011, \$14.00. Base tube insulator, fits 1 1/4" OD tube. Six 5/16" mounting holes. Super strong, made of fiberglass filled ABS. Used in Hy-tower to isolate tower legs from ground. Tube not included.
- B. 877130, \$28.64. Vertical antenna bracket assembly. Includes bracket (C), base cover insulator (D), support insulator (E) and SO-239. Tube not included. Fits 1 1/4" tubing.
- C. 160043-1, \$11.84. Base mount bracket. Made of 1/8" thick aluminum with custom tooling. Preformed vertical ridges increase strength. Pre-punched holes for 4-hole SO-239.
- D. 863427, \$6.90. Base cover insulator. Allows attachment of base tube. Has hollow center for antenna connector. Mold-in pin connects base tubing to connector.
- E. 463056, \$3.12. Base antenna support insulator. Made to fit top support of antenna bracket (C). Hole fits 1 1/4" OD tubing.
- F. 460316, \$12.96. Tubing coupler/insulator. Used to couple/insulate 1" tube to 7/8" tubing. Made of fiberglass filled ABS, 5" long.

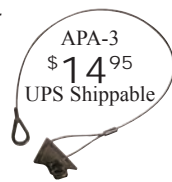
## Hy-Gain Tower Bases

Specially designed for Hy-gain crank-up towers. Complete with base hinge and foundation welded steel-cage. Specify tower model. \*Must be shipped by truck, call for quote.

Model#	Tower	Price	Weight
TB-37	HG-37SS	\$299.95	50 lbs.*
TB-52	HG-52SS	\$299.95	80 lbs.*
TB-54	HG-54HD	\$299.95	90 lbs.*
TB-70	HG-70HD	\$349.95	102 lbs.*

## Arrowpoint Anchor

APA-3, \$14.95. Hy-gain's Arrow Point Anchor is made of high quality 13 gauge steel. This 3" Arrow Point anchor has 36" integral swiveling 1/8" steel cable. Superior pullout resistance, up to 2000 lbs. Use this ArrowPoint anchor to secure antennas, towers, tarps, trees, carparks, flagpoles and much more. Easy to install with optional drive rod, DR-3, \$29.95.



# MIRAGE . . . 160 Watts on 2 Meters!

**MIRAGE'S Most Popular** amplifier gives you 160 Watts of output power for just 25W in from your base/mobile rig!

The B-2518-G is ideal for your 20-60 Watt 2 Meter mobile or base station. You'll talk further, longer, clearer on all modes --FM, SSB, CW -- hear weak signals better than you've ever before! You get low noise 20 dB GaAsFET pre-amp with an excellent 0.6 dB noise figure for pulling out weak signals.

**B-2518-G** is fully protected with features found in expensive commercial amplifiers. High SWR or excessive input power can damage your amplifier. Protection circuits automatically bypass your amplifier to prevent damage and LED lights to warn you.

**Active-Bias™ System gives crisp, clear voice in SSB mode!**

An Active-Bias™ System keeps SSB voice crisp and clear for fantastic operation.

Other amplifiers using conventional bias methods tend to produce splatter and distortion as power level changes. This amp with Active-Bias™ doesn't exhibit the problem.

The B-2518-G knows when you are

B-2518-G  
\$329.95  
Suggested Retail



transmitting and kicks in 160 Watts of power. Adjustable time delay gives you smooth transmit/receive switching. Remote external keying. You can remotely control your B-2518-G and place it out of the way. An RC-2, \$49.95, Remote Control turns Power On/Off and select SSB/FM. Extra heavy duty custom heatsink spans the

entire cabinet. Draws 16-20A from 13.8 VDC. Compact 12x3x5.5 inches.

**More 160 Watt 2 Meter Amps**

**B-5018-G, \$329.95.** Like B-2518-G, but for 10-50 Watt mobile/base. 160 Watts out for 50 W in.

**B-1018-G, \$409.95.** MIRAGE'S most popular dual purpose HT or mobile/base 2 Meter amp. Get 160 Watts out for 10 W in. For 0.2 to 15 Watt rigs Use RC-2, \$45, Remote Control.

**Remote Control Head for Amps RC-1/RC-2,**

**\$49.95.** Remote controls most MIRAGE amps. Power On/Off, preamp On/Off, switch for SSB/FM. 25 ft. cable (longer available with special order). 1 3/4x 3 3/4x2 1/2". 5018/2518/1018 use RC-2. Others use RC-1, call mirage to verify.



Power Curve -- Typical Output Power in Watts											Amps
B-1018-G	25	50	140	150	160	160	--	--	--	--	19
B-2518-G	5	7	40	60	80	100	125	160	160	160	16
B-5018-G	--	2	15	25	40	50	70	100	130	160	160
Watts In	0.25	0.5	3	5	8	10	15	20	25	35	50

## Mirage 150 Watts 6-Meter Amplifier

**FCC Type Accepted**

The A-1015-G is ideal for a 1-15 Watt Mobile or Base Station Rig.

A built-in low noise GaAsFET receive preamp gives you 20 dB gain -- lets you dig out weak signals and score exotic DX on sporadic E!

You'll talk further, longer, and clearer on all modes -- FM, SSB, CW. Hear weak signals

A-1015-G  
\$389.95  
Suggested Retail

better than ever before! Extra heavy-duty heatsink spans entire length of cabinet. Draws 18-22 amps at 13.8VDC. Just 5 pounds, measures 12Dx3Hx5 1/2 W inches.



## Mirage 2-Meter 300 Watt Amplifiers

Get 300 Watts of brute power for 50 Watts input on all modes -- FM/SSB/CW. Ideal for 20-60 watt 2-Meter mobile or base rigs. Hear weak signals -- low noise GaAs-FET preamp gives excellent 0.6 dB noise figure. Select 15/20 dB gain. Heavy heatsink spans entire length of cabinet -- prevents overheating. Power transistors are protected by our Therm-O-Guard™. Fully protected from high SWR and excessive input power. Has warning LED, smooth adjustable transmit/receive switching with remote external keying. Draws 48A@13.8 VDC. 12x12x5". RC-1, Remote Control Head, \$49.95.



B-5030-G  
\$739.95  
Suggested Retail

Power Curve -- Typical Output Power in Watts							
B-5030-G	\$739.95	--	--	55	150	220	300
B-2530-G	\$739.95	30	95	140	250	300	--
B-1030-G	\$759.95	80	225	270	300	--	--
Watts In		1	3	5	10	25	50

Power Curve -- Typical A-1015-G Output Power in Watts.									
Watts Out	6	22	42	63	84	98	122	142	150
Watts In	.25	1	2	3	4	5	7	9	10

## 223-225 MHz Amplifiers



Choose from 9 different models -- 20 to 220 Watts out for 2 to 50 Watts in, \$169 to \$739. Extra heavy duty heatsink spans the entire length of cabinet. Protection circuits automatically bypass your amplifier to prevent damage and an LED lights to warn you. Your expensive power transistors are protected from overheating by Mirage's exclusive Therm-O-Guard™. Automatically shuts down and bypasses your amp if needed. All Mirage C-Series have a 20 dB GaAsFET preamp.

Model #	Price	Input	Output	Current
C-22-G	\$169.95	.1-5 W	3-36 W	5 amps
C-211-G	\$369.95	.3-5 W	50-126W	25 amps
C-106-G	\$269.95	.3-15 W	3-60 W	12 amps
C-1012-G	\$369.95	.3-15 W	6-120 W	20 amps
C-2512-G	\$345.95	.3-40 W	5-120 W	18 amps
C-5012-G	\$365.95	.35-55 W	3-120 W	18 amps
C-1022-G	\$759.95	.25-10 W	40-220W	48 amps
C-2522-G	\$759.95	.25-30 W	1.5-220W	48 amps
C-5022-G	\$739.95	.35-55 W	5-220 W	48 amps

## 420-450 MHz Amplifiers



All UHF models feature all modes: FM, SSB, CW, adjustable delay for SSB and remote control outlet. They also have a heavy duty heatsink that spans entire length of cabinet, 50 Ohm impedance input and output, 13.8 VDC voltage. D-3010-N -- 100 W out/30W in. For 5 to 45 Watt mobile/base. D-1010-N -- 100 Watt/10W in. For handhelds or mobile/base. D-26-N -- 60 W out/2W in, for HTs.

## Amateur TV Amps

Industry standard ATV amps available. D-1010-ATVN, \$449.95. 82 W PEP out /10W in. D-100-ATVN, \$414.95. 82 Watts PEP out/2W in.

MIRAGE D-Series Specifications				
Model #	Price	Input	Output	Current
D-15-N	\$199.95	.25-2 W	3-18 W	3 amps
D-26-N	\$299.95	.4-5 W	17-60 W	12 amps
D-100ATVN	\$449.95	0.5-5 W	15-52 W	20 amps
D-1010-N	\$419.95	.30-15 W	5-110 W	20 amps
D100ATVN	\$439.95	1-15 W	5-100 W	20 amps
D-3010-N	\$389.95	5-45 W	7-100 W	20 amps

## Commercial Grade Amplifiers

PAC-30-130B  
\$329.95  
Suggested Retail



Commercial Amplifiers are available for 150-174, 450-470 MHz and VHF marine bands, 70-100 Watts out. Most feature over-temperature sensing that bypasses amplifier when safe operating temperatures are exceeded; heavy duty heatsinks finned on 3 sides; and wide input power range. These amps were designed for two-way radio signal commercial, mobile, or fixed location use. All are FCC type accepted.

MIRAGE Commercial Amplifier Specifications					
Model	Price	Input	Output	Preamp	Range
B34GC	\$159.95	-5.3 W	10-30 W	Yes	150-162
Pac1070B	\$299.95	10-30 W	5-70 W	No	150-174
Pac15100C	\$429.95	5-25 W	5-100 W	No	450-475
Pac30130B	\$329.95	10-30 W	1-100W	No	150-174
M120G	\$199.95	-1.3 W	10-25 W	Yes	156-158.5



# Mirage 2-Meter/440 MHz Amplifiers for HTs!

## Mirage BD-35 Handheld Dual Band Amplifier



BD-35 more powerful mobile or base -- 45 Watts on 2 Meters or 35 Watts on 440 MHz! Get 35 Watts out with just 4 Watts in!

- 35 Watts Output
- All modes: FM, SSB, CW
- Reverse Polarity Protection
- Free Mobile Bracket
- Works with all HTs up to 8 Watts
- Auto RF sense T/R switch

Add this MIRAGE BD-35 dual band amp and boost your handheld to a much

## Mirage B-310-G . . . 100 Watts on 2 Meters

Reach distant repeaters . . . Log onto faraway packet bulletin boards.

This rugged Mirage B-310-G amplifier operates all modes: FM, SSB and CW. Perfect for all HTs up to 8 Watts and multi-mode SSB/CW/FM 2 Meter rigs.

Built-in low noise GaAsFET receive preamp gives you 15 dB gain -- lets you dig out weak signals. SWR and Reverse Polarity Protection.

Mirage's integrated HeatsinkCabinet™ and whisper quiet fan gets heat out fast!

The results? An ultra-compact 4 3/4 x 1 3/4 x 7 3/4 inch 2 1/2 pound amplifier that delivers a super powerful 100 Watts.

Free 3 foot handheld to B-310-G coax

B-310-G  
\$219.95  
Suggested Retail



cable and mobile bracket!

Automatic RF sense Transmit/Receive switch. Remote keying jack. LEDs monitor "On-Air", high SWR, pre-amp, power. Push buttons select SSB/FM, pre-amp, power. Draws 15 Amps at 12-15 VDC.

