See Page 2 More ducts! MFJ 2006 Ham Catalog

See inside for 118 New MFJ Products!

2500W Antenna Tuner

Continuous Carrier™ . . . silver plated Edge-Wound Roller Inductor . . .



1000/500 pF Variable Capacitors . . . antenna switch . . . extremely

wide matching range . . . 4-Core Balun . . . true peak circuit . . . more!

MFJ-9982^{\$}699⁹⁵

See Page 5

Improved MFJ-989D

New 500 pF air-variable capacitors. . . New AirCoreTM roller inductor



tune crank knob . . . New True ActiveTM peak-reading

with fast-

meter . . . New high-voltage current balun . . . new rugged cabinet . . .

MFJ-989D \$35995

See Page 3

New MFJ Automatic 200 Watt IntelliTuners™



automatically tunes any antenna, matches 6-1600 Ohms . . . Ultra-fast, 2000 memories . . . antenna switch . . . efficient L-network . . . 4:1 current balun . . .

MFJ-929 **\$219**95

Three new models . . . See Page 11

Programmable Screwdriver controller



10 Memories . . . Super Accurate. . . . AutoParkTM $StallProtector^{TM}$. . Super bright LEDs

MFJ-1924 \$11995

See Page 17

World's Largest SWR/Wattmeter



Giant HF meter measures 61/2' diagonally across its meter scale!

MFJ-868 \$13995

See Page 14

MFJ Automatic LoopTuner[™]



Automatically tunes small loops .. place in closet, attic . . . 2000 memories . . .

MEJ-937 \$32995

Desk/Remote

6-Position

Antenna Switch

MFJ-4716 \$89°5

Whip Tuner/

ArtificialGround

80-10M, 150 Watt

Tuner/Ant/Art-Gnd

MFJ-1644 \$**149**⁹⁵

Two

See Page 12

See Page 9

Now

round &

Meters,

high

efficiency

MFJ-434B \$17995

Tiny 50-Watt

LoopTuner™ 80-10

MFJ-932 \$9995

See Page 9

See Page 30

hamProAudioTM Equalizer/Conditioner



8-Band Equalizer, Noise Gate, Compressor, Limiter, Preamp ^{FMFJ-655} **\$199**⁹⁵

Four new models . . .

See Page 29

.

MFJ in-line Calibrated RF Ammeters



3 models . . .

See Page 15

1/2 Wave **Rotatable** 6-band Dipole

40, 20, 15, 10, 6 and 2 Meters! MFJ-1775 \$239%

See Page 55

Flat, mobile SWR/Wattmeter Built

rugged to take mobile abuse . . .



MFJ-818 \$6995

See Page 14

AC Line RFI Filter



MFJ-1164^{\$}59⁹⁵

See Page 42

Desk/Remote 6-Position

Ant/Xcvr Switch

> MFJ-4726 \$159⁹⁵

See Page 12

2.4 GHz, 15 dBi WiFi Yagi

16 elements, extends

802.11b/g signals MFJ-1800 \$2995

See Page 42

See Page 51

Ameritron Digital screwdriver controller

Lets vou save na positions in memory.

\$119⁹⁵

SDC-102

MFJ Contest MFJ Hybrid Voice Keyer Phone Patch

has both modular 8-pin plugs!

has both round & modular 8-pin plugs!

MFJ-624D/M \$12995

See Page 30

80-6 Meter

window/balcony Tuner/Antenna 12 foot Has whip, mount,

tuner, rope, counter-

telescoping whip MFJ-1625 \$199⁹⁵

See Page 52

New Ameritron 500 Watt Mobile Amp

Has remote head and automatic bandswitching features!



ALS-500MR \$879 See Page 73

Ameritron **Automatic** Remote **Antenna Switch**

Switches and selects 8 pre-programmed antennas

RCS-12C \$229

See Page 75

screwdriver anten-

See Page 74

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 2nd Best Antenna! AV-18HT-Jr *349⁹⁵

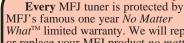
See Page 55

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



MFJ ENTERPRISES, INC., 300 Industrial Park Road, 📻 Starkville, MS 39759

Phone: (662) 323-5869; 8-4:30 CST, M-F; Fax: (662) 323-6551



What™ limited warranty. We will repair or replace your MFJ product no matter what (at our option) for one full year.

No Matter What™Warranty

See inside for 118 New MFJ Products!

Product Index/Order Forms on pages 60-62

New, Improved MFJ IntelliTuner[™] **Automatic Tuners**

Now has 20,000 memories and dual



power: matches 6-1600 Ohms at 300 Watts or 6-3200 Ohms at 150 Watts!

MFJ-993B \$25995

See Page 80

MFJ 1/2 Wave, 6-Band Rotatable Mini-Dipole



Low profile 14 feet, 7 foot turning radius . . .

40, 20, 15, 10, 6, 2 Meters . . . 1500 Watts . . . Directivity focuses signal, reduces QRM/noise . . .

MFJ-1775 \$23995

See Page 55

MFJ RF Ammeter for Balanced Lines



Measure and compare each feedline wire current -- your feedline is bal-

anced if the currents are equal.

MFJ-835 *119⁹⁵

Three New models -- coax, balanced line, SWR/Wattmeter ... See Page 15

New and Improved Small, high-

efficiency LoopTuners™

Turn any wire loop into a small, highefficiency multi-band transmitting loop antenna

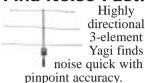
MFJ-936B \$24995

Four New models -- MFJ-935B, \$199.95, MFJ-933, \$179.95,

MFJ-932, \$99.95...

See Page 9

Find Noise Fast!

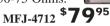


MFJ-856 *149°5

See Page 14

2-Position Remote Antenna Switch

Use single feedline to feed two antennas, 1.8-150 MHz, 1500 Watts, 50-75 Ohms.



See Page 14

Let your rig auto bandswitch your ALS-500M Amp

Works with serial numbers above 13049. Also



see new remote control head for Ameritron's ALS-500M Amplifier.

ARI-500 \$11995

See Page 73

MFJ 1.8-30 MHz Cross-Needle SWR/Wattmeter

Now has TrueActive™ Peak Reading Circuit! Read true peak or average

forward/reflected power at-a-glance.

MFJ-815C \$89°5

See Page 13

MFJ VHF/UHF Cross-Needle SWR/Wattmeter

Now has TrueActive™ Peak Reading Circuit! Read true peak or average

forward/reflected power at-a-glance.

MFJ-817C **\$99**95

See Page 13

— ½ ë − 2-Element Collinear 1/4 ë

2/4 Element Collinear **Array Wire Antennas**

Eight New models . . . See Page 54

Hang & Play End-Fed Zepp Antennas

Five New models . . . See Page 54

Butterfly Tuning Cap

MFJ-23 \$8995



See Page 9

Butterfly Tuning Cap MFJ-19

\$**69**⁹⁵ 12 to 67 pF . . .

See Page 9

MFJ **Balanced Line Tuner**

New and Improved MF.I-

974HB \$199⁹⁵

See Page 8

Analyzer current balun

1:1 current balun for MFJ SWR analyzers MFJ-917

\$19⁹⁵

See Page 18

Mini Clamp-On RF **Ammeter**

Calibrated MFJ-853 \$49⁹⁵

See Page 15

High-Current **RF** Ammeter

Higher Ampere Current ranges than MFJ-853. MFJ-853H

\$**59**⁹⁵

See Page 15

Telescopic portable

whips 20 or 40 Meters screws in 3/8x24 mount MFJ-2620T MFJ-2640T \$2995

See Page 49

Variable RF Transformer



Matches mobile whips

MFJ-907^{\$}59⁹⁵

See Page 11

Mobile **Antenna** L-Matcher

MFJ-908 \$39⁹⁵

See Page 11

BiasTee DC **Power** Injector

MFJ-4116 **\$24**95

See Page 17

2-Position **Bypass Switch**

MFJ-1705 \$**19**⁹⁵

See Page 11

Switchable Current Balun/Unun

1:1 or 4:1 MFJ-911H \$**29**⁹⁵



See Page 51

True 4:1 Current Balun/Unun

MFJ-911 \$19⁹⁵

See Page 51

4.5 Watts ATV **Transmitter**

MFJ-8709 \$199⁹⁵

See Page 35

Deluxe Station Speaker Handsome

black 93/4 inches MFJ-385B \$39⁹⁵

See Page 31

AC Line Monitor Built-in AC Socket, so you don't lose the plug! **MFJ-850B**

\$21⁹⁵

See Page 21

Soundcard **Extension** Box

MFJ-5420 \$12⁹⁵

See Page 38

New SMA Adaptors For your new HTs!

MFJ-7716 *3⁹⁵each

3 new adaptors

See Page 42

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 TrueActiveTM Peak-Reading Cross-Needle SWR/Wattmeter
- New High-Voltage Current Balun
- New rugged Cabinet maintains hi-O 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 AirCoreTM 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

MFJ-989D

Ship Code E

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

TrueActiveTM Peak Reading SWR/Wattmeter

New TrueActive™ peak reading SWR/ Wattmeter lets you read true peak or average power on all modes. Large, easy-toread 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, \$14.95.

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 $2^{1/2}$ 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. 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 O

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 12⁷/₈Wx6Hx11⁵/₈D inches.

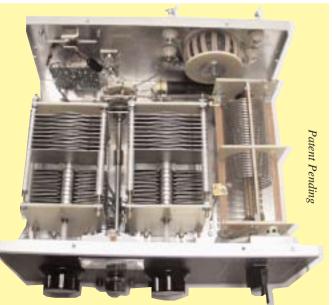
Lexan Front Panel

The MFJ-989D has a new nearly indestructable 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 WhatTM 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

Ship Code E

MFJ's innovative Differential- T^{TM} 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 *continu*ously, 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 TunerTM 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



tuning capacitor and a roller inductor.

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

MFJ AirCore™ roller inductor



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 nonbinding rotation.

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

The compact 10³/₄x4¹/₂x15 inch cabinet has plenty of room to mount the roller inductor away from metal surfaces for highest Q -- you get high efficiency and more power into your antenna. Wide-spaced tuning capacitor plates let you run high power without arcing.

Lighted cross-needle meter

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

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

MFJ TrueCurrentBalunTM reduces feedline radiation

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

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

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 radia-

No Matter WhatTM Waranty

Protected by one year limited warranty. Call your dealer for your best price! In stock at ham dealers everywhere.

MFJ-962D Compact Tuner for Linear Amplifiers

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



MFJ-962D

Ship Code E

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

Why set-

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 powerhouse linear amplifier at no additional cost.

The compact MFJ-962D handles 1500 Watts

PEP SSB amplifier input power (800 Watts PEP SSB amplifier output

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

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

knob set including a weighted deluxe spinner knob, ultra compact size (10³/₄ x4 x 10⁷/₈ inches) and scratch-proof nearly indestructible multicolored 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*TM that eliminates damaging self-resonances.

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

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

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

MFJ 2500 Watts Continuous CarrierTM 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 Continuous CarrierTM antenna \$6995 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, 3digit 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™ 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.



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 highcurrent contacts of two ceramic switches.

New 4-Core Balun

Powerful balun -- Four 21/2 inch cores, 12-gauge *Teflon*™ 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 though lossy screws or bolts.

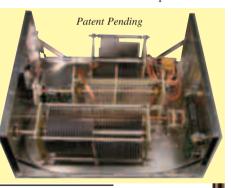
TrueActive™ Peak Reading Circuit

New TrueActive™ 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, nonstripping PEM nuts, heavy 10-gauge or copper strap wiring throughout. 13³/₄Wx7Dx16¹/₄D inches. 15 pounds.



Antenna Tuner/Artificial Ground



MFJ-934 \$179⁹⁵ 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. $10^{5}/8$ Wx $3^{1}/2$ Hx8D in.

MFJ Artificial RF Ground Places your rig near earth ground potential!

MFJ-931 \$**89**⁹⁵

Ship Code A

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 MFJ-1934 tough 3/8 in. diameter that will last and last. Sharp Ship Code B 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. 7¹/₂Wx3¹/₂Hx7D inches. RF tight aluminum cabinet.

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

969

969

You MFJ's superb

AirCore™ Roller Inductor and full 6 Meters through 160 Meters coverage!

You get everything you've ever wanted including . . . 300 Watts PEP SSB full featured antenna tuner, widest matching range. full-size lighted Cross-Needle

SWR/Wattmeter reads true peak forward power, QRM-Free PreTune™, 8 position antenna switch, built-in 50 Ohm dummy load, heavy duty 4:1 balun -- all in a tough, attractive cabinet. MFJ's famous one year No Matter WhatTM 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 $Killer^{\text{TM}}$ keeps potentially damaging selfresonances away from your frequency.

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

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

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 CircuitTM accurately reads true peak forward power -- an MFJ exclusive.

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

Lamp has on/off switch and uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95. ActivePeakReading CircuitTM 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 \$14995 other antenna tuner in the world!

MFJ-949E

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^R insulating washers and proper L/C ratio gives you arc-free no worries operation with up to 300 Watts 1.8 to 30 MHz.

Tunes any antenna

Tunes out SWR on dipoles, verticals, inverted vees, random wires, beams, mobile whips . . . 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

SWR, true *peak* forward and average

cross-needle Meter. Lets you easily read

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

QRM-Free PreTuneTM

MFJ's ORM-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 multicolored front panel, superior cabinet and construction and more! Measures a sleek and compact 10⁵/₈x3¹/₂x7 inches.

MFJ-948 -- An Econo MFJ-949E for Only \$129.95!

MFJ-948 \$129⁹⁵

Ship Code B

All the features of

the MFJ-949E -- the world's leading 300 Watt antenna tuner -- for an incredibly low \$129.95! (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 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.

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, \$14.95).

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 \$4.95. Add \$2.00 shipping for the bracket if ordered separately.

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

for QRP to Full-bore Transceiver Portable Tuner

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, \$14.95).

The MFJ-971, while an all-around lowpower tuner, is especially suited for MFJ MALE PROPERTY. AND PERSONS ASSESSED. transceivers and power packs. It matches them in size and styling and brackets included with the tuner allow connecting the units together physically into an attractive and compact

As in all good antenna tuners, three controls give flexibility in matching: Inductance

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

MFJ-971

\$9995

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 MFJ-941E with on/off switch (lamp uses 12 VDC or 110 VAC with MFJ-1312D, \$14.95).

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 10⁵/₈Wx2⁷/₈Hx7D inches.

MFJ's Smallest VERSA TUNER



MFJ-901B Ship Code A

smallest (5x21/2x6) 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 Op-\$4995 erate all Ship Code A bands 1.8-30 MHz -- any-

where with any trans-

ceiver -- 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 super compact 2.25H X 3.5W X 5.25D 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			
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 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.

MFI-974HB Ship Code D

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 O 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 wires and coax fed antennas.

Compact 7½Wx6Hx8D inches fits any-



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 feedline 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 TeflonTM 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 \$179⁹⁵ Ship Code D

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. New

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, 14gauge hard copper antenna wire.

MFJ-16C06, \$3.95. 6 authentic glazed ceramic end/center antenna insulators. Extra strong. Will not arc or melt.

New! MFJ-16D01, \$6.95. Super strong custom fiberglass stress relieving center insulator for 450 Ohm ladder line.

See page 55 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!



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.

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.

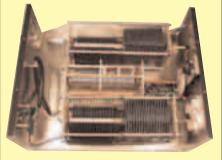
You get excellent 10 Meter performance because of MFJ's low minimum capacitance and exclusive Self-Resonance Killer™ high-Q AirCore™ roller inductor

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. 12Wx6Hx15³/₄D inches.

An inside view of the MFJ-976



MFJ Small, high efficiency $Loop\ Tuners^{TM}$

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



MFJ-936B \$249⁹⁵ Ship Code C

Drape a wire around a bookcase or window and attach both ends to this new MFJ Small Loop TunerTM.

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 highefficiency 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

It's a very quiet receiving antenna -you'll hardly notice static crashes. Its high-O reduces ORM, 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. 10¹/₄Wx5¹/₄Hx9¹/₂D inches.

MFJ-935B, \$199.95. For portable/home stations. Smaller, lighter. Relative RF current meter with sensitivity control. 61/4Wx51/4Hx91/2D inches.

MFJ-933, \$179.95. Same as MFJ-935B less RF current meter. 61/4Wx51/4Hx91/2D in.

Wire Loops and Mounts

\$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.x2¹/₂" long shaft.

A. MFJ-19, \$69.95. 12 to 67 pF. 6Dx3Wx31/2H in.

B. MFJ-23, \$89.95. 18 ↑ to 136 pF. 10Dx3Wx3½H in.

lini high-efficiency Loop Tuner

\$9995

Tiny 50-Watt version of MFJ-933, Small High-Efficiency Loop Tuner™. Makes portable operation really portable and fun! Ultra low loss butterfly capacitor. Covers 80-10 Meters with appropriate \$99⁹⁵ wire loop. Tiny Ship Code A 3Wx4Hx1½D inches.

MFJ AutoLoopTunerTM automatically tunes small loops Automatically tunes small loops . . . Place on desk, in closet,



The \overline{MFJ} -937 AutoLoopTunerTM uses fast servomotors to drive the same Butterfly and matching capacitors as in the MFJ-936B to give you ultra high efficiency.

You get even better performance because the MFJ-937 automatically tunes your small loops more accurately, faster and more skillfully than any human ever could!

It's perfect for indoor and outdoor operation when you need a small, highly effi-

... Handles 300 Watts ... Quiet receiving antenna reduces QRM MFJ-937 cient HF antenna. Place it on your desk or out-of-the-way -- in your closet, attic, balcony or even outside in a weather-protected container. All power and control signals travel

down your coax -- no extra cables needed. Just transmit briefly. When the SWR goes low, you're ready to ragchew or snag your next DX. It's so smooth and transparent you won't even know it's there.

As you operate, your AutoLoopTunerTM is quietly learning your favorite frequencies and their tuner settings. The next time you're on that frequency and loop, these tuner settings are instantly restored and you're ready to go!

The MFJ-937 is smart enough to learn over 2000 frequencies in each of four loops. So when you are ready to enjoy those bands, just attach the appropriate loop, tune to your frequency, transmit and your loop instantly tunes from memory.

You'll radiate a solid, low angle DX signal that rivals much bigger full-size dipoles. It's also a very quiet receiving

antenna and has a very narrow bandwidth that reduces QRM and receiver overloading.

The MFJ-937 covers 80-10 Meters using appropriate loops and easily handles 300 Watts.

You can tune any shape loop. Each loop covers about a 1 to 1.5 frequency range depending on the shape, surroundings and other factors. For example, a 13 foot wire formed into a loop operates 30-20 Meters, a 4 foot wire 17-10M, 7 foot wire 20-15M and a 28 foot wire 60-40M.

The cover has a mount for the MFJ-57B/ MFJ-58B PVC Cross loop antenna assembly. This gives you a complete self-contained 30-10 Meter desktop antenna. For 80, 60, 40 Meters, you can hang a larger loop.

Easy-Carry handle. Requires 12 VDC. MFJ-1312D, \$14.95 or BiasTee, (MFJ-4116, \$29.95) and 12 VDC for remote operation.

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

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

MFJ tiny Travel Tuners

Tiny 4¹/₂x2¹/₄x3 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, its 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. Operate anywhere, anytime with a quick easy setup! 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. Great for DXpeditions or field day. Be prepared for emergencies.

MFJ-902 is so small and handy, you'll rely on it wherever you go! It's 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! 4½Wx2¼Hx2¾D inches.

MFJ-904.



New! Tiny Travel Tuner with 4:1 Balun



Tuner but has 4:1 balun for balanced lines and binding post connections for balanced lines and random wire. 5 3/4Wx21/4Hx2 3/4D inches.

New! Tiny Travel Tuner with Cross-Needle SWR/Wattmeter



Same as
MFJ-902
Tiny
Travel
Tuner but
has CrossNeedle
SWR/Watt

\$10995 Ship Code A

meter 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 7 1/4 Hx2 1/4 Hx2 3/4 D inches.

New! Tiny Travel Tuner with Cross-Needle SWR WattMeter and 4:1 Balun



MFJ-904H is the same as MFJ-902 Tiny Travel Tuner but has Cross-Needle SWR/Wattmeter and 4:1 balun for balanced lines with \$129°5

Ship Code A

binding post connections for balanced lines and random wire. Cross-Needle meter shows SWR, forward and reflected power all at a glance. Push button selects forward or reflected power in 300/60 and 30/6 Watt ranges. Measures a compact 7 1/4Hx21/4Hx23/4D inches.

MFJ 6 Meter/VHF/UHF Antenna Tuners

MFJ 6 Meter Antenna Tuners MFJ-



MFJ-906 906 6
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, \$14.95 for meter lamp. Built-in bypass switch, handles 100 Watts FM, 200 Watts SSB PEP. Works with solid state and tube rigs, 50-60 MHz. 8Wx2½Hx3D inches.

MFJ-903, \$49.95. Like MFJ-906. Less meter/bypass switch. 5Wx2¹/·Hx3D inches.

144/220 MHz or 440 MHz Tuner MFJ-921



MHz. Builtin SWR/Watt- meter 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

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 8x2¹/2x3 inches -- fits just about anywhere. **MFJ-924**, \$69.95. 440 MHz band only.

Dual Band VHF/UHF Tuner





This compact dual band VHF/UHF
antenna tuner has a single meter that reads
SWR and power. No zero adjustment
needed. It covers VHF from 136 to 175
MHz and UHF from 420 to 460 MHz. You
can read power up to 150 Watts in 2 ranges:
60 Watts or 150 Watts. It's a great antenna
tuner for HTs, mobile rigs or amplifiers up
to 150 Watts. Its super-compact size lets
you take it anywhere -- measures a tiny
tax21/2x11/4 inches -- you can put it in your
shirt pocket! Carry it with you in your car,
camping trips, etc. Tuning tool included.

MFJ Compact 200 Watt IntelliTunersTM

Automatically tunes any unbalanced antenna . . . Ultra fast . . . 20,000 VirtualAntennaTM 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*™ 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*[™], *Adaptive* Search™ and InstantRecall™ algorithms give you ultra-fast automatic tuning with over 20,000 VirtualAntenna™ Memories.

MFJ VirtualAntenna™ Memory MFJ new VirtualAntenna™ 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.

RF Bypass Switches



MFJ-1705 ***19**⁹⁵ Ship Code A



MFJ-1705H \$29⁹⁵ Ship Code A New!

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. 3Wx11/2Hx21/2D inches.

MFJ-1705, **\$19.95**. 300 Watts. **MFJ-1705H**, **\$29.95**. 1500 Watts.

Mobile Antenna*Matcher*



MFJ-910 Ship Code A

Matches HF mobile antennas 10 through 80 Meters. Select five val-

ues 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 31/2Wx3Hx11/4D inches.

4 Times the Solutions! MFJ-929 gives you 256

Ship Code A 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's faster speed comes from advanced technology and software algorithms *not* from fewer matching solutions.

MFJ's *IntelliTuner-Compact*TM actually *measures* complex impedance -- R and X --™ actually 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. AdaptiveSearchTM 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 for-

New! Variable RF Transformer



MFJ-907 \$59⁹⁵ Ship Code A

Multi-tap Variable RF Transformer matches low impedance

(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 C-Matcher



MFJ-909 \$39⁹⁵ 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. 3¹/₂Wx3Hx1¹/₄D inches.

ward 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™ 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. 6½ Wx2¾Hx7½D in. 2.4 lbs. 12-15 VDC/1Amp or 110 VAC with MFJ-1316, \$19.95.

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, no LCD/buttons.

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

Mobile Antenna L-Matcher



eW MFJ-908 \$39⁹⁵ 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. 4Wx3³/₄Hx1³/₄D inches.

AutoTuner *Extender*™



Does MFJ-914 \$59°5 your Ship Code A 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 6Wx4Hx2¹/₂D inches.

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 **\$64**95 Ship Code B



MFJ-1702C **\$24**95 Ship Code A



MFJ-1702 **\$19**95 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. Negligle insertion loss. 50 Ohms. **MFJ-1704N**, **\$74.95**. 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 hasa heavy cavity type construction and uses SO-239 connectors. Has handy mounting holes. Measures 3Wx2Hx2D in.

MFJ-1702CN, \$31.95. 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 Switch



MFJ-1700C \$995 Ship Code B New and Improved!

The new MFJ-1700C adds lightning surge protection, better isolation.

High power Antenna/ Transceiver Switch

lets you select one of six antennas and one of six different transceivers in any combination.

You can plug in an antenna tuner, meter,

etc., so it is always connected to the antenna and radio selected. 2 kW PEP. 50-75 Ohm loads. Unused terminals are automatically grounded. SO-239 connectors. 1.8 to 30 MHz. Measures 4³/₄W6¹/₂Hx3D inches.

6 Position HF Antenna Switch



Select one of six antennas from 1.8-30 MHz. Unused

MFJ-1701 **\$595** terminals are grounded. SO-Ship Code B PEP, 1 kW CW. 50-75 Ohm loads. Measures 10Wx3Hx1¹/₂D inches.

Balanced line antenna switch



MFJ-1706 ***89**95 Ship Code B





MFJ-1706 back

MFJ-1706H back

Use one of six different balanced feedlines, 1.8-30 MHz. Has handy, versatile 5-way binding posts. Handles 1500 Watts. Measures 9Wx3¹/₄Hx6¹/₂D inches.

MFJ-1706H, \$99.95, similar, but has high-voltage glazed ceramic feedthrough insulators instead of 5-way binding posts.

Desk/Remote 6/4 pos. Antenna Switches





MFJ-4716 **\$89**95 Ship Code A

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, \$14.95. 8Wx2³/₄Hx4¹/₄D inches. For indoor use, not weather protected.

MFJ-4716RC, **\$39.95.** 6-position. Remote Control for MFJ-4716. CAT 5 cable not included. Tiny $2^3/4$ Wx $3^3/4$ Hx1D inches.



Desktop/Remote 6 & 4 position Antenna/Transceiver Switches



MFJ-4726 Place this MFJ- **15995** 4726 Six-Position Ship Code A 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 two

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, \$14.95. For indoors, not weather protected. 8Wx5Hx4¹/₄D 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 for 4

antennas/transceivers. **MFJ-4724RC**, **\$59.95**. 4-pos. Remote Control for MFJ-4724. Tiny 2³/₄Wx3³/₄Hx1D inches.

12

www.mfjenterprises.com

MFJ Compact HF, VHF, UHF SWR/wattmeters



SWR/wattmeter covers HF thru VHF --1.8-60 MHz, 144 MHz, and 440 MHz bands -- for only 84.95!

MFJ-864, \$84.95, 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, \$14.95.

The all metal cabinet has a tough vinyl cladding. You won't find a tougher, longer lasting finish anywhere. MFJ-864 measures

a compact 7¹/₄Wx2¹/₂Hx2¹/₄D inches. **MFJ-862**, **\$54.95**, similar to MFJ-864 but covers 144/220/440 MHz, 30/300 Watts forward, 6/60 Watts reflected ranges. 53/4x $2^{1/2}x2^{1/4}$ in. Has one sensor for all 3 bands.

MFJ-860, \$44.95, similar to MFJ-864 but for 1.8-60 MHz only. Push button selects 30/300 Watts forward, 6/60 Watts reflected. Compact 41/2x21/4x3 inches.

MFJ 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 $3^{1}/_{4}x1^{1}/_{4}$ 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-\$8995 peak or average power on a Ship Code A large illuminated three-inch Cross-Needle Meter. Has $TrueActive^{TM}$ 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. 6Wx3¹/₂H x4¹/₂D inches. Black aluminum cabinet.

HF/UHF SWR/Wattmeter with TrueActive™ Peak Reading circuit

New! MFJ-817C Like **\$99**95 MFJ-815C but for 144/220/440

Ship Code A 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 $GrandMaster^{TM}$ is housed in an all metal cabinet with rubber feet and protected by durable speckled black paint. A designer injection molded grey front panel

VHF SWR Wattmeter plus Field Strength



\$34⁹⁵ 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. 4¹/₂Wx2¹/₄Hx3D inches.

Econo HF SWR/Wattmeter

MFJ-816 **\$34**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. 2color meter scale. 41/2Wx 21/4Hx3D inches -- makes it ideal for portable use.

perfectly matches any transceiver. 7¹/₂Wx3¹/₈Hx4¹/₄D inches.

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

GrandMasters™ are precisely factory calibrated for accurate measurments.

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.

Dual-Band Mobile SWR/Wattmeter



\$6995 Ship Code A Handles 200 watts and measures SWR and power in three power ranges: 15,

60, and 200 watts. Multi-colored meter makes for easy reading and is extra large.

Covers 144 and 440 MHz. Insertion loss is 0.3 dB or lower with 50 Ohm impedance. SO-239 connectors. Compact 3.75Wx3Hx1.25 D inches. Die-cast metal with quality connectors.

SWR/Wattmeters for Handhelds

MFJ-841 connects directly in line between your handle 11 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 $2x2^{1/4}x1^{1/2}$ inches.





MFJ-840, \$19.95, checks power output of your 2 Meter handheld into a 50 ohm dummy load and check battery charge,too. BNC connector, small $2x2^{1/4}x1^{1/2}$ inches.

MFJ-868 World's largest SWR/Wattmeter has giant 61/2 inch 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.

 $\mathbf{MFJ's}$ exclusive $TrueActive^{TM}$

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 MFJ-1312D, \$14.95, 7Wx5¹/₂Hx5D in.

Ruggedized flat Mobile/ portable SWR/Wattmeter



MFJ-818 Ship Code A

MFJ's new flat, compact SWR/Wattmeter is plenty rugged to take the abuse

of brutal mobile and 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 page 13 for more SWR/Wattmeters!

MFJ Coax Patch Panel



MFJ Coax Patch Panel connects devices with virtually no loss. feed-thru or cross-talk

Provides 12 Teflon^(R) SO-239 coax feedthru barrel connectors to patch 12 coax fed devices together

MFJ-4706 with short coax jumpers. This extremely high performance and Ship Code A versatile military/professional patch panel approach has virtually no loss, no feed-thru and no crosstalk -- 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/Wattmeters, tuners, amplifiers, preamps, switches) 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. Wing nut for ground. Side/back mounting tabs let you mount to wall, under table, on desk. 9Wx5Hx4D in. MFJ-4704, \$69.95. For 8 coax-fed devices.

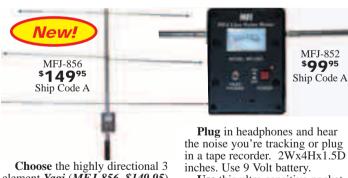
2-Position *Remote* **Antenna Switch**

MFJ 2-position remote antenna switch uses single coax feedline to feed two antennas. DC power and control signals no power/control cable needed. 1.8 MHz-150 MHz. 1500 Watts/50-75 Ship Code A

MFJ-4712 **\$79**95

Ohms. 4Wx25/8Hx11/2D inch *Outside Switch Box* is fully enclosed, weather protected. *Teflon*^(R) SO-239 connectors. Stainless steel 1¹/₂" tall bracket with U-bolt for masts up to 1¹/₂ in. O.D. *Inside Remote* Control is 21/4Wx21/2Hx11/4 in.

Find Power Line Noise Fast!



element *Yagi* (*MFJ-856*, \$149.95) for pinpoint accuracy or the compact telescoping dipole (MFJ-852, \$99.95) 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 the noise source 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!

14

the noise you're tracking or plug in a tape recorder. 2Wx4Hx1.5D

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

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

MFJ-1767, \$69.95. Add this 3element beam to your existing MFJ-852, and turn it into a highly directional RFI finder.

MFJ Field Strength Meters

Determine radiation pattern; make changes to vour 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.

 $2^5/8Wx4Hx1^1/2D$ inches.

MFJ-802R, \$24.95. Read your field strength remotely where you can control your trans-



40-inch Balanced Dipole FS Meter

mitter or rotate your beam. Requires shielded two conductor cable (not included). 23/8Wx35/8Hx1D inches.

MFJ-802X, \$59.90, 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. 13/4 inch meter. Sensitivity control. 20 inches (extended) monopole. Finger contact on side

increases sensitiv-MFJ-801 \$1995 ity when needed. Ship Code A 2³/₈x3⁵/₈x1 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

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 \$129⁹⁵ when you apply power -- insula-Ship Code A tors 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, \$14.95. 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 -- 0.3, 1, 3 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*TM 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 3, 10, 30 Amps high current ranges.



MFJ-835 Balanced Line RF Ammeter

\$119⁹⁵ 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 $BalancedBar^{TM}$ -- when currents are balanced, the dual needles cross in the center -- no matter the actual current.

If the needles cross within the vertical $BalancedBar^{TM}$ 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, \$14.95. 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.

Ship Code A

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

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

each antenna element in phased arrays.

MFJ-854 wiring, telephone and television cables. **\$99**95 **Has** five *calibrated* ranges to 3 Amperes including Ship Code A 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. 2½ Wx5½Hx1½D in.

Calibrated mini Clamp-On RF Ammeter MFJ-853 MFJ-853 readings -- clamp on mobile whip/ \$49⁹⁵ calibrated Ship Code A 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

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 21/4Wx33/4Hx1D in.

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

MFJ Super-Sensitive RFI Sniffer



\$**79**⁹⁵ Ship Code A ing up RFI and

MFJ-805 works with mobile installations, ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads. Isolate cables pickknow when you've suppressed the problem. Easy-to-use. Clamp current transformer over suspected cable or wire (up to ¹/₄ in. dia.) to detect RFI causing common-mode currents. 2¹/₄Wx4³/₄H x1D inches fits in shirt pocket. Use 9 Volt battery. Usable VLF to VHF. Gain adjustable over 50 dB range.

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 minutes. Run 1/2 KW CW or 1 KW PEP for 20 minutes.

Run continuous duty with 200 Watts CW or 400 MFJ-250X **\$39**95 watts PEP. Complete with derating curve. Quality 50 Ship Code B ohm non-inductive resistor. Use transformer oil (not included).

Low VSWR to 400 MHz. Under 1.2:1 to 30 MHz. 1.5:1 for 30-300 MHz. 2:1 for 300-400 MHz.

Ideal for testing HF and VHF rigs. Has SO-239 connector and vented for safety. Removable vent cap. Carrying handle. 71/2 inches high by 6⁵/₈ diameter.

MFJ-250, \$59.95. Includes transformer oil (no PCB). Ship Code D.

Dry 1.5 kW UHF/VHF/HF Load

This is ham radio's most versatile 50 ohm dummy load.

It does it all . - works with all radios from 160 Meters through 650 MHz and from ORP to the

full 1500 watt legal limit.

MFJ-264 \$69⁹⁵ You get SWK below 1.3 to 650 MHz and below 1.1 at 30 Ship Code A

Handles 100 watts for 10 minutes. 1500 Watts for 10 seconds.

Strong lightweight aluminum construction. 3Wx3Hx9D inches.

Comes with MFJ's famous No Matter What[™] one year limited warranty.

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

Drv 300 Watt VHF/HF Dummy Load

Air cooled, non-inductive resistor in a perforated metal housing;

SO-239 connector.

Full load for 30 seconds. Silkscreened 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

type "N" connector.

super compact 2¹/₄x2¹/₄x7² MFJ-260CN, \$39.95. Similar to MFJ-260C but with

MFJ-260C \$34⁹⁵ Ship Code A

Coax Patch Cable

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

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

oad with Precision SWR/Wattmeter MFJ Dry Dummy

ME

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

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.

Test/tune transmitters, amplifiers, antenna tuners, baluns, transformers, filters, matching networks, coax, stubs, transmission lines, antennas.

MFJ-267 \$149⁹⁵ Ship Code B

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 10 minutes or 1500 watts for 10 seconds. Comes with power derating curve.

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

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

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

Measures 41/10Wx31/8Hx10D in. RF tight. Uses 12 VDC or 120 VAC with MFJ-1312D, \$14.95.

Reduce Harmonics, Avoid TVI with MFJ Filters

Low Pass TVI Filter Handles Full Legal Power

\$49⁹⁵ 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 *TeflonDielectric Technology*™ capacitors, Hi-Q inductors, ground plane shielding and an RF tight cabinet give you excellent TVI and RFI protection.

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

Handles full legal power from 1.8-30 MHz. SWR below 1.3 to 30 MHz into 50 Ohms. Attenuates above 40 MHz.

Measures a compact 3x3x9 inches. Handy mounting tabs.

200W Low Pass TVI Filter

MFJ-702B **\$29**95

Ship Code A

Be a good neighbor.

Plug this



Low Pass TVI filter be-tween 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.

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 two- way, broadcast, commercial, amateur and CB radios operating below 30 MHz. Use between cable/antenna and TV/VCR. 75 ohm cable. Type F male/female connectors.

MFJ RFI Free Choke Kit for RFI Suppression

\$14⁹⁵

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.

Safeguard expensive gear from static electricity and lightning surges MFJ Lightning Surge Protectors handle 400 Watts PEP or 1500 Watts PEP

MFJ-270 sive equip-

\$29⁹⁵ Ship Code A Safeguard your expen-

ment from static electricity and lightning induced surges on 50 Ohm

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 \$3995 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 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.

MFJ Programmable Screwdriver Antenna Controller

10 Memories ... Super Accurate ... AutoPark™ ... StallProtector™ ... Super bright LEDs

New!

MFJ-1924

Ship Code A



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

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*TM feature automatically reverses the motor briefly just before it stops to eliminate overshoot and come to a precise stop.

MFJ's exclusive *StallProtector*TM 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. $3^{1}/_{2}Wx3^{1}/_{4}Hx1^{1}/_{4}D$ inches. Power, motor control and sensor lines included for connection to your screwdriver antenna.

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.

MFJ Digital Screwdriver Controller



Tells you MFJ-1922 **\$79**95 exactly Ship Code A 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. 4Wx1¹/₂H x2D 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 RF Sense T/R Switch



Automatic T/R Switch senses transmitted RF and switches your antenna from receive to transmit using a relay. Shorts your receiver

*69*5 antenna input to ground to protect your receiver. Provides an auxil-Ship Code A iary 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 4Wx2⁵/₈Hx1¹/₂D inches. 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

ATAS Screwdriver Ant Use *any* rig with Yaesu



BiasTee DC Power Injector



MFJ-4116 **24**95 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. $2^{3}/4 \tilde{W} \times 2^{1}/2 H \times 1^{1}/4 D$ 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.

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

Rig/Antenna RF Safety Switch



MFJ-MFJ-1703 \$1995 1703 keeps Ship Code A 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 trans-

ceiver 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 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 readout . . . covers 1.8-170 MHz . . . frequency counter . . . side-by-side meters . . . Ni-Cad/Ni-MH charger circuit . . . battery saver . . . low battery warning . . . smooth reduction drive tuning . . . much more . . .



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

MFJ-259B gives you a complete picture of your antenna's performance. You can read antenna SWR and Complex Impedance 1.8 to 170 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 **MFJ-66**, \$19.95. Plug \$1 995 these MFJ dip meter Ship Code A coupling coils into an MFĴ 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 AnalyzerTM.

MFJ-259B simultaneously at a **\$259**⁹⁵ 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

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 O 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-

Tunable Analyzer Filter



MFJ-731 Exclusive MFJ \$8995 tunable RF filter Ship Code A 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.

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, \$14.95. Rugged all metal cabinet is only $4x2x6^{3/4}$ ".

How good is the MFJ-259B?

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

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, \$54.85. Carrying pouch, dip coil

adapters and power supply.

MFJ-99B, \$77.85. 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, \$6.95. 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™

MFJ-249B 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 B

This new 1:1 MFJ-917 Current balun \$1995eW lets you use Ship Code A your MFJ SWR and Antenna Analyzers on balanced line antennas and other loads. Covers 1.8-30 MHz. 2Wx33/4Hx11/2D in. SO-239 for analyzer input.



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 fea-

tures of the MFJ-259B, the world's most popular SWR Analyzer plus much more!

MFJ-269

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

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

Built-in CoaxCalculator™ -- 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 Imped-ance 1.8 to 170 MHz. Built-in frequency counter.

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

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

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

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

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

You can measure SWR and loss of coax with any characteristic impedance from 10



to over 600 Ohms, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450 Ohms -- *an MFJ-269 exclusive!* For more information see MFJ-259B, page 11.

415 to 470 MHz Range features

the frequency and read SWR, return loss and reflection coefficient simultaneously. You can read coax cable loss in dB and match effi-

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

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

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, \$34.95. SWR Analyzer Power Pack. 10-Pack SuperCell™ Ni-MH batteries, & MFJ-1312D Power supply for MFJ-259B/MFJ-269 analyzers. Save \$5!

MFJ-98, \$54.85. MFJ-269 Accessory **Just** plug in your UHF antenna coax, set *Pack*. Same as MFJ-99 but has MFJ-39 custom Carrying Pouch for MFJ-269. With power supply, dip coils. Save \$5!

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

MFĴ-92AA10, \$24.95. 10-Pack AA Rechargeable Ni-MH Batteries.

MFJ-5510, \$6.95. 12 VDC Cigarette lighter adapter cord for using your MFJ SWR Analyzers on-the-road. 18" retracted curly cord, 60" fully stretched.

Super High Capacity 2300 mAh Ni-MH AA Batteries

MFJ-92AA01, \$2.99 each. MFJ-92AA01 **MFJ's** super high capacity Ni-MH "AA" batteries have twice the power of standard

\$299 each Ship Code A Nicads at about the same price! **MFJ** batteries have *no* detrimental memo-

ry 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- MFJ-633 MH or Ni-Cd Battery types. Active intelligent IC detects positive/negative, Ship Code A 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 bat-

teries 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!

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 \$179⁹⁵ 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 huge 1/4 inch characters.

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 3³/₄Wx6¹/₂Hx1³/₄D".

from 1.8 to 170 MHz quickly only on a single analog meter. Tune knob, frequency LCD module, counter

Similar to MFJ-

SWR and jack for

\$995 229, less LCD dis-

Ship Code A play. Has meter for

external frequency counter.

21/4D inches. MFJ-229 and

Measures $2^{1/2}Wx7^{1/2}Hx$

MFJ-219 have "N" connector

with free N-to-SO-239 UHF

Also they have Battery

ture. For 50 Ohm systems.

Check and Power Saving fea-

Use 8 AA cells or 110 VAC with MFJ-1312D, \$14.95. Compact, handheld size: $4x2^{1/2}x6^{3/4}$ inches. MFJ-219B Econo MFJ-229

\$139⁹⁵

Ship Code A

MFJ Starter

SWR Analyzer™

lets you read SWR

control switch. No

or charging circuit.

HF 10-160M SWR Analyzer™



MFJ-207 This compact 7995 MFJ HF SWR Ship Code A 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 of 110 VAC with MFJ-1312D, \$14.95.

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 7¹/₂Hx2¹/₂Wx2¹/₄D in.

MFJ Antenna Bridge

MFJ-204B **\$7995**

Ship Code A

No other equip-

ment needed. Take it

to your antenna site.

parameters.

Determine if your

antenna is too long or too short,

measure its resonant frequency,

and its resistance to 500 ohms.

ient way to determine antenna

tunable oscillator-driver (1.8-

30MHz). 9 VDC or 110 VAC

with MFJ-1312D, \$14.95.

It's the easiest, most conven-

Resistance bridge, null meter,

MFJ VHF SWR Analyzer™



MFJ-208 VHF SWR 79^{95} AnalyzerTM finds the Ship Code A SWR of any antenna from 138-156 MHz.

Jack for external frequency

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

6-Meter SWR Analyzer

MFJ-217, \$79.95, same as

Meters and commercial VHF. Jack for power requirements same as above.

MFJ-208 but covers 30-56 MHz for 6 external frequency counter. Dimensions,

Ship Code A



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. 4¹/₄Wx2Hx4D in. Use 9 Volt battery (not included).

Custom 24-350 MHz Analyzers

Use 9-Volt battery or 110 VAC with

MFJ-1312D, \$14.95. 10 AA batteries for

adapter.

MFJ-229 or 110 VAC adapter.



For commercial \$249⁹⁵ Ship Code A 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

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

Measures 7¹/₂Hx2¹/₂Wx2¹/₄D inches.



"grid") is lighter, and

vastly more versatile than its ancestor. Use it as a traditional dip meter to find a coil's 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, earphone jack and battery check. Uses a 9V battery for operation. Measures a compact 2Wx2¹/₂Dx7H" including coils.

Foam-Padded carrying case



sal foam insert. Pre-separated tear-away cubes let you shape the foam to custom fit your gear. Eggshell type padding on topside. Handle, carrying strap, two key sets, left/right snaps. 10³/₄Dx16Wx4H in. **MFJ**-**6404F**, \$9.95. Extra foam insert for MFJ-6404. Accessories in picture not included.

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

MFJ-886 **119**95 MFJ-886 Frequency Counter covers 1 MHz to 3 GHz. It features 300 MHz direct count with Ship Code A 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 (23/4Wx31/4Hx11/4D inches) fits in shirt pocket and

has black anodized finish. Order MFJ-886 for 110 VAC, order MFJ-886 "X" for 240 VAC.

*184⁹⁵ **NEW!** MFJ-888 covers 10 Hz to 3 GHZ with a 10-digit LCD and an ultra-sensitive syn-Ship Code A chronous 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 con-

sumption, 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 $(2^3/4Wx4^1/4Hx1^1/4D)$ ") 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



This unique MFJ-5000 unit is the only \$**79**⁹⁵ Ship Code A 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 contin-

uously 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 \$129⁹⁵ Ship Code A



12597

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.

81 dB Step Attenuator



This will be vour most useful ham

MFJ-762 shack accessory! 50 ohms. \$**69**⁹⁵ **Usable** to 500 MHz. 250 Ship Code A 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. $6^{1/2}Wx2^{1/2}Hx1^{1/2}D$ inches.



2-Meter FM Signal Analyzer



MFJ's *159⁹⁵ handheld Two Ship Code A Meter FM Signal Analvzer™ 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 audio distortion, noise and instantaneous instantaneous peak devia-

tion. Tune in any signal between 143.5 -148.5 MHz. Built-in discriminator-meter function makes accurate tuning simple and easy. 4Wx2¹/₂Dx6³/₄H". Use 9V battery.

Portable Signal Tracer-Injector

MFJ-5012 Multi-purpose \$79⁹⁵ Portable Signal Ship Code A Tracer-Injector 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 MFJ-4105 ***79**⁹⁵ power supply Ship Code A is portable enough to fit in any toolbox 3Wx4Hx1D". It's so light you can carry it any-

where. 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, \$21.95. Color coded scale lets you read voltage from 95-135 Volts. 2% Accuracy. Built-in AC socket, so you don't lose the outlet. $2^{1/4}Wx2^{1/4}Hx1^{1/2}D$ inches. It's perfect for the ham shack and motorhomes!

Safely tune your amp with this MFJ AmplifierSaver™Interface



MFJ-214 This lets \$49⁹⁵ you safely tune Ship Code A 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 connector).

Simply press the Pulse Tune button and

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

MFJ Deluxe AmplifierSaver™



\$59⁹⁵ 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 3¹/₂Wx1¹/₂Hx4D inches.

Tune-Up*Matchmaker*™



Adjust your antenna tuner for 1:1 SWR without transmitting!

Avoids overheat-

*7995 ing/arcing caused by high SWR and long tune-ups. Ship Code A

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 3¹/₃x1¹/₄x4 inches. Use MFJ-1312D, \$14.95.

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

***74**95 Ship Code A MFJ-1116 **\$49**95 Ship Code A MFJ-1112 \$34⁹⁵ Ship Code A MFJ-1117 \$**54**⁹⁵

MFJ-1118, \$74.95. 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. $12^{1/2}x2^{3/4}x2^{1/2}$ inches.

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

MFJ-1116, \$49.95. Similar to MFJ-1118. No 35 amp posts. Has "ON" LED and 0-25 VDC voltmeter. 15 amps total.

PowerPoles® AND 5-Way Binding Posts

\$10995 the best of both connectors!

Ship Code A 10 outlets. Installed fuses:

two 25A, one 40A. Outlets 1, 2, 4-8 are

Anderson PowerPole®. Outlet 3 is a 35A

15A binding posts. Built-in 0-25 VDC

high current binding post; outlet 9, 10 are

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). 12¹/₂Wx1¹/₄Hx2³/₄D in.

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

MFJ-1129

MFJ-1124

\$59⁹⁵

Ship Code A

MFJ-1129, \$109.95. Get

two 1A, three 5A, three 10A,

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

MFJ DC Multi-Outlets with Anderson PowerPole® connectors trademark of Anderson Power Products. 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 builtin - 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.

An 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.

All PowerPoles®



MFJ-1128 MFJ-1128, \$99.95. 12 out-**\$QQ95** lets. Factory installed fuses: Ship Code A 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). 12Wx1¹/₄Hx2³/₄D inches.



MFJ-1126, \$79.95. 8 outlets. Factory installed fuses: two

1A, three 5A, two 10A, one Ship Code A 25A, one 40A. Includes 6 pair of Anderson PowerPole® 12 35A contacts and 5 fuses: (1 ea. 1,5,10,25,40). 9Wx1¹/₄Hx2³/₄ inches.

(1ea, 1,5,10,25,10) 8Wx1¹/₄Hx2³/₄D inches. Accessories for MFJ High Current DC Multi-Outlet strips

MFJ-1126

\$79⁹⁵



MFJ-11C06, \$ 5.49, 6 pairs. MFJ-11C12, \$10.49, 12 pairs. MFJ-11C25, \$19.95, 25 pairs.

MFJ-11C100, \$79.95, 100 pairs.



MFJ-7602, \$12.95. Tool for crimping Power- Pole® connectors.



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

Anderson PowerPole® with 35A contacts 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.

HF Transceiver Power Cord



Ship Code A

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 inline 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



super-flex, 14 gauge, multi-strand, soft wires 15 feet in length. Single in-line fuse holder with fuse. Power

MFJ-5512, \$12.95. Two

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®.

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 your HF or 2M/440 MHz radio and accessories. No more picking up and hauling around heavy, bulky supplies that can cause a hernia. **MFJ's** 25 Amp *MightyLite*TM weighs just

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

No RF hash!

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

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

These super clean MFJ MightyLitesTM meet all FCC Class B regulations.

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

NO RF HASH!



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

45 Amp Ship Code B

Worldwide Versatility

MFJ MightyLitesTM 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.

You get an easy access front-panel with five-way binding posts for heavy duty use and a cigarette lighter socket for mobile accessories. MFJ-4245MV has two sets of quick-connects on the rear for accessories.

Large 3 inch dual meters are brightly illuminated to make it easy to monitor load **NO RF HASH!**



voltage and current. Whisper quiet internal fan efficiently cools your power supply for

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

Two models to choose from . . .

MFJ-4225MV, \$149.95. 25 Amps maximum or 22 Amps continuous. Weighs pounds. Measures 5³/₄Wx4¹/₂Hx6D in.

MFJ-4245MV, \$199.95. 7¹/₂Wx4³/₄Hx 9D in.45 Amps maximum, 40 Amps continuous. Weighs 5.5 pounds.

Super Compact MightyLite™ 25 Amp Switching Power Supply

The smallest and lightest power supply in ham radio! Tiny 5³/₄Wx3Hx5³/₄D" fits anywhere --

MFJ-4125 is similar to the popular MFJ-4225 MV but much 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 internal cooling fan generates tremendous

MFJ-4125 \$109⁹⁵ Ship Code A



No RF Hash!

air flow to help keep components cool. MFJ-4125 has switchable AC input voltage. 110 VAC at 47-62 Hz and 220 VAC at 47-63 Hz. Super regulation. 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 5½Wx2½Hx5¾D"-- it's the smallest and lightest power supply in ham radio! Has MFJ's NoMatterWhat™ one year limited warranty.

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 conventional power supply is excellent for powering HF or 2 Meter/440 MHz 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 -- it's super clean!

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

You get front panel adjustable voltage from 1 to 14 VDC with a convenient detent set at 13.8 VDC. A pair of front-panel

MFJ-4035MV \$149⁹⁵ Ship Code F



meters let you monitor voltage and current.

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

A front-panel fuse holder makes fuse replacement easy. Whisper quiet fan speed

increases as load current increases -- keeps components cool. 91/2Wx6Hx93/4D inches.

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. 8Wx4³/₄Hx11³/₄D in. 110 VAC. Ship Code F.

MFJ 12/10 Amp Power Supply

MFJ-4312, \$69.95. It weighs over 131/2 lbs. $8Wx4^{3}/_{4}Hx10^{1}/_{4}D$ ". Delivers 12 Amps surge & 10 Amps continuous at 13.8 VDC. 110 VAC. Ship Code F.



MFJ/Curtis/Bencher is a winning CW combo!



MFJ-422D

The Best of all *169⁹⁵ CW worlds -- a Ship Code B 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 con-

trols (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, \$14.95.

MFJ-422DX ***79**⁹⁵ Ship Code A

Keyer mounts on the paddle base to form a small $4x2^{1/4}x4^{1/4}$ ". 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, **\$59.95** (see below). BY-1, \$119.95. Black Bencher. **BY-2**, \$139.95. Beautiful chrome Bencher paddle.

MFJ Curtis lambic Keyer has Dot, Dash Memory



MFJ-407D \$**69**⁹⁵

Ship Code A

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

control, sidetone, built-in speaker and more. Speed, weight, tone and volume controls, and tune, semiauto 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

Ham radio's tiniest electronic keyer has a built-in iambic paddle! It's just \$5995 2x3x1 inches and weighs 3½

Ship Code A 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 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, \$14.95. Attractive black cabinet measures 53/4x13/4x43/4 inches.

MFJ/Curtis ECONO KeyerTM

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

\$**49**⁹⁵ Ship Code A



adjusted internally and doesn't have a tune switch. Use 9 volt battery or 110 VAC with MFJ-1312D, \$14.95. 4x1³/₄x3¹/₄ inches.

Build Your Own Keyer with this Curtis Chip **Revolutionary** new Curtis Chip. Choose . . . 28 pin skinny DIP or SMT SOIC package. MFJ-8045ABM, \$19.95.

Pre-Wired Keyer to Rig Cables MFJ-5164, \$9.95. 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

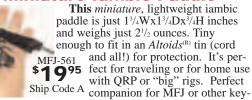
MFJ-403P

This MFJ Travel Keyer is a \$6995 full-featured CW keyer with a Ship Code A built-in Iambic paddle.

Ultra-compact size 3³/₄Wx 1H x2¹/₄D" is perfect for traveling or for home use with QRP or "big" rigs. Throw it in your briefcase along with your MFJ Cub^{TM} 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, \$49.95. MFJ ultra compact CW Travel Keyer only.

MFJ *Miniature* lambic Paddle



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, \$14.95. Build your own! MFJ iambic paddle kit with instructions, cord, hardware needed to build your paddle.





MFJ-564/B \$**59**95

MFJ deluxe iambic paddles feature a full range of adjustments in tension and contact spacing, self-adjusting nylon and steel bearings, contact spacing, sen-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, \$9.95, (left). Paddle to Keyer cable. Has pre-wired solder lugs on paddle end and 3.5 mm plug with 1/4" phone adaptor to fit MFJ keyer.

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 nonvolatile 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 \$1**59**⁹⁵ Ship Code A

Features include:

Iambic keyer with dot and dash memo-

ries; 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 $6^{1/4}Wx2^{1/2}Hx6^{1/4}D$ in. Use 12 VDC or 110 VAC with MFJ-1312D, \$14.95 AC adapter.

RFI-Suppressed Keyboard MFJ-551, \$39.95. RFI suppressed keyboard.

Menu Memory Keyer/Bencher Paddle



\$**199**95

The MFJ Menu **Driven Memory Keyers**TM 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

\$9995 Ship Code A

character groups.

And more! You get contest serial numbering (0-9999) with auto-increment, built-in sidetone, speaker, all numbering (0-9999) with auto-increment (0-99999) with auto-increment (0-99999) with auto-increment (0-99999) with auto-increment (0 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 trans-

mitters, 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, \$14.95.

Memories are backed up by a lithium battery.
Order MFJ-490, \$199.95, Memory Keyer/Bencher paddle combination, 5X3X5½ in. MFJ-490X, \$109.95, is the keyer only.
MFJ-492, \$99.95, stand alone keyer, 6½X2½X6¾ in.
MFJ-492X,\$114.95 (MFJ-492 with 8K additional memory

installed), MFJ-80, \$19.95, (8K memory for MFJ-492 only). MFJ-78, \$29.95, full function wired remote control.