Full one year MIRAGE warranty With MIRAGE's legendary ruggedness, you may never need our superb warranty.

## 200 Watts on 2 Meters

B-320-G  
\$499.95  
Suggested Retail



Add this amp to your 2 Meter HT or mobile radio and get 200 Watts brutal output. Talk further, longer, clearer!

Has 15 dB GaAsFET preamp, works all modes FM/SSB/CW. Fully protected by high SWR protection. Includes mobile mounting bracket. An input level switch selects proper input power from your HT or mobile radio. Low power input for handheld radios, 250 mW to 10 Watts. .25 Watts in gives 132 Watts output. 3 Watts input from your HT gives full power output.

High power input for mobile radios, 10 Watts to 50 Watts. 10 Watts input gives 95 Watts output. 50 Watts input gives full power output. Custom wrap-around heatsink gives excellent heat dissipation.

## HT Docking Booster

Two Meter docking booster gives 50 Watts out with just 8 Watts in! 18 dB GaAsFET preamp, on/off switch, On-air, pre-amp and Xmit LEDs. 3 1/4 x 3 1/4 x 4 1/4". Requires 13.8 VDC. Reverse Polarity protection.

B-24-G  
\$114.95  
Suggested Retail



## Choose an adapter to fit your HT, \$9.95

Adapter	Manufacturer/Handheld Type
#MI-2	IC-2S/2SAT/2SR/3S/3SAT/3SR/24/W2/X2
MI-3	ICOM W21/X21/W21T/X21T, etc.
MY-1	YAESU FT-23/204/73/104/104/728, etc.
MY-2	YAESU FT-24/74/205/705/305/805/729, etc.
MK-1	TH-25/25G/45/45G/55/75/77, etc.
MK-2	TH-22A/22AT/42A/42AT/59/79/79E, etc.

## New SMA to BNC Adaptors



MFJ-7716, \$4.95 each. SMA female to BNC male.  
MFJ-7718, \$4.95 each. SMA male to BNC female.  
MFJ-7719, \$4.95 each. SMA male to SO-239 connector.

## Precision SWR/Wattmeters



Read SWR directly and forward, Reverse, Peak/Average power. Remote coupler. 1.8-30, 50-200, 420-450, 1260-1300 MHz models.

MODEL	PRICE	F (MHz)	SWR sens	Power
MP-1	\$235.95	1.8-30 MHz	1-2 Watts	2000 W
MP-2	\$235.95	50-200	1-2 Watts	1500W
MP-3	\$265.95	420-450	5 Watts	150 W
MP-4	\$279.95	1260-1300	1 Watt	1/10/100

## New! MP-13 SWR/Wattmeter



MP-13, \$124.95. Compact meter features peak and average, forward and reflected power reading and SWR. Covers 125-525 MHz, 200 Watts, selectable ranges: 5, 20, 200 Watts. Large 25/8x11/4" illuminated meter (requires 12 VDC). SO-239, 6W2 1/2 Hx4D in.

## MIRAGE 2-Meter/440 MHz Amplifiers for HTs



B-34-G  
\$109.95  
Suggested Retail

B-34  
\$89.95  
Suggested Retail

Add this MIRAGE amp to your 2 Meter handheld and get 35 Watts output . . . talk further, longer, clearer . . . It's the best HT amplifier \$109.95 can buy! Here's why:

First-class strip-line techniques and modular construction gives superb RF performance and unsurpassed reliability.

Custom wrap around heatsink provides excellent heat distribution -- runs cool for extra long life. Reverse polarity protection can save your amp and your pride if you connect power backward.

Automatic RF sense transmit/ receive switch makes operation super easy. Low input SWR keeps your handheld safe from overheating. Individual pushbutton switches lets you select FM/SSB operation, receive preamp on/off and power on/off.

LEDs show On-Air, receive preamp on and power on. 5 1/4 x 1 3/4 x 4 3/4". Free mobile mount bracket, hardware. B-34, \$89.95. Like B-34-G but FM only, less preamp, mobile bracket. Super tiny 3 1/4 x 1 3/4 x 4 3/4 in.

## MIRAGE Repeater Amplifiers



11 models to choose from -- continuous duty all mode FM/SSB/CW repeater amplifiers for 6, 2, 220 MHz, 450 MHz, and ATV service.

## MIRAGE Repeater Amp Specifications

Model#	Price	Input	Max Out	MHz
A-1015-R	\$579.95	.25-5 W	98 W	50-52
B-1016-R	\$629.95	.25-3 W	130 W	145-148
B-2516-R	\$579.95	.5-10 W	111 W	145-148
C-211-R	\$659.95	.25-.5 W	80 W	223-225
C-1012-R	\$659.95	.25-.6 W	96 W	223-225
C-2512-R	\$625.95	.05-15 W	90 W	223-225
D-1010-NR	\$689.95	.25-.4 W	80 W	440-450
D-3010-NR	\$659.95	1-15 W	75 W	440-450
D-100-ATV-NR	\$689.95	.25-1 W	52 W	420-450
D-100-ATV-NR	\$689.95	.25-.4 W	80 W	420-450

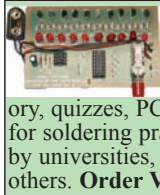
## Low Noise GaAsFET preamps



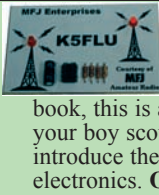
High gain ultra low noise GaAsFET preamps for receiving weak signals. Selectable gain prevents receiver intermod. 15-22 dB gain. Less than 0.8 dB noise figure, auto RF switching to 160W. Choose In-shack or Mast-Mount models below.

Frequency (MHz)	In Shack \$149.95	Mast Mount \$199.95
28-30	KP-1/10M	KP-2/10M
50-54	KP-1/6M	KP-2/6M
144-148	KP-1/2M	KP-2/2M
220-225	KP-1/220	KP-2/220
430-450	KP-1/440	KP-2/440

# Vectronics high-performance electronic kits . . . fun to build and use!



**Comprehensive Soldering Course Kit.** Designed for schools and individuals. Includes theory, quizzes, PC board and components for soldering practice. Used & endorsed by universities, vo-techs, businesses and others. **Order VEC-1500K, \$29.95.**



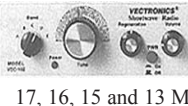
**Blinking Tower LED Electronic Badge Kit.** Be proud of who you are! Listed in the boy scout badge handbook, this is a great evening project for your boy scout troop and a great way to introduce them to ham radio and basic electronics. **Order VEC-5100K, \$12.95.**



**QRP Transceiver Kits for 80/40/30/20 Meters** give you VFO frequency control, broad-banded transmitter circuitry, solid one Watt plus output, shaped keying, .3 uV sensitivity, direct conversion receiver. Includes crystal for popular QRP frequency. 1 1/2"x 4 1/4"x 5 1/4". *Intermediate skill level.* Order **VEC-1380K** (80 Meters), **VEC-1340K** (40 Meters), **VEC-1330K** (30 Meters), **VEC-1320K** (20 Meters), **\$59.95 each.**



**Crystal radio set Kit** lets you relive the experience of early radio pioneers. This baby really works! Wind your own inductor, wire up the earliest radio circuit without soldering a thing and listen to the magic of radio that needs no power. Put up an antenna, connect a ground. Stations will come in amazingly loud and clear. 1 1/2"x 5 1/2"x 3/4". Has antenna wire, earphone. *Simple level.* Order **VEC-121K, \$19.95.**



**Shortwave Receiver Kit** lets you listen to the world! Covers 75/80, 49, 40, 30, 31, 20, 25, 22, 19, 17, 16, 15 and 13 Meter bands. Explore AM, SSB, CW, WWV, RTTY and Packet signals. Vernier reduction drive, smooth regeneration control, RF stage. *Includes all metal cabinet.* 2 earphone jacks. Use 9V battery. 2 1/2"x 7x 6 in. *Intermediate skill level.* **VEC-102K, \$69.95.**



**20/30/40/80 Meter Receiver Kits** give high performance! Covers entire band or tailor to cover desired portion. Copy CW/SSB/AM. NE602/ 612 mixer-oscillator, LM386 high gain audio amplifier. 1 1/2"x 4 3/4"x 5 1/4" in. *Moderate skill level.* Order **VEC-1120K** (20 Meters), **VEC-1130K** (30 Meters), **VEC-1140K** (40 Meters), **VEC-1180K** (80 Meters), **\$29.95 ea.**



**Full featured CW Keyer Kit** is the best electronic keyer bargain in radio! Self-completing dot-dashes and dot-dash memory forgive timing errors. Front panel volume/speed (3-65 wpm) controls. Weight adjusts 25-75%. Sidetone (300 -1000Hz) has LM386 audio amp for external speaker. Iambic A or B, fully auto or semi-auto "bug" mode. Sleep Mode battery saver. Use 9V battery. 1 1/2"x 4x 3 1/2" in. *Simple skill level.* Order **VEC-201K, \$24.95.**



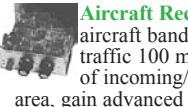
**2 Meter Monitor Kit** receives 144-148 MHz. Low noise, high gain RF preamp gives you excellent 0.1 uV sensitivity. Air variable tuning capacitor has 8:1 reduction. Dual conversion superhet provides selectivity and stability. Automatically eliminates squelch tails. Built-in speaker, squelch, tone, volume controls. 1 9/16" antenna. 9V battery. 2x 4 1/2"x 4". *Intermediate skill level.* Order **VEC-104K, \$79.95.**



**20/30/40/80 Meter QRP CW transmitter Kits** have variable crystal oscillator tuning, front panel switch selects 1 of 2 crystals. 1 crystal included. Transmit and Receive switch. Connect receiver. 1 1/2"x 4x 3 1/2" in. *Intermediate skill level.* Order **VEC-1220K** (20 Meters), **VEC-1230K** (30 Meters), **VEC-1240K** (40 Meters), **VEC-1280K** (80 Meters), **\$29.95 each.**



**CW Memory Keyer Kit** stores 512 characters in four 128 character non-volatile EEPROM message memories. Carry on entire QSOs by just pressing memory message buttons. True sinewave sidetone with soft rise and fall time eliminates harsh keyclicks. Has all features of VEC-201K CW Keyer Kit. 1 1/2"x 6 3/4"x 5 1/4" in. *Simple.* Order **VEC-221K, \$69.95.**



**Aircraft Receiver Kit** tunes entire voice aircraft band 118-136 MHz. Picks up air traffic 100 miles away. Track progress of incoming/outgoing traffic in your area, gain advanced weather information, and discover how the National Air Traffic System really works. Great way to learn about aviation. Use 9V battery. Drives external speaker/phones. 1 1/2"x 4x 3 1/2" in. *Intermediate.* **VEC-131K, \$29.95.**



**2/6/10 Meter FM Receiver Kits** let you tune in the world of amateur radio repeater action with these superb educational kits. Each covers the entire FM sub-band and runs off your 9V battery. Experience what it's like for ham radio operators in your area. Plug in speaker or headphones for clear reception. 1 1/2"x 4x 3 1/2". *Intermediate.* **VEC-1002K** (2 Meters), **VEC-1006K** (6M), **VEC-1010K** (10M), **\$34.95 each.**



**Tunable SSB/CW Audio Filter Kit** has sharp four pole peak and notch filters. Zero in with frequency control & adjust bandwidth for best response. Tune frequency from 300-3000 Hz. Notch is an outstanding 50 dB. 1 Watt amplifier. Speaker/Phone jacks. 12 VDC at 300 mA. 1 1/2"x 4 3/4"x 5 1/4" in. *Intermediate skill level.* **VEC-841K, \$34.95.**