Slimline™ Electronic **Keyers with Memory**

Tired of sending the same \$16995 phrase on CW over and over? 'QTH, name...

MFI-442 Ship Code B

But you don't want to pay the price of a memory keyer, or they're too confus-ing to use. The MFJ *Slimline*

keyers have the answer -- a Slimline™ kever 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-447 **\$79**95



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 MFI-441 and negative keying. 9V battery

Ship Code A or 110 VAC with

MFJ-1312D, \$14.95. MFJ-442, SlimLine™ Keyer and MFJ paddle

combo. Front panel speed, volume controls. MFJ-442X, \$89.95. Keyer only. 4x1³/₄x2³/₄ inches. Fits on your Bencher or MFJ-564/B iambic paddle.

MFJ-447 SlimLine™ Deluxe keyer; front

panel speed, weight, tone, volume controls and message, semi-auto, tune, power buttons. Jack for speaker/headphones. 6¹/4x1³/4x5 in. **MFJ-441.** *SlimLine*™ Econo Keyer. Just

1¹/₄ inches tall. Has volatile 89 character MessageMemory™. Front panel speed/volume controls. 4x1³/4x3¹/₄ inches.

MFJ Pre-Wired Keyer-to-rig and Paddle-to-Keyer Cables



MFJ-5164, \$9.95. 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.

MFJ-5166, \$9.95. Paddle to Keyer cable. Has pre-wired solder lugs for MFJ, Bencher and other Tambic paddles and 3.5 mm plug with a 1/4" phone plug adaptor to fit most MFJ and other keyers.





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 AutoTrakTM 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 nonvolatile EEPROM memory for a full featured, low cost, high reliability design.

You can send CW or load messages using

a paddle, keyboard or through yourcomputer 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-



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 contest serial numbering from 001 to 9999.

Adjustable Špeed 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, 61/4Wx21/2Hx61/4D". 12VDC or 110VAC w/ MFJ-1312D, \$14.95.

MFJ-464 Accessories

MFJ-5161, \$14.95. MFJ-464 to computer serial port cable (DB-9).

MFJ-5162, \$5.95. Connects MFJ-464 to radio's external speaker 3.5 mm jack.

MFJ-5163, \$8.95. Connects MFJ-464 and



another accessory to your radio speaker. MFJ-5164, \$9.95. 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.

Deluxe Iambic Paddles



MFJ-564/B \$**59**95 Ship Code A



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, \$9.95. 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!

Ship Code B

MFI-452X \$109⁹⁵

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

You get a standalone MFJ CW Keyboard that includes an RFI suppressed keyboard, a two line 16 charac-

ter 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 3½x2½x3½ inch interface. Use 12 VDC or 110 VAC with MFJ-1312D, \$14.95. **MFJ-452X, No keyboard.** Use MFJ-5164, \$9.95, keyer to rig keying cable.

MFJ Dedicated CW Kevboard

MFJ-451, like MFJ-452 but without LCD display and has two 100 character memories. MFJ-451X, no

keyboard.



\$109⁹⁵ Ship Code B

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 OSOs . MFJ-418

Beginner's Course

ARRL/VEC format. Learn small fixed sets of Ship Code A 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 ModeTM **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 ModeTM

InteractiveMode™ lets you decide when to copy the next or previous group and how many -- great for beginners!



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. SettingSaverTM

Settings are automatically saved, ready to use next time--just turn on and replay. Check your copy, select from menus

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 $Sidetone^{TM}$ with $TruTone^{TM}$ 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 $2^{1/4}x3^{3/4}x1$ 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 MFJ-418 top view memorize MFJ-418's random sessions.

Pocket Tutor Accessories

MFJ-26B, \$6.95. Soft leather protection for MFJ-418 with pocket/belt clip.

MFJ-281, \$12.95. Speaker for group practice. Loud, power-

ful audio! 33/4x3x21/4

More pocket size MFJ Morse Tutors MFJ-417, \$59.95. Similar to MFJ-418, but no LCD. Most software features.

MFJ-413, \$39.95. Similar to MFJ-417, less random words, QSOs, SettingSaver™.

Deluxe Morse Key and Oscillator for Code and Sending Practice



MFJ-557 Deluxe Code Practice Oscillator features a Morse straight key on a nonskid 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.

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, \$14.95. 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. $8^{1/2}x2^{1/4}x3^{3/4}$ inches. Black.

Use HT for on-the-air CW Fun

MFJ's

\$Q95

Ship Code A

JimHandy™ CW interface plugs into your 144/440 MHz handheld and converts it into a mod-

MFJ-552 ulated CW transceiver -- just plug **\$79**95 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. 4Wx1¹/₄Hx3³/₄D inches. Use 9V battery (not included). Pre-wired patch cables, \$15.95 for your HT on page 38. **MFJ-550** key only, **\$9.95.**

Classroom Code Oscillator

MFI-554 The ***79**⁹⁵ world's finest code Ship Code A

classroom use and abuse.



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 43/4x11/2x5 in.

Save \$15.85! MFJ-554X, \$99.95. Includes MFJ-554 Code Oscillator, MFJ-281 ClearTone™ speaker, MFJ-550 Telegraph Key, & MFJ-1312D AC adapter.

Classroom Morse Code Tutor

MFJ-414 \$199⁹⁵ Ship Code A 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 $Tutor^{TM}$ 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. 8¹/₂Wx2¹/₄Hx6D 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 Ship Code A

Then watch CW turn into solid text messages as they scroll across an easy-toread 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

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 pickup, 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 $2^{1}/4x3^{1}/4x1$ in. $5^{1}/2$ ounces.

Accessories

MFJ-26B, \$6.95. 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, \$14.95. MFJ-461 to computer serial port cable (DB-9).

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

MFJ-5163, \$8.95. Connects MFJ-461 and another accessory to

radio external speaker, 3.5mm.

Switch any 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 hifi 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, \$21.95) or let your computer or voice keyer (MFJ-434, \$179.95) 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**, \$59.95) to save the day during noisy field day or multi-operator contesting.

You can plug in your headphones and an external speaker (MFJ-281, \$12.95).



A headphone volume con-MFJ-1263 trol eliminates the need to **\$99**95 readjust your rig's volume Ship Code A 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-

www.mfjenterprises.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! 6Wx1½Hx5D inches. Includes one MFJ-5398 and one MFJ-5397MX radio cables.



\$**89**⁹⁵

MFJ-1261, \$89.95. Like MFJ-1263 but has one mic input and two radio outputs. One MFJ-5398, MFJ-5397MX included.



MFJ-1260, \$79.95. 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, \$15.95. Order MFJ-5398 for 8-Pin Round; MFJ-5397MX for 8-Pin Modular.

MFJ hamProAudioTM Equalizer/Conditioner

MFJ hamProAudio™ 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 bulletproof. 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

hamProAudioTM Equalizer/Conditioner



More compact and has \$17995 everything that the MFJ-655 Ship Code A has except for the built-in VU meter. Measures 9Wx3¹/₄Hx5D inches.

prevents SSB distortion and splatter.

Front panel controls let you easily adjust input and output levels.

Ship Code A 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.

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

Natural unprocessed voice has peaks and hamProAudioTM

transmit audio Conditioner



Transmit audio Micro-MFJ-651 phone Conditioner. Down-**\$119**⁹⁵ ward Expansion noise gate, Compressor, Limiter, low noise Preamp, Universal Mic-Interface, headphone monitor, PTT, Auxiliary-in, RF proof, aluminum case. 9Wx2¹/₄Hx5D in.

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 \$19995 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 8-pin round or modular microphone plugs *directly* into the front 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 preamp 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 $1^{1/2}$ VDC mic voltages.

Use 12 VDC or 110 VAC with MFJ-1312D, \$14.95. 10³/₄Wx3¹/₄Hx5D inches.

Pre-wired cables for your radio mic connector. Plugs into MFJ-655. See page 30.

hamProAudioTM transmit audio Equalizer



MFJ-652 Voice Band Equalizer **\$119**⁹⁵ (300, 600, 1200, 2400 Hz center frequencies), low noise Preamp, *Universal* Mic-Interface, headphone monitor, PTT, Auxiliary-in, RF proof, aluminum case.

7¹/₄Wx2¹/₄Hx5D 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 mes-

Ship Code A

MFJ-434B

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 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, \$14.95. 6¹/₂Wx2¹/₂Hx6¹/₂D in. MFJ-73, \$29.95. 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 $FlexNeck^{TM}$) 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

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 MFJ-297 cuts through noise and QRM. \$69⁹⁵ Switch for powerful SSB punch or full range broadcast quality FM/AM. Has Silibant Sound Ship Code 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.

GooseNeck™ Microphone Holder

• Heavy-duty all-metal base stays put! GooseNeck™ gives super flexibility

to move your mic where you want! Tough, Durable plastic micro-

phone clip holds tight!

 Turns your favorite handheld microphone into a super attractive desktop mic!



8 Pi	n Round Mic	Plug - \$15.95	8 Pin Modular Mic Plug - \$15.95 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	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 \$129⁹⁵ \$129⁹⁵ that's what phone patching is all about. It's Ship Code A Ship Code A 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 eliminate need to readjust your rig after patching. *Null* control, standard phone connection, RJ-11. Jacks for speaker, audio in/audio out. 8x2x6". 12 VDC, 9V battery or 110 VAC with MFJ-1312D, \$14.95. MFJ-624DM has RJ45 8-pin modular plug.

www.mfjenterprises.com

MFJ Professional **Boom-Mic Headphones**

MFJ-393 \$**59**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 light-weight, you won't even know they're there!

Headband adjusts for perfect fit to keep out external noise. Frequency response is enhnanced 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, \$59.95, comes with pre-wired adapter cable. Order MFJ-393I for Icom and compatibles, MFJ-393Y for Yaesu and compatibles, MFJ-393K for Kenwood and compatibles. *New!* MFJ-393M/I/K/Y for 8 pin modular rigs. **MFJ-393MI** for Icom and compatibles, MFJ-393MY for Yaesu and MFJ-393MK for Kenwood.

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. 2¹/₂Wx3¹/₂Dx1¹/₄H" with non-skid pad foot pedal. 1/4 in. phone plug. Ten ft. cord.

MFJ Speech Intelligibility Enhancer

...makes barely understandable speech highly understandable!



MFJ-616 \$169⁹⁵ Ship Code B

The MFJ-616 splits the audio speech band into four overlapping octave ranges

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 under-stand become highly understandable!

Even if you *don't* have high frequency hearing loss, you'll dramatically improve your abil-

ity 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. 10Wx2¹/₂Hx6D". Needs 12 VDC. MFJ-1316, \$19.95. For 110 VAC opera-

tion. Provides 12 VDC/1.5 Amps.

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

CyberEARTM!



Tiny powerful MFJ **\$29**⁹⁵ CyberEar™ Ship Code A plugs in and loops over ear --

captures and amplifies sounds by 12 dB! Extends

\$**59**⁹⁵

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.

CyberEARTM

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



"What did you say?"

Here's why

ligibility lies.

Can you hear but . . . just can't always

As we get older, high frequency hearing loss reduces our ability to understand speech.

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 intelligibili-

First, drastically increase the speech ener-

gy above 500 Hz, where 83% of the speech

Second, drastically reduce speech energy below 500 Hz where only 4% of speech intel-

ty -- only 4%.
To dramatically improve your ability to

understand speech, you must:

intelligibility is concen-trated.

understand what people are saying?

MFJ CleartoneTM: Our most Popular Speaker

Plug \$1295 in the Ship Code A MFJ in this 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 $ClearTone^{TM}$ 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 3³/₄x3x2¹/₄ inches, but powerful booming sound!

MFJ Compact Mobile Speaker

Enjoy superb audio and con-MFJ-280 venience with \$19⁹⁵ this economical Ship Code A mobile speaker.

Matches 8 and 4 ohm impedances. Handles 3 Watts. 30-in cord lets you get it to your rig's speaker output. Tiny 2¹/₂x2x3 inches fits anywhere.

Tough ABS plastic cabinet is built to last.

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, accoustically-rigid cabinet.

Handsome black cabinet measures 51/4Wx93/4Hx61/2D 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 lit-

erally transform your transceiver!

MFJ-385B \$39⁹⁵ smooth, wide range response Ship Code B of the MFJ-385B 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.

Amplified *ClearTone*™ Speaker

MFJ-382 \$3995 MFJ's Deluxe ClearTone™ speak-er is an excellent 1-watt amplified

speaker for many uses.

The MFJ-382 gives superb, loud and powerful ClearTone™ audio. Speaker is 3-in. diame-

Adjustable from barely audible to high volume, this

rugged speaker is sturdy and compact. All metal cabinet with rubber feet. $3^{1/2}x1^{3/4}x4^{1/2}$ in. 9 volt battery (not included) or 110 VAC with MFJ-1312D, \$14.95.

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 com-

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 1/4 inch phono adaptor.

Has gold plated plug and cord. Super light-weight 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 \$19⁹⁵ Ship Code A

dB/mW

Works in stereo mode with 3.5 mm plug. Works mono with 1/4 inch adapter.





MFJ Noise-Canceling Filters Wipe Out Interference

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

dimmers, touch controlled lamps, computers, TV birdies, lightning crashes from distant thunderstorms, electric drills, motors, industrial processes.

It's more effective than a noise blanker 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, frequences 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 over-

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**, **\$14.95**. Measures 61/2X11/2X61/4 inches.

MFJ-1025, \$159.95.

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, SST WeFAX, FAX, weak signal VHF, EME,

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

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 QRN 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.

Ship Code B

You can use two tunable filters together. 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

You can 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 notch, noise reduction -- all filter settings -- in 10 programmable filters.

More MFJ DSP Filter Features MFJ's tunable Spotting Tone™ -- accu-

249⁹⁵ rately tunes even the narrowest CW filter. **MFJ's** exclusive *Adaptive Tuning*TM --tuning rate automatically becomes finer as

you narrow bandwidth -- makes narrow filters easy-to-use.

 \mathbf{MFJ} 's exclusive $FilterTalk^{\text{TM}}$ -- sends precise filter settings in Morse code.

Automatic notch with variable aggressiveness, quieter 2¹/₂ 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.21/2 W amplifier, volume control, input level control, speaker jack, PTT sense line, line level output. Measures 91/2x21/2x6 inches.

Plugs between your transceiver or receiver and external speaker or headphones. 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

Cable Pack, MFJ-5184, \$7.95.

Includes receiver cable, DC cable, 2 open-end TNC cables and power plug.

Add DSP to any Multimode

MFJ-781, \$129.95. Add DSP filtering to any TNC/multmode data controller. Copy signals buried in QRM. AGC, On/Off Bypass. Plugs between rig & multimode. 4½x2½x5". MFJ-780, \$99.95. "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.

MFJ's SSB/CW Audio Filters

MFJ-752C, \$99.95. 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, \$79.95. 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, \$69.95. Zero in

SSB/CW with tunable peak/notch filters. Tune 300-3000 50 dB notch. Tiny 1³/₄x4³/₄x5 inches fits anywhere.

www.mfjenterprises.com

Multireader™ Taps Into Secret Signals



Ship Code A

Ever wonder what those mys- \$1 7995 terious chirps, whistles, and buzzing sounds are on the shortwave bands;

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. Ĉatch 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-

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

Morse Code speed tracking helps MFJ-462B to track and decode high speed CW.

MultiReader™ Accessories

Use 12 VDC or use 110 VAC with MFJ1312D AC adapter, \$14.95. MFJ-462B measures 6¹/₄Wx2¹/₂Hx6¹/₄D inches.

MFJ-5162, \$5.95. Receiver cable connects MFJ MultiReader™ to your radio's external speaker (3 5mm jack)

external speaker (3.5mm jack).

MFJ-5412, \$9.95. Printer Cable is 25-pin

cable for Epson compatibles.

MFJ-5163, \$8.95. Speaker "Y" cable.

MFJ-5300, \$4.95. 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 phones pressing uncomfortably against your ears?

Ship Code A 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

MFJ-306 turns your AM/FM car radio into a World Band receiver at the push of a button. Unlike local FM and AM radio stations that

fade out after a few miles, enjoy shortwave

69⁹⁵

bands -- just like you did -- and remember for life. It might even inspire him into a career in

This baby performs. A RF stage really picks up the weak ones and it goes into regeneration smoothly without pops or dead spots. Stations all over the world will come in loud and clear with a 10 ft wire antenna.

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, 13 Meters in five bands.

Range A covers: 3.51-4.31 MHz, Range 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/RF gain controls, uses 9V battery and 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 7x6x2½ inches. MFJ-8100W, \$89.95, wired and tested.

onvert AM/FM Radio to Receive Shortwave



MFJ-306 **\$89**95

MFJ-8100K

bands. You'll hear stations all over the world at various times -- Europe, Middle East, Asia, Australia, more!

It's easy to install. Just unplug your car radio antenna and plug it into the MFJ-306. Then insert the MFJ-306 cable into your radio

antenna jack and connect 12 VDC. **Measures** just 5x1¹/₂x3¹/₂ inches -- fits almost anywhere in your vehicle. Push button selects world band or AM/FM. Excellent sensitivity and selectivity when used with your auto receiver. Standard Motorola anten-

Multimode Computer Interfaces -- Decode RTTY, ASCII, CW and More!

Marine/Weather Receiver

MFJ-8214, \$39.95. PLL Digital Auto Tuning with frequency up/down buttons, and preset memories! You get 10 standard

channels for the weather and covers 156-158.5 MHz in 88 channels for the marine band. Plus! AM/FM stereo.

Built-in (mono) speaker, built-in telescopic antenna, Low Battery Indicator, Key-Lock Function, more. Uses two AA batteries (not incl.) or 3 VDC jack for external power. This great little radio is perfect for traveling -- it easily fits in the palm of your hand!

throughout your entire trip. MFJ-306 covers the entire 19, 25, 31, and na plug and jack. 49 Meter international shortwave broadcast



MFJ-1213 \$**49**⁹⁵ Ship Code A

MFJ-1213 computer inter-

face includes JVFAX and HamComm software. Receives and decodes multimode digital data with your rig. Color FAX/SSTV pictures, Baudot, ASCII, AMTOR, ARQ/FEC, SITOR, NAVTEX, SHIP and SYNOP.



\$149⁹⁵ Ship Code A

MFJ-1214PC, is a com-

plete package, receives and transmits RTTY, ASCII, CW, also WeFAX weather maps with all 16 gray levels. Complete package includes software, power supply & cables.



into a RTTY/ ASCII/CW



station for transmit/receive with HF/VHF rig. Has tuning indicator, normal/reverse switch.

MFJ-1285, \$19.95. MFJ-1224 DOS software. MFJ-1225, \$69.95. Receive only unit. MFJ- 1285B, \$19.95. 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 without 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

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 ***79**⁹⁵ tuned circuitry minimizes intermod, improves selectivity and reduces noise out-Ship Code A side the tuned band. You can also use it as

a tuned preselector with an external anten-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, \$14.95. 6Wx2Hx5D inches. Includes telescoping whip.

54" Active Outdoor Antenna

MFJ-1024 World Radio TV Handbook says

*139*5 MFJ-1024 is a "first rate, easy-to-operate
Ship Code B 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 telescopic whip, 50 feet of coaxial line and PL-259

connector. Measures 3Wx2Hx4D inches. Use 12 VDC or 110 VAC with MFJ-1312D, \$14.95.

Compact 0.3 to 200 MHz antenna

Your ham band only antenna does MFJ-1022 \$49⁹⁵ great on the ham bands . . . but this MFJ all band active antenna will help Ship Code A you hear strong signals from all over the world from 300 KHz to 200 MHz including low, medium, shortwave and VHF

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**, \$14.95. Measures 3Wx1¹/₄Hx4D inches.

High Dynamic Range Passive Preselector Can't Overload



\$9995

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,

MFJ-1046 nearby hams, CBers, TV/FM/AM stations.

It eliminates phantom signals by sup-Ship Code A pressing 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 stopband 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** 7¹/₂x2¹/₂x3¹/₄". Use 12 VDC

or 110 VAC with MFJ-1312D, \$14.95. MFJ-1048, \$119.95.

Same as MFJ-1046 but adds an RF sense transmit/ receive



switch with adjustable time delay to automatically bypass your MFJ-1048 when you

Also adds PTT line T/R switching; connects between antenna and transceiver. Use 12 VDC or 110 VAC with MFJ-1312D, \$14.95

MFJ All-Band Preselector



you copy weak signals. Rejects

MFJ-1040C out-of-band signals, images. 1.8 **\$99**⁹⁵ to 54 MHz. Up to 20 dB gain. Ship Code A 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 when transmitting to 125 watts. Jack for push-to-talk. 9-18 VDC or MFJ-1312D. \$14.95.

LW/MW/SW Preselector/Tuner



Greatly improves reception from 0.15 to 30 MHz, especially below 2 MHz. Tuner bypass/ground receiver positons. 2x3x4 in.

MFJ-1045C, \$69.95. No attenuator, transceiver auto bypass, delay, or PTT.



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 Ship Code A from antenna to receiver.

\$9995

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, \$14.95.

MFJ-890 DX Beacon Monitor

Get up-to-the-minute worldwide DX band conditions in minutes on MFJ-890 \$**99**95 14, 18, 21, 24, 28 MHz bands using the International Beacon Ship Code A Network of 18 transmitters around the world!

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 trans-



mits 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. 6³/₄Wx5¹/₄Hx3D". Use 12 VDC or 110 VAC w/optional MFJ-1312D, \$14.95. No antenna/radio connection required.

MFJ-890UK, \$99.95 (for England).

MFJ Micro ATV Transmitter

Transmits Live Pictures on Cable TV Channels



This tiny *MFJ* Micro ATV Transmitter™ lets vou 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, cam-

era, 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 highgain 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 $Micro\ ATV\ Transmitter^{\text{TM}}$ 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 1¹/₂ ounces, less battery. Has audio and video inputs.

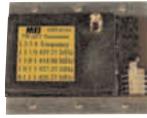


\$119⁹⁵ Ship Code A

MFJ-8704. cable channel 59 video only. Weighs only one ounce, less battery (battery, quarter not included).

New! 4.5 Watts AT **Transmitter**

Amazingly compact 2.35Wx2.8Dx.75H inches, but super powerful!



MFJ-8709 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.

4.5Ŵ Max, 50 Ohm RF power output: Audio Subcarrier: 4.5 MHz Better than -40dBc **Spurious Outputs:** 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: XTÂL ref. to 4 MHz Frequency stability: +/-20 PPM Composite NTSC 1V P-P Video In: Audio In: Line level 200-250 mV RMS **Operating Temp:** -20° to +85° Celsius

2.35Wx2.8Dx.75H inches

Size:

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 trrrific price!

Easy Operation: The most user-friendly radio you'll ever own. Sets up in seconds -- no microprocessor mumbo iumbo.

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

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 AGCTM snaps the receiver back at full gain after transmitting.

Built-in speaker: High efficiency 3" speaker driv-en by 100 mW of audio gives great volume

Rugged Transmitter: Motorola power amplifier transistor delivers full QRP output, tolerates opens and accidental shorts without

Sinewave Sidetone: Pure 700 Hz CW sidetone makes sending as much fun MFJ-27, \$4.95, carry handle. Save \$30!

MFJ-9040/9030/9020 MFJ-9017/9015 \$1**89**95 Each, Choose band,



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.

Frequency Coverage: Radio, tuner, power pack fasten together to form a tiny 6X6.5X8.5-in. integrated CW

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.

MFJ-902. **\$79.95.** Tiny Travel Tuner, $4^{1}/_{2}x2^{1}/_{4}x3$ 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!

Great SSB/CW Accessories for your

90 Series MFJ Transceivers



MFJ-971, \$99.95. 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, \$19.95. Miniature lightweight iambic paddle is just 1³/₄Wx1³/₄ D ³/₄H inches and weighs just 2¹/₂ ounces -- tiny enough to fit in an Altoids^(R) tin (cord and all!) -- great for traveling with QRP or "big" rigs!



MFJ-402. **\$59.95.** Ham radio's tiniest electronic keyer with built-in iambic paddle! It's a nano-size

2x3x1 inches and weighs just 3¹/₂ ounces! Speed adjusts 5-65 WPM, weight 25-75%, has Iambic mode A or B, normal or "bug" mode and reverse.

Folded Divole Antennas for Your Portable Station

Single band, lightweight, 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),

39⁹⁵ each!

Perfect for MFJ Rigs!

MFJ-1770A (10M).

Hip-pocket size QRP Cub CW transceiver

\$39980 if purchased separately.

9117B, 17M; MFJ-9115B, 15M.

Integrated CW Station



MFJ-93XXK **\$79**95

station.

transceiver,

\$364.80 buys

complete CW sta-

tion. Includes CW

\$189.95; MFJ-971

4114 power pack,

\$69.95; portable

antenna, \$39.95

order: MFJ-

tuner, \$99.95; MFJ

9140B, 40M; MFJ-

9130B, 30M; MFJ-9120B, 20M; MFJ-

Kit, Ship Code A

 $MFJ QRP-Cub^{TM}$ Trans-ceivers 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 by MFJ's No Matter What[™] warranty.

MFJ-93XXW, \$129°5. Wired & tested cub.

Specify band in "XX" portion of model #.

Portable and QRP Power Supplies and Accessories

MFJ-4110, \$49.95.

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

MFJ-726, \$29.95. Narrow audio filter built for MFJ CW transceivers.

MFJ-4114, \$69.95. 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

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!

www.mfjenterprises.com

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 alalog 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 clari-

ty, faithfully reproduced by a single conversion receiver. On transmit, MFJ's exclusive ConstantCurrentTM speech processor cuts through noise and QRM like a far more com-

plex 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

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



MFJ-9420,

MFJ-9440/MFJ-9475

\$249.95 with mic

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

Ship Code A annoying synthesizer jump or obscure keypad commands to deal with. Effortless tuning, custom reductiondrive 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, platethrough PC board, quality components, handsome 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. 21/2x6¹/₂x6 inches.

MFJ-415B, \$49.95. Install this CW module and operate CW, a must for DXers. Provides semi-QSK break-in and sidetone.

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 ConstantCurrentTM syllabic speech processing for an added 4 to 6 dB of punch.

All three Adventure radios feature single-conversion superhet receivers wth a low-noise front end and double-balanced mixer to fight intermod and dig deep, and

MFJ 6-Meter FM Communicator™



MFJ-9606 \$159⁹⁵ MFJ-9606X \$169.95 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-9406/9410 MFJ-9402

\$289⁹⁵ \$**259**95 (\$299.95 with

(\$269.95 with MFJ-290 mic) MFJ-290 mic) Ship Code A Ship Code A

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 31/2 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 2.5×6.5×6 in.

Special offer -- add an MFJ-290 microphone for just \$10 more.

MFJ 2-Meter FM Receiver Kit

Put together the MFJ-8400K and you'll have a go-anywhere 2-Meter FM receiver for for pennies. Features include a low noise, high gain RF preamp, smooth reduction drive tuning, and a 19-inch tele-

\$7995 Ship Code A MFJ-8400W \$9995 Ship Code A

MFJ-8400K

scopic 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 4¹/₄Wx2Hx4D in. **MFJ-8400W** available as a wired and tested unit.

MFJ Adventure Accessories

MFJ-1762, \$79.95. 3-element 6 Meter yagi quadru ples 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, \$79.95. Omnidirectional low-angle vertical radiator lets you work plenty of DX in all directions even with low power. $GroundIsolated^{TM}$ radial sys-

tem 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. Omni-directional 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, \$79.95. 6 Meter antenna tuner with lighted cross-needle meter (with **MFJ-1312D**, \$14.95). 100 Watts FM, 200 Watts SSB

PEP. MFJ-903, \$49.95, Same as MFJ-906, less meter (See Page 6).

Mirage A-1015-G 150 watt ouutput 6-meter amplifier with built-in GaAs FET receiver preamp. \$389. Page 59.



MFJ -290 dynamic handheld mic for all MFJ SSB radios, \$29.95 when ordered separately.

MFJ-4110 Portable AC Power Supply, \$49.95, fits in your pocket and is a perfect companion for radio-on-the go. 13.8 VDC output at 1.2 Amps.



MFJ-4114 Rechargable AC Power Supply, \$69.95, with battry 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 \$39⁹⁵ between your TNC Ship code A 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 \$15⁹⁵ 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!

TNC TYPE Radios	All MFJ TNCs and Multimodes	KAM VHF ⁵ / KAM HF ⁵ / KPC3 ⁵ / KPC9612 ⁵	PK-232	PK900/PK96/ PK12/DSP232 /PacComm/ other TNC-2 compatibles
Alinco ⁸ /Strd HT	MFJ-5022	MFJ-5022YV	MFJ-5022X	MFJ-5022
Icom¹/Yaesu/ RadioShack HTs	MFJ-5024	MFJ-5024YV	MFJ-5024X	MFJ-5024B
Kenwood ² 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 ³ 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 ⁴ 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

4. does not include IC-100H, IC-2700H 5. YV for KAM VHF port, YH for KAM 6. YV for KP9612 1200 baud port 7. VH models for KPC9612 960

Pre-wired Accessory Port-to-TNC cables . . . \$1995

TNC TYPE Radios ACC Port	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 Connnectors

MFJ-5082, \$9.95. 8 pin round mic. MFJ-5106, \$4.95. 6 pin mini DIN. MFJ-5205, \$4.95. 5-pin DIN. MFJ TNC. MFJ-5208, \$9.95. 8 pin DIN. Acc. Port.

MFJ-5220, \$9.95. Yaesu FT-50R cable. MFJ-5222, \$9.95. Split conn. Alinco, etc. MFJ-5224, \$9.95. IC/YA/AL/RS HTs. MFJ-5226, \$9.95. Kenwood Handhelds. MFJ-5213, \$9.95. 13-pin DIN, Acc port. MFJ-5268, \$9.95. 8 pin modular mic.

Pre-Wired Radio to Computer Interface



Convenient pre-wired transceiver to MFJ-5383 (I, K, Y, YB) computer interface cable has serial inter-\$4995 face built-in! MFJ-5383K, Kenwood and Ship code A 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. Per-MFJ-5510 fect for making quick adjustments to HF/VHF/ \$695 UHF mobile antennas with the analyzer in hand! Ship code A 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. 31/4x11/4x4 in.

		1 3	
TNC TYPE Radio Mic Conn	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 modu- lar 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, \$149.95. Ready-to-operate on 145.01 MHz. Order other plug-in crystals for just \$24.95 per frequency.

MFJ-8621X2, \$159.95. Ready-to-use for APRS. Crystals pre-

installed and transceiver precisely aligned. 144.390 MHz. **MFJ-8631**, **\$169.95**. *PacketOnly*™ 220 MHz. Has all the features of the 2 Meter version, ready-to-operate on 223.700 MHz.

MFJ-9606X, \$169.95. Voice or packet with MFJ's new 6 Meter FM Communicator™ Transceiver. Crystalled for 52.525 MHz calling frequency. Easy crystal re-channel.

MFJ TNC Software and Accessories

MFJ-1289W, \$59.95. $MultiCom^{TM}$ 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 Multigray 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 devies 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.



MFJ-5420

Audio Cable Accessories



MFJ-5302, \$9.95. 3.5 mm stereo corded 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, \$4.95. 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



\$12⁹⁵ 5 foot cord plugs into sound card on back of your computer. Provides at your finger-

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, others . . . 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, 8-pin modular (RJ-45) or 4-pin round 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.



MFJ-1275/M/T

Ship Code A

RFI-Proof

Extensive RF suppression and line isolation eliminates RF feedback problems. Automatic Microphone Ôverride

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

sound card audio output channels to accommodate various programs.

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" 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 8pin round mic plug. Order MFJ-1275M for 8-pin *modular* mic (RJ45) plug.

NEW! Order MFJ-1275T, for 4-pin round mic plug, for Ten-Tec and others. 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 RS-232 to USB Adapter Cable

MFJ-5429, \$24.95. Allows MFJ Soundcard Interface to be used with USB Port computer. DB9M RS-232 to USB 1.1 with driver. Supports Windws programs 98/98SE/ME/2000/XP. No Matter What™ Warranty We'll repair/replace for 1 year.

Super Sound Card Interface



Ship Code A

This super sound card \$12995 interface has all of the features of the MFJ-1275 plus . .

• 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 mic, MFJ-1279M for 8-pin modular (RJ-45) mic, MFJ-1279T for 4-pin round mic. *Add* "X" suffix for 220VAC.

Basic Digital Interface



Plug and Play! Has sound card, radio, speaker, RS-232 jacks. Includes: software CD and RS-232, audio, mic

MFJ-1273B cables. No external power \$5995 needed. Has no mic jack or Ship Code A 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, \$119.95. RadioCom4 integrates PSK31, SSTV, FAX/Sat FAX, RTTY, SITOR, DSP audio filters and radio control.

MFJ-1298, \$199.95. 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

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, desk mounts

MFJ Atomic Alarm Clock -- SUPER DEAL! An unbelievable number of features for such a low price!

MFJ-132RC

FEATURES:

- Huge 0.563-inch height LCD digits
- Receiver set at 60 kHz for WWVB
- 24/12-hr selectable, running seconds display
- Dual Alarm
- 5-Minute ID (Snooze)
- Fabulous backlight
- Month and Date Display
- Indoor Thermometer (Range 32 to 122 Degrees Fahrenheit).
- Uses two AA 1.5V Batteries (not incl).
- 1 Year NoMatterWhat™ Limited warranty

MFJ Dual Time Display Atomic Clock

MFJ-133RC \$29⁹⁵ Ship Code A

MFJ-133RC dual time

zone **LCD** clock can dis-

play two time zones. Show UTC and local time! Lets you read any two time zones in 24 or 12 hour format. Atomic-controlled for absolute pin-point accuracy! Features huge 1¹/₈ inch high-contrast LCD numerals easily read from 6 feet away. Super compact 4Wx3Hx³/₄D inches. Super attractive silver clock folds up and slides in your shirt pocket for great travelability -- ham-fest proven to wake you up on time.



Time/Calendar/Temp Atomic Clock



MFJ-130RC **This \$29**95 24/12 hour

Ship Code A 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 (81/2x9 inches) has easy-to-read LCD display. Time digits are 21/4 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 103/4Wx6Hx3/4 inches.

Dual Time Zone Atomic Clock



\$**69**⁹⁵

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 11/2" wide LCD numerals and also has running seconds display. 101/2Wx8Hx3/4D 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*TM works for an "eternity"! No need MFJ-123 **\$79**⁹⁵ for batteries or to set time! Receives WWVB signal. Display is a whopping 2Hx6³/₄W inches. Choose 24 or 12 hour time. Huge running seconds display. Calendar format. 10³/₄Wx6Hx³/₄D" looks great on the wall or desk mount. Attractive tan metallic!

MFJ Wireless Weather Station ----Wind, Temperature, Rainfall, and More

Humidity, Rainfall, Pressure......Has Forecasting Icons....(sunny, cloudy with sunny intervals, cloudy, rainy). Compass display for wind speed, wind direction change, wind chill temperature, air pressure and air pressure tendency. Includes... Graphic display of air pressure changes within last 24 hours, rainfall recording (total 24 hours, last hour), dew point, all min/max recordings with date/time.

Displays.....Wind, Temperature,

Also has....39 programmable visual and audible alarms (for example: frost, air pressure, temperature, unstable or stormy weather), solar powered outdoor wind, temperature, humidity and rain sen-



sors with 433 MHz radio transmitter, battery powered indoor temperature, humidity, pressure sensors with 433 MHz transmitter, battery operated receiver -- Displays all current information at-a-glance on large high contract LCD.

MORE.....receives signals from up to 9 temperature/humidity sending units (two included, others optional), all outdoor sensors are solar powered with self-charging battery backup, FCC approved wireless sensors transmit over 100 ft. at 433 MHz.

MFJ-194RS, \$169.95. RS-232 Computer interface for MFJ-194 weather station.

MFJ 24/12 Hour Clocks



Dual Displays: 24 and 12 Hour Clock

MFJ-108B **\$19**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. 4¹/Wx1D x2H". MFJ one year limited warranty.

DXer's Wall Clocks



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, \$29.95. 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 vou 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, \$19.95.



This is the world's most popular ham radio wall clock! True 24 hour Ouartz 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-126, \$24.95. 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. Has a real glass cover! Handsome hunter green

trim looks great in any decor. Has seconds hand.

Hi-Contrast LCDs



MFJ-107B, \$9.95. 24 hour UTC Clock has large 5/8 inch LCD numerals. 21/4x1x2 inches. Synchronizable to WWV. Solid brushed aluminum frame lasts for years.

Long life button battery included.



MFJ-118, \$24.95. MFJ's Jumbo LCD™ shows time in 24 UTC or 12 hour format with huge 11/4" high-contrast LCD digits. 5³/₄Wx2¹/₂Hx¹/₂D 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 snchronize to WWV. Black scratch resistant case. Mounting holes for wall mount/flip stand for desk mount. Use "AAA" battery (not included).



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. 4¹/₂Wx3³/₈Hx2¹/₄D in. 1 year *No Matter* What™ limited warranty.

Atomic Wall Clock



\$**59**⁹⁵ Ship Code A

This huge 12-inch diameter atomic wall clock can be seen from across the room! It'll liven up any hamshack wall and it automat-

the WWVB signal from Ft. Collins, Colorado. Has both 12 and 24 hour time format displays. 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.

Red LED Clocks



\$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! 12Wx7¹/₂H in. Use 9V battery for backup. Hour/minute set buttons. 110 VAC, 60 Hz.

MFJ-113, \$19.95.

on an at-

tractive

LCD

Switchable 12/24 hour display with HUGE 1.8" red LEDs. Ab-



solutely shines from across the room. Super compact 11Hx 9Wx21/2D inches. Has 9 minute ID timer, alarm, 9V battery back-up. Use 110 VAC, 60 Hz. Great clock for the sight impaired!

12 Vdc LED Mobile Clock



MFJ-116DC, \$19.95. 12 VDC, plugs in ciga-

rette lighter. Huge .562 inch green LCD digits! Great for motorhomes and truckers! 12 hour only. Attractive black cabinet, long cord.

MFJ Radio-Controlled Wrist Watch

BREAKTHROUGH LOW PRICE!!!



MFJ-186RC Ship Code A

This MFJ-186RC \$295 has broken through the high price of Atomic Wrist Watches!!!

For an unbelievable \$29.95, you get a beautiful full-featured radiocontrolled watch that 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 (our option) your watch for one full year.

2.4 GHz, 15 dBi, 16-element WiFi Yaqi



15 dB, 16-element WiFi Yagi antenna greatly extends range of 802.11b/g WiFi signals 32 times over an isotopic radiator.

Turns unusable or slow WiFi signal 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 mounting and bottom holes for desk or shelf mounting. You can mount it for horizontal or vertical polarization.

Precision punched New! aluminum antenna. 18Wx23/4H x1¹/₄D in. 2.9 ounces.

MFJ AC Line RFI Filter squashes computer hash



MFJ-1164 **\$59**⁹⁵

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 Ship Code A 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 AC adapters. 25 Amps/3000 Watts maximum. Fused. 5¹/₂ ft. cord. Wing nut for ground. Mounting holes. Rugged aluminum case, 12Wx3¹/₂Hx2D in.

MFJ Classic *HamGear*™ Apparel

HamGearTM Waistpak



MFJ-6200, \$15.95. 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.

HamGear™ HT Belt Holder MFJ-15, \$14.95. Durable HT pocket with elastic cord and velcro closure fits on your belt -- keeps radio secure.

HamGear™ HT Pouches

MFJ-18, \$29.95. Radio chest harness hold your HT 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. Accessory pockets.

MFJ-9-102. **\$3.95.** Porcelain MFJ Coffee Mug, with other purchase.



MFJ Connectors, Plugs, Adaptors ...









MFJ *Keep-it-Up*™ Battery Maintainer



SALE! Only \$15!!!

MFJ-323 keeps your battery charged, while your motorhome is parked for an extended time. Regular **Price is \$59.95.** While quantities last.

MFJ RapidBattery™ Charger



MFJ-641, \$49.95. Quick/ trickle for Ni-Cad/Ni-MH. Status LED, Quick/Trickle Auto-switch. $3^{1}/_{2}x5^{1}/_{2}x3$ ". 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. Add'l slots, \$9.95 each.

Flashlight Tool set



MFJ-7224, \$9.95. Flashlight toolbox. 24 piece nut/ screwdriver set.

A. MFJ-7706, \$9.95 each. NMO to SO-239 adaptor. B. MFJ-7701. \$3.95 each. SO-239 to SO-239 connector. C. MFJ-7705, \$4.95 each. N male to SO-239 connector. D. MFJ-7702, \$2.95 each. PL-259/PL-259 barrel connector.

E. MFJ-7703, \$6.95 each. PL-259 to BNC Right angle.

F. MFJ-7716, \$3.95 each. BNC male to SMA female adaptor. G. MFJ-7718, \$3.95 each. BNC female to SMA male adaptor. H. MFJ-7719, \$3.95 each. SMA Male to UHF Female Adaptor.

I. MFJ-7708, \$2.95 each. BNC male to SO-239 connector. J. MFJ-7714, \$3.95 each.

Chassis mount 3/8x24 antenna connector with insulating washer.

K. MFJ-7707, \$7.95 each. 3/8x24 to NMO adaptor.

L. MFJ-7704, \$6.95 each. BNC to dual banana plugs.

M. MFJ-7709, \$5.95 each.

Dual banana plugs, high-current. N. MFJ-7713, \$4.95 pair.

1 red, 1 black high current banana.

O. MFJ-7700P, \$5.95 pack.

6-pair banana plugs, six black and six red.

MFJ Speaker Microphones for New Yaesu, Icom, Kenwood HTs



MFJ-295 (Y, I, K,) **\$15**95 Ship Code A MFJ-295R (VX-7R only) **\$19**5 Ship Code A

Here's a top quality speaker mic that's perfect for those popular and tiny new Yaesu, Icom, Kenwood, Alinco, ADI and compatible handheld transceivers. **Fits** perfectly in your hand and gives booming receive audio so to monitor stations while the microphone is attached to your lapel -- no more holding the speaker up to your ear!

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 receive audio. 8 Ohm

impedance.

Built-in earphone jack, top quality PTT thumb switch, 8-position swivel lapel clip, 3½ feet of durable, stretchable cord. Made of high-impact plastic. Water resistant. Black mic and cord, protective bend points. MFJ-295Y, Yaesu, Icom, single pin plugs like Yaesu VX-5R and Icom Q7A. MFJ-295I, Fits Icom and compatibles. MFJ-295K, Fits Kenwood and others.

New! MFJ-295R, \$19.95 fits new Yaesu VX-7R handheld radio.

MFJ Deluxe Headset Microphone™ adds professionalism



Walking through an airport, at home, or in ear, this MFJ

your car, this MFJ
deluxe headset gives
you the ability to
carry on a private
QSO while doing
other things.
The microphone

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 protects the mic and speaker elements as well as making the ear fit very comfortably. You could wear this headset all day long.

It's perfect for mobile use with single ear design.

Small PTT switch can be conveniently attached to your shirt or pants pocket. **Has** six feet of cord from headset to plug.

MFJ-288I fits ICOM, Yaesu (not FT-50R), ADI, Alinco, Radio Shack and other compatibles. MFJ-288K fits Kenwood and compatible handheld radios. MFJ-288Y fits VX-5R, IC-Q7A and compatibles.

New! MFJ-288R, \$24.95 fits new Yaesu VX-7R handheld transceiver.

MFJ *Featherweight* earbud *Boom Mic*™



MFJ-293 (K/Y/I/R) ... a secure
Ship Code A 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 and compatibles. MFJ-293K fits Kenwood. MFJ-293Y fits Yaesu FT10R/40R/50R/VX-1R, Icom IC-Q7A, other radios using single plug-ins. MFJ-293R, \$24.95, fits Yaesu VX7R. All have MFJ one year limited warranty.

Vibration Earbud Mic

The speaker and microphone are both integrated into the earpiece -- picks up the vibration of your earbone and then trans-

your earbone and then translates the vibration into a signal through your transceiver!

Super Audio Quality! It only transmits the vibrations from your ear, it's perfect for high-ambient environments like motorcycles, ATVs, etc. PTT has velcro for attaching to wool clothes or belt provided. Two clips on the cord position and secure the earpiece/PTT to your shirt coat comfortably and 42" durable cord lets you snake it around your body the way you want.

MFJ Featherweight Earbud/Mic

MFJ MightyMic™ speaker microphone

MFJ-294 (I, K, Y)

\$16⁹⁵

Ship Code A

MightyMic[™] is a super speaker microphone for those tiny and popular miniaturized handheld radios on the market today like Yaesu's VX5R and Icom's O7A.

Tiny PTT thumb switch with speaker/microphone and lapel clip all fits between two fingers. 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 product!

An 8-position swivel lapel clip lets you position and secure the microphone to your shirt or coat comfortably.

MFJ-294I for Icom and compatibles, and older Yaesu HTs.

MFJ-294Y for Yaesu FT10R/40R/50R /VX-1R/VX-5R, Icom IC-Q7A, other radios using single plug-ins. MFJ-294K for Kenwood and compatibles.



MFJ-292 MFJ's Feather-weight Earbud/Michas a tiny earphone Ship Code A and thumb-size mic/PTT switch built right into the cord.

Barely noticeable and so lightweight you won't know it's there. Get crystal clear receive/transmit audio out

of an ultra light (30 grams) speaker. Non-directional electret condenser mic has -64 dB sensitivity, 1.1K Ohm impedance. 4 ft. cord. **MFJ-292I** fits ICOM, Yaesu and others; **MFJ-292K** for Kenwood; **MFJ-292Y** for Yaesu FT-10R/40R/50R/VX-1R/VX5R. *New!* **MFJ-292R**, \$19.95, fits Yaesu VX-7R.

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.

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 O7A. R is for the new Yaesu VX7R.





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 15³/₄ 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.

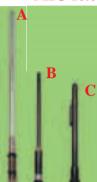
MFJ-1717 is precisely tuned at the factory for low SWR. High-Q, low loss construction gives you maximum radiated power! BNC connector. It's rugged! It'll take all the bending, twisting, flexing and tugging you can dish out, and just pop right back up.

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. 7¹/₂ 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 Telescopic Handheld Antenna Range Extenders



A. MFJ-1714, \$16.95. B. MFJ-1712. For really long range this endfed 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!

\$14.95. This telescopic Dual Bander is for 144/440 MHz. It's a 1/4 wave on 2 Meters, 5/8 wave with gain for 440 MHz. 7¹/₄ inches collapsed acts like a rubber duck antenna. 19 inches extended gives you superior performance. Easy to

fold up and put

away!

C. MFJ-1710, \$9.95. The PocketLinearTM 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 vour HT iust won't receive well, pull it out, extend to 24" and carry on your QSO. Tiny $5^{1/4}$ inches collapsed.

SmallWonderTM 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 greatt 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.

MFJ 2-Meter Pocket Roll-up



MFJ-1730, \$19.95. Roll up this 1/2 wave 2-Meter antenna and stick it in your pocket. Vacations, camping, etc. Get home station performance on-thego! Just 51 inches

long. Hang in a tree, plug the BNC into your HT and enjoy some great QSOs.

It's omni-directional and has significant gain over a 1/4 wave. Doesn't need a cumbersome ground plane so it's convenient for

MFJ 440 MHz Pocket Roll-up

MFJ-1731, \$19.95. 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 Jpole antennas anywhere and everywhere!

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, flexiduck, PL-259. 2 dBi gain on 440 MHz, full-size 1/4 wave 2 Meter. Hi-Q, low loss construction. 161/2", hard safety tip. Watts PEP. MFJ-1717P, \$24.95. Like MFJ-1717PL, but no fold-over. Has straight PL-259.

HT Antenna Extender

MFJ-312, \$9.95. Get your antenna up in-the-air where it can radiate more freely! Clip this HT antenna extension cable on a tree limb, outside your car window, your baseball cap, just about anywhere! Gets better received and transmitted signals! BNC connectors on both ends. 31/2 feet of tough mini coaxial line.

MFJ HT Antenna Mag Mounts

Put your flexible HT rubber duck on the roof of your car! MFJ-332S, \$14.95. HT Antenna Magnet Mount with SMA on each end. Has 12 feet of flexi-

ble RG-58AU coaxial line. MFJ-332B, \$14.95. HT Antenna Magnet Mount with

BNC on each end. Has 12 feet of flexible RG-58AU coaxial line.

MFJ SuperFlex ThinDucksTM

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 $12^{1/2}$ " SuperFLEXTM 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. 5¹/₂" 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 Triple Band FlexiDuckTM

MFJ-1720S, \$29.95. MFJ's Triple Band HT $FlexiDuck^{TM}$ 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.

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 O low loss construction, super durability for years of use.

HT Antenna Window Mount

MFJ-310, \$14.95. This HT Window Mount gets your antenna outside where it can radiate freely -- takes away auto shielding effect and gives increased signal

strength and reception. Use 144/440 MHz HT with BNC connector. 10 ft. mini RG-58 coax. Mount safely rolls up inside auto window. MFJ-310S, \$14.95. Similar, but has SMA connectors on both ends.

New SMA to BNC Adaptors



MFJ-7716,

\$3.95 each.

BNC male to

SMA female

adaptor.

MFJ-7718, \$3.95 each. SMA male to BNC female adaptor.

MFJ-7719. \$3.95 each. SMA male to SO-239 connector.

44

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 \$1695 dual band 2 Meter/440 MHz magnet mount mobile antenna! It's perfect for your dual Ship Code A band mobile or HT. Free BNC handheld adapter. MFJ's powerful 31/2 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's 5/8 wave on 2 Meters give you MFJ-1728B \$295 the maximum possible theoretical gain of any single element mobile antenna, no mat-Ship Code A ter 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.

$m{MFJ}$ $m{UltraLite}^{{\scriptscriptstyle TM}}$ Mag Mounts

MFJ-1721 **MFJ-1721**, 1wo Meters **\$1495** (left) is an Ship Code A *UltraLite*™ Mobile mag-MFJ-1722 Dual Bander \$1895 net mount antenna. Has Ship Code A 12 feet of RG-174U coaxial line. 1/4 wave on 2 Meters. Weighs less than 2 ounces. 1/8" rare earth magnet is tiny, but powerful! Thin 20 inch whip.

MFJ-1722, (right) is similar to MFJ-1721, but dual Band *UltraLite*TM. 5/8 Wave on 440 MHz. 1/4 Wave on 2 Meters.

MFJ Mobile Antenna Ground Plane Kit

MFJ-1401 converts most mobile MFJ-1401 anten-**\$19**⁹⁵ nas into Ship Code B 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-844 VHF/UHF SWR Mobile Power Meter



\$6995 covers 144 and Ship Code A 440 MHz. 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.

MFJ-844

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.

Power*Gain™ Dual Band 144/440 MHz Mobile

MFJ-1729 **MFJ's** *Power*Gain*[™] is ham radio's most \$3495 powerful dual band magnet mount mobile Ship Code A 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 27¹/₂ inch stainless steel *SlimLine* Radiator™ minimizes wind vibration for less SWR flutter giving you longer range and better readability. Inculdes 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 B MFJ-1738 2-Meters **\$29**⁹⁵ Ship Code A

Glass mount dual band 144/440 Dual Bander MHz mobile. A 6 inch counterpoise *39% mounted inside lowers SWR and Ship Code A 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, \$29.95. 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-922 VHF/UHF Antenna Tuner, handles 150 Watts



MFJ-922 **\$79**95 Ship Code A

This compact dual band VHF/UHF antenna tuner has a single meter that reads SWR and power. No zero adjustment needed. It covers VHF from 136 to 175 MHz and UHF from 420 to 460 MHz. You can read power up to 150 Watts in 2 ranges: 60 Watts or 150 Watts. It's a great antenna tuner for HTs, mobile

rigs or amplifiers up to 150 Watts. Its super-compact size lets you take it anywhere -- measures a tiny $4x2^{1/2}x1^{1/4}$ inches -- you can put it in your shirt pocket! Carry it with you in your car, camping trips, etc. Tuning tool included.

MFJ-916B VHF/UHF Duplexer, handles 200 Watts



MFJ-916B **This** MFJ duplexer lets **\$2995** you use a 2 Meter/440 Ship Code A MHz antenna with separate 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, \$34.95. Same as MFJ-

916B, but has low loss type "N" connectors instead of SO-239.

MFJ Accessories for FT-817 and Other QRP rigs

MFJ Walkabout Antenna 80 through 6 Meters

MFJ-1899T Ship Code A

Work DX walking about!

This MFJ Walkabout

antenna is designed for the FT-817 and other ORP 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 collansed

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.

2-Meter / 440 MHz "Backof-Radio" Antenna

MFJ-1717PL, \$24.95.

Foldover dual band flexduck 161/2 inch antenna with quality PL-259 connector. Hearty 2.15 dBi gain on 440 MHz and full size 1/4 Wave on 2 Meters.

Single Band Walkabouts 6/10/12/15/17/20/30/40/80

10.12,15,17,20M 30/40/80 M

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 51/2 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

PL-259-to-BNC right angle

MFJ-7703, \$6.95. Sturdy, adapter



for your FT-817 and multimode HF antennas like MFJ-1899T. Reinforced elbow for less stress on radio connector.

Tiny 10 oz. Switching Power Supply for Yaesu FT-817 and ORP Rigs.

MFJ-4103 Miniature \$1995 \$2495 \$2995 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 -- $4^{1}/_{8}X$ $2^{5}/_{8}X1^{3}/_{8}$ " and Ship Code A 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 Miniature Travel Iambic Paddle



MFJ-561, \$19.95. 13/4Wx13/4Dx3/4H inches. Full size feel for smooth, easy CW. Precision formed from resilient phosphorous bronze. Ŝtainless steel base with rubber feet. 3 foot cord, 3.5 mm plug.

ocket Repeater

Extend range of any radio 2 Meter, 440 MHz, Handhelds, Mobile, Base!!



MFI-662 Ship Code A

When you and 995 your buddy are out of radio range, the MFJ Simplex

Pocket RepeaterTM greatly extends your range. You can have \$ your own private, portable repeater within your neighborhood or when hunting, fishing, camp-

ing, hiking, caravaning 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 $2^{1/4}Wx3^{3/4}Hx1D$ ".

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, \$14.95. Pre-wired cables for most radios, \$15.95. See cable column on page 38.

MFJ Radio Voice Mai



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, \$14.95. 4Wx3¹/2 Dx1¹/₂H inches. Use any radio. With PTT or mic closure sensing. Pre-wired cables for Yaesu. (See page 38).

HT VHF SWR/Power Meters and *Intermod Fighters*™



MFJ-840, \$19.95, accurately checks power output of your 2 Meter handheld into a 50 Ohm dummy load. 5 W full scale. BNC. 2x21/4x11/2"



Connects directly between HT and antenna. Reads SWR and power output to 5 Watts. $2x2^{1}/4x1^{1}/2$ inches.

MFJ-841, \$39.95, MFJ-713, \$59.95. HT radio *Intermod Fighter™*. BNC for hook-up to your HT. Rubber duck antenna sits on top of the MFJ-713. Use 9V battery. 2x2¹/₂x1¹/₂ MFJ-714, \$59.95. SO-239. Use external 12 VDC for power.



2-Meter CW Interface MFJ-552, \$79.95.

MFJ's JimHandyTM CW interface

plugs into your 144/440 MHz handheld and converts it into a modulated CW transceiver -just plug in your key.

MFJ-550, \$9.95 Straight key.

MFJ RuffRiderTM High Gain Mobile Antennas



MFJ's RuffRider™ High Gain multi-banded mobile antenna series is for serious mobile hams demanding the highest quality products at reasonable prices. RuffRidersTM feature finest quality construction using precision machined components. RuffRiders™ battle the elements, handle rugged rides and day-today 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 in-cluded 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 dayto-day highway abuse.

Choose from several different length and gain antennas . . .

RuffRider JuniorTM. Premium, short 16¹/₂" antenna MFJ-1402 fits in any garage on *3495 any auto. ¹/₄ Wave on 2 Meters, ¹/₂ Wave, 3 dB

Ship Code A gain on 440 MHz.100 Watts. No fold-over.

R. RuffRider High PowerTM. Just 40" long handles full 200 Watts. Great for high \$4995 power mobile amp. 1/2 Wave, 3 dB gain on 2 Ship Code C Meters, 5/8 Wave, 5.5 dB gain on 440 MHz.