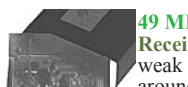
**Shortwave Converter Kit** converts AM or AM/FM radios to shortwave receivers at a push of a button. Choose 2 1 MHz bands between 3 and 22 MHz. Popular 13,16,19, 25, 31, 41, 49 and 60 Meters international bands. On/off bypass, NE-602/612 mixer-oscillator IC and tuned input circuit. 9 V battery. 1 1/2"x 4x 3 1/2". *Intermediate.* **VEC-101K, \$27.95.**



**AM Radio Transmitter Kit** lets you set up your own AM station and broadcast crystal clear programming from your studio with you as the disc jockey. Choose clear frequency from 530-1750 KHz. Standard line level or microphone input. Easy connection. Audio level adjustment. 1 1/2"x 4x 3 1/2" inches. *Simple skill level.* Order **VEC-1290K, \$29.95.**



**Super CW Audio Filter Kit** gives you three bandwidths: 80, 110, 180 Hz. Eight poles gives super steep skirts with no ringing. Pull CW QSOs out of terrible QRM! Plugs into phone jack to drive phones. QRM down 60 dB one octave from center frequency (750 Hz) for 80 Hz bandwidth. Improves S/N ratio 15 dB. Use 9V battery. 1 1/2"x 4x 3 1/2" in. *Simple.* **VEC-820K, \$19.95.**



**49 MHz Wireless Band Monitor Receiver kit** lets you explore weak wireless signals from miles around. Baby monitors, cordless phones, walkie-talkies, wireless intercoms and more! Electronic tuning covers just the 49 MHz band. *Intermediate skill level.* Order **VEC-1016K, \$34.95.**



**FM Stereo Transmitter Kit** lets you connect your CD player, tape or other source and broadcast clear stereo programming on the FM band! Realistic grand movie theater sound! Use to assist hard-of-hearing. Frequency adjusts 88-108 MHz. 9V battery or 5-15 VDC. *Moderate.* **VEC-1292K, \$34.95.**



**Super CW filter/ amplifier Kit** has powerful 1 watt audio amplifier to drive speaker. 8 poles active IC filtering uses cascaded low-Q stages. 3 bandwidths: 80,110, 180 Hz. Center frequency: 750 Hz. Up to 15 dB. Use 9-18VDC, 300 mA max. 1 1/2"x 4x 3 1/2" in. *Simple skill level.* Order **VEC-821K, \$29.95.**



**Emergency and Business Band Receiver** lets you gather news first hand -- tune in local fire, police, ambulance, business, etc. Master 2-way radio lingo, operating procedures and police 10-codes as you find the "real story"! 9V battery. *Intermediate.* **VEC-1012K, \$34.95.**



**5 Watt 2 Meter FM transmitter Kit** lets you transmit voice and data -- AFSK data (up to 1200 baud) and FSK data (to 9600 baud). Jumper select reactance or direct FM modulators. Reliable Motorola NBFM Xmitter IC/PA transistor. Crystal controlled (x8 frequency multiply). -60 dBc spurs, harmonics. 12-14 VDC, 1.5A, 5-pin DIN mic jack. 1 1/2"x 4 3/4"x 5 1/4". *Difficult.* **VEC-1202K, \$99.95.**



**Super SSB Audio Filter Kit** improves readability with 8 poles, optimizes audio bandwidth, reduces SSB splatter, low, hi-pitched interference, hiss, static crashes, background noise. Use 9 Volt battery. 1 1/2"x 4x 3 1/2" inches. *Simple skill level.* Order **VEC-830K, \$19.95.**



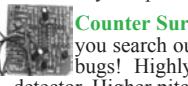
**Voice Activated Recorder Kit** can remotely and auto record conversations, speeches. Don't waste tape by not recording silence. Plug in remote recorder jack and it activates when it hears speech. Built-in mic, on/off. Use 9V battery. *Simple.* **VEC-483K, \$19.95.**



**144/220/440 MHz Low-Noise Preamp Kits** soup up your antenna system, pull in weak signals. Great low-noise performance, immunity from damaging electrostatic discharge. 1x 1 1/2". *Simple.* **VEC-1402K** (144 MHz), **VEC-1422K** (220 MHz), **VEC-1444K** (440 MHz), **\$17.95.**



**Ni-Cad/Ni-MH Battery Charger Kit** safely quick charges expensive batteries -- no overcharging -- many in less than an hour. HTs, cell phones, camcorders, lap top. 1 1/2"x 4 3/4"x 5 1/4" in. *Moderate.* **VEC-412K, \$49.95.**



**Counter Surveillance Monitor Kit** lets you search out and remove electronic bugs! Highly sensitive wideband receiver detector. Higher pitch audio occurs when bug is near. 9 V batt. *Moderate.* **VEC-8218K, \$39.95.**



**High-performance 2 Meter Preamp Kit** pulls weak signals out of noise. Boosts signals, provides razor-sharp bandpass filtering, eliminates electrical noises w/built-in balun. 9-14 VDC. 1 1/2"x 3x 1". *Intermediate.* **VEC-1402DK, \$59.95.**



**Portable CD Amplifier Kit** has 4 Watt per channel amplifier. Plug in a portable CD player and a pair of 8 Ohm speakers. Fill your room with music. 12V battery/12 VDC. *Simple.* **VEC-1604K, \$19.95.**



**The Giant Book of Electronic Projects VEC-1901, \$19.95.** Includes 19 kits on this page. Building tips, complete parts lists, parts placement, PC board layouts, test/alignment, more.



**Vacuum-Tube Preamplifier Kit** lets you enjoy the vintage sound of a real life vacuum tube preamp. High degree of even-harmonic distortion. Includes tube, 110 VAC power supply. *Moderate.* **VEC-1680K, \$99.95.**



# Vectronics 2 kW Roller Inductor Antenna Tuner



HFT-1500  
**\$469.95**  
 Ship Code D

The Vectronics HFT-1500 Roller Inductor Tuner has three continuously variable components -- two 4.5 kV capacitors and a roller inductor controlled by a precision crafted

crank handle and a gear driven 5-digit counter.

The HFT-1500 will tune ANY real antenna . . . verticals, dipoles, inverted vees, beams, long wires, SWL antennas . . . ANYTHING! And its huge components make the tuning ARC-FREE!

You can tune your SWR down to the absolute minimum from 1.8 to 30 MHz, including MARS and the WARC bands. Handles 2 kW SSB PEP amplifier input power.

The bargraph is a 21 segment display that makes analyzing SWR power amazingly easy. This LED meter shows your peak reading and has fully adjustable level and

delay controls.

A lighted dual movement D'Arsonval Cross-Needle SWR/Wattmeter displays SWR, forward and reflected power simultaneously at a glance. RF directional coupler is fully shielded for even greater accuracy.

The meter measures peak and average power in the 300/3000 Watt scales. Bargraph display and meter lamp require 12 VDC adapter, included.

The antenna selector switch is a six position ceramic. Coax 1 is for tuned and tuner bypass; Coax 2 is for tuned and tuner bypass, bypass and balanced antenna.

The HFT-1500 measures 5.5Hx12W x12.5D inches and is housed in a beautiful RF-tight aluminum cabinet. Weighs 10 lbs.

## VC-300DLP . . . World's most versatile HF Antenna Tuner

VC-300DLP  
**\$169.95**  
 Ship Code B



Get everything you've ever wanted . . . precise inductance control that rivals roller inductors, the ability to match any real antenna, full 1.8-30 MHz coverage, peak reading backlit Cross-Needle Meter, 8 pos. antenna switch, built-in 50 Ohm dummy load, finest components and world class quality.

VECTRONICS' exclusive Multi48™ inductor gives you forty-eight inductance values -- you'll get precision tuning that rivals the most expensive roller inductors.

Tune any real antenna 1.8-30 MHz, including all MARS/WARC bands. Verticals, dipoles, yagis, quads, long-wires, G5RVs . . .

Has 4:1 balun for balanced line antennas. Handles up to 300 Watts SSB PEP, 200W continuous (150W, 1.8 MHz).

A backlit Cross-Needle Meter displays SWR, forward and reflected power simultaneously. Reads both peak and average power on 30/300 Watt scales. Lamp has front panel switch and uses 12 VDC or 110 VAC with AC-12 \$15.95.

An 8-position antenna switch selects 2 coax fed antennas, random wire/balanced line or built-in dummy load for use through your tuner or direct to your transceiver. Bypass position keeps SWR meter in line.

Use the built-in dummy load for testing and repairing your rig, setting power level, adjusting your mic gain and more.

Chemically treated aluminum case has durable baked-on paint and scratch-proof color Lexan front panel. 10Wx9.5Dx3.5H".

## Vectronics 300 Watt Mobile Tuner

VC-300M  
**\$119.95**  
 Ship Code B



The VC-300M Mobile Antenna Tuner is compact, lightweight, easy-to-operate and is our most economical tuner.

It's compatible with any mobile antenna and any mobile HF transceiver and is compact enough to fit the most compact car. It can also be used at home with dipoles, vees, verticals, beams or quads fed by coax.

Backlit dual movement meter simultaneously monitors power and SWR. Covers 18 to 30 MHz. Handles 300 Watts SSB PEP, 200 Watts continuous, (150 Watts on 1.8 MHz). Measures 7.25x8.75x3.6 inches. Weighs just 3.4 pounds.

## 300 Watt Antenna Tuner

with 21 Segment SSB Bargraph  
**VC-300D, \$209.95.** Similar to VC-300DLP, but has deluxe 21 segment SSB bargraph feature.



## Dry Dummy Loads

### 1500 Watt dry Dummy Load

DL-650M, \$79.95. Handles 100 Watts continuous, 1500 Watts for 10 seconds to 650 MHz. Ceramic resistor. SWR < 1.3. SO-239.

DL-650MN, \$84.95 has N connector.



### DL-300M, \$49.95.

300 Watt dry dummy load. DL-300MN, \$54.95 with N connector.

DL-2500, \$209.95. 2500 Watts dry dummy load is fan cooled. DC to 150 MHz.

DL-2500N, \$219.95 with N connector.



## Low Pass TVI Filters

### 1500 Watts Low Pass TVI Filter

LP-30, \$79.95. Eliminates TVI by attenuating harmonics at the source.

Plugs between transmitter and antenna or tuner. Features nine pole Chebyshev design. Insertion loss is only 0.25 dB at 30 MHz. 52 Ohm impedance. Handles 1500 Watts.

### 2500 Watts Low Pass TVI Filter

LP-2500, \$129.95. Handles up to 2500 Watts key down. SO-239 connectors.



## Deluxe Iambic CW Keyer

CK-200, \$89.95. Speed, weight, tone, volume controls, tune, iambic A/B switch for 3 types of keying output, speed control 6-50 wpm, self-complete dots/dashes. Use 9V battery/110 VAC.



KP-200, \$79.95. Iambic Key Paddles complete with 1/4" plug and cable. KP-200, chrome base or KP-200B, black base.



## SWR/Power Meters



PM-30



PM-30UV

### PM-30, \$79.95, for 1.8 to 60 MHz.

Displays forward and reflected power and SWR simultaneously on dual movement Cross-Needle Meter.

True shielded directional coupler assures accuracy. Backlit meter displays peak or average power in 300/ 3000W ranges. 5.3x5.75x3.5 inches. SO-239 connectors.

PM-30UV, \$89.95. Covers 144/220/ 440 MHz. 30/300 Watt ranges. SO-239.

PM-30UVN, \$89.95. Type N.

PM-30UVB, \$89.95. BNC connector.