C. RuffRider High GainTM. 41¹/₂" long antenna gives extra gain with little height increase. \$4995 Handles 150 W. ½ wave, MFJ-1422

3.2 dB gain on 2 M, 5/s Ship Code C Wave, 5.7 dB, 440 MHz. H. New! Covers 40 through 6, RuffRider Hyper Gain™.

62¹/₂" brute gives a whopping 5 dB gain on ⁷/₈ Wave 2 \$6995 Meters, 5/8 Wave, 7.6 dB gain on 440 MHz. Our

Ship Code D highest gain dual band antenna. Handles 150 Watts.

E. RuffRider Triple ThreatTM. 59 inches of stacked elements MFI-1436 with high-Q phasing \$7995 coils give a whopping

7.2 dB gain on 440 Ship Code D MHz, 4.5 dB on 2 Meters and 2.15 dB on 6 Meters.

Handles 150 Watts. F. NEW! Covers 220 MHz!

RuffRider Triple ThreatIITM. MFJ-1434 Slim 38 inches, similar \$7995 to MFJ-1436, but 2.15 dB on 2-Meters, 3.5 dB Ship Code D on 220 MHz, and 6 dB gain on 440 MHz. 100 Watts.

NEW! VHF/UHF & 10 Meters! RuffRider QuadBanderTM.

MFJ-1438 52", 7.2 dB - 440 MHz. \$995 4.5 dB - 144 and 2.15 dB on 6. Go HF with Ship Code D 10 Meters! 150 Watts.

Plus 144/440 MHz! MFJ-1456 149⁹⁵ Covers 40/20/15 /10/6/2 Meters &

Ship Code D 440 MHz! Use up to 4 coils at one time. See page 41 for more details. Tri-magnet mount recommended.

MFJ super heavy duty $RuffRider^{TM}$ mobile antenna mounts

MFJ's *RuffRider™*

Shown on magnet mounts, not included.



Mounts feature extrawide four inch lip and large reinforcing tabs on

MFJ-345S MFJ-345T each side safely dis-SO-239 3/8x24 tributes load over **\$34**95 **\$39**95 your vehicle's lip. 2 large set screws on Ship Code A 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. low loss coax has PL-259 connector. Has Allen wrenches and weather protection caps.

MFJ Trunk/Hatchback Lip Mount 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.

MFJ-348S SO-239 \$36⁹⁵ Ship Code A **MFJ-348T** 3/8x24 \$42⁹⁵

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.

Mirror/Luggage Pipe Mounts

3/8 inch threaded MFJ-342 HF antenna pipe **\$Q**95 /mirror mount fits Ship Code A 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-344 **\$Q**95

Ship Code A

MFJ 5" Magnet Mount with coax



MFJ-335BS MFJ-335BT 3/8 inch SO-239 MFJ-335BM \$1995 NMO Ship Code A



MFJ-335BT

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



Ship Code A

3-inch black magnet mount with 17 feetcoaxial line terminated with PL-259 connector. SO-239(BS) or NMO (BM). MFJ-333BS NMO-to-3/8x24 Adapter

MFJ-333BM \$**14**⁹⁵

Quality adapter lets you use MFJ-7707 an HF whip \$**7**95 with an Ship Code A NMO style mount.

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 tri-

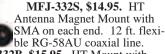
angular mount. 17 feet coax. Caution: once on, it's difficult to get it back off! Select SO-239, NMO or 3/8x24:

MFJ-336S

MFJ-336M MFJ-336T NMO

Each Ship Code C

MFJ HT Antenna Mag Mounts



MFJ-332B, \$15.95. HT Mount with BNC on each end.

MFJ Mirror/Luggage Pipe Mount



Ship Code A Convenient thumb/finger turn knob. 10 foot coax with PL-259.

MFJ GumDropTM 3/8x24 Mount

 $GumDrop^{TM}$ 3/8" antenna hard mount. Tough, durable plastic, rubber seal protects vehicle finish.

MFJ-343 3/8x24 **\$9**⁹⁵ Ship Code A



MFJ-340

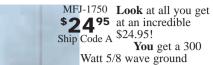
\$34⁹⁵

MFJ Hard Mount Coaxial Line MFJ-341S/M Hard mount coax-O-239 or NMO ial line, 16.5 feet.

\$19⁹⁵ SO-239(S) or Ship Code A NMO (M).

MFJ 5/8 Wave Ground Plane

For an incredible \$24.95, 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 . . .



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 $RapidTuneRadiator^{TM}$ 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 1¹/₂ 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 \$24.95 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, \$24.95. 2 Meter ⁵/₈ Wave. **MFJ-1752, \$24.95.** 220 MHz ⁵/₈ Wave.

Dual Band 144/440 Ground Plane

MFJ-1754
\$295
Ship Code A
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.

Portable 3-element 2-Meter beam

Check out MFJ's portable 3 element beam for 2 Meters.
Unique design lets you set it up or take it down in seconds!

MFJ-1763

*4495

Ship Code A

Elements simply screw into the boom. It's easy to store and sturdy enough to use as your base station antenna.

The extra gain and directivity from this beam could get you through when a vertical can't. It'll make the difference between "you're breaking up..." and "Solid copy".

Center mount it and use it vertically on FM or horizontally for SSB. By rotating it you can minimize QRM. Unique design also lets you end mount it vertically or horizontally on the leg of a tower... great for Packet and PacketCluster.

Its compact $2^{3/4}$ foot boom gives you a 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. A ferrite choke balun gives you excellent feedline decoupling. Coax coupling is further reduced by mounting the SO-239 connector behind the reflector.

Has MFJ's Permanent Molecular Bonding Technology™. New coating won't come off unless the metal comes off.

Weighs just 2 pounds. Boom is 30¹/₂x1³/₄x1¹/₄ inches. Mounts easily to mast or tower leg with single included U-bolt. Mast not included. Super easy to put together in a hurry!

Take the MFJ-1763 Two Meter portable Yagi with you wherever you go and have the oomph and directivity of a beam.

Improved 1/4 Wave Ground Plane

MFJ-1740 For \$19.95, you get an improved 300 Watt 1/4 Wave Ground Plane for 2 Ship Code A 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.

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 1¹/₂" mast. Can be cut for 220 or 440 MHz. A cutting chart is included.

MFJ 7 element 144/440 MHz Yagi



MFJ-1768 Get 7 elements on 440 MHz

*7995 and 4 elements on 2 Meters.

Exclusive dual band bal-

Ship Code A Exclusive dual band balanced feed with FerriteChoke™ decoupling prevents pattern skewing-- gives low SWR. 1/4 inch diameter driver elements

\$**49**⁹⁵

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 $1^{1/2}$ inch mast or tower leg.

Includes a 5 foot, $1^{1/8}$ inch diameter boom, antenna weighs in at 2 pounds. Elements are electrically isolated from boom.

Stacked 2-Meter 5/8 Wave

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 . . . Ship Code A 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 centerfed 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 Ultra

*5995 wide-band antenna
Ship code B receives 251300 MHz. Perfect for scanners. Transmit 501300 MHz. Handles 200
Watts. Ideal for 6/2/11/4
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 Same *3995 as MFJ-1868, but

transmits from 144 to 1290 MHz. Coax and hardware is not included.

www.mfjenterprises.com



MFJ-1762, \$79.95. 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, \$79.95. Omni-directional low-angle vertical radiator lets you work plenty of DX in all directions even with low power. 55" strong aluminum radiator.



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 elliminate moisture and pollution. Super high wind load resistance.

MFJ-1526 - \$139.95. Pulsar ULTRA MightyGainTM. Dual Band 144/440 MHz Base/Repeater Antenna. Our highest gain *PulsarTM* 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 - \$139.95. Same as MFJ-1526, has "N" connector.

MFJ-1524 - \$119.95. Pulsar Hyper MightyGainTM. 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 W.

MFJ-1522 - \$79.95. Pulsar Economy Priced Dual BanderTM 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 W.

MFJ-1516 - \$99.95. Pulsar VHF Base StationTM. 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 W.

MFJ-1536 - \$119.95. Pulsar VHF $TriBander^{TM}$. 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 200W. Ouadbander covers 220 MHz

MFJ-1538 - \$119.95. Pulsar VHF Ouad-BanderTM. Like MFJ-1536, but covers 6M/144/220/440 MHz.

MFJ-1532N - \$99.95. Pulsar VHF/UHF and 1.2 GHz TriBander TM 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. 5¹/₂ ft. Type "N" connector. Handles 200 W.

MFJ HF Mobile *HamTenna*™ Whips

Each is

diameter

fiberglass

rod; a nearly

Your Choice: MFJ-1675T - 75 Meters ruggedly MFJ-1640T - 40 Meters constructed. MFJ-1620T - 20 Meters A heavy MFJ-1617T - 17 Meters duty 4

MFJ-1615T - 15 Meters foot, 3/8 inch MFJ-1610T - 10 Meters MFJ-1606T - 6 Meters

\$1995 Each Ship Code B

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 41/2 ft Mobile HF whips

New! (20 Meters) \$29⁹⁵

Efficient, base-loaded MFJ-2620T 4¹/₂ foot HF Whip Antenna is thin, sleek, and low profile with very MFJ-2640T low wind resistance. (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 Ship Code C

Become an "HF Mobileer" \$7095 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, \$29.95).

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

This new mobile antenna lets you operate all of your favorite HF/VHF/UHF bands. Covers

40/20/15/10/6/2 Meters/440 MHz with automatic

14995 bandswitching!

Use 1 or up to 4 Ship Code C 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 inches with the tallest coil mounted vertically. Perfect for Icom-706 series.

3/8x24 Antenna Mounts



MFJ-336T, \$29.95. Three super strong 5inch magnets form this tri-magnet mount with 17 feet coaxial line.

MFJ-345T, \$39.95. Trunk lip Mount for 3/8x24, 10 feet coax, rubber guard. **MFJ-348T, \$42.95.** 3/8x24 deluxe trunk lip mount with extra-wide 3.3-inch lip, Has 17 feet coax, rubber guard, etc. **MFJ-342**, \$9.95. Vertical 3/8x24 pipe mount for mirror/luggage.

MFJ-344, \$9.95. Horizontal 3/8x 24 pipe mount for mirror/luggage.

MFJ-343, \$9.95. Through-hole bumper, trunk mount, rubber seal, lock washer.

See page 47 for more mount info.

ir-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. Part No. | Price: Inductance | Coil

They are super strong and superbly crafted. MFJ winds them tough so they stav wound.

Select a special MFJ air-wound coil for your mobile and portable antennas. antenna tuners, amplifiers and othe projects.

7	Part No.	Price:	Inductance	Coil length	Coil Diameter	Turns per Inch	Wire size (AWG)
s	404-0811	\$22.95	70 uH	91/2 in.	13/4 in.	10	14
	404-1610	\$37.95	92 uH	10 in.	13/4 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
1	404-0700	\$37.95	77 uH	12 in.	2 in.	8	10
u	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
r	404-0009	\$22.95	230 uH	10.5 in.	3 in.	10	16
	755-4001	\$3.00			clip on air-w		

HF Portable/Mobile Manual Screwdriver Antennas

MFJ's new Manually Tuned Screwdriver Antennas lets vou 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 O, 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 defuning

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 thumbscrew 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 \$1 1 995 Meters with 10 foot whip. Covers 6-20 Ship Code C Meters with 4 ½ foot whip. 12 inches long by 2 inches in diameter. Weighs one pound.

Portable Versions

New!

Covers 80-6 MFJ-1664 Meters with 10 \$149⁹⁵ foot whip. Covers 6-40 Meters 41/2 Ship Code C 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 $4\frac{1}{2}$ 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 \$12**9**⁹⁵ 40-2 Ship Code C Meters with 41/2 foot mobile or 10 foot fixed operation tele-

scoping 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 41/2 foot mobile or 10 foot fixed operation

\$159⁹⁵ Ship Code C

Covers

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**, **\$19.95**. 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 **\$39**95

Ship Code C

\$7995 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, \$39.95, 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 $6^3/4$ pounds.

HEAVY DUTY TRIPOD!

New! MFJ-1919, \$79.95, 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. 93/4 pounds.

Ultimate Portable HF Vertical Antenna

MFJ-1964K \$54⁹⁵ Ship Code A

You get Phil Salas, AD5X "Ultimate Portable Antenna" article, from QST, 2005; a 2.5" diameter, 5inch 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.

WE

Just pull out each section and twist \$7 Q95 to lock. It extends to a whopping 33 Ship Code D feet - - a full quarter wave on 40 Meters! It collapses to just 3.8 feet and weighs a light 3.3 pounds for true portability. Bottom section is large 1³/₄-inch diameter. **Super** strong fiberglass flexes to resist breaking. Black

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.

MFJ-915 RF Isolator

MFJ-915 RF Isolator prevents MFJ-915 \$295 unwanted RF from traveling on the Ship Code A 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. Don't operate without one! 5x2 inches. For 1.8-30 MHz.

MFJ W9INN Balun Box

MFJ-912 \$49⁹⁵ Ship Code A

resists UV.

Converts unbalanced coax line to balanced ladder transmission line. Giant 2-



core 4:1 balun wound with Teflon(R) wire. 31/4x21/4x7 in. Heavy duty ceramic feedthru insulators. 1500 Watts full legal limit. SO-239. Ground post, mounting holes.

True 1:1 Current Balun/Center Insulator

True 1:1 Current Balun/ Center MFJ-918 \$2495 Insulator forces equal antenna currents in Ship Code A 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 hipermeability ferrite beads on high quality RG- $303 \ Teflon^{(R)}$ coax and $Teflon^{(R)}$ 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.

True 4:1 Current Balun/Center Insulators

The MFJ-913/MFJ-919 are true current \$2995 baluns/antenna center insulators that trans-Ship Code A forms 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. 41/4"Hx2" dia. MFJ-919, \$59.95. Handles 1500 Watts. \$5 995 Sturdy, cube shaped housing measures

Ship Code A 31/2Wx31/2Hx21/2D inches.

Switchable 1:1 or 4:1 Current Balun/Unun

Switchable. New!
1:1 or 4:1 current balun/unun. This \$295 Ship Code A 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. 2¹/₂Wx4³/₄Hx1D inches.



True 4:1 Current Balun/Unun

True 4:1 current \$195 Ship Code A **True** 4:1 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 2¹/₂Wx4³/₄Hx1D inches.

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. MFJ-1621 The antenna is mounted on a **\$89**95 sturdy, self-standing 6x3x6 Ship Code A inch cabinet. Features a builtin antenna tuner, field strength meter, 50 feet of RG-58 coax. Handles 200 Watts PEP SSB.

MFJ-1621 is a complete portable multiband 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 oper-

Whip Tuner/Artificial Ground gives instant 80-10M, 150 Watt Antenna

Just add short whip and counterpoise wire and instantly get an effec-

*MFJ-1644 tive portable 150 Watt all band 3.5-30 MHz Ship Code A antenna.

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 4½ 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. 7¹/₄Wx2¹/₄HX2¹/₂D 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



tiny 36 inch diameter loop antenna lets you operate 10 through 30 MHz continuously ---

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's 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, antibacklash mechanism, limit switches, continuous no-step DC motor -- gives smooth precision tuning.

Heavy duty thick ABS plastic housing has ultraviolet inhibitor protection.

MFJ-1788, **\$429.95**. Same as MFJ-1786 but covers 40 - 15 Meters continuous. Includes super remote control.

MFJ-1782, \$339.95. Like MFJ-1786 but fast, slow tune button control.



MFJ-1780, \$249.95. 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.

MFJ Apartment Antenna

Covers 40 thru 2 Meters . . . Mounts outdoor to windows, balconies, railings . . . works great indoors mounted to desks, tables, bookshelves



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 5½ foot radiator lets you really get out! Radiator collapses to 2½ 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.

MFJ Vertical for Antenna Restricted Areas

40, 20, 15, 10 Meters, Automatic BandSwitching

Perfect for permanent or portable operation in antenna restricted areas.

MFJ-1795

\$14995 Ship Code D

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-1904 P95, \$219.00. MFJ-1904 with MFJ-1795 Combination. *Saves* \$30.90!

MFJ-1904HG-18, **\$174.90**. MFJ-1904 with Hy-gain AV-18VS. *Saves \$15!* See page 56.

Portable Antenna Base



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 multiband 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 BaseTM 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.

80-6 Meter Window/Balcony Antenna, built-in *Tuner*

Complete antenna system mounts on window frames, balconies, and railings.

Perfect for apartment dwellers.

MFJ-1625

\$19995

Covers 80-6
Meters.

mount/clamp, built-in antenna tuner with RF isolator, long 12 foot telescoping whip

Includes uni-

versal

(22.5 inches collapsed), high efficiency loading coil for 40/80 Meters, counterpoise wires, and safety rope. Handles 200 Watts.

Ship Code B

MFJ-1623, \$179.95. Like MFJ-1625, but covers 6 through 30 Meters.

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 multiband 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** \$3995 famous Ship Code A 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 pro-



MEI-17754

\$**59**⁹⁵

Ship Code C

vides stress relief for ladder line (100 ft. included). Authentic glazed ceramic end insulators. Handles 1500 Watts.

MFJ Single Band Dipole Antennas



265 ft., 160M Ship Code A

MFJ-1779B \$3995 135 ft.,80-40M Ship Code A

\$2995 35 ft., 20-6M Ship Code A

Ultra high quality center fed dipoles will give you trouble-free operation for years. Custom injectionmolded UV-resistant center insulator has built-in coax connector and hanging hole. Heavy duty 7-strand, 14gauge 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 \$79⁹⁵ Ship Code C Dipole Antenna

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.

40/20 Meter Dipole Antenna

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

MFJ-1748 High performance, \$6995 no com-Ship Code C promise End-fed Zepp. Use when center feed is not possible or desirable. 125 feet? long, includes 100 feet ladder line. Strong fiberglass insulator provides ladder line stress relief. Glazed ceramic end insu-

lator. 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 feet 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.

Folded Dipole Antennas for Your Portable Station

Single band, lightweight, folded dipoles. Low SWR, direct coax feed, 200 Watts. MFJ-1774 (40 Meters).

MFJ-1773 (30M), MFJ-1772 (20M), MFJ-1771 (17M).

Ship Code C MFJ-1770 (15M), MFJ-1770A (10M). 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 UVresistance, injection-molded center insulator/coax connector, glazed ceramic end insulators, 7strand, #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, \$6.95.



Center Insulator -- injection End Insulator -- authentic molded, UV resistant, builtin SO-239 connector, hang hole, super strong, wire tie points. MFJ-16B01, \$19.95.



glazed ceramic, super strong, high-voltage ridges, smooth wire holes. MFJ-16C01, 69 cents each.



MFJ-1742

\$7995

450 Ohm Ladder Line Feedpoint End Insulator -super strong fiberglass, double weave ladder line stress relief, SO-

239 connector. MFJ-16E01, \$7.95.



Flexible 7-strand, #14 gauge hard copper wire. MFJ-18G100, 100 ft, \$11.95 MFJ-18G250, 250 ft, \$27.95

MFJ Hang & PlayTM Collinear Array Antennas

2-elements, 2 dB gain . . . 4-elements, 4.5 dB gain . . . Handle 1500 Watts . . . Very Ouiet . . .

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 halfwave 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 PlayTM!

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 the larger capture area and power gain, you'll hear and 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 Ouiet!

Their directional properties and polarization reduce noise up to two to three Sunits below verticals and inverted vees.

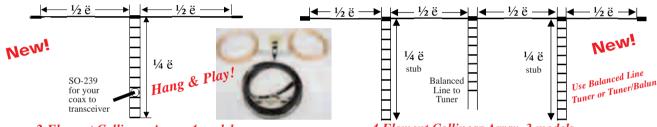
Simple Installation

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



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 A.

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 A.

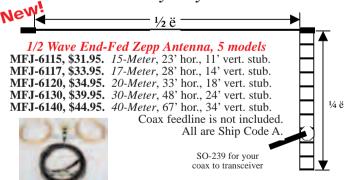
MFJ Hang & PlayTM End-Fed Zepp Antenr Direct coax feed . . . Handles 1500 Watts . . . Low SWR . . . Heavy Duty construction **End-Fed Zepp Antennas**

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 per-

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, heavyduty 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.



MFJ $Hang\ and\ Play^{ ext{ iny M}}$ Antennas are made with these super heavy duty custom parts .

Center Insulator



A super-strong custom fiberglass center insulator provides stress relief for ladder line, hang hole and tie-points for heavy-

duty 7-strand, 14 gauge hard copper antenna element wire. Extremely strong solderless crimped construction used where possible. Available separately. MFJ-16D01, \$6.95.

Feedpoint Insulator

Super-strong custom fiberglass mount allows screw-on coax cable connection at ladder line midpoint. Built-in SO-239 connector, quadruple weave-through ladder line stress



relief. Available separately. MFJ-16F01, \$6.95.

End Insulator

Wire ends attached to authentic glazed ceramic insulators. Super strong, high-voltage ridges, smooth wire holes. Available separately. MFJ-16C01, 69 cents each.

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...



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!



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, \$6.95.

Ladder Line Feedpoint End Insulator

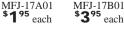
Super strong fiberglass, 450 Ohm ladder line *end* insulator. Double weave ladder line stress relief. Built-in SO-239 connector. MFJ-16E01, \$7.95.

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, \$6.95.

Compression







Model	Wire	Hole	Length	Diam.
17AO1	3/16"	5/16"	2-5/16"	1-3/8"
17B01	1/4"	5/8"	31/2"	2-1/2"
17C01	5/16"	3/4"	41/2"	2-7/8"

MFJ-1775

\$239⁹⁵

Features automatic band switching and uses highly efficient end-loading with its entire length always radiating. With 6

and 2 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 $Teflon^{TM}$ 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 Glazed Ceramic Insulator

MFJ-16C01 69d each Ship Code A MFJ-16C06 **6-Pack** 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.

Hy-Gain HyTower-Jr™

Stands 39 feet tall . . . Full 1/4 Wave on 40, 20, 15, 10 Meters . . . Cage loading on 80 Meters

> AV-18HT-Jr. **Standing** a tall 39 feet \$34995 with *full-size* elements and rated Ship Code E at 5 KW, the AV-18JR Hy-gain HyTower-Jr. TM is the world's

second best* performing vertical! Stub-decoupling is used to give full-size quarter wave radiators on 40, 20, 15, 10 Meters with super efficient cage loading on 80 Meters.

The HyTower- Jr^{TM} 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 swedged at the top. Self-supporting in winds up to 40 MPH. Mounts on 1¹/₄ 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 HyTowerTM 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^{TM}

is the poor man's version of its father HyTower (page 67). Of course, Junior™ doesn't have its father's rugged hotdipped galvanized steel tower and construction!

Hy-gain Aluminum Tubing

6063 T832 round, drawn aluminum tubing sold in two styles: 6' standard or 6' slitted (on one end, .093" gaps, 1-2" slit lengths). Sizes .625-1.625" fit inside each other to make telescoping mast. Use host clamps to secure. 6' ships by UPS, longer units must ship UPS oversize or by truck.

	OD x Wall-Th x ID	6'standard; price/ea		Add'l/ft
l	.625"x.035"x.555"	AT-0625C-6U, \$5.70	AT-0625C-6S, \$6.90	
ı	.750"x.058"x.634"		AT-0750E-6S, \$7.50	
۱	.875"x.058"x.759"	AT-0875E-6U, \$6.90	AT-0875E-6S, \$8.10	\$1.20
ı	1.000"x.058"x.884"	AT-1000E-6U, \$7.50	AT-1000E-6S, \$8.70	\$1.30
	1.125"x.058"x1.009"	AT-1125E-6U, \$8.40	AT-1125E-6S, \$9.60	\$1.45
	1.250"x.058"x1.134"	AT-1250E-6U, \$9.60	AT-1250E-6S, \$10.80	\$1.65
	1.375"x.058"x1.259"	AT-1375E-6U, \$10.80	AT-1375E-6S, \$12.09	\$1.85
	1.500"x.058"x1.384"	AT-1500E-6U, \$12.00	AT-1500E-6S, \$13.20	\$2.05
	1.625"x.058"x1.509"	AT-1625E-6U, \$13.80	AT-1625E-6S, \$15.00	\$2.35
	1.750"x.083"x1.584"	AT-1750G-6U, \$15.30	AT-1750G-6S, \$17.10	\$2.60
١	2.000'x.120"x1.760"	AT-2000I-6U, \$18.30	AT-2000I-6S, \$20.40	\$3.10
				_

AT-2000I-6W, \$24.60 each. This unique tubing has one end slitted and one end swaged to make it stackable. Join one end to the other to make a longer pole. Secure with standard host clamp. Super strong, 2"OD x .120" wall. Good for base sections of any vertical antenna. Standard 6-foot length. Longer sections, up to 20 ft., are available. Add \$3.00 each additional foot.

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., \$9.95. MFJ-18H100, 100 Ft., \$16.95. MFJ-18H250, 250 Ft., \$39.95.

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-18T100, 100 Ft., \$24.95. MFJ-18T250, 250 Ft., \$59.95.

MFJ-18T050, 50 Ft., \$12.95.

C. Copper Antenna wire. Flexible, 7-strand, 14

gauge, hard solid-copper wire. Strong/long-lasting. MFJ-18G100, 100 Ft., \$11.95. MFJ-18G250, 250 Ft., \$27.95.



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.

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 O-5 OSOs.

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-



MFJ-1798 **\$289**95

Ship Code F

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-NetworkTM 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 vou 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 AirCoreTM 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

Efficient high-O coils are wound on tough low loss fiberglass forms using highly weather resistant Teflon^R covered wire.

1/2-wave, 6-Band No-radials Vertical

12 feet tall, Mounts Anywhere, 40 to 6 Meters



MFJ-1796 \$209⁹⁵

Only 12 feet high with a tiny 24 inch footprint! Ship Code F 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 radi-

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.

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.'

Verticals for 80/40/20 Meters 80/40 Meter Vertical

MFJ-

1792 is a high-performance \$169⁹⁵ Ship Code F

MFJ-1792

80/40 Meter vertical. Full size quarter wave radiator for 40 Meters -- that's 33 feet of radiat-

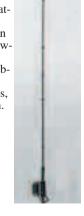
ing power.

End loading, unique built-in L-network for lowest SWR, lowloss 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

MF.I-1793, \$189.95, like MFJ-1792 but has full size 20 Meter ¹/₄ wave radiator also.



MFJ QuickStudyTM 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.

MF.I-3211-Technician

tees that

MFJ-3213-General

MFJ-3215-Extra



MFJ-3211 Use MFJ's MFJ-3213 $QuickStudv^{TM}$ MFJ-3215 License Guide and MFJ guaran-

each Technician,

you'll pass the written General, or exam on your Extra Class very first try Ship Code A Ship Code A or you get your money back*. See

above.

What is MFJ's QuickStudyTM 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 QuickStudyTM 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, \$9.95 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 siast David Finley, N1IRZ. First book to detail the Koch method and training techniques for fastest code proficiency.



avid CW enthu- Long Wire Antennas. By Ed Noll, W3FQJ. Classic antenna projects for a weekend! MFJ-3502, \$12.95. Solid State QRP Projects. By Ed Noll,W3FQJ. MFJ-36, \$9.95. Shortwave Listener's Guide for Apt./Condo

dwellers. Receivers, antennas, other equipment.

MFJ-3301, \$12.95. Troubleshooting Antennas and Feedlines. Search it out! By Ralph Tyrell, W1TF. MFJ-3504, \$16.95. 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, \$9.95. Ham Radio Communications Circuit Files. By Ed Noll, W3FQJ. Many fun items! MFJ-3036, \$12.95. PROH: Packet

Radio Operators Handbook. By Buck Rogers, K4ABT. MFJ-30, \$9.95. Golden Classics of Yesteryear. By Dave Ingram, K4TWJ. Collins, Heathkit, more! MFJ-35, \$7.95. Wonderful World of Ham Radio! An excellent introduction to ham radio for kids. classrooms. Great start! MFJ-32, \$9.95. Packet Radio is

Made Easy. By Buck Rogers, K4ABT. Packet radio for beginners! MFJ-31, \$7.95. Oscar Satellite Review. By Dave Ingram, K4TWJ. An anthology of CO articles about oscar stations.