## High Pass TVI Filters

HPF-2, \$29.95. Installs between VCR and TV and cable TV or antenna lead-in cable. Eliminates or reduces interference caused by nearby HF transmitters. 6 meter notch. Has type "F" connectors.



HPF-1, \$24.95. Same as HPF-2, no six meter notch. Low loss in TV passband 52-550 MHz.



**Tuned Active SWL Antenna**  
 AT-100, \$89.95.  
 This portable compact antenna is perfect for indoor use by itself or with an external antenna. Tunes from 300 KHz to 30 MHz including VLF, AM broadcast, all shortwave and ham radio bands. Great for SWL!



# AMERITRON Doubles Average SSB Power

**AL-80B kilowatt output desktop linear can double your average SSB power output with high-level RF processing...runs cooler because its 3-500 tube completely turns off between words**

Ameritron's AL-80B kilowatt output desktop linear can double your average SSB power output with high-level RF processing using

Ameritron's exclusive *Dynamic ALC™*. You get cooler operation because the AL-80B's exclusive *Instantaneous RF Bias™* completely turns off the classic 3-500 tube between words. It saves hundreds of watts wasted as heat.

You get a full kilowatt PEP output from a whisper quiet desktop linear. It's a compact 8½Hx14Dx15½ inches and plugs into your nearest 120 VAC outlet. Covers all bands 160-15 Meters, including WARC and MARS (10/12 Meters modifiable; FCC license required).

You get 800 watts output on CW, 500 watts output on RTTY, an extra heavy duty power supply, genuine 3-500 tube, nearly 70% efficiency, tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, dual cross-needle meters, QSK compatibility, two-year warranty, made in the USA, plus much more!

**Dynamic ALC™ doubles average SSB power**

The AL-80B's exclusive *Dynamic ALC™* gives you high-level low-distortion RF processing. It can more than double your average SSB power for up to 6 dB improvement in intelligibility, maximizing talk power without distortion/splatter.

A convenient front panel control lets you adjust output power level.

The AL-80B's exclusive *Instantaneous RF Bias™* turns off the classic 3-500 tube (except filaments) between words and dots and dashes,

AL-80B  
\$1399  
Suggested  
Retail



exceptionally smooth tuning, extremely wide matching range, full band coverage, and peak performance at all power levels.

**Step-Start Inrush Protection™** stops damaging inrush current with a start up sequence that's easy on your tube and power supply components.

Our exclusive *Multi-Voltage Power Transformer™* lets you optimize for 14 different primary line voltages. The high voltage secondary can be wired to reduce plate voltage for efficient operation below 400 watts for use outside the USA.

AMERITRON's dual illuminated cross-needle meters give you four separate meters to monitor your operating conditions -- you can tell right away if something is wrong. Grid and plate current and forward output power are monitored for improper loading and abnormal conditions.

The fourth meter can be switched to monitor your 3-500 tube DC plate voltage, reflected PEP power, antenna system SWR, ALC voltage to your rig, and the grid current that starts ALC action -- get a clear picture of your AL-80B.

The T/R (transmit/ receive) relay in the AL-80B switches nearly as fast as some vacuum relay QSK T/R switches.

**Operate/Standby** switch lets you run barefoot, but can instantly switch to full power if needed.

Has transmit LED; 12 VDC, 200 mA accessory jack; 12 VDC keying relay for solid state and tube rigs; tough Lexan over-aluminum front panel. Two-year warranty.

**Weights** 48 lb. Power required: 120 VAC, 12A. Made in the U.S.A.

eliminating hundreds of watts wasted as heat for cooler operation and longer component life.

The guts of the AL-80B is its heavy duty power supply. A 26 pound transformer using a high silicone steel core, computer grade capacitors, heavy duty bleeders and ten 3 amp, 1000 volt power rectifiers give you a stiff 2700 volts fully loaded. Many amps using two 3-500s use such small power supplies they don't deliver much more power output than the AL-80B.

The AL-80B is built on a rugged steel chassis with a separate fully-shielded RF compartment to minimize RFI and TVI.

A whisper quiet internal fan draws in cool air over power supply components and pressurizes the classic 3-500 tube compartment to remove heat for longest life.

**Tuned input lets your rig deliver full output**

50 Ohm broadband Pi-Network tuned input is used. Even fussy solid state transmitters will deliver full power!

A carefully designed Pi/Pi-L output network using the optimum Q for each band gives

## AL-572 Offers 1300 Watts PEP SSB on HF at Low Cost

The AMERITRON AL-572 gives you 1300 Watts PEP SSB nominal power output on 160 through 15 Meters, using four rugged 572B tubes with 3 second warm-up time. This whisper quiet, desktop linear plugs into your 120 VAC outlet - no special wiring needed.

You get heavy duty power supply; fully neutralized tubes; pressurized ventilation; multi-voltage power transformer; front panel ALC control; 6:1 vernier drives ... and more!

You'll typically get 1300 Watts PEP SSB, 1000 Watts CW continuous, on all amateur bands from 160 through 15 Meters

AMERITRON's exclusive *Instantaneous RF Bias* completely turns off the 572B tubes between words and dots and dashes, for cooler operation and longer component life, while *Dynamic ALC* can more than double your

average SSB power. AMERITRON's Step-Start Inrush Protection limits inrush current, greatly extending tube life.

A Pi-Network tuned input using slug tuned coils provides a good 50 ohm load for your rig. A quiet internal fan draws in cool air over power supply components and pressurizes the tube compartment.

Grid current, plate current and forward PEP output power are continuously monitored by dual, lighted cross-needle meters.

A fourth scale switches among peak reflected power (and SWR), high voltage, ALC threshold, and ALC output voltage.

AL-572  
\$1495  
Suggested  
Retail



For lightning fast QSK operation use the optional Ameritron electronic PIN diode QSK switch. Shipped wired for 120 VAC. Weighs 40 lb. Power required: 120 VAC, 16 amps.

## AMERITRON HF Linear Amplifiers with Eimac™ 3CX800A7



AL-800  
\$1825  
One tube  
Suggested  
Retail

AL-800H  
\$2695  
Two tubes

**Output power:** 1250 watts PEP, single 3CX800A7, 1500 W plus, two 3CX800A7s. 160-15 Meters including WARC bands. Modifiable for 12/10 Meters, FCC license required.

**Genuine Eimac™ tube(s):** AL-800 has a single Eimac 3CX800A7; AL-800H has two Eimac 3CX800A7s, adjustable slug-tuned input circuit.

**Output network:** Pi/Pi-L gives you smooth tuning and wide matching range. Vernier reduction drives make tuning and loading adjustments smooth and easy.

**Tube protection:** Grid current limiting circuit protects your tubes. Quiet pressurized ven-

tilation keeps tubes safely cooled.

**ALC control:** Front panel adjustable, true ALC control.

**Hefty power supply:** 32 lb. grain orientated, silicone steel core transformer.

**Step-Start Inrush Protection:** Stops damaging inrush current.

**Multi-voltage operation:** 14 user-selectable AC line voltage from 90-140; 200-250 VAC.

**Dual illuminated cross-needle meters:** Read peak forward, reflected, SWR high-voltage, grid/plate current.

**Compact** 8½Hx16½Dx14¼W in. 52 lb. (AL-800H). Power required: 240 VAC, 14 amps (AL-800H).



# AL-811 . . . 600 WATTS . . . \$699!

*More hams use Ameritron AL-811 amplifiers than any other amplifier in the world . . . The AL-811 has earned a worldwide reputation for legendary quality, flawless performance, proven reliability and superb customer service . . .*



Ameritron's AL-811 linear amplifier gives you plenty of power to bust through QRM!

You get a quiet desktop linear that's so compact it'll slide right into your operating position -- you'll hardly know it's there . . . until QRM sets in. And you can conveniently plug it into your nearest 120 VAC outlet -- no special wiring needed.

You get three tough 811A transmitting tubes, extra heavy duty power supply, all HF band coverage, pressurized ventilation, tuned input, dual illuminated meters, adjustable ALC and much more for an incredible \$699!

### *The First 600 Watts makes the difference*

The AL-811 gives you 600 Watts PEP output -- that's nearly 2 full S-units over your barefoot rig. That could mean the difference between hearing, "You're Q-5 armchair copy" and "Sorry, can't copy you, too much QRM."

Now you won't have to stand aside while the big guns steal your DX. You'll log some of those stations first.

### *All band, all mode Coverage*

AL-811 covers all HF bands. No compromise on WARC and most MARS bands -- you get a 100% rated output.

Operate AL-811 on all modes. Get 600 Watts output PEP SSB and 500 Watts output CW. You even get 300 Watts on continuous carrier modes like RTTY, SSTV, and FM.

The low cost 811A tubes resist failure because . . . First, they're constructed with widely spaced elements that minimize touching and causing a short -- even if the plate gets hot enough to melt.

Second, they use a directly heated thoriated tungsten filament cathode that prevents the electron emitting layer from instantly stripping off -- even if mistuning

AL-811  
**\$699**  
Suggested Retail

## 800 Watts . . . \$849!

*Ameritron gives you four 811A tubes, and 800 Watts for the same price as the competitor's 3 tube 600W unit . . . Why settle for less power and pay more?*

**Only Ameritron's AL-811H gives you four fully neutralized 811A transmitting tubes. You get absolute stability and superb performance on higher bands that can't be matched by un-neutralized tubes.**

**Ameritron mounts the 811A tubes vertically -- not horizontally -- to prevent hot tube elements from sagging and shorting out. Potentially damaging horizontal tube mounting**

**requires special 811A tubes to retard sagging and shorting.**

**Quiet, powerful computer grade blower draws in plenty of cool air. it pressurizes the cabinet and efficiently cools your 811A tubes. Our air flow is so quiet, you'll hardly know it's there -- unlike noisy, oversized blowers.**

**Efficient, full size heavy duty tank coils, computer grade capacitors, heavy duty silicon power transformer, slug tuned input coils, operate/standby switch, transmit LED, ALC, dual meters, QSK compatibility with Ameritron's QSK-5 plus more!**

causes a sudden, severe current overload.

The Ameritron AL-811 is excellent for the newcomer because it's tough enough to withstand momentary mistuning. And the tubes are so inexpensive that you can replace one for mere pocket change.

**Extra heavy duty power supply gives you peak performance year after year**

The heart of the AL-811 power supply is its heavy duty power transformer with a high silicon steel core weighing a hefty 17 pounds.

A full wave bridge using 67.5 mfd of total capacitance (four 270 ufd, 450 volt capaci-

tors) produces 1500 Volts under full load and 1700 Volts no load. That's excellent high voltage regulation!

Rectifier diodes are rated for a massive surge current of 200 amps-- won't blow even if you accidentally short the high voltage supply.

Wire wound, 7 Watt, 50 K Ohm equalizing resistors safely protect each filter capacitor -- not 2 Watt, 100 K Ohm carbon composition resistors that can open and cause filter capacitors to explode or fail. Ameritron's AL-811 power supply is built tough so you get peak performance year after year.

### *Tuned input provides excellent load for any rig*

A Pi-Network tuned input provides a 50 Ohm load for your rig. Even fussy solid state

Even a 3:1 SWR load won't damage tubes/tank components.

A ball bearing vernier reduction drive makes plate tuning safe, precise and easy.

A quiet blower pressurizes the cabinet with a large volume of air flow. It keeps the 811A tube temperature well below the tube manufacturer's rating -- even with a key down carrier at 400 Watts output -- without the overwhelming noise of oversized fans.

### *Two illuminated meters*

Two illuminated meters give you a clear picture of your AL-811 operating conditions so you can tell right away if something is wrong.

The Grid Current meter continuously checks for improper loading. The other meter switches between high voltage and plate current to warn of abnormal conditions.

### *Exclusive Adapt-A-Volt™ power transformer*

Too high of line voltage stresses components and causes them to wear out and fail. Too low line voltage causes a "soft tube" effect -- low output and signal distortion.

Ameritron's exclusive Adapt-A-Volt™ power transformer has a special buck-boost winding that lets you compensate for stressful high line voltage and performance robbing low line voltage. Your components last longer and gives you peak performance -- regardless of your line voltage.

### *Plus much, much more . . .*

An Operate/Standby switch lets you run barefoot, but you can instantly switch to full power if needed. A transmit LED tells you when your rig is keying your AL-811. A 12 VDC keying relay makes it compatible with all solid state and tube rigs.

Back-pulse cancelling diode protects the rig keying circuit. Shielded RF compartment. One year limited warranty.

Compact 16Dx13¼Wx8 H". 30 lbs. UPS shippable, has transformer installed and wired for 120 VAC. Draws 8 amps at 120 VAC. Export model is AL-811X wired for 240 VAC.

### **AMERITRON**

116 Willow Road, Starkville, MS 39759  
Tech: 662-323-8211 • Fax: 662-323-6551  
[www.ameritron.com](http://www.ameritron.com)

**AMERITRON...the world's high power leader!**

# AMERITRON *super legal limit* amplifiers

## These three rugged linears all use a super heavy duty Hypersil<sup>(R)</sup> power supply capable of 2500 Watts!

### Ameritron's AL-1500 Amplifier with Eimac<sup>(R)</sup> 3CX1500A7



Feel the need for maximum legal HF output power? AMERITRON's AL-1500 will give it to you. Using the Herculean 3CX1500A/ 8877 ceramic tube with its high power gain, the AL-1500 needs only 65 watts of drive from your exciter to deliver the goods - transceivers and other exciters just loaf at 1500 watts out.

Cool, efficient operation is provided by a forced-air system with tube chimney, using a commercial grade die-cast ball bearing blower for maximum tube life. The tube is further protected by time delay starting and automatic over-current shutoff to remove drive power if the amplifier is mis-tuned.

You get full legal power output from a whisper quiet desktop linear. Measures 18 1/2 D x 17 W x 10 H inches, and covers all bands, 160-15 Meters, including WARC and MARS (80% of full output set to nearest amateur band). 10/12 Meters modifiable.

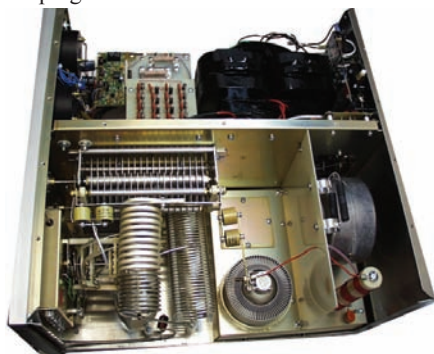
You get 1500 watts output (1/2 hour continuous carrier) and 2500 watts (30 second continuous carrier and 2500 watts- plus 30 minute PEP two-tone test). You get

**\$3095** Suggested Retail

all this power, plus, 65% efficiency, pi-network tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, QSK compatibility, and a one-year warranty.

The guts of the AL-1500 is its heavy duty power supply, with a 32 lb. Peter Dahl Hypersil<sup>(R)</sup> transformer using a high silicone steel core, computer grade capacitors (33 mfd total), heavy duty bleeders and twenty 3 amp, 1000 volt power rectifiers give you a stiff 3300 volts fully loaded.

The AL-1500 is built on a rugged steel chassis with a separate RF compartment fully shielded to keep RF from leaking out, keeping RFI and TVI to a minimum.



An inside look at the AMERITRON AL-1500

Superb RF design and layout, Hi-Q tank circuit and commercially rated RF power components give you 65% plate efficiency over the entire operating range. Power goes into the antenna instead of into heat.

50-ohm broadband Pi-Network tuned input with slug-tuned coils is used. Even fussy solid state transmitters deliver full power!

A carefully designed Pi/Pi-L output network using the optimum Q for each band with vernier ball drives gives smooth tuning, wide matching range, full band coverage, and peak performance at all power levels.

The AL-1500's grid overload circuit pro-

tections the tube from excessive grid current; if 175 mA of peak grid current is reached, the "OPR" LED will no longer light and the amplifier will go into a bypass condition until reset by the operator.

#### Transformer provides many options

Since excessive line voltage stresses components (low line voltage causes a "soft tube" effect, for example), Ameritron's exclusive Multi-Voltage Power Transformer<sup>TM</sup> lets you optimize for different line voltages. Select from 4 different primary voltage ranges, from 205-219 VAC to 252 to 265 VAC. The amplifier comes wired from the factory for 240 VAC.

The AL-1500 has two illuminated panel meters. Grid Current meter provides continuous reading of the critical grid current and indicates proper, safe amplifier operation.

The other meter can be selected to read Plate Voltage, Plate Current, Peak RF Watts, or ALC. A SSB/CW selector switch chooses bias voltage for best linearity on SSB or lowest dissipation on CW.

The Operate/Standby switch, in Standby, maintains the tube's filament and plate voltages while allowing "barefoot" operation.

Includes 12 volt DC auxiliary jack and an "XMT" LED to provide indication of proper amplifier keying by the exciter. Power required: 240 VAC, 15 amps.

#### Frequency coverage:

1.8, 3.5, 7, 14, 21 MHz & Warc bands. User-modifiable for 28 MHz (FCC license required). Size: 18 1/2 D x 17 W x 10 H". 77 pounds. UPS shippable, 3 boxes.



Peter Dahl Hypersil<sup>(R)</sup> Transformer weighs 32 lbs.

#### Plug Core Tuning

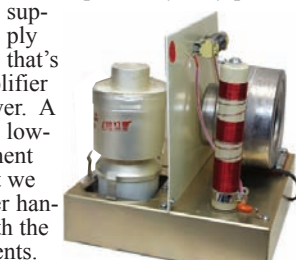
Tool 965-6204, \$3.00. Plastic tuning stick for adjusting slug cores. .1 inch hex end, 7 1/4" long. Fits Ameritron tube amplifier input coils.

## Ameritron's 3CX1200A7 Amplifier      Ameritron's Dual 3-500Z Amplifier



AL-1200  
**\$2695** Suggested Retail  
in our AL-1500 amplifier that loafs at full power. A 3CX1200A7 has the lowest quantity history of field replacement of any modern transmitting tube that we use. It has the ruggedness and power handling of ceramic tubes combined with the long-life of thoriated tungsten filaments.

Ham Radio's toughest tube -- the Eimac<sup>(R)</sup> 3CX1200A7 is in ham radio's toughest amplifier! It has a 50-Watt control grid dissipation. It also has the same super heavy duty power supply that's



AL-82  
**\$2645** Suggested Retail  
competing amplifiers using 3-500Zs can't give you 1500 Watts because their lightweight power supplies can't use these tubes to their full potential. Our AL-82 amplifier uses the same Peter Dahl Hypersil<sup>(R)</sup> power transformer and used in the AL-1500 and AL-1200 amplifiers -- powerful stuff, just loafs at full power!

This classic linear gives you full legal output using a pair of 3-500Z graphite tubes. Examine the features and component ratings of the AL-82 and compare it to any competing amplifier using two 3-500Zs. Most com-





# AMERITRON *no tune* Solid State FET Amplifier

No tuning, no fuss, no worries -- just turn on and operate . . . Incredibly low \$1299 includes AC power supply, 600 Watts output, continuous 1.5-22 MHz coverage, instant bandswitching, no warm-up, no tubes to baby, fully SWR protected, extremely quiet, very compact . . .



ALS-600  
\$1299

Suggested Retail  
(Includes AC Power Supply, ALS-600PS)

AMERITRON's revolutionary ALS-600 is amateur radio's *only* linear amplifier that uses four rugged TMOS RF power FETs -- gives unequaled no tune solid state performance.

\$1299 includes Ameritron's no tune FET Amplifier and a 120/220 VAC, 50/60 Hz AC power supply for home operation. You get instant

bandswitching, no tuning,

no warm-up, no fuss! ALS-600 gives 600 Watts PEP Output power and 500 Watts CW with continuous coverage 1.5 to 22 MHz; 10/12 Meters with easy-to-install optional kit, \$29.95 plus shipping. Must present FCC license at time of sale.

SWR Protection prevents amplifier damage if you switch to the wrong band, use the wrong antenna or have a high SWR. Over-power protection enables if output forward power or reflected power exceeds a safe level. Output power is automatically reduced to prevent amplifier damage by controlling ALC to exciter.

The ALS-600 is extremely quiet. A low speed, low volume fan is so quiet you'll hardly know it's there, unlike noisy blowers used in other amplifiers. The ALS-600 is a compact 6x9 1/2 x 12 inches -- takes up less space than your rig! Weighs just 12 1/2 lbs.

An illuminated Cross-Needle SWR/Wattmeter lets you read SWR, forward and reflected *peak* power simultaneously. An Operate/Standby switch lets you run "barefoot", but you can instantly switch to full power if you need it.

You get a front-panel ALC control! This *exclusive* AMERITRON feature lets you adjust your output power on the conven-

ient front panel display. You also get front panel Transmit, ALC, and SWR LED indicators. A 12 VDC output jack lets you power low current accessories. Enjoy 600 Watts of no tune Solid State power. Call your favorite dealer for your best price.

## ALS-600PS Heavy Duty Power Supply

- Massive choke input filter greatly improves voltage regulation and reduces peak AC line current
- AMERITRON's *exclusive Multi-Voltage Power Transformer* lets you compensate for stressful high line voltage and performance robbing low line voltage
- Step-Start Inrush Protection™ stops damaging inrush currents and extends the life of your power supply components
- Illuminated Cross-Needle Meter monitors voltage and current of 50 VDC line

- Extremely quiet fan
- Very compact 6x9 1/2 x 12 inches -- can be placed conveniently out of the way
- Wired for 120 VAC, supplies 50 VDC at 25 Amps to ALS-600 amplifier
- Also use on 100-130 VAC and 220-250 VAC, 50/60 Hz
- Draws less than 12 Amps at 100 VAC and less than 6 Amps at 230 VAC
- Includes prewired cable to plug into ALS-600 amplifier
- *Made in U.S.A.*

## Switching Power Supply

Works with all ALS-600 amplifiers. Extremely lightweight, just 10 lbs. Superb regulation, very low radiated noise. 9Wx6Hx14 1/2 D inches.

ALS-600SPS  
\$629  
Suggested Retail



From QST Magazine, March, 2005

"... the amplifier faulted only when it was supposed to. It protected itself from our boneheaded, sleep-deprived band changing maneuvers . . ."

"I found myself not worrying about damaging this amplifier. It seems quite capable of looking out for itself. . . . Kudos to Ameritron."

"I couldn't hear any noise at all from the SPS (*switching power supply*) on the vertical or quad . . ."

"I came to greatly appreciate the size, weight, reliability and simplicity of this amplifier."

"The ALS-600S makes it possible to pack a transceiver and a 600 Watt amplifier, that together weigh less than 30 pounds."

## ALS-600S Amplifier with Switching Power Supply

ALS-600S, \$1428. ALS-600 amplifier with 10 lb. ALS-600SPS switching power supply combo.