MFJ-3101, \$7.95. 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. Čebik, W4RNL. Concise, clear chapters.



MFJ-3509, \$19.95. Ladder Crystal Filters. Generous references, John Pivnichny, N2DCH. Ed Noll, W3FOJ.



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-3303, \$12.95. "73 Verticals, Beams, Triangle Antennas". By



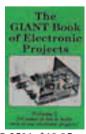
MFJ-38, \$16.95. Easy-Up Antennas by Ěd Ñoll, W3FQJ. For hams and SWL. How to build and how to put up. Fully tested designs.



MFJ-33, \$12.95. Everything you need to Dave Ingram, K4TWJ. placement. ham toys, etc.



MFJ-3305, \$19.95. 320 pages, 37 short concise chapters. Underlying theory, powerful antennamaking techniques, special antenna projects and more!



MFJ-3501, \$19.95. 30 different electronic kit know about mobile! By projects, schematics, part

Select MFJ hard-to-find Components for your Homebrew Projects

Air Variable Capacitors









	A.	В.				C.	D.
Figure	Part No. #		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.
В	282-2010	\$17.25	2-10	640	.016"	2	1.4Wx1Hx1.7D in.
В	282-2012	\$16.02	5-51	1000	.032"	13	1.4Wx1Hx1.1D in.
В	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 broad	cast style	variables an	d are use	d in M	FJ Anal	yzers and

Transceivers. A 8:1 Vernier drive is built into the capacitor.

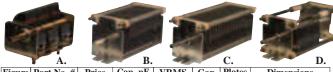
High Voltage Air Variable Capacitors



Figure	Part No. #	Price	Cap. pF	VRMS	Gap	Plates	Dimensions
A	282-2007-1	\$30.94	10-125	3 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"	55	2.5wx3.6hx10.8d"
В	282-2009-1	\$61.64	12-500	1.5 kV	.045"	110	2.5wx2.6hx10.8d"
C*	282-2015-1	\$53.52	10-300	3 kV	.120"	165	2.5wx2.6hx10.8d"
D*	282-2020	\$70.56	40-493	6 kV	.045"	35	3.5Wx4.5Hx6D"
D*	282-2028	\$100.08	50-996	6 kV	.045"	70	3.5Wx4.5Hx9.6D"
E*	282-2016	\$69.95	12-67	4.2 kV	.045"	56	2.5wx3.5hx10.8d"
E*	282-2017	\$89.95	18-136	4.2 kV	.045"	110	2.5wx3.5hx10.8d"
Ti C	· 1: cc	. 1	. 1		ET OO		I. D

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. Items 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



	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"
В	282-2112-1	\$36.52	20-250	2.5 kV	.075"	37	2.8Wx2.6Hx5D"
В	282-2572-1	\$46.18	20-405	1.5 kV	.045"	37	2.8Wx2.6Hx4D"
В	282-2573-1	\$57.34	25-800	1.1 kV	.030"	53	2.8Wx2.6Hx4.5D"
С	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	2.5 kV	.075"	31	2.8Wx2.6Hx6D"
			7-23				

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

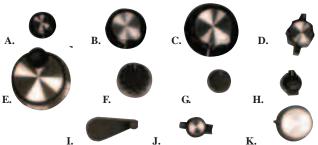


Fig.	Part No. #	Price	Pointer/skirt diam.	Knob dia.	Height
A	760-0035	\$1.25	1 inch	11/ ₁₆ inch	9/16 inches
В	760-0125	\$2.80	11/2 inches	11/4 inches	3/4 inches
C	760-2281-1	\$3.50	2 inches	15/8 inches	7/8 inches
D	760-0550	\$3.00	1 ¹ / ₂ inches	1 inch	3/4 inches
Е	760-0275B	\$9.95	21/8 inches	17/8 inches	13/8 inches
F	760-0277	\$2.35	21/4 inches	11/16 inches	1 inch
G	760-0278	\$1.95	7/8 inches	3/4 inches	11/16 inches
Н	760-0276	\$1.95	7/8 inches	13/16 inches	5/8 inches
I	760-2409	\$4.95	13/4 inches	3/4 inches	11/2 inches
J	760-0176	\$1.95	1 ¹ / ₄ inches	11/16 inches	3/4 inches
K	760-0177A	\$1.78	13/8 inches	11/4 inches	7/8 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, 21/2" coil diameter, 1/4" round shaft, 3" shaft length. Size: 23/4W x31/8Hx8D in. Used in Ameritron's ATR-30, which easily handles 1500 Watts, 1.8-30 MHz.



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 aring 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.

Silver Plated!



A 404-1052 \$59.00 33 43 2" 3½" 3Wx3Hx½D" B 404-1056 \$62.65 44 57 2" 3" 3Wx3Hx½D" C* 404-1060 \$53.60 22 31 2" 2½" 3Wx4½Hx7½D" *C item has 1/4" round phenolic tuning shaft, has no "self-resonance-

*C item has 1/4" round phenolic tuning shaft, has no "self-resonance-killer". A and B have 1/4" round brass tuning shaft.

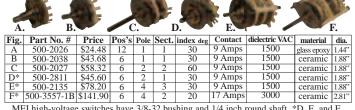
MFJ Air-Wound Coils

MFJ *air-wound* coils are constructed with a solid rigid round acrylic rod and tinplated solid copper wires embedded into the

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	91/2 in.	13/4 in.	10	14		
404-1610	\$37.95	92 uH	10 in.	13/4 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.	21/2 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 plue.					

MFJ high power RF rotary switches



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.

are switches that are speciall
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,

Knob Pointers 726-0227R, \$1.55 Red, 1¹/₄" Length, matches 2" tuning knob.

726-0230R, \$1.25 Red 1" Length, matches 1¹/₂" 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.

gear fits 1/4" round shaft. Counter ratio is 3:1. Has 3-digits, counts up to 333 turns.

31/4"Length.

Select MFJ hard-to-find Components for your Homebrew Projects

Power Supply, Amplifier Transformers Ameritron sells Eimac® 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.



				SEC Voltage	Current	Dimensions	Weight
Α	406-3800	\$34.95	120V	18V	30A	4Wx4Lx33/4H"	11 lbs.
В	406-7310	\$49.95	100/120/240	1. 1200V 2. 20V 3. 5.5V	600 mA 250 mA 15A	5Wx4 ¹ / ₂ Lx6H"	20 lbs.

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 Relay

408-6230, \$12.95. Midtex Relays 157-33C200, 3 PDT, 10A silver contacts, 24 VDC coil, dust cover with holding flanges. Has .187" quick connect terminals, 1.5Wx2.5Hx2.8D inches.

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 connec-Part No. #

Price Description ### Description | \$12.95 | HH58, 150 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 400 pF, 20%, 5 kV | \$14.95 | HH58, 5 kV | \$14.95 | HH58, 5 kV | \$14.95 | HH58, 5 kV | \$1 tion. 3/4" 290-0150-5 290-0400-5 290-0500-5 290-1100-5 .625" long. \$13.95 HH58, 500 pF, 20%, 5 kV \$12.95 HH58, 1000 pF, 20%, 5 kV

Electrolytic Capacitors

Can-type electrolytic capacitors ideal for amplifiers and power supply applications. They have snap-in PCB terminals.

Cap uF WVDC D x L (in.) Part No. # Price 270-6220-7B 270-7100-5A 270-8680-2 \$5.44 220 400 V 1³/₁₆x1⁵/₈ \$6.71 1000 250 V 1³/₈x2 50V 6800

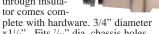
Non-InductiveResistors					
		4			
О П	B.	1	C	D.	
Fig.	Part No. #	Price	Resistance	Rating	
A*	115-5800	\$3.00	50 Ohm	50 Watts	

Α.	▼ В.		C.	D. V	L.	w r.
	Part No. #	Price	Resistance	Rating	Diameter	Length
	115-5800	\$3.00		50 Watts	1/2X1/2 in.	2.0 inches
	113-1220	\$22.50		35W cont.	3/4 inches	2.5 inches
	113-1350	\$22.50		35W cont.	3/4 inches	2.5 inches
В	113-1450	\$15.00	45 Ohm	35W cont.	3/4 inches	2.5 inches
	115-1500	\$20.16		90W cont.	3/4 inches	5 inches
	119-1500	\$32.31	50 Ohm	200W cont.	1 inch	6 inches
	755-3080	.75	Terminal clip f	or 3/4" dummy	oad resistor, requ	ires 2 per resistor.
F	755-4100	2.76	Terminal clip t	or 1" dummy lo	ad resistor, requir	es 2 per resistor.

^{*}Item A is an RCD 620, wire wound. Solder terminals attached,2 mounting holes.

Feedthru Insulators

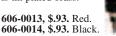
606-1006, \$3.10 Ceramic Feedthrough insula-



x11/4". Fits 7/16" dia. chassis holes.

5-way Binding Post

Nylon Insulation, 30A, 1000 VAC, 10-32 stub is tin plated brass.



Ceramic Spacers

AA

Ceramic spacers are used to properly isolate your dummy load resistor from the chassis.

Withstands high power and high frequencies. Â. 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.

Ameritron sells Eimac(R) 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

- A. 350-0811A, \$17.95, 811A tube. *warranteed* tubes.

 B. 350-0572B, \$59.95, 572B tube *Match* pairs are
 - 380-0500GT, \$189.95, Taylor also available. 3-500ZG tube



Tube Sockets









Fit Tube Type #pin Manufacturer PN/Description Part No. # Price \$14.95 3-500Z, 3CX1200A7 625-8500 custom made glass epoxy socket \$2.49 6LQ6 or equivalent 45.50 3CX1500A7/8877 625-8199 PCB mount pins
EF Jhnsn 122-0247-202 ceramic 625-8731 \$45.50 625-8800 3CX800A7 EF Johnson 124-0311-100 \$3.20 811A, 572B or equiv. 4-pin ceramic

Tube Plate Caps & Heatsinks



D.
aluminum heat sink
aluminum heat sink
tubes.
k. aluı ck. e.

Tube Glass Chimnevs

A. 391-1500, \$14.10

Chimney for 3CX1500A7/8877 tube **B. 391-3500, \$30.60**

Chimney for 3CX1200A7 and 3-500Z tubes.



AmplifierPlates and Filament Chokes



	D. —		E.
Fig.	Part No. #		Description
A	10-15197	\$20.00	Complete plate choke covers 1.8-30 MHz, includes WARC bands, 225 uH, handles 1.5A, 4 kV. Wound on 1"dia. x 55%" long glazed ceramic form. Used in Ameritron amps.
В	10-15144	,,,,,,	Plate choke covers 1.8 to 30 MHz, 1.5A, 2kV, wound on 1/2" dia. by 4" long ceramic form. Used in most sweep tube amps.
C	719-7380C	\$7.95	Glazed ceramic plate choke form. 1" dia. by 5" long. Both ends tap for 1/4"-20 screw.
D	10-15115-1		Complete broadband filament choke. Use for 3-500Z, 3CX800A7, 3CX1200A7 and 3CX1500A7 tubes. Handles 30A, covers 1.8-30 MHz. 12 gauge enamel wire, bifilar wound on .5" dia. by 6" long ferrite rod.
Е	412-0109	\$9.00	Filament choke ferrite rod. 5" dia. by 6" long. Used in 10-15115-1.

Cooling Fans

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, with 14" wire lead. Fan guide, **B. 410-4584**, \$.90.

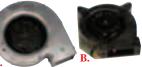
C. 410-3138, \$43.06, high quality box fan by EBM, metal housing with metal impeller, extremely quite 120x120x38.5 mm, 61 CFM, 28 dBA

noise level, sleeve bearing, 120 VAC, 60 Hz, wire terminals. Fan guides: D. 410-4600, \$3.34, metal; **E.** 410-4586, \$.99, plastic.



D.

and Blowers



A. 410-1200, \$64.95. EBM Blower, G2S097-DB61-08, 110 VAC, 5¹/₂Wx5¹/₂Hx1¹/₂D inches. 37 CFM, 45 dBA noise level. Wire leads.

B. 410-1100, \$39.95.

Interfan Blower, PMB24-115-4B, 110 VAC, 43/4Wx43/4Hx11/4D inches.

		MFJ Prod	luct Index		
AMPLIFIERS	c-matcher nage 11	econo page 24	foldover . nage 44	30 Amp	communication 29-31
		iambic paddle 24-25		40 Amp page 23	
800 Watts page 79		keyboard pages 25-26		AC pages 23, 36	
1000 Watts page 78	dual band page 10	keyer pages 24-26	HT pocket page 44	adjustable page 23	equalizer pages 29-30
		memorypages 24-25			
1500 Watts page 77	HF pages 3-10, 71, 74, 80			Portable pages 23, 36	10
2500 Watts page 77		reader pages 26, 28, 33		Power Pack page 36	
HF pages 73-79	legal limit 3-5, 8, 74, 80 loop tuner page 9	telegraph key page 27 tutor	pocket roll-up page 44		
linears pages 73-79					microphone page 30
		air-wound pages 49, 58			phone patch page 29, 30
Solid State page 73			SMA adaptor page 42, 44		1 1 1 0
super legal limit page 77	random wirepage 7	ceramicpage 58-59	small wonder page 44	passive page 34	SWITCHES
Tube Type pages 77-79	RF transformerpage 11	coils page 58		SWL antenna page 34	
UHF page 69				active page 34	
	six meters page 10			outdoor page 34	
ANALYZERS 1.8-170 MHzpages 18-20	travel page 10	gear counter page 58	vibration mic page 43		
220 MHz pages 16-20	true legal limit page 74	knobs page 58		Preamplifier 34, 70, 72	•
	tuner extender page 11			Tuner page 34	
	UHF page 10		KEYERS	RECEIVERS	HF pages 11-12, 74-75
				2-Meters pages 37, 72	1
1 0	VHF page 10	Computer INTERFACE		49 MHz page 72	
dip meter pages 19-20	ANTENNA SWITCHES	Amtor pages 33, 38-39	curtis page 24		remote pages 12, 74-75
	2-position page 12			aircraft page 72	
HF pages 19-20	4-position page 12 6-postion page 12	CW pages 33 38-39			UHF pages 12, 75 VHF pages 12, 75
		Digital pages 33, 38-39		converter pages 33, 72	
1 0		HamComm page 33			balun page 18
	high power page 75-76			FM page 72	
ANTENNAS	matcher page 11	Navtex pages 38-39		marine page 33	
apartment antenna . page 52		Rtty pages 33, 38-39		monitor pages 35, 37	
base pages 48-55, 64-68	1 0	Sitor page 33			coils pages 18-20
beam pages 48, 64	BALUNS		morse readerpages 26, 28		current page 18
box fan loop page 52 bugcatcher page 49			morse tutor page 27 nano-size page 24	weather page 33, 40	din nages 18-20
	current page 51		oscillator page 27		filter page 18
		fuse packs page 22		SHORTWAVE	HF pages 18-20
discone page 48	hy-gain page 68		MICROPHONES		impedance pages 18-19
11 1 0	rf isolator page 51				pouch pages 18-20
dual band 44-45, 47-49			boom-mic pages 30, 43		
g5rv page 53 glassmount page 45				compact page 34 FM page 33	
ground plane	W9INN page 51		equalizer pages 29-30	filters pages 32, 34, 72	
ground plane kitpage 45	BOOKS				compact page 13
hamtenna page 49	antenna books page 57	DUMMY LOADS		interface page 33	
handhelds page 44		1500 Watts 16, 71, 76			dual band pages 13, 45
		300 Watts 16, 71	handheld nage 43	Inotch pages 32, 72.	
j-pole pages 37, 44					giant page 14
			headphonespages 30, 43	null pages 32, 72	grandmaster page 13
moonepages 11 13, 17 30		fan-cooledpages 71, 76	headphonespages 30, 43 headset pages 30, 43	null pages 32, 72 outdoor page 34	grandmaster page 13 handheldpage 13
pulsar page 49	technical publications 57	fan-cooledpages 71, 76 SWR/Wattmeterpage 16	headphonespages 30, 43 headset pages 30, 43 icom pages 30, 43	null pages 32, 72 outdoor page 34 passive page 34	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76
pulsar page 49 VHF pages 43-49, 60	technical publications 57 CABLES	fan-cooledpages 71, 76 SWR/Wattmeterpage 16	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43	null	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76
	technical publications 57 CABLES 450 Ohm twin lead55 accessory port page 38	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44	technical publications 57 CABLES 450 Ohm twin lead 55 accessory port page 38 audio page 38	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43	null pages 32, 72 outdoor page 34 passive page 34, 70, 72 preamp page 34 reader page 33 regenerative pages 33, 72	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51	technical publications 57 CABLES 450 Ohm twin lead 55 accessory port page 38 audio page 38 cigarette lighter adapter 18	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpages 16, 76 FILTERS 1500 Watts16, 71, 76	headphonespages 30, 43 headsetpages 30, 43 icompages 30, 43 kenwoodpages 30, 43 mic holderpage 30 mic switch28-30, 38 mightymicpage 43 radio shackpages 30, 43	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 33 reader page 33 regenerative pages 37, 72 SSB pages 32-34, 72	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46	technical publications 57 CABLES 450 Ohm twin lead 55 accessory port page 38 audio page 38 cigarette lighter adapter18 coaxial patch page 7	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16	headphonespages 30, 43 headsetpages 30, 43 icompages 30, 43 kenwoodpages 30, 43 mic holderpage 30 mic switch28-30, 38 mightymicpage 43 radio shackpages 30, 43 thumbswitchpage 43	nullpages 32, 72 outdoorpage 34 passivepage 34 preamppages 34, 70, 72 preselectorpage 33 regenerativepages 33, 72 SSBpages 32-34, 72 SWLpages 32-34, 71-72	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47	technical publications 57 CABLES 450 Ohm twin lead 55 accessory port page 38 audio page 38 cigarette lighter adapter 18 coaxial patch page 7 copper wire page 55	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 42	headphonespages 30, 43 headsetpages 30, 43 icompages 30, 43 kenwoodpages 30, 43 mic holderpage 30 mic switch28-30, 38 mightymicpage 43 radio shackpages 30, 43 thumbswitchpage 43 vibrationpage 43	nullpages 32, 72 outdoorpage 34 passivepage 34 preamppage 34, 70, 72 preselectorpage 33 regenerativepages 33, 72 SSBpages 32-34, 71-72 tunerpage 34	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48	technical publications 57 CABLES 450 Ohm twin lead 55 accessory port page 38 audio	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 42 analyzer page 18	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 72 SWL pages 32-34, 71-72 tuner page 34 weather page 33, 40	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37	technical publications 57 CABLES 450 Ohm twin lead 55 accessory port	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 42 analyzerpage 18 computer hashpage 42	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 71-72 SWL pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 packet page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 42 analyzerpage 48 computer hashpage 42 CWpage 32	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 72 SWL pages 32-34, 71-72 tuner page 34 weather page 34 weather page 33, 40 SOFTWARE dos page 38	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic page 44 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 42 analyzerpage 18 computer hashpage 42 CWpage 32 bSPpage 32 high passpages 16, 71	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 30, 43 PACKET cables cables page 38-39 dos page 38 multicomm page 38	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 33 regenerative page 33 regenerative pages 32-34, 72 SSB pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE dos page 38 HamComm page 33, 39 interface pages 33, 39	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38 pre-wired page 38 pre-wired page 38 software page 38 TNC/MIC SWITCH
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic page 44 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 screwdriver pages 50, 74	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 18 computer hashpage 42 CWpage 32 DSPpages 32 high passpages 16, 71 low passpages 16, 71	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 humbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38 multicomm page 38 software page 38-39	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 72 SWL pages 32-34, 71-72 tuner page 34 weather page 34 Weather page 33, 40 SOFTWARE dos pages 33, 39 interface pages 33, 39 JVFax pages 33, 39	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38 packet page 38 pre-wired page 38 TNC/MIC SWITCH alinco page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 screwdriver pages 50, 74 wire pages 52-55	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 18 computer hash page 42 analyzer page 18 computer hash page 32 DSP page 32 by page 32 by page 32 by page 32 by page 31 by pages 16, 71 by pages 16, 71 multimode/packet 32	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38 software page 38-39 tnc/mic switch page 38	null pages 32, 72 outdoor page 34 passive	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38 packet page 38 pre-wired page 38 software page 38 Software page 38 TNC/MIC SWITCH alinco page 38 kantronics page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 sticks pages 50-74 wire pages 52-55 Zepp pages 53-54	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 18 computer hashpage 42 CWpage 32 DSPpage 32 high passpages 16, 71 low passpages 16, 71 multimode/packet32 noise canceling32	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 vibration page 38, 43 PACKET cables page 38-39 dos page 38 multicomm page 38 multicomm page 38 software page 38-39 tnc/mic switch page 38 transceiver page 38-39	null pages 32, 72 outdoor page 34 passive	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38 packet page 38 pre-wired page 38 roftware page 38 TNC/MIC SWITCH alinco page 38 kantronics page 38 kenwood page 38 kenwood
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 screwdriver pages 52-55 Zepp pages 53-54 window mount pgs 44, 52	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 42 analyzerpage 18 computer hashpage 42 CWpage 32 DSPpage 32 high passpages 16, 71 low passpages 16, 71 low passpages 16, 71 multimode/packet32 noise canceling32 RFIpage 16	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 vibration page 43 PACKET cables page 38-39 dos page 38-39 multicomm page 38 multicomm page 38 software page 38-39 tnc/mic switch page 38 transceiver page 38-39 windows page 38-39	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 71-72 tuner page 34 weather page 34 weather page 34 Weather page 33, 40 SOFTWARE dos page 33, 39 interface pages 33, 39 JVFax pages 33, 39 JVFax pages 33, 39 Multicomm page 38 soundcard pages 38-39 windows pages 38	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 cables page 38 packet page 38 pre-wired page 38 software page 38 TNC/MIC SWITCH alinco page 38 kantronics page 38 kenwood page 38 icom page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 18 computer hashpage 42 CWpage 32 DSPpage 32 high passpages 16, 71 low passpages 16, 71 multimode/packet32 noise canceling32	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 vibration page 43 vasesu pages 30, 43 PACKET cables page 38-39 dos page 38-39 tnc/mic switch page 38 software page 38-39 tnc/mic switch page 38 vindows page 38-39 POWER STRIPS	null pages 32, 72 outdoor page 34 passive	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 cables page 38 open-end page 38 packet page 38 pre-wired page 38 roftware page 38 TNC/MIC SWITCH alinco page 38 kantronics page 38 kenwood page 38 kenwood
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpage 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 16 AC line filterpage 42 analyzerpage 18 computer hashpage 42 CWpage 32 DSPpage 32 high passpages 16, 71 low passpages 16, 71 multimode/packet32 noise canceling32 RFIpage 16 SSBpage 32	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 humbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38-39 mic/mic switch page 38 software page 38-39 mic/mic switch page 38-39 mic/mic switch page 38-39 mic/mic switch page 38-39 POWER STRIPS ARES page 22	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE dos pages 33, 39 interface pages 33, 39 interface pages 33, 39 Multicomm pages 38 Soundcard pages 38 soundcard pages 38 SPEAKERS base page 31	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 open-end page 38 pre-wired page 38 pre-wired page 38 Software page 38 TNC/MIC SWITCH alinco page 38 kantronics page 38 kentwood page 38 icom page 38 MFJ page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 screwdriver pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts page 74	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 18 computer hash page 42 analyzer page 18 computer hash page 32 DSP page 32 high pass pages 16, 71 low pass pages 16, 71 multimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 32 tunable page 32 tunable page 33 tunable page 36 TVI pages 16, 71 Handheld ACCESSORIES	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38-39 tnc/mic switch page 38 software page 38-39 tnc/mic switch page 38 transceiver page 38-39 windows page 38-39 POWER STRIPS ARES page 22 banana plugs page 22 Fuses pages 22-23	null pages 32, 72 outdoor page 34 passive	grandmaster
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 46 ruffriders page 37, 42, 48 six meter page 37 repeater page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 screwdriver pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts page 74 1500 Watts pages 3-4	technical publications 57 CABLES 450 Ohm twin lead	fan-cooledpages 71, 76 SWR/Wattmeterpage 16 transformer oilpage 16 versaloadpage 16 wetpages 16, 76 FILTERS 1500 Watts16, 71, 76 200 Wattspage 16 AC line filterpage 18 computer hashpage 42 cwpage 32 DSPpage 32 bigh passpages 16, 71 low passpages 16, 71 low passpages 16, 71 multimode/packet32 noise canceling32 RFIpage 16 SSBpage 32 tunablepage 18 TVIpages 16, 71 Handheld ACCESSORIES antenna extenderpage 44	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 vibration page 43 vibration page 43 vibration page 38-39 dos page 38-39 dos page 38-39 tnc/mic switch page 38 transceiver page 38-39 windows page 38-39 POWER STRIPS ARES page 22 Ebanana plugs page 22 Fuses pages 22 Crimper page 22	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 71-72 SWL pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE dos page 38 HamComm pages 33, 39 JVFax pages 33, 39 Multicomm pages 38 soundcard pages 38-39 windows page 38 SPEAKERS base page 31 clear page 31 compact page 31 cyber page 31	grandmaster
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 sticks pages 50, 74 wire pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts pages 3-4 2000 Watts pages 3-4	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 versaload page 16 versaload page 16 vet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 16 AC line filter page 18 computer hash page 42 analyzer page 18 computer hash page 32 DSP page 32 high pass pages 16, 71 low pass pages 16, 71 nultimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 18 TVI pages 16, 71 Handheld ACCESSORIES antenna extender page 44 back-of-radio page 44	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 vibration page 30, 43 PACKET cables pages 30, 43 multicomm page 38 multicomm page 38 software page 38-39 windows page 38-39 windows page 38-39 windows page 38-39 Wower STRIPS ARES page 22 banana plugs page 22 Euses pages 22-23 Crimper page 22 Multi-outlet page 22	null pages 32, 72 outdoor page 34 passive page 34, 70, 72 preselector page 34 reader page 34 reader page 33 reader pages 33, 72 SSB pages 32-34, 71-72 tuner page 33, 40 SOFTWARE dos page 33, 40 SOFTWARE dos page 33, 39 JVFax pages 33, 39 juterface pages 33, 39 JVFax pages 33, 39 Multicomm pages 38 Soundcard pages 38-39 windows page 38 SPEAKERS base page 31 clear page 31 compact page 31 cyber page 31 deluxe page 31	grandmaster
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 sticks pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts page 74 1500 Watts pages 3-4 2000 Watts page 5	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 16 AC line filter page 18 computer hash page 42 analyzer page 18 computer hash page 32 by page 32 DSP pages 16, 71 low pass pages 16, 71 multimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 18 TVI pages 16, 71 Handheld ACCESSORIES antenna extender page 44 battery charger page 44	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38-39 mic/mic switch page 38 software page 38-39 mic/mic switch page 38 transceiver page 38-39 windows page 38-39 POWER STRIPS ARES page 22 banana plugs page 22 Crimper page 22 power cords page 22	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader page 33 regenerative pages 33, 72 SSB pages 32-34, 71-72 tuner page 33, 40 SOFTWARE dos pages 33, 39 interface pages 33, 39 interface pages 33, 39 JVFax pages 33, 39 Multicomm pages 38 Soundcard pages 38 soundcard pages 38 SYEAKERS base page 31 compact page 31 compact page 31 cyber page 31 ear page 31 ear page 31 ear page 31 ear page 31	grandmaster
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 39-50 strewdriver pages 50, 74 wire pages 52-55 Zepp pages 52-55 Zepp pages 53-54 window mount page 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts pages 74 1500 Watts pages 3-4 2000 Watts page 5 3000 Watts page 7	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 18 computer hash page 22 analyzer page 18 computer hash page 32 DSP page 32 DSP page 32 high pass pages 16, 71 multimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 18 TVI pages 16, 71 Handheld ACCESSORIES antenna extender page 44 back-of-radio page 44 BNC adaptor pages 42, 44	headphones pages 30, 43 headset pages 30, 43 icom pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38 multicomm page 38 multicomm page 38 software page 38 transceiver page 38-39 windows pages 38-39 windows pages 38-39 Windows page 38-39 Vower STRIPS ARES page 22 banana plugs page 22 Fuses page 22 Lorimper page 22 Multi-outlet page 22 PowerPoles page 22 PowerPoles page 22	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 33 reader pages 33, 72 SSB pages 32-34, 71-72 SWL pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE dos pages 33, 39 interface pages 33, 39 JVFax pages 38, 39 Multicomm pages 38 soundcard pages 38-39 windows page 38 SPEAKERS base page 31 compact page 31 compact page 31 deluxe page 31 ear page 31 ear page 31 ear page 31 page 31 page 31	grandmaster
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 sticks pages 50, 74 wire pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts page 74 1500 Watts pages 3-4 2000 Watts page 5	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 16 AC line filter page 18 computer hash page 42 analyzer page 18 computer hash page 32 by page 32 DSP pages 16, 71 low pass pages 16, 71 multimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 18 TVI pages 16, 71 Handheld ACCESSORIES antenna extender page 44 battery charger page 44	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38-39 multicomm page 38 software page 38-39 tnc/mic switch page 38 transceiver page 38-39 windows page 38-39 POWER STRIPS ARES page 22 banana plugs page 22 Fuses page 22 Fuses page 22 Multi-outlet page 22 Multi-outlet page 22 PowerPoles ⁽⁸⁾ page 22 PowerPoles ⁽⁸⁾ page 22	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader pages 33, 72 SSB pages 32-34, 71-72 SWL pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE dos pages 33, 39 HamComm pages 33, 39 JVFax pages 33, 39 Multicomm pages 38-39 windows page 38 SPEAKERS base page 31 compact page 31 compact page 31 cyber page 31 deluxe page 31 mobile page 31 station page 31	grandmaster
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 46 ruffriders page 46 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 screwdriver pages 50, 74 wire pages 52-55 Zepp pages 52-55 Zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts page 74 1500 Watts page 74 1500 Watts page 71 2500 Watts page 5 3000 Watts page 5 3000 Watts page 5 3000 Watts page 7 4 air-core pages 3-6, 74 artificial ground page 5	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 18 computer hash page 42 cw page 32 DSP page 32 high pass pages 16, 71 low pass pages 16, 71 multimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 16 TVI pages 16, 71 Handheld ACCESSORIES antenna extender page 44 back-of-radio page 44 battery charger page 44 boom headset page 43 duplexer page 43 duplexer page 43	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 yaesu pages 30, 43 PACKET cables page 38-39 dos page 38-39 dos page 38-39 tuc/mic switch page 38 multicomm page 38 software page 38-39 tuc/mic switch page 38 transceiver page 38-39 windows page 38-39 POWER STRIPS ARES page 22 banana plugs page 22 Fuses pages 22-23 Crimper page 22 Multi-outlet page 22 power cords page 22 PowerPoles ⁸⁰ page 22 PowerPoles ⁸⁰ page 22 POWER SUPPLIES	null pages 32, 72 outdoor page 34 passive page 34 preamp pages 34, 70, 72 preselector page 34 reader pages 33, 72 SSB pages 32-34, 71-72 SWL pages 32-34, 71-72 tuner page 34 weather page 33, 40 SOFTWARE dos pages 33, 39 HamComm pages 33, 39 JVFax pages 33, 39 Multicomm pages 38-39 windows page 38 SPEAKERS base page 31 compact page 31 compact page 31 cyber page 31 deluxe page 31 mobile page 31 station page 31	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 popen-end page 38 packet page 38 pre-wired page 38 pre-wired page 38 rof/MIC SWITCH alinco page 38 kantronics page 38 kantronics page 38 kenwood page 38 icom page 38 MFJ page 38 mFJ page 38 paccemm page 38 packet page 38
VHF pages 43-49, 60 UHF pages 43-49, 60 rubber ducks page 44 telescopic 44, 46, 49-51 walkabout page 44 ruffriders page 47 yagi pages 37, 42, 48 six meter page 37 repeater page 49 whips pages 49-50 sticks pages 49-50 sticks pages 50, 74 wire pages 50, 74 wire pages 52-55 Zepp pages 52-55 zepp pages 53-54 window mount pgs 44, 52 vertical 52, 55, 66-68 portable pages 44, 48-51 ANTENNA TUNERS 1200 Watts page 74 1500 Watts page 74 1500 Watts page 5 3000 Watts page 5 3000 Watts page 7 air-core pages 3-6, 74 artificial ground page 5 automatic pages 9, 11, 80	technical publications 57 CABLES 450 Ohm twin lead	fan-cooled pages 71, 76 SWR/Wattmeter page 16 transformer oil page 16 versaload page 16 wet pages 16, 76 FILTERS 1500 Watts 16, 71, 76 200 Watts page 16 AC line filter page 18 computer hash page 42 cw page 32 DSP page 32 high pass pages 16, 71 low pass pages 16, 71 multimode/packet 32 noise canceling 32 RFI page 16 SSB page 32 tunable page 16 TVI pages 16, 71 Handheld ACCESSORIES antenna extender page 44 back-of-radio page 44 battery charger page 44 boom headset page 43 duplexer page 43 duplexer page 43	headphones pages 30, 43 headset pages 30, 43 kenwood pages 30, 43 mic holder page 30 mic switch 28-30, 38 mightymic page 43 radio shack pages 30, 43 thumbswitch page 43 vibration page 43 vibration page 38, 43 PACKET cables pages 30, 43 multicomm page 38 multicomm page 38 multicomm page 38 multicomm page 38 software page 38-39 tnc/mic switch page 38 transceiver page 38-39 windows page 38-39 POWER STRIPS ARES page 22 banana plugs page 22 Fuses pages 22-23 Crimper page 32 Crimper page 22 Multi-outlet page 22 PowerPoles ⁽⁸⁾ page 22 PowerPoles ⁽⁸⁾ page 22 PowerPoles page 22 POWER SUPPLIES 12 Amp page 23	null	grandmaster page 13 handheld page 13 HF 13-14, 16, 71, 76 mobile pages 13-14, 76 remote pages 14, 76 UHF 13, 71 VHF 13, 71 TNC ACCESSORIES accessory page 38 cables page 38 popen-end page 38 packet page 38 pre-wired page 38 pre-wired page 38 rNC/MIC SWITCH alinco page 38 kantronics page 38 kantronics page 38 kenwood page 38 icom page 38 icom page 38 packet page 38 packet page 38 kantronics page 38 kompage 38 kompage 38 kompage 38 kompage 38 paccomm page 38 paccomm page 38 paccomm page 38 paccomm page 38 packet page 38

MFJ "QUICK" PRODUCT INDEX					
Ameritron Products pages 73-79	Components pages 58-59	Preamplifiers/Preselectors page 34			
Antennas pages 44-56	Dummy Loads pages 16, 71, 76	Receivers pages 33, 37, 38, 72			
Antenna Accessories 5, 7,11, 47, 51, 52	Filters pages 16, 32, 71, 76	Shortwave pages 32, 33, 34, 72			
Antenna Tuners pages 3-10, 71, 74, 80	Handheld Accessories pages 42-47	Speakers page 31			
Antenna Switches pages 12, 75-76	Hy-Gain Products pages 63-68	Speaker microphones pages 29-31			
Artificial Ground page 5	Keyers/Keys pages 24-28	SWR Analyzers pages 18-20			
Books page 57	MFJ Products pages 1-59, 80	SWR/Wattmeters pages 14, 16, 71, 76			
Cables pages 38, 76	Mirage Products pages 69-70	Software pages 33, 38, 39			
Clocks pages 40-42	Packet pages 38-39	TNC Switches page 38			
Code Practice pages 24-28	Power supplies page 23	Transceivers/transmitters 35-37, 72			
Computer Interfaces pages 33, 38-39	Power Outlet Strips	Vectronics Kits/Products pages 71-72			

MFJ Product Index, Continued from page 60

IVII	J I Tounci In	aca, comma	ca ji om past	
TELESCOPIC	supply page 21	keyer page 37	balanced line page 8	cross-needle13-14, 16, 71, 76
antenna pages 44, 46, 50, 51	SWR 13-14, 16-20, 70-71, 76	mirage page 69	compact page 10	dual band page 13
		microphone page 37		
		paddle page 37		
mast page 51	variable page 21	power supply pages 36-37	HF pages 3-10, 71, 74	flat-mount pages 14, 76
		rechargeable pages 36-37		
		roll-up page 37	loop page 9	grandmaster page 13
whip pages 49-52	flashlight page 42	tuner page 36	mobile pages 7, 10, 71	handheld page 13
TEST EQUIPMENT	flashlight page 42	TRANSMITTERS	portable pages 7, 9-11, 71	
adaptors page 42	screwdriver page 42	1 Watt pages 35, 72	QRPpage /	mobile page 13
analyzer pages 18-21	socket page 42	4.5 Watts page 35	random wire page /	swrpages 13-14, 16, 70, 71, 76
attenuator page 21	1 RANSCEIVERS	AM page 72	roller inductor 3-6, 8, /1, /4	UHF pages 13, 70
biastee	2-Meter pages 37, 72	ATV page 35 cable page 35	super value page /	VHF pages 13, /0
		FM page 35		
		radio pages 35, 72		
clarger pages 16-20	17 Motor page 36	stereo pages 35, 72	True legal mint page /4	rainfall page 40
components 58-59	20-Meter pages 36-72	TURFS	VHF page 10	remote page 40
counter pages 18-21	30-Meter pages 36, 72	TUBES 3CX800A7 pages 59, 78	versa tuner nages 3-6	nressure nage 40
current meter pages 16-21	40-Meter pages 36-37 72	3CX1200A7 pages 59, 70	TVI	temperature page 40
din meter nages 18-20	80-Meter pages 36-72	3CX1200A7 pages 59, 77 3CX1500A7 pages 59, 77	200 Watt page 16	transmitter nage 40
dummy load pages 16, 71, 76	adventure page 37	3-500 pages 59, 78	1500 Watt pages 16. 71	weather station page 40
		572B pages 59, 78		
		811A pages 59, 79		
frequency page 21	FM pages 36, 72	8877 pages 59, 77	high pass pages 16, 71	hamtenna page 49
function page 21	HF pages 36-37, 72	eimac pages 59, 77-78	low pass pages 16, 71	portable page 50
		herculean page 77		
handheld pages 15, 18-21	kit page 72	taylor pages 59, 78	television pages 16, 71	
HF pages 15, 18-21	QRP pages 36-37, 72	vacuum page 72	VERTICALS	multi-band page 50
injector page 21	QRPCub™ page 36	TUNERS 2-Meter page 10	6-band page 56	stainless steel pages 49-50
kit	portable pages 36-37, 72	2-Meter	10-band page 56	long page 50
		6-Meter page 10		
		144 MHz page 10		
		220 MHz page 10		
pocket-size pages 15, 21	travel page 37	440 MHz page 10	UHF pages 49, 66	antenna page 42
portable pages 18-21	TRANSCEIVER	300 Watt pages 6-10, 71, 80	VHF pages 49, 66	wireless page 42
power page 21	ACCESSORIES	300 Watt pages 6-10, 71, 80 600 Watt pages 4, 11, 80 1500Watt pages 3-4, 8, 71, 74	WATTMETERS	yagi page 42
power line page 15	AC page 3/	1500Watt pages 3-4, 8, 71, 74 2500 Watt pages 3-4, 8, 74	30 Watt pages 13-14, 16, 71, 76	ZEPP
professional page 21	amplifier page 37	2500 Watt pages 3-4, 8, 74	300 Watt 13-14, 16, 71, 76	double page 53
		3000 Watt pages 3-4, 8, 74 artificial ground page 5		
sinner page 15	J-poie page 3/	automatic pages 9, 11, 80	compact page 13	ciocks pages 40-42

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 "<u>directly"</u> 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™* 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™* 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: mfjcustserv@mfjenterprises.com

UPS / MAIL SHIPPING CHART

*Code F items cannot be sent by USPS/mail. Foreign orders must call for quote.					
Ship Code	UPS	USPS/MAIL	Canada	Foreign	
A	\$10.00	\$12.00	\$25.00	\$100.00	
В	12.00	20.00	30.00	150.00	
C	14.00	25.00	35.00	200.00	
D	16.00	30.00	40.00	250.00	
E	18.00	35.00	50.00	300.00	
F	27.00	*	55.00	*	

All packages 1 lb. and under will be shipped by US MAIL for \$6.00 minimum charge unless otherwise specified.

Shipping Charges: We ship via best ground method at a flat rate shown above. For faster service, call for quote. We can ship United parcel Service, Priority Mail, Federal Express, Airborne, DHL, etc. 1-800-647-1800. Please follow the shipping chart shown above; any *excess* shipping charges calculated will be refunded to you upon your order being received.

MFJ Order Form

CallsignDate	_ SHIP TO (if other than	n at left)	
Name			
Address			
City/StateZip			
Email Address			
Phone No. (home)	_ Special instructions_		
Phone No. (work)	-		
FAX_			
QTY. COMPANY PART # • DES	SCRIPTION	PRICE	TOTAL
	0		0
-	<u>~</u>		<u>~</u> _
MFJ Or	der Foi	m	
CallsignDate	_ SHIP TO (if other than	n at left)	
Name			
Address			
City/StateZip			
Email Address	_		
Phone No. (home)	_ Special instructions		
Phone No. (work)			
FAX_			
QTY. COMPANY PART # • DES	SCRIPTION	PRICE	TOTAL

hy-gain ROTATORS

the first choice of hams around the world!

The most popular rotator in the world! \$55995 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 21/16 inches.

tator Specifications
15 square feet
7.5 square feet
800 inlbs.
5000 inlbs.
Electric Wedge
dual race/96 ball bearings
Clamp plate/steel U-bolts
8
26 lbs.
2800 ftlbs.

HAM-V

with DCU-1

HAM-V

For medium anten- \$94995 na 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!

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, \$0.49 per foot. 8 conductors PVC cable, 6-18 AWG + 2 -16 AWG, 200V for Hy-Gain^(R) 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-Meter, TV and FM antennas. Includes automatic controller, rotator, mounting clamps

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-T-2X proof AMP connectors plus \$649⁹⁵ 8-pin plug at control box, triple bearing race with 138 ball bearings for large load T-2XD bearing strength, electric locking steel wedge brake, North with DCU-1

TAILTWISTER Rotator Specifications Wind load capacity (inside tower) 20 square feet Wind Load (w/ mast adapter) 10 square feet 1000 in.-lbs. Turning Power Brake Power 9000 in.-lbs. Electric Wedge Brake Construction Bearing Assembly Triple race/138 ball brngs Mounting Hardware Clamp plate/steel U-bolts Control Cable Conductors 31 lbs. Shipping Weight Effective Moment (in tower) 3400 ft.-lbs.

AR-40

scale on meter, low voltage control, 21/16

AR-40

or South center of rotation

inch max. mast.

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. 2¹/₁₆ inch max mast size. MSLD light duty lower mast support included.

AR-40 Rotator Specifications Wind load capacity (inside tower) 3.0 square feet Wind Load (w/ mast adapter) 1.5 square feet Turning Power
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 14 lbs. Shipping Weight 300 ft.-lbs. Effective Moment (in tower)

Digital Automatic Controller



\$649⁹⁵ **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!

CD-4511

For antenna arrays up to 8.5 sq. feet CD-45II 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. Diecast 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, snapaction control switches, low voltage control, safe operation, takes maximum mast size to 2¹/₁₆ inches. MSLD light duty lower mast support included.

CD-45II Rotator Sp	pecifications		
Wind load capacity (inside tower)	8.5 square feet		
Wind Load (w/ mast adapter)	5.0 square feet		
Turning Power	600 inlbs.		
Brake Power	800 inlbs.		
Brake Construction	Disc Brake		
Bearing Assembly	Dual race/48 ball brings		
Mounting Hardware	Clamp plate/steel U-bolts		
Control Cable Conductors	8		
Shipping Weight	22 lbs.		
Effective Moment (in tower)	1200 ftlbs.		

HDR-300A **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 suscep-

tibility, new longer out-

put shaft keyway adds

reliability. Self-centering steel clamp/hardware. Display accurate to 1°. Machined steel output.

HDR-300A Rotator Specifications		
Wind load capacity (inside tower)	25 square feet	
Wind Load (w/ mast adapter)	not applicable	
Turning Power	5000 inlbs.	
Brake Power	7500 inlbs.	
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 ftlbs.	

Rotator Auto Brake Delay RBD-5



RBD-5

allows a \$2995 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.



IN HF BEAMS...

. are stronger, lighter, have less wind surface and last years longer.



TH-11DX, \$1159.95. 11-element, 4.0 kW PEP, 10,12,15,17,20M

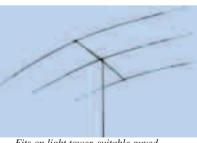
The choice of top DXers. With 11-elements, excellent gain and 5-bands, the super rugged TH-11DX is the "Big Daddy" of all HF beams! Handles 2000 Watts continuous, 4000 Watts PEP.

Every part is selected for durability and ruggedness for years of troublefree 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.

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.

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 BetaMATCHTM, 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 $Hy-Q^{TM}$ traps, rugged boom-tomast 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. **QK-710**, **\$169.95.** 30/40 Meter option kit for EXP-14. 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.

Model No.	No. of elements	avg gain dBi		MaxPwr watts PEP			Wind (mph) Survival		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 opt. 30/40	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

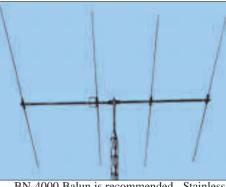
Hy-Gain Long Johns HF Monobanders

LJ-105CA, \$289.95.10 Meters, 5 elements, Exclusive 50 Ohm BetaMatch™. 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™. 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™. 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 BetaMatchTM. 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*™. BN-86 balun recommended. Includes stainless steel hardware and clamps.

LJ-153BA, \$209.95. 15 Meters, 3 elements. Feeds with 50 Ohm coax, *BetaMatch*[™], 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*[™].



BN-4000 Balun is recommended. Stainless steel hardware and clamps. Tiltable, 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 30/40 Meters.

This rotatable dipole of low weight and wind surface area so easily fits most existing beam installations. Tuned to either 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 30/40 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*™. Tiltable 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 asHG-52SS, saving both cost and space. HyGain offers wide bandwidth and Hy-Q efficiency without coils. Handle legal power limits.

ı	Model #	Gain (dBi)	F/B Max	Max Power	Boom size	elment 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. Covers10-30 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.



								0-81	
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

\$10995 vertical with 5.2 Covers dBi gain 138-175 MHz 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-42R is 6995 independently tun-Covers 143able at 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.

Frequenc | Gain dBi | Pwr

5.2 dBi

7.2 UHF

5.2 VHF

5.2 dBi

5.2 dBi

5.2 dBi

500

200

500

500

500 Watts

138-175

143-153,

436-455

400-475

216-225

51-54

Model#

V-2R

V-42R

V-4R

V-3R

V-6R

	UHF verti-
\$109 ⁹⁵	cal with 5.2
	dBi gain
Covers	derived
400-475 MHz	from dou-
V-3R	ble zepp
\$119 95	antenna
Covers	design.

Type N, 216-225 MHz handles 500

Watts, 4 foot. 1¹/₄ Meter vertical w/5.2 dBi gain, double zepp design. SO-239, handles 500 Watts. 6ft., 9 in.

V-6R anten-**204**95 na is based on 2 coll-Covers 51-54 inear 5/8 MHz wave radiators. 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 con-

	/ \ r	nect, hand	dles 500	Watts.
Input	Wind	Max Mast	Height	Weight
Watts	105 mph	2 in. OD	9 foot	6 pounds
Watts	100 mph	2 in. OD	9 foot	6 pounds
Watts	230 mph	2 in. OD	4 foot	4 pounds
Watts	100 mph	2 in. OD	6 ft. 9 in.	5 pounds

1.5-2.25 | 25 ft. 3 in. | 15 pounds

Hy-Gain VHF Ground Planes GPG-2B is a 5/8 Wavelength

80 mph

GPG-2B **\$49**95 Covers 142-185 MHz

Ground Plane for two meters is omni-directional 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 ***39**⁹⁵

Covers

144-148 MHz

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 covers162-174 MHz.

Oscar Link 435 MHz•145.9 MHz



\$229⁹⁵ 144-148 MHz

\$229⁹⁵ 432-438 MHz

FB-217SAT

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

\$11995 for higher efficiency. Feed points Crossboom are encapsulated, weather pro-Assembly only tected for long life. The fiber-

glass 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.



\$**49**⁹⁵ 2 Meter FM Beam

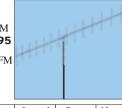


VB-25FM \$**59**⁹⁵

2 Meter FM Beam



VB-28FM **\$79**95 2 Meter FM Beam



VB-214FM \$**89**⁹⁵ 2 Meter FM Beam

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

6-Meter DX Beam Antennas

VB-64DX **\$144**95

\$264⁹⁵ 64DX Covers 50-54 MHz

VB-66DX

and VB-66DX feature a concept in beam construction that provides actual delivered performance equalling

The VB-

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



Covers

50-54 MHz

UB-7031DX Hy-Gain's DX-**\$219**⁹⁵ Series VHF/UHF Beams are based on Covers

the DL6WU ele-420-438 MHz ment length and spacing and were further refined

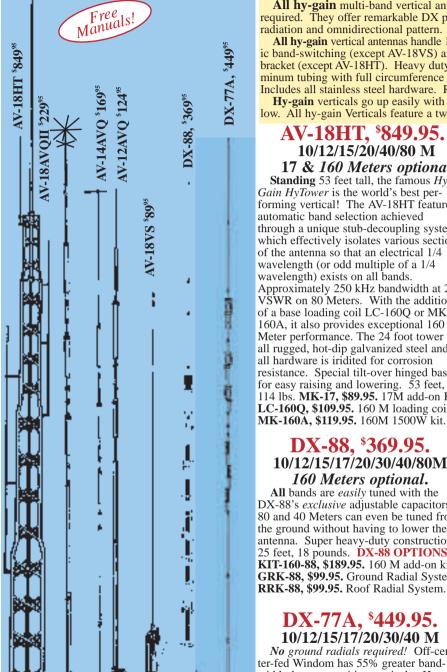
on Hy-Gain's anten-VB-215DX na test range and by \$229% computer modeling. Both beams feature encapsulated weath-

144-146 MHz erproof 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.

U-Main HF VERTICALS

Self-supporting -- no guys required . . . remarkable DX performance -- low angle radiation, omnidirectional . . . 1500 Watts . . . Low SWR . . . 2 year limited warranty



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 iridited 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.

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. Heavyduty 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-QTM 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 reso-

nance 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, \$89.95. 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,

RT-424 **\$99**95 Shippable

(not included). Measures 4.5 feet tall, weighs just 18 lbs. Maximum load is 100 lbs. Tough aluminum construction.



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	\$89.95	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	1500WPEP	18 feet	12 pounds	70 mph guy	1.5-1.625"

Hy-Gain(R) 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

hv-gain's new PATRIOT HF verticals are the best built, best performing 8 Bands: 40, 30, 20, 17, 15, 12, 10, 6 M and best priced multiband verticals available today.

Make full use of your sunspot cycle with the *PATRIOT's low angle* signal.

O O 95 Suggested Retail Call your dealer for your best price!

hy-gain^R AV-640

AV-640, \$389.95, uses guarter 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 -- High wind survival, matching unit made from all Teflon^R insulated wire. Hy-gain^R warranty -- Two year limited warranty, all replacement parts in stock.

AV-620, \$289.95. Covers all bands 6 through 20 Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands.

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. **B**roadband 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.

HF Multiband Hy-Q trap DOUBLETS

DP-2BDO, \$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.

C-1, \$29.95. Center Insulator for multiband dipole antenna.



Similar to C-1, but has

End Insulator band doublet antenna. Set of 2.

SO-239 antenna connector.

CLOSEOUT SALE!

Famous Hy-gain Contester Headset with boom Microphone Regular price: \$179.00.

\$9995 Ship Code A





Antennas, Rotators & Towers 308 Industrial Park Road, Starkville, MS 39759 USA Toll-free Customer Sales Hotline: 800-973-6572 **TECH:** 662-323-9538 • **FAX:** 662-323-6551 http://www.hy-gain.com Prices and specifications subject to change without notice or obligation. "Hy-Gain!, 2004.

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-BiasTM 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



transmitting and kicks in 160 Watts of power. Adjustable time delay give 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, \$45, 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. Like B-2518-G, but for 10-50 Watt mobile/base, 160 Watts out for 50 W in.

B-1018-G, \$409. 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.

\$45.00. Remote controls most MIRAGE amps. Power On/Off.



preamp On/Off, switch for SSB/FM. 25 ft. cable (longer available with special order). $1^{3/4}$ x $3^{3/4}$ x $2^{1/2}$ ". 5018/2518/1018 use RC-2. Others use RC-1, call mirage to verify.

	Power Curve Typical Output Power in Watts											
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	16
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 your 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** 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 12Dx3Hx5¹/₂W 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,

Retail smooth adjustable transmit/receive switching with remote external

keying. Draws 48A@13.8 VDC. 12x12x5". **RC-1**, Remote Control Head. \$45.00.

n ansmin	ransimi/receive switching with remote external						
Power Curve Typical Output Power in Watts							
B-5030-G	\$739			55	150	220	300
B-2530-G	\$759	30	95	140	250	300	
B-1030-G	\$739	80	225	270	300		
Watts In		1	3	5	10	25	50

Power Curve -- Typical A-1015-G Output Power in Watts. 150 Watts Out 42 84 98 122 63 142 Watts In .25 2 3 5 10

223-225 MHz Amplifiers

Choose from 10 different models -- 20 to 220 Watts out for 2 to 50 Watts in, \$129 to \$655. 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	\$169.00	.1-5 W	3-36 W	5 amps
C-211-G	\$369.00	.3-5 W	50-126W	25 amps
C-106-G	\$269.00	.3-15 W	3-60 W	12 amps
C-1012-G	\$369.00	.3-15 W	6-120 W	20 amps
C-2512-G	\$345.00	.3-40 W	.5-120 W	18 amps
C-5012-G	\$365.00	.35-55 W	3-120 W	18 amps
C-1022-G		.25-10 W	40-220W	48 amps
C-2522-G		.25-30 W	1.5-220w	48 amps
C-5022-G	\$739.00	.35-55 W	5-220 W	48 amps

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, \$414. 82 Watts PEP out /10W in. D-100-ATVN, \$414. 82 Watts PEP out/2W in.

MIRAGE D-Series Specifications					
Model #	Price	Input	Output	Current	
D-15-N	\$189.00	.25-2 W	3-18 W	3 amps	
D-26-N	\$289.00	.4-5 W	17-60 W	12 amps	
D-100ATVN	\$419.00	0.5-5 W	15-52 W	20 amps	
D-1010-N	\$395.00	.30-15 W	5-110 W	20 amps	
D-1010ATVN	\$439.00	1-15 W	5-100 W	20 amps	
D-3010-N	\$389.00	5-45 W	7-100 W	20 amps	

Commercial Grade Amplifiers

PAC-30-130B \$329 Suggested Retail



B-5030-G

Suggested

Commercial Amplifiers are available for 150-174, 450-470 MHz and VHF marine bands, 70-100 Watts out. Most feature overtemperature 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	\$159.00	.5-3 W	10-30 W	Yes	150-162
Pac 1070B	\$299.00	10-30 W	5-70 W	No	150-174
Pac15100C	\$429.00	5-25 W	5-100 W	No	450-475
Pac30130B	\$329.00	10-30 W	1-100W	No	150-174
M120G	\$199.00	.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



more powerful mobile or base -- 45 **5995** Watts on 2 Meters or 35 Watts on 440 MHz! Get 35 Watts out with just 4 Suggested Retail Watts in!

> **MIRAGE's** exclusive *FullDuplex Amp*TM lets you talk on a band and listen on another band at the same time -- just like a phone conversation (requires compatible HT).

> Features auto band selection, reverse polarity protection, on-air leds, single connector for dual band radios/antennas, free mobile bracket and more! Works with HTs to 7 Watts. Super compact 5Wx11/2Hx5D inches. Draws 7 Amps at 13.8 VDC.

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

Retail

Reach distant repeaters . . . Log onto B-310-G 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 $4^{3}/4x1^{3}/4x7^{3}/4$ inch $2^{1}/2$ pound amplifier that delivers a super powerful 100 Watts.

Free 3 foot handheld to B-310-G coax



cable and mobile bracket!

connect power backward.