## AMERITRON has the best selection of high power accessories!

### QSK-5 Pin Diode Transmit Receive Switch

QSK-5  
\$359.95  
Suggested Retail



World's most advanced Transmit and Receive Switch. Gives high power QSK operation from your linear amplifier. Self-contained, connects externally to most HF amps. Handles 2500 Watts PEP SSB, 2000 Watts CW. Ameritron's QSK-5 is six times faster than a vacuum relay. Internal QSK boards installed by Ameritron. Call for details.

### ATP-100 Amplifier Tuning Pulser for safer tune-ups

Pulse tuning safely tunes up your amplifier for full power output and best linearity. ATP-100 keeps your average power to a low safe level to prevent overheating, tube damage, power supply stress and premature component failure.

ATP-100  
\$59.95  
Suggested Retail



ATP-102, \$69.95, similar, but adds variable pulser and delay.

### ICP-120 Inrush Current Protector

Stops power-up inrush current and absorbs momentary high voltage spikes to protect amp, tubes and power components. By starting the amplifier through a high power current limiting resistor and then shorting the resistor with a relay, the start-up sequence is easier on your tube and power components. Avoids replacing expensive tubes/parts. Works with nearly all linear amps. Limits current to 12 Amperes during heavy draw inrush period, 20A during continuous operating current. For 120 Volt wired amps. ICP-240, \$79.95, 240V amps.

ICP-120  
\$79.95  
Suggested Retail



### ARF-1000 RF Filter reduces harmonics

Use with transceivers or amplifiers that are producing unwanted harmonics. Frequency select switches to one of six different ranges from 1.5 to 30 MHz. When the filter is selected it reduces harmonics above cut-off frequency. Handles 1000 Watts SSB input power, 600 Watts CW or 400 Watts RTTY. SWR is less than 1.3:1 on all ham bands. Has SO-239 input and output connectors. 5 1/2 Wx3 1/2 Hx9 1/2 D in.

ARF-1000  
\$159.95  
Suggested Retail



### Add-on Electronic Bias for AL-80A/82/1200/1500

This EBS-1 pc board reduces heat by reducing quiescent current to low values during periods when exciter output falls below 100 mW. Features remote detector board.

EBS-1  
\$39.95  
Suggested Retail



EBS-1H, \$49.95, for other amplifiers. Call 662-323-8211 for more details.

### Ameritron Amplifier Extended Warranties

Get Ameritron's extended protection plan while you still can -- before your warranty runs out! It's the same as your original warranty, just extended for the number of months you choose to purchase.

If the product should fail during the agreed term, Ameritron has the option to repair/replace part(s) (except tube and output transistors) and provide necessary labor free at Ameritron. Ameritron is not responsible for shipping loss or damage. Call 1-662-323-8211 to discuss which plan is best for you.

AMERITRON . . . The World's High Power Leader!

# AMERITRON mobile *no tune* Solid State Amp

500 Watts, Instant bandswitching, no tuning, no warm-up, SWR protected, 1.5-22 MHz...  
**NEW! ARI-500 Amplifier Radio Interface reads transceiver band data -- automatically band-switches ALS-500M amp... NEW! ALS-500RC Remote Head gives total remote control!**



ALS-500M  
**\$849**  
 Suggested Retail  
**Just turn on and operate -- no warm-up, no tuning, instant bandswitching. Compact. Ameritron's ALS-500M solid state mobile amp gives you 500 Watts PEP SSB or 400 Watts CW output! Covers 1.5-22 MHz, (10/12 Meters with MOD-10M, \$29.95 kit, requires FCC license). Mail with order to Ameritron.**

**Virtually indestructible! Load Fault Protection** eliminates amplifier damage due to operator error, antenna hitting tree branches, 18-wheeler passing by. **Thermal Overload Protection** disables/bypasses amp if temperature is excessively high. Auto resets.

Typically 60-70 watts in gives full output. ON/OFF switch bypasses amplifier for "barefoot" operation. Extremely quiet fan comes on as needed. Excellent harmonic suppression, push-pull output, DC current meter. 13.8 VDC/80 Amps. Super-compact 3 1/2"x9"x15 inches. 7 pounds.

ALS-500M, \$849, 500 Watt mobile amp.  
 ALS-500MR, \$879, ALS-500M mobile amp **plus** ALS-500RC Remote Head for full manual remote control.

ARF-500K, \$179.95, Remote kit for older ALS-500M mobile amps with serial # below 13049. Includes filter/relay board for ALS-500M, AL-500RC Remote Head, cables, hardware, instructions.

ARF-500K2, \$289.95. Includes ARF-500K Remote kit for older ALS-500Ms **plus** ARI-500 Amplifier Radio Interface below.

**New ARI-500, \$119.95, Amplifier Radio Interface** reads band data from your transceiver so you can **automatically bandswitch** your ALS-500M amplifier. *See below left.*

**Choose ARI-500** for fully automatic bandswitching or ALS-500RC for manual remote control.



ALS-500RC **New ALS-500RC, \$49.95, Remote Head** lets you mount ALS-500M amplifier *anywhere* and gives you full *manual remote control*. Select desired band, turn On/Off and monitor current draw on its DC Current Meter. Power, transmit and overload LEDs. RJ-45 cables plug into Amplifier/ Remote Head. Works with serial numbers above 13049 (below 13049 requires the ARF-500K, above). 4Wx2 3/4 Hx1 D in.

**\$49.95**  
 Suggested Retail

## Let your rig *auto bandswitch* your ALS-500M Amplifier

The Ameritron ARI-500 Amplifier Radio Interface reads band data from your Icom, Yaesu, Kenwood or Alinco transceiver so they can remotely and automatically bandswitch your ALS-500M amp. **Now you can mount your ALS-500M out-of-the-way** in your trunk, at the back of your motorhome or elsewhere and operate with just this tiny metal box at your station control.



**New!**  
 ARI-500  
**\$119.95**  
 Suggested Retail

**Works** with serial numbers above 13049 (below 13049 requires the ARF-500K, *see above*). **You** can add the ALS-500RC for manual bandswitching and data monitoring, etc, *see above right for description.*

## 75 Amp Switching Power Supply



**New!**

SPS-75  
**\$359.95**  
 Suggested Retail

SPS-75 is perfect for Ameritron's ALS-500M, 500 Watt solid state amplifier, it gives 75 Amps output continuously! Its tiny size (6 1/2"Wx3 1/2"Hx10D in.) and lightweightness (just 7.8 lbs.) makes it perfect for portable or base station use. No more picking up and hauling around heavy, bulky power supplies causes hernias. Not too big, not too small, just the right size! Less than 100 mV peak-to-peak ripple under 75 Amp full load. Load regulation is better than 1.5% under full load. Has reverse polarity protection, brown out input protection, over-current and over-temperature protection systems. Whisper quiet internal fan. A thermal fan control varies fan speed as heat increases. Fan turns on slowly to minimize unwanted fan start-up noise. SPS-75 has a unique **Output Boost** that steps up the output from 13.8 to 14.2 VDC to help compensate the voltage drop to the amplifier and give you more output power. Input 108-132 VAC, 50/60 Hz. Draws 11 Amps. Can also be used to charge your car battery.

## AMERITRON Amplifier-to-Transceiver Interface



Amplifiers can damage radios if the amplifier has too much relay control voltage, voltage spikes, or excessive current on the relay control line.

The ARB-704 advanced interface is compatible with all common radios and amplifiers even though radios and amplifiers do not have standardized voltages,

accessory plugs, or wiring. The ARB-704 is designed to work with any amplifier and transceiver combination. Most cables are included with the ARB-704 package. A few transceivers require an additional cable. **See chart right.**

The input is designed to be compatible with any transmitter or transceiver, and the output is compatible with AC or DC positive or negative amplifier control lines having up to 200 Volts peak open circuit voltage and 300 mA of current.

**Operates** with rigs that pull amplifier control lines to ground, or output a wide range of positive or negative control voltages. **Don't take a chance!** Get the ARB-704 now! 4 1/4"Wx1 3/4"Hx2 3/4"D". Power cord, 3 phono cords for relay/ALC/control included.

**Extra cable, \$17.95 for following rigs:**  
 A plug-and-play cable is not needed if your radio is not listed.

\* **Note:** The PNP-13D prewired cable comes with the ARB-704I2.

Model#	Transceivers
PNP-8D	FT-1000, (MP), 900, 767GX, 920, 990, 747GX
PNP-8M	FT-890, 840, 817, 857, 897
PNP-35	FT-100, (D)
PNP-5M	FT-847
PNP-7D	TS-440, 690, 450, 180, 140, 950, 130, 870, 2000, 50, 120, 530, 430, 830, 949, 570, 850
PNP-13D	All models of the IC-706 series
PNP-7DK	TS-930
PNP-7DK2	TS-520
PNP-8MK	TS-480
PNP-5D	FT-980
PNP-8DI	ICOM ACC JACK



# AMERITRON HF Mobile "Screwdriver" Antenna

1.2 kW... 3.5-30 MHz continuous ...1.5:1 VSWR...more!



SDA-100  
\$379<sup>95</sup>  
Suggested  
Retail

AMERITRON's SDA-100 is the best built, best looking, best performing HF mobile screwdriver antenna in the world! Properly installed on your vehicle this antenna covers 80-10 Meters with a 6 foot whip. Remove the whip for 40-6 Meters.

What makes our antennas stand above all the rest is that our CNC machined components are from aircraft aluminum or stainless steel and blueprinted, meaning you can take the antennas apart and mix them up, then reassemble and they work the same.

Our fiberglass coil form is approximately 2 inches in diameter. Other antenna builders know fiberglass is better but they choose not to use it because of the expense and difficulty in machining. We use 14 gauge wire for high power capability, wound at eight turns an inch for maximum

efficiency. We machine groove our coils so they will not loosen up or jam -- they won't wear out, for years of trouble free service!

New Lexan cover is super durable and protects your Ameritron screwdriver for years of trouble-free service.

The decoupler we use is CNC machined for tight tolerances with custom finger-stock designed to contact 3 turns of coil all the time with over 25 pounds of combined contact pressure. With this design you can run up to 1.2 kilowatts PEP, trouble free. It's so superior to anything else on the market that we put our outstanding AMERITRON warranty behind it.

We use a new heavy duty Pittman commercial 12 volt gear motor, which is very durable and quiet while receive tuning. This motor is super heavy duty for years of trouble-free service. Antennas come with sensors already installed so if you add an auto controller, everything is ready.

### The AMERITRON SDA-100 includes:

**Up/Down switch;** 5 feet of motor DC cable with detachable weather sealed connector; decoupling toroid matching coils.

SDA-100 comes in a handsome black, using Dupont Basecoat/Clearcoat system.

### Optional accessories:

**SDM-100, \$99.95.** Stainless steel flange mount base bracket, with multiple pre-punched holes. The SDA-100 mounting rod is a 1-in. pipe thread 14-inches long. Ship Code B.

**SWP-100, \$24.95.** 6-ft stainless steel whip.

### Combination Prices

**SDA-110, \$478.95.** Combination of SDA-100 mobile screwdriver antenna, SDC-100 auto-controller, and SWP-100 whip.

**SDA-112, \$508.95.** Combination of SDA-100, SDC-102 and SWP-100.

**SDA-113, \$528.95.** Combination of SDA-100 screwdriver antenna, SDC-103 auto-controller, and SWP-100 whip.

# Programmable 10-Memory Screwdriver Controller

The SDC-102 lets you save 10 screwdriver antenna positions in memory. With a push of a button, you can quickly return to any saved position.

Up/Down buttons let you manually move the antenna to any desired position. A 4-digit turns counter with bright see-in-the-sun LEDs gives you precise antenna position.

The antenna always moves to its desired position from the bottom, insuring that the motor is always loaded the same.