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.

excellent heat distribution -- runs cool for

extra long life. Reverse polarity protection

Automatic RF sense transmit/ receive

LEDs show On-Air, receive preamp on

can save your amp and your pride if you

switch makes operation super easy. Low

es lets you select FM/SSB operation,

receive preamp on/off and power on/off.

Like B-34-G but FM only, less preamp,

mobile bracket. Super tiny $3^{1/8}x\hat{1}^{3/4}x4^{1/4}$ in.

input SWR keeps your handheld safe from

overheating. Individual pushbutton switch-

and power on. $5^{1}/4x1^{3}/4x4^{3}/4$ ". Free mobile mount bracket, hardware. B-34, \$79.95.



adaptor. adaptor. connector.

MFJ-7716, MFJ-7718, MFJ-7719,

\$3.95 each. \$3.95 each. \$3.95 each.

SMA female BNC female SO-239

BNC male to SMA male to SMA male to

200 Watts on 2 Meters

HT or mobile radio and get 200 Watts bru-

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

from your HT gives full power output. **High** power input for mobile radios, 10

power output. Custom wrap-around

heatsink gives excellent heat dissipation.

New SMA to BNC Adaptors

or mobile radio. Low power input for hand-

held radios, 250 mW to 10 Watts, .25 Watts in gives 132 Watts output. 3 Watts input

Watts to 50 Watts. 10 Watts input gives 95 Watts output. 50 Watts input gives full

tal output. Talk further, longer, clearer!

\$449°5 Suggested Retail

to your 2 Meter

Add this amp

Two Meter dock-

18 dB GaAsFET preamp, on/off switch, On-air, preamp and Xmit LEDs.

HT Docking Booster B-24-G

\$114⁹⁵ Suggested Retail

ing booster gives 50 Watts out with iust 8 Watts in!

3¹/₄x3¹/₄x4¹/₄ in. Requires 13.8 VDC. Auto band selection, Reverse

Polarity protection and much more.

Choose an adapter to fit your handheld			
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-23/204/73/704/104/728, 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.		

MIRAGE 2-Meter/440 MHz Amplifiers for HTs B-34-G **Custom** wrap around heatsink provides



\$9995 Suggested Retail

> B-34 **79**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 \$99.95 can buy! Here's why:

First-class strip-line techniques and modular construction gives superb RF performance and unsurpassed reliablity.

High gain

ultra low

In Shack

\$139 KP-1/10M

KP-1/6M

KP-1/2M

KP-1/440

noise GaAsFET preamps for receiving weak signals. Select-

able 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.

Low Noise GaAsFET preamps

Mast Mount

\$195 KP-2/10M

KP-2/6M

KP-2/2M KP-2/220 KP-2/440 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	\$579.00	.25-5 W	98 W	50-52
B-1016-R	\$629.00	.25-3 W	130 W	145-148
B-2516-R	\$579.00	.5-10 W	111 W	145-148
C-211-R	\$659.00	.255 W	80 W	223-225
C-1012-R	\$659.00	.25-6 W	96 W	223-225
C-2512-R	\$625.00	.05-15 W	90 W	223-225
D-1010-NR	\$689.00	.25-4 W	80 W	440-450
D-3010-NR	\$659.00	1-15 W	75 W	440-450
D-100-ATVN-R	\$689.00	.25-1 W	52 W	420-450
D-1010-ATVN-R	\$689.00	.25-4 W	80 W	420-450

Accurate 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	FREQ	SWR sens	Power
MP-1	\$235.00	1.8-30 MHz	1-2 Watts	2000 W
MP-2	\$235.00	50-200	1-2 Watts	1500W
MP-3	\$265.00	420-450	5 Watts	150 W
MP-4	\$279.00	1260-1300	1 Watt	1/10/100

Nearest Dealer/Free Catalog: 800-647-1800 Technical: 662-323-8287 Fax: 662-323-6551

MIRAGE COMMUNICATIONS EQUIPMENT 300 Ind'l Park Road, Štarkville, MS 39759

50-54 144-148 220-225 430-450

Frequency

 $(\dot{M}Hz)$

www.mirageamp.com

Vectronics 2 kW *Roller Inductor* **Antenna Tuner**



HFT-1500 Ship Code D

The Vectronics HFT-45995 1500 Roller Inductor Tuner has three continuously variable compo-

nents -- two 4.5 kV capacitors and a roller inductor controlled by a precision crafted

crank handle and a gear driven 5digit 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 SSB 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 byass; 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

\$159⁹⁵ Ship Code B

Get everything



you've ever wanted . . . precise inductance control that rivals roller inductors, the ability to match any real ant-enna, 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*TM 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 \$12.95.

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".

300 Watt Antenna

Vectronics 300 Watt Mobile Tuner

VC-300M \$109⁹⁵ 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.

Dry Dummy Loads

1500 Watt dry Dummy Load

DL-650M, \$74.95. Handles 100 Watts continuous, 1500 Watts for 10 seconds to 650 MHz. Ceramic resistor. SWR< 1.3. SO-239. **DL-650MN**, \$79.95 has N

connector.



DL-300M, \$44.95. 300 Watt dry dummy load. DL-300MN, \$49.95

with N connector. **DL-2500, \$199.95.** 2500 Watts dry dummy load is fan cooled. DC to 150 MHz. DL-2500N, \$199.95 with N connector.

This portable compact anten-

na is perfect for indoor use

by itself or with an external

antenna. Tunes from 300

VLF, AM broadcast, all

KHz to 30 MHz including

for SWL!

radio bands. Great

Tuned Active SWL Antenna

AT-100, \$79.95.

Low Pass TVI

1500 Watts Low Pass TVI Filter

with 21 Segment SSB Bargraph

to VC-300DLP, but has deluxe 21

segment SSB bargraph feature.

VC-300D, \$199.95. Similar

LP-30, \$69.95.

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, **\$139.95.** Handles up to 2500 Watts key down. SO-239 connectors.

Deluxe Iambic CW Keyer

CK-200, \$79.95. 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, \$69.95. Iambic Key Paddles complete with 1/4" plug and cable. KP-200, chrome base of KP-200B, black base.

SWR/Power Meters







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.

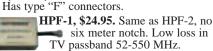
True shielded directional coupler assures accuracy. Backlit meter displays peak or average power in 300/3000W ranges. 5.3x5.75x3.5 inches. SO-239 connectors.

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.







Vectronics high-performance electronic kits . . . fun to build and use!



Comprehensive **Soldering Course Kit.** Designed for schools and individuals. Includes the-

ory, quizzes, PC board and components for soldering practice. Used & endorsed by universities, vo-techs, businesses and others. Order VEC-1500K, \$29.95.



ing 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. 1³/₄x5x6¹/₂". Has antenna wire, earphone. Simple level. Order VEC-121K, \$19.95.

Full featured CW Keyer Kit is the best electronic keyer bargain in radio! Self-completing dot-dashes and dotdash 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. Íambic A or B, fully auto or semi-auto "bug" mode. Sleep Mode battery saver. Use 9V battery. 13/4x4x 31/2 in. Simple skill level. Order VEC-201K, \$24.95.

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 but-

tons. True sinewave sidetone with soft rise and fall time eliminates harsh keyclicks. Has all features of VEC-201K CW Keyer Kit. 1³/₄x 6³/₄ x5¹/₄ in. Simple. Order VEC-221K, \$69.95.

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 tional bands. On/off bypass, NE-602/612 mixer-jacks. 12 VDC at 300 mA. 1³/₄x4³/₄x5¹/₄ in. oscillator IC and tuned input circuit. 9 V battery. Intermediate skill level. VEC-841K, \$34.95.

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. 1³/₄x4x 3¹/₂ in. Simple. VEC-820K, \$19.95.

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. $1^{3}/4$ x4x $3^{1}/2$ in. Simple skill level. Order VEC-821K, \$29.95.

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.

13/4x4x 31/2 inches. Simple skill level. Order VEC-830K, \$19.95.

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. 1³/₄x4³/₄x5¹/₄ in. *Moderate*. **VEC-412K**, \$49.95.

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.



Blinking Tower LED Electronic Badge Kit. Be proud of who you are! Listed in the boy scout badge hand-

book, 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.



Shortwave Receiver Kit lets you listen to the lets you listen to die 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. 2¹/₂x7x6 in. *Intermediate skill level*. **VEC-102K**, **\$69.95**.

2 Meter Monitor Kit receives 144-148 MHz. Low noise, high gain RF preamp gives you excel-

lent 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. 191/4 antenna. 9V battery. 2x41/4x4". Intermediate skill level. Order VEC-104K, \$79.95.

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. 1³/₄x4x3¹/₂ in. *Intermediate*. **VEC-131K**, **\$29.95**.

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 internaoscillator IC and tuned input circuit. 9 V battery. 1³/₄x4x3¹/₂". *Intermediate*. **VEC-101K**, **\$27.95**.



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**.



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 10codes as you find the "real story"

9V battery. Intermediate. VEC-1012K, \$34.95.



Voice Activated Recorder Switch 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.

Counter Surveillance Monitor Kit lets you search out and remove electronic detector. Higher pitch audio occurs when bug is near. 9 V batt. Moderate. VEC-8218K, \$39.95.

The GIANT Book of Electronic Projects Electronic Projects, VEC-1901, \$19.95. Includes 19 kits on this page. Building tips, comboard layouts, test/alignment, more. power supply. Moderate. VEC-1680K, \$99.95.

ORP Transceiver Kits for 80/40/30/20 Meters give you VXO frequency control, broadbanded transmitter circuitry, solid one Watt plus output, shaped keying, .3 uV 2.10 sensitivity, direct conversion receiver. Includes crystal for popular QRP frequency. 13/4x 43/4 x51/4". Intermediate skill level. Order VEC-1380K (80 Meters), VEC-1340K(40 Meters), VEC-1330K (30 Meters), VEC-1320K(20 Meters), \$59.95 each.



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 mixeroscillator, LM386 high gain audio amplifier. 13/4x43/4x 51/4 in.

Moderate skill level. Order VEC-1120K (20 Meters), VEC-1130K(30 Meters), VEC-1140K (40 Meters), VEC-1180K (80 Meters), \$29.95 ea.



20/30/40/80 Meter ORP 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. 13/4 x4x31/2 in. Intermediate skill

level. Order VEC-1220K (20 Meters), VEC-1230K (30 Meters), VEC-1240K (40 Meters), VEC-1280K (80 Meters), \$29.95 each.

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.

1³/x4x3³/z". Intermediate. VEC-1002K (2 Meters), VEC-1006K (6M), VEC-1010K (10M), \$34.95 each.



Easy connection. Audio level adjustment. 1³/₄x4x3¹/₂ inches. Simple skill level. Order VEC-1290K, \$29.95.



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.

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. 1³/₄x4³/₄x 5¹/₄". *Difficult.* **VEC-1202K**, **\$99.95**.



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. 1x1¹/₂". *Simple*. **VEC-1402K** (144 MHz), **VEC-1422K** (220 MHz), **VEC-1444K** (440 MHz), **\$17.95**.

High-performance 2 Meter Preamp Kit pulls weak signals out of noise. Boosts bugs! Highly sensitive wideband receiver signals, provides razor-sharp bandpass filtering, eliminates electrical noises w/built-in balun. 9-14 VDC. 11/2 x3x1". Intermediate. VEC-1402DK, \$59.95.

Vacuum-Tube Preamplifier Kit lets you enjoy the vintage sound of a real 2.000 life vacuum tube preamp. High degree plete parts lists, parts placement, PC of even-harmonic distortion. Includes tube, 110 VAC

www.vectronics.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 . . .



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 VAĈ, 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. Overpower 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 noisey blowers used in other amplifiers. The ALS-600 is a compact $6x9^{1/2}x12$ inches -- takes up less space than your rig! Weighs just 12½ 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 AMER-ITRON feature lets you adjust your output power on the convenient 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 $6x9^{1/2}x12$ 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

ALS-600SPS Works with all ALS-600 amplifiers. Extremely lightweight, just °629 Suggested 10 lbs. Superb regulation, very low Retail radiated noise. 9Wx6Hx14¹/₂D inches.

From QST Magazine, March, 2005

. the ampifier faulted only when it was supposed to. It protected itself from our boneheaded, sleep-deprived band changing manuevers . . .

"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-600 Amp with Switching Power Supply New! ALS-600S, \$1428. ALS-600 amplifier with 10 lb. ALS-600SPS switching power supply combo.

AMERITRON mobile no tune Solid State Amp 500 Watts, Instant bandswitching, no tuning, no warm-up, SWR protected, 1.5-22 MHz...

NEW! ARÍ-500 Amplifier Radio Interface reads transceiver band data -- automatically bandswitches ALS-500M amp . . . NEW! ALS-500RC Remote Head gives total remote control!



Just turn on and operate -- no warm-up,

Ameritron's ALS-500M solid state mobile

no tuning, instant bandswitching. Compact.

amp gives you 500 Watts PEP SSB or 400

(10/12 Meters with MOD-10M, \$29.95 kit,

Virtually indestructible! Load Fault

branches, 18-wheeler passing by. Thermal

Overload Protection disables/bypasses amp

if temperature is excessively high. Auto resets.

put. ON/OFF switch bypasses amplifier for

"barefoot" operation. Extremely quiet fan

Typically 60-70 watts in gives full out-

to operator error, antenna hitting tree

Protection eliminates amplifier damage due

Watts CW output! Covers 1.5-22 MHz,

requires FCC license).

comes on as ALS-500M

needed. Excellent har-Suggested Retail monic sup-

push-pull output, DC current meter. 13.8 VDC/80 Amps. 31/2x9x15 inches. 7 lbs.

Choose ARI-500 for fully automatic bandswitching or ALS-500RC for manual remote control.

New ARI-500, \$119.95, Amplifier Radio Interface reads band data from your transceiver so you can automatically bandswitch your ALS-500M amplifier. See right inset.

New ALS-500RC, \$49, 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, see below).

ALS-500M, \$849, 500 Watt mobile amp.

ALS-500MR, \$879. ALS-500M mobile amp plus ALS-500RC Remote Head.

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.

Let your rig auto bandswitch your ALS-500M Amplifier



Ameritron Ship Code A 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. Lets you mount your ALS-500M out-of-theway in your trunk. 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 left description.

AMERITRON True Legal Limit™ 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.

It's perfect for Ameritron's most powerful amplifiers where the ATR-30 just loafs.

All band coverage lets you operate 1.8-30 MHz including all MARS and WARC hands

Super High Current Roller Inductor

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.



ATR-30

Two 500 pf Tuning **Capacitors**

Two 500 pf -- the highest Suggested Retail 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 capac-

itor tuning smooth and easy.

Super Balun, 6 position Antenna Switch

Super heavy duty three core choke balun lets you match virtually any balanced feedline antenna without core saturation.

A 6 position antenna switch lets you

select your desired operating antenna.

Read true Peak Power

Ameritron's active electronic *true* peak reading meter accurately reads forward and reflected power and SWR simultaneously on a lighted Cross-Needle meter.

Roomy Cabinet maintains High-O

Roomy extra-strong .080 inch thick aluminum cabinet gives highest efficiency and lowest loss. 131/4Wx55/8Hx171/2D inches. Has Ameritron's superb one year limited warranty with legendary customer service.

ATR-20 Antenna Tuner . . . \$459

Handles 1.2 kW PEP SSB. Slightly less on 160 Meters.

 $13^{1}/_{2}Wx5^{1}/_{2}H$

x13¹/₄D 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 HF Mobile "Screwdriver" Antenna

1.2 kW... 3.5-30 MHz continuous ...1.5:1 VSWR...more!



AMERITRON's SDA-100 may be the best built, best looking, best performing HF mobile screwdriver antenna in the world! When properly installed on your vehicle this antenna provides coverage from 80 through 10 Meters with a 6 foot whip. Remove the whip for 40 through 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 antennas apart and mix them up, then reassemble and they all 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 fingerstock 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 AMER-ITRON 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 the sensors already installed so if you decide to add an auto controller now or later, 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.

The SDA-100 comes in a handsome black finish, using the Dupont Basecoat/Clearcoat system.

Optional accessories:

SDM-100, \$75.

Stainless steel flange mount base bracket, with multiple pre-punched holes. The SDA-100 mounting rod is

> a 1-in. pipe thread 14-in. long. Ship Code B. SWP-100, \$19.95.

6-ft stainless steel whip. Combination Price Saves \$!

SDA-110, \$454. Combination of SDA-100 Screwdriver antenna, SDC-100 digital controller, and SWP-100 six foot stainless whip. SAVES \$!!!

www.ameritron.com

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.



Ship Code A

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 slippage and turns count errors.

Ameritron's *Dead-OnSTOP*™ feature eliminates overshoot for dead-on stops.

Ameritron's StallProtector™ 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. 3¹/₂Wx3¹/₄Hx1¹/₄D in.

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.

NDC-100 Digital Screwdriver Controller

4-digit Ship Code A super bright LEDs tell you exactly

where your antenna is positioned! Re-tune exactly -- fast, no guess-



-999 to +999. On/off/reset switch for easy calibration. 4Wx1¹/₂H x2D". Use 13.8VDČ

SRS-100, \$29.95. Magnetic sensor kit for High Sierra antennas. SRS-1001, \$9.95. Magnetic sensor kit for Hi-Q Antennas.

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 anten-



New!

na used for that band.

It has a manual/automatic Suggested Retail 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 8¹/₄Wx2³/₄Hx7D inches, weighs 1.5 lbs. RCS-12, \$299, auto controller with 8 coax relay box, to 100 MHz.

RCS-12L, \$339, auto controller with 8 coax relay box, to 100 MHz, w/lightning arrestors. RCS-12C, \$229, Automatic Remote Antenna Switch Controller only. Compatible with RCS-8V/RCS-10 outdoor relay boxes.

RCS-8V HF to VHF/UHF Remote Coax Switch



Ameri-tron's Remote Coax Switch lets

RCS-8V \$149

you remotely switch up to five separate antennas using one inexpensive small control line (like Suggested Retail 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 labelLightning Protected model RCS-8VL, \$189

ing your antennas.

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, \$159. 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 adapter supplied. **Connectors:** *Teflon*^(R) SO-239 for RĈŜ-8V; "N" for RCS-8VN.

Control Box: 6Dx6¹/8W x2¹/4H inches. Switch Box: 5³/₈Dx7Wx3H inches.

AMERITRON RCS-10 Remote Coax Switch with 8 positions



RCS-10 \$159

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 Suggested Retail relay box will handle over 5 kW into matched loads below 30 MHz.

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 21/4 inches. **Reliable Connectors:** Teflon UHFstyle SO-239 females, internal barrier strip for control lines. Low Voltage: Requires 10-15 Volts at less than 300 mA.

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



Lightning Protected model RCS-10L, \$199



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. **Dimension:** Control Box: 61/4Wx31/4Hx45/8D inches.

Ameritron Amplifier Extended Warranty Plans

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 re-75 sponsible for shipping loss or damage. Call!

AMERITRON . . . The World's High Power Leader

AMERITRON RCS-4 Remote Coax Switch

Now covers 6 Meters . . . improved relays . . . Greater Power Handling!

139 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 I coax line for 4 antennas.

You get two units -- the switching box (53/8Dx7Wx3H inches.) that can be tower. mast or wall mounted and the control console (61/8Dx51/4Wx 33/8H inches.) that is located at your operating station.

The attractive indoor console has bright LED antenna selector indicators.

A steel enclosure provides 100% shielding to prevent RFI and TVI.

Switching time is 50 milliseconds. Teflon^(R) 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

Quality components are used throughout the entire unit to ensure maximum life for the sometimes 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.

Frequencies 1.5 - 60 MHz are covered by this excellent station accessory. Handles 2.5 killoWatts.

Specifications:

4 pos.;

Loss at 30 MHz less than 0.1 dB; VSWR is under 1.25:1, 1.5-60 MHz; Impedance: 50 Ohms:

Power: >2.5 kW average continuous.



AMERITRON has the best selection of high power accessories!

Flat Mobile Wattmeter mounts on dashboard . . . AWM-35, \$15995



Ameritron's flat Mobile Peak Reading

SWR/Wattmeter is just 15/8" 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. "High SWR" LED. $5Wx3^{1/4}Hx1^{5/8}D$ "; sensor is $3^{1/2}Wx2^{3/4}H$

x2³/₄D". Use 9V battery or 12 VDC.



AWM-30 Precision SWR Wattmeter ... \$149°5
This precision SWR/Wattmeter is perfect for making accurate linear amplifier power measurements. Reads true peak or average power on lighted cross-needle meter.3000/300 Watt ranges, remote sensor. Use 9V battery or 12 VDC.

ADL-1500 Dummy Load with oil . . . \$6995

Oil cooled 50 Ohm dummy load handles 1500 Watts for 5 minutes. SWR under 1.2 to 30 MHz. Low SWR to 400 MHz. High quality industrial grade transformer oil (no

PCB), heavy duty 50 Ohm resistor. ADL-**1500X**, **\$49.95**. Dummy load without oil. ADL-2500 Fan cooled 2500W dry dummy load ...\$19995

Whisper quiet fan. Handles any legal limit amplifier -- 2500 Watts average power for 1 minute on, ten off. 300 Watts continuous. SWR below 1.25 to

30 MHz and SWR below 1.4 to 60 MHz.

AMERITRON Amplifier-to-Transceiver Interface



Amplifiers can damage radios if the amplifier has too much relay

\$4995 control voltage, voltage spikes, or excessive current on the ARB-704I2 relay control line.

for IC-706s 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. Designed to work with any amp/radio combo.

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, \$15.95 for following rigs:

LAU	cubic, \$15.75 for following rigs.		
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		
PNP-13D	All models of the IC-706 series		
PNP-7DK	TS-930		
PNP-7DK2	TS-520 A plug-and-play cable is not		
PNP-8MK	TS-480 needed if your radio is not listed.		
PNP-5D	FT-980		
PNP-8DI	ICOM ACC JACK		

QSK-5 Pin Diode Xmit/Receive Switch...\$349

World's most advanced Transmit/Receive Switch. Gives high power QSK operation from your linear amplifier.

Self-contained, connects externally to most HF amps. Handles 2.5 kW PEP, 2 kW CW. Six times faster than vacuum relay. ARF-1000 RF Filter . . . \$159

Use with transceiver or amplifier that produces unwanted harmonics. Frequency select switches to 1 of

six different ranges, 1.5-30 MHz. When the filter is selected it reduces harmonics above cut-off frequency. Handles 1 kW SSB input power, 600W CW or 400W RTTY. SWR less than 1.3:1 on all ham bands. SO-239 in/output. 51/2Wx31/2Hx91/2D". ATP-100 AMP Tuning Pulser . . . \$4995

Pulse tuning safely tunes up your amp for full power output and best linearity. Keeps average power to low safe level to prevent overheating, tube damage, power supply stress and premature component failure. ATP-102, *59°5

similar, variable pulser and delay. Add-on Electronic Bias System. AL-80A/82/1200/1500 Amps

EBS-1, \$39.95. EBS reduces heat by reducing quiescent current to low values during periods when exciter output falls below 100 mW. Features remote detector board. EBS-1H, \$49.95, for other amplifiers. Call 662-323-8211 for details.





ICP-120/240 Inrush Current Protector . . . \$79

Stops power-up inrush current and absorbs momentary high voltage spikes to protect your amp, tubes and power supply components. By starting your linear 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 supply components. Avoids replacing expensive tubes and parts. Works with nearly all linear amplifiers. Limits current to 12

Amperes during heavy draw inrush period, 20 Amperes during continuous operating current. ICP-120, \$79, for 120 Volt wired amplifiers. ICP-240, \$79, for 240 Volt wired amplifiers.

AMERITRON super legal limit amplifiers
These three rugged linears all use a super heavy
duty Hypersil^(R) power supply capable of 2500 Watts!

Ameritron's AL-1500 Amplifier with Eimac^(R) 3CX1500A7



AL-1500 3045 Retail

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 18¹/2D x17Wx10H 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 wattsplus 30 minute PEP two-tone test). You get all this power, plus, 65% efficiency, pi-network tuned input, Pi/Pi-L output, inrush current protection, multi-voltage transformer, QSK compatability, and a one-year warranty.

The guts of the AL-1500 is its heavy duty power supply, with a 32 lb. Peter Dahl Hypersil^(R) trans-former 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.



An inside look at the AMERITRON AL-1500

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.

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 protects the tube from excessive grid current; if 175 mA of peak gric 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™ 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. Usermodifiable for 28 MHz (FCC license required). Size:18¹/₂Dx17Wx10H". 77 pounds. UPS shippable, 3 boxes.

Ameritron's Dual 3-500Z Amplifier



Peter Dahl Hypersil^(R) Transformer weighs 32 lbs.

Ameritron's 3CX1200A7 Amplifier

ply



that's \$2645 in our AL-1500 amplifier Suggested Retail that loafs at full power. A 3CX1200A7 has the low-

est 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 $Eimac^{(R)}$ 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



\$2645

peting amplifiers using 3-500Zs can't give you 1500 Suggested Retail Watts because their light-

weight power supplies can't use these tubes to their full potential. Our AL-82 amplifier uses the same Peter Dahl Hypersil^(R) power transformer and used in the AL-1500 and AL-1200 amplifiers -powerful stuff, just loafs at full power!





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*TM.

AL-80B ***1399** Suggested Retail

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 compatability, twoyear warranty, made in the USA, plus much more!

Dynamic ALCTM doubles average SSB power

The AL-80B's exclusive Dynamic ALC^{TM} 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* BiasTM turns off the classic 3-500 tube (except filaments) between words and dots and dashes,



elininating 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.

Funed 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

exceptionally smooth tuning, extremely wide matching range, full band coverage, and peak performance at all power lev-

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 sepa-

rate 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-

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 waranty.

Weighs 48 lb. Power required: 120 VAC,

12A. Made in the U.S.A.

AL-572 Offers 1300 Watts PEP SSB on HF at Low Cost

AL-572

Suggested

Retail

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 \$1445 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

A fourth scale switches among peak reflected power (and SWR), high voltage, ALC threshold, and ALC output voltage.



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

78

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

Genuine *Eimac*TM tube(s): AL-800 has a single Eimac 3CX800A7; AL-800H has two Eimac 3CX800A7s, adjustable slug-tuned

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 ventilation 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-volt-

age, grid/plate current. Compact 81/2Hx161/2Dx141/4W in. 52 lb. (AL-800H). Power required: 240

VAC, 14 amps (AL-800H).

AL-811 . . . 600 WATTS . . . \$649!

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 ORM!

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 \$649!

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 resists failure because . . . First, they're constructed with widely spaced elements that minimize the chance of elements touching and causing a short -- even if the plate gets hot enough to melt.

Second, they use a directly

heated tho-

Suggested Retail

riated tungsten filament cathode that prevents the electron emitting layer from instantly stripping off -- even if mistuning

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

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

Quiet, powerful

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 be-tween high voltage and plate current to warn of abnormal conditions.

Exclusive Adapt-A-VoltTM 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 in-stantly 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 16Dx13³/₄Wx8 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

Ameritron gives you four 811A tubes, and 800 Watts for the same price as their 3 tube 600W unit . . . Why settle for less power and

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. 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

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 capacirigs can deliver their full drive to the AL-811.

Low loss slug tuned coils -tunable from the rear panel -let you optimize performance. High quality low drift silver mica capacitors maintain proper tuning.

Output tank: Optimum Q on each band

The low loss pi-network output tank has been carefully designed for optimum Q on each band and built with top quality RF components.

The result is peak performance over each band, wide impedance matching range and exceptionally smooth tuning with efficiencies close to 70%.

AMERITRON...the world's high power leader!

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

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 IntelliTunerTM 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 InstantRecallTM first checks its

600 Watt MFJ Automatic Tuner



MFJ-994B ***359**95 Ship Code B

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.

\$25995

Ship Code B 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 meas-

ures 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 10Wx234 Hx9D inches. Use 12 –15 VDC/1 amp or 110 VAC with MFJ-1316, \$19.95.

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.

Dual 300/150 Watt Auto Tuner

MFJ-991B **219**95 Ship Code B



World's First dual power level Tuner
-- Select 300 Watt SSB/CW and match 61600 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 Product Index/Order Forms on pages 60-62

PRSRT STD U.S. Postage PAID MFJ Enterprises, Inc.