Ameritron's AutoPark™ feature automatically bottoms your antenna for parking in your garage and resets and calibrates your counter each time to eliminate antenna slip-page and turns count errors.

Ameritron's Dead-On/STOP™ feature eliminates overshoot for dead-on stops.

Ameritron's StallProtect™ feature shuts off stalled motors to prevent motor burnout.

Motor current can be monitored for signs of trouble and to determine stall current.

Motor direction can be reversed so the UP button is always up. Compatible with single/dual magnetic sensors. 3 1/2"Wx3 1/4"Hx1 1/2"D in.

## Automatic Screwdriver Antenna Controller for Icom Transceivers

Ameritron's SDC-103 is perfect for your Icom radio equipped with a CI-V interface. Connect the controller to your Icom rig and the SDC-103 receives the frequency data and will automatically tune your screwdriver antenna. Has all features of the SDC-102. 3 1/2"Wx3 1/4"Hx1 1/2"D inches.

**SRS-100, \$29.95.** Magnetic sensor kit for High Sierra antennas to use SDC-102.

**SRS-1001, \$9.95.** Magnetic sensor kit for Hi-Q Antennas to use SDC-102.



SDC-102  
\$119<sup>95</sup>  
Ship Code A



New! SDC-103  
\$139<sup>95</sup>  
Ship Code A

## Ameritron Mobile Installation Accessories

### ALS-500M DC Power Wire Harness

10-22500, \$49.95. Get

an extra DC power harness for ALS-500M amplifier. Saves you from the hassle of moving your amp cable assembly. Fully assembled. Fuse holders and fuses included.



### Remote Power ON/OFF for Amplifier

MIA-3, \$59.95. 12

VDC Bosch relay. Turns amplifier high current DC supply line ON/OFF remotely with vehicle ignition switch. SPST, heavy duty dual contacts. Handles 75 Amps.



### In-Line Fuse Holder/Distribution Block

MIA-1, \$6.95.

AGU in-line fuse holder; heavy duty, waterproof, handles to 80A, 4-10 gauge wire, built-in mounting bracket.



MIA-2,

\$14.95.

AGU in-line fused power distribution block; 1 input for 4 gauge wire, 2 outputs for up to 8-gauge wire, plastic cover with mounting ears.



### Battery Post Break-out Block

MIA-4, \$14.95. Don't damage

your amp because of poor battery connections. Replace old clamps with this gold metal battery break-out block. Has 4 AWG terminal for your auto battery and two 8 AWG connections for your amplifier.



### Braided Ground Strips

MIA-5, \$6.95. Makes

solid grounding for your mobile radio or screwdriver antenna installation. Made from ultra-fine tinned copper braid. Extremely flexible. 7/8-inch width, 13" long. 3/8" holes on each end.



## SDC-100 Digital Screwdriver Controller

\$89<sup>95</sup>

Ship Code A

4-digit  
super bright

LEDs tell you exactly where your antenna is positioned! Re-tune exactly -- fast, no guessing. Digital count range -999 to +999. On/off/reset switch for easy calibration. 4Wx1 1/2"Hx2D". Use 13.8VDC.

**SRS-100, \$29.95.** Magnetic sensor kit for High Sierra antennas. **SRS-1001, \$9.95.** Magnetic sensor kit for Hi-Q Antennas.



## High Current Amplifier Power Cable

Highly flexible, 105 degrees celsius, 600 Volts, tinned copper PVC cable. PVC jacket is resistant to oil, fuel, acids, grease and abrasion. Intended for mobile installation.

Part#	Red	Part#	Blk	Cost/Ft	Description
871-1022		871-1000		.49	10AWG, 19/23, .176" OD
871-0822		871-0800		\$1.32	8 AWG, 19/21, .217" OD
871-0622		871-0600		\$1.84	6AWG, 49/22.5, .330" OD
871-0422		871-0400		\$2.36	4AWG, 70/22.5, .380" OD

# AMERITRON Automatic Remote Antenna Coax Switch

*Automatically switches and selects 8 pre-programmed antennas using 3/4 line BCD or 1 of 8 outputs*

The RCS-12 is an automatic control box used for switching remote antenna relays. Ameritron's new antenna switch is designed to work with most Icom, Yaesu, Kenwood and other transceivers that have a band data output line.

It will work with any relay box with up to eight positions with voltages from 12 to 30 Volts DC. The RCS-12 relay control has an output of 1 of 8; 3 line BCD or 4 line BCD.

The switch reads information from the transceiver and selects pre-programmed antennas automatically. Programming is as easy as a push of a button.

## FEATURES:

RCS-12 can remember multiple antennas for one band, but selects the last antenna used for that band.



RCS-12C  
\$229<sup>95</sup>  
Suggested Retail

It has a manual/automatic switch that will allow manual selection of antennas as well. It has eight LEDs to indicate which antenna is selected.

RCS-12 will not allow antennas to switch while transmitting. A user programmable delay is used to give the relays enough time to switch to protect the trans-

ceiver from "Hot switching".

The RCS-12C features . . . a linear amplifier buffered relay line that prevents the amplifier from operating during an antenna changeover . . . an auxiliary input port that allows the switch box to be operated from a remote location . . . an auxiliary output for controlling other devices in 1 of 8 format . . . and auto, manual, and transmit indicator LEDs. Measures 8 1/4"Wx2 3/4"Hx7"D inches, weighs 1.5 lbs. **RCS-12, \$299.95**, auto controller with 8 coax relay box, to 100 MHz. **RCS-12L, \$339.95**, auto controller with 8 coax relay box, to 100 MHz, w/ lightning arrestors. **RCS-12C, \$229.95**, Automatic Remote Antenna Switch Controller *only*. Compatible with RCS-8V/RCS-10 outdoor relay boxes.

# AMERITRON ATR-30 True Legal Limit™ Antenna Tuner

AMERITRON's ATR-30 True Legal Limit™ roller inductor antenna tuner is ham radio's toughest! It'll handle 3KW PEP or 1500 Watts continuous carrier output on all modes and all HF bands into most antennas -- even on 160 Meters where most antenna tuners fail.

ATR-30  
\$599<sup>95</sup>  
Suggested Retail



It's perfect for Ameritron's most powerful amplifiers where the ATR-30 just loaf.

All band coverage lets you operate 1.8-30 MHz including all MARS and WARC bands.

You'll see Ameritron's new super high current air core roller inductor. It's edge wound from a thick solid copper strip and silver plated. This produces a large surface area and a massive conductor. It can carry huge circulating RF currents and withstand tremendous heat that'll melt or burn ordinary roller inductors.

A gear driven turns counter and crank knob gives you precise inductance control.

Two 500 pf -- the highest of any antenna tuner -- variable transmitting capacitors give you no-arc wide range impedance matching for true high power performance.

6:1 vernier reduction drives makes capacitor tuning smooth and easy.

Super heavy duty three core choke balun lets you match virtually any balanced feed-line antenna without core saturation.

A 6 position antenna switch lets you

select your desired operating antenna.

Ameritron's active electronic true peak reading meter accurately reads forward and reflected power and SWR simultaneously on a lighted Cross-Needle meter.

Roomy extra-strong .080 inch thick aluminum cabinet gives highest efficiency and lowest loss. 13 1/4"Wx5 5/8"Hx17 1/2"D inches. Has Ameritron's superb one year limited warranty with legendary customer service.

## ATR-20 Antenna Tuner . . . \$459<sup>95</sup>

Handles 1.2 kW PEP SSB.

Slightly less on 160 Meters.

13 1/2"Wx5 1/2"H

x13 1/4"D inches. Roller inductor T-network, peak reading SWR/Wattmeter, covers 1.8-30 MHz, 6 position antenna switch, balun. Great for Ameritron's 1kW AL-80B Amp!



# AMERITRON precision peak-reading SWR Wattmeters

## Flat Mount Mobile SWR/Wattmeter



AWM-35 Ameritron's flat Mobile Peak Reading SWR/Wattmeter is just 1 5/8" thick -- easily mounts on your dashboard for easy viewing. Flat mount on wall or shelf in your ham shack for best viewing angle.

Remote sensor with 25 feet thin, flexible cable lets you place sensor and coax out-of-the-way.

Handles full 1500 Watts, 1.8-30 MHz. Lighted Cross-Needle meter.

Active electronics lets you read true peak or average power in 3000/300 Watt ranges. Has "High SWR" LED. Flat-Mount wattmeter measures 5Wx3 1/4"H x 1 1/4"D"; remote sensor is compact 3 1/2"Wx2 3/4"H x 2 1/4"D". Use 9V battery or 12 VDC.

## AWM-35 Remote sensor



## Precision Single Needle SWR/Wattmeters

These precision, compact meters feature peak and average, forward and reflected power reading and

AWM-20  
\$144<sup>95</sup>  
Suggested Retail



Model	Price	Frequency	Power	Pwr Ranges
AWM-20	\$144 <sup>95</sup>	1.6-60 MHz	3 kW	20, 300, 3000W
AWM-22	\$104 <sup>95</sup>	1.8-200 MHz	200 W	5, 20, 200 W
AWM-23	\$124 <sup>95</sup>	125-525 MHz	200 W	5, 20, 200 W
AWM-24	\$179 <sup>95</sup>	1.8-525 MHz	200 W	5, 20, 200 W

Selectable power ranges. Large 2 5/8"x1 1/4" lighted meter (requires 12 VDC). SO-239, 6Wx2 1/2"Hx4"D inches. Choose from 4 models.

## Base Station 1500 Watt SWR/Wattmeter

Ameritron painstakingly designed the AWM-30 to make accurate, precise 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. Ameritron's AWM-30 reads true-peak or average power on a large illuminated three inch Cross-Needle meter. Handles 1500 Watts, 1.8 to 30 MHz. Has 3000/300 Watt ranges. Reads forward and reflected power and SWR on highly visible dual cross-needle meter movement.

Remote sensor with cable lets you conveniently place sensor. Battery saver turns unit off with no RF applied. Uses 12 VDC or 9 volt battery (not included). Beautiful wrap-around custom metal cabinet looks great in your shack. Compact 4 1/2"Wx4 1/2"Hx5 1/2"D in.

AWM-30  
\$149<sup>95</sup>  
Suggested Retail



## ADL-1500 Dummy Load with industrial grade transformer oil

Oil cooled 50 Ohm dummy load handles 1500 Watts for 5 minutes. SWR under 1.2 to 30 MHz. Low SWR to 400 MHz. Industrial grade transformer oil (no PCB). Load without oil.



ADL-1500X, \$54.95. Fan cooled 2500 Watt dry dummy load. ADL-2500 Whisper quiet. Handles 2500 Watts average power for 1 min. on, ten off. Suggested 300 Watts continuous. SWR below 1.25 to 30 MHz and below 1.4 to 60 MHz.



# RCS-8V HF to VHF/UHF Remote Coax Switch



RCS-8V  
**\$159<sup>95</sup>**  
 Suggested Retail

**Ameritron's Remote Coax Switch** lets you remotely switch up to five separate antennas using one inexpensive small control line (like standard telephone wire) -- **Eliminate** a tangle of troublesome coax and have a simple and neat installation -- with just a single coax feedline.

**The RCS-8V** consists of two units -- the weatherproof switching box that mounts on your tower or mast and the control unit that's placed at your operating station.

**VSWR** is less than 1.2 from DC to 250 MHz and less than 0.1 dB loss at 150 MHz -- if you operate HF/VHF/UHF, the RCS-8V is for you.

It handles over 5 kW below 30 MHz and 1 kW at 150 MHz. You can ground unused positions or leave them open.

**The indoor control unit** is all metal to prevent RFI and TVI. It also has LEDs to indicate the antenna you've selected.

A Lexan scratch proof front panel

has a markable surface for labeling your antennas.

**Lightning Protected**  
 model RCS-8VL, \$199<sup>95</sup>

**RCS-8V** operates from a 120 VAC power source or RCS-8VX for 220/240 VAC. Use any 6 conductor control line (not supplied) and allows safe operation with 14V control voltage.

**RCS-8VN, \$169.95.** Same as RCS-8V but has N- type connectors instead of SO-239.

## SPECIFICATIONS:

**Number of antenna positions:** 5.

**Loss at 150 MHz:** less than 0.1 dB.

**VSWR:** under 1.2:1 from DC to 250 MHz.

**Impedance:** 50 Ohms. **Power Capability:** >5 kW below 30 MHz, 1 kW at 150 MHz.

**Power requirements:** 12 VDC @ 100 mA.

AC adaptor supplied. **Connectors:** Teflon<sup>®</sup> SO-239 for RCS-8V; "N" for RCS-8VN.

**Control Box:** 6Dx6<sup>1</sup>/<sub>8</sub>W x2<sup>1</sup>/<sub>4</sub>H inches.

**Switch Box:** 5<sup>3</sup>/<sub>8</sub>Dx7Wx3H inches.

# RCS-10 Remote Coax Switch with 8 positions

RCS-10  
**\$169<sup>95</sup>**  
 Suggested Retail



**Ameritron's RCS-10** remote coax switch selects one of eight antennas using an inexpensive three or four conductor control line (such as standard telephone wire).

**Eliminate** a tangle of troublesome coax and have a simple and neat installation -- with just a single coax feedline.

**The RCS-10** consists of two units -- the weatherproof switching box that mounts on your tower or mast and the control unit that's placed at your operating station.

## Outdoor Unit Features:

**Inexpensive and simple wiring:** selects up to eight antennas using one four conductor telephone type control line.

**High Power Capability:** The RCS-10 relay box will handle over 5 kW into matched loads below 30 MHz.

## SPECIFICATIONS:

**Long Relay Life:** UL/CSA/VDE approved sealed relays with 16 ampere switching current rating. Tested to withstand 1200V RMS. **Flexible Mounting:**

RCS-10 hardware accepts mast sizes from 1 inch to 2<sup>1</sup>/<sub>4</sub> inches. **Reliable Connectors:** Teflon UHF-style SO-239 females, internal barrier strip for control lines. **Low Voltage:** Requires 10-15 Volts at less than 300 mA.

**Lightning Protected**  
 model RCS-10L, \$209.95

**Number of Antenna Positions:** 8.

**Frequency Coverage:** DC to 100 MHz.

**VSWR:** Under 1.25:1 below 30 MHz;

Under 1.3:1 below 60 MHz; Under 1.8:1 below 150 MHz.

**Impedance:** 50 Ohms.

**Power Capability:** >5 kW into 50 Ohms below 30 MHz.

**Power Requirement:** RCS-10, 10-15 VDC or 120 VAC with AC adaptor supplied.

RCS-10X, 10-15 VDC or 230 VAC with AC adaptor supplied. **Relay Switch**

**Control Line:** 4 conductors telephone-type cable, not supplied. **Relay Control Line**

**Voltage:** 10-15 VDC at less than 300 mA.

**Flexible Control Box with External**

**Interface:** Accepts and outputs one-of-eight and outputs three-line BCD data to remote relay unit. **Highly Weather**

**Resistant:** Sealed relays, stainless hardware, and U-V resistant cover. **Easy-to-**

**Read Antenna Indicators:** Eight wide-spaced LED's indicate the selected antenna.

**Size:** Control Box: 6<sup>1</sup>/<sub>4</sub>Wx3<sup>1</sup>/<sub>4</sub>Hx4<sup>5</sup>/<sub>8</sub>D in.

# RCS-4 Remote Coax Switch with four positions

**Now covers 6 Meters . . . improved relays . . . Greater Power Handling!**

RCS-4  
**\$149<sup>95</sup>**  
 Suggested Retail

**Ameritron RCS-4** is a remote controlled coax switch that selects 1 of 4 outputs by supplying all control voltages through the coax.

**Elimination** of control cables gives you a fast, neat and inexpensive installation -- **only 1 coax line for 4 antennas.**

**You** get two units -- the switching box (5<sup>3</sup>/<sub>8</sub>Dx7Wx3H inches.) that can be tower, mast or wall mounted and the control console (6<sup>1</sup>/<sub>8</sub>Dx5<sup>1</sup>/<sub>4</sub>Wx 3<sup>3</sup>/<sub>8</sub>H inches.) that is located at your operating station.

**The attractive indoor console** has bright LED antenna selector indicators.

A steel enclosure provides 100% shield-

ing to prevent RFI and TVI.

**Switching** time is 50 milliseconds.

Teflon<sup>®</sup> SO-239 connectors provide reliable connections.

**The weatherproof switching box** uses three heavy duty 16 ampere hermetically sealed relays on a rugged G-10 fiberglass circuit board. Quality components used throughout the entire unit ensure maximum life for the difficult-to-reach switching box.

**RCS-4** operates 120 VAC. RCS-4X for 220/240 VAC. RCS-4 allows safe operation with 14 Volts control voltage. Covers 1.5 - 60 MHz, handles 2.5 kW. Loss at 30 MHz less than 0.1 dB; VSWR is under 1.25:1, 1.5-60 MHz; 50 Ohms.

**RCS-4L, \$189.95.** Adds lightning protection.



# MFJ IntelliTuner™ Automatic Tuner

**Automatically tunes unbalanced/balanced antennas . . . Ultra fast . . . New 20,000 memories . . . Antenna Switch . . . Efficient L-network . . . Select 300 Watts (6-1600 Ohms) or 150 Watts (6-3200 Ohms) . . . 1.8-30 MHz . . . 4:1 current balun . . . Cross-Needle and Digital SWR/Wattmeter . . . Audio SWR meter . . . Backlit LCD . . . Remote control port . . . Radio interface . . .**

## World's First dual power level 300/150 Watts SSB/CW Tuner --

Select 300 Watt SSB/CW power level and match 6-1600 Ohm antennas **Or** . . . select 150 Watt SSB/CW power level and match *extra wide-range* 6-3200 Ohms!

The MFJ-993B IntelliTuner™ lets you tune any antenna *automatically* balanced or unbalanced -- *ultra fast*.

It's a comprehensive automatic antenna tuning center complete with SWR/Wattmeter, antenna switch for two antennas and 4:1 current balun for balanced lines.

MFJs exclusive IntelliTuner™, Adaptive Search™ and InstantRecall™ algorithms give you *ultra fast* automatic tuning with over 20,000 VirtualAntenna™ Memories.

You get a highly efficient L-network, 6-1600 ohm matching at 300 Watts SSB/CW or *extra-wide* 6-3200 Ohm matching at 150 Watts SSB/CW, 1.8-30 MHz coverage, Cross-Needle and digital meters, audio SWR meter, backlit LCD, remote control port, radio interface, heavy-duty 16 amp/1000V relays.

## It learns while you're having fun

As you're ragchewing, contesting or DXing, your MFJ-993B is learning!

When you transmit, the MFJ-993B automatically tunes for minimum SWR and remembers your frequency and tuner settings. The next time you operate on that frequency and antenna, these tuner settings are instantly restored and you're ready to operate in milliseconds!

MFJ new VirtualAntenna™ Memory system gives you 4 antenna memory banks for each of 2 antenna connectors. Select up to 4 antennas on each antenna connector. Each antenna has 2500 memories, 20,000 total.

## Intelligent ultra fast tuning

MFJs InstantRecall™ first checks its

## 600 Watt MFJ Automatic Tuner



MFJ-994B  
\$359.95  
Ship Code C

**MFJ-994B, 600 Watt Intelli-Tuner™!** automatic antenna tuner with **new** 10,000 VirtualAntenna™ Memories. Like MFJ-993B but handles 600 Watts SSB/300 Watts CW, matches 12-800 Ohms. Does not have digital SWR/Wattmeter/LCD display, audio SWR meter/audio feedback, antenna switch or 4:1 current balun. Tuning must be done at low transceiver power with amplifier bypassed.

MFJ-993B  
\$259.95

Ship Code C

memory to see if you have operated this frequency before. If so, tuning is instantaneous and you're ready to operate.

If not, MFJs IntelliTuner™ algorithm -- based on MFJ's famous SWR Analyzer technology -- kicks in. It measures the complex impedance of your antenna. Next, it calculates the components it needs and instantly snaps them in. Then, it fine tunes to minimize SWR -- you're ready to operate. It's all done in a fraction of a second.

When the impedance is within its measurement range, the MFJ-993B is the *fastest automatic antenna tuner in the world*.

If it can't accurately determine impedance, MFJ's AdaptiveSearch™ algorithm goes into action. Frequency is measured and relevant components values are determined. Only those values are searched for ultra-fast tuning.

For even faster searches, you can set the target SWR to 2 (settable 1.0-2.0).

You can manually tune when you can't transmit (for listening out of ham bands).

## Cross Needle and Digital SWR/Watt Meters

**Lighted** Cross-Needle and *digital* meters lets you accurately read SWR, forward and reflected power at a glance.

An audio SWR meter lets you hear the tuned SWR when you can't see/read meters.

Turn on a highly visible, instant response SWR LCD bargraph when you need it.

## Backlit LCD Display

An easy-to-read backlit LCD displays SWR, forward/reflected power, frequency, antenna 1 or 2, L/C tuner values, on/off indicators and other information.

The MFJ-993B is a compact 10Wx2¾ Hx9D inches. Use 12-15 VDC/1 amp or 110 VAC with MFJ-1316, \$21.95.

## Tune any Antenna

You can tune any antenna -- dipoles, verticals, beams, phased arrays, inverted vees, quads, random wires, mobile antennas,



compact limited space antennas.

A 4:1 true current balun lets you tune any balanced antenna -- horizontal loops, vertical loops, multi-band doublets, quads, folded dipoles, Zepps.

## Remote Control



Plug in the MFJ-993RC, \$39.95, remote control and use your tuner elsewhere remotely.

## MFJ-993B Interface Pre-wired Cables

Allows automatic tuning of your MFJ-991B/993B/994B IntelliTuner™ through radio.

**MFJ-5124I, \$19.95, ICOM.** Supports IC-706, 707, 718, 725, 728, 736, 746, 756, 765, 775, others that support AH-3 or AH-4.

**MFJ-5124A, \$19.95, ALINCO.**

Supports DX-70, DX-77 and others.

**MFJ-5124K, \$59.95, KENWOOD.**

Supports TS-50S, 450S, 570S, 690S, 850S, 870S, 2000 and others that support AT-300.

**MFJ-5124Y, \$59.95, YAESU.** Supports FT-100D, FT-857, FT-897, others.

**MFJ-5124Y2, \$59.95, YAESU** FT-847.

**MFJ-5124Y3, \$59.95,** Supports YAESU FT-1000MP and compatibles.

## Dual 300/150 Watt Auto Tuner

MFJ-991B  
\$219.95  
Ship Code C



## World's First dual power level Tuner

-- Select 300 Watt SSB/CW and match 6-1600 Ohm antennas **Or** select 150 Watt SSB/CW and match *extra wide-range* 6-3200 Ohms. **New** 10,000 VirtualAntenna™ Memories. Like MFJ-993B, less digital SWR/Wattmeter/LCD display, audio SWR meter/audio feedback, antenna switch or 4:1 current balun.



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

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