

Advertisers Index

Advertising Department Staff

Debra Jahnke, K1DAJ, *Business Services Manager*
Janet Rocco, W1JLR, *Business Services Associate*
Lisa Tardette, KB1MOI, *Business Services Associate*
Diane Szlachetka, KB1OKV, *Advertising Graphic Design*

1-800-243-7768

Direct Line: 860-594-0207 ■ Fax: 860-594-4285 ■ e-mail: ads@arrl.org ■ Web: www.arrl.org/ads

Advanced Specialties	AB-18
Array Solutions	AB-13
Cable X-PERTS, Inc.	AB-6
Dave's Hobby Shop	AB12
EZ Hang	AB-17
Gap Antenna Products, Inc.	AB-11
Ham Radio Outlet	COVER II, COVER III
Hamware.de	AB-18
High Sierra Antennas	AB-7
Hy-Gain	AB-4, AB-5
IIX Equipment, Ltd.	AB-12
KØXG Systems	AB-19
MFJ Enterprises	AB-2, AB-3
NCG Company	AB-15
Quicksilver Radio Products	AB-12
Rohn Products/ Div.of Radian Communication Services, Inc.	AB-16
TGM Communications	AB-21
Teri Software	AB-19
Texas Towers	AB-22
Timewave Technology, Inc.	AB-8
Unadilla Antenna Mfg. Co.	AB-17
Universal Radio	AB-14
W3FF Antennas	AB-10
WBØW, Inc.	AB-9

If your company provides products or services of interest to our readers,
please contact the ARRL Advertising Department today for information on building your business.

MFJ TUNERS

MFJ IntelliTuner™ Automatic Tuners

The MFJ-993B IntelliTuner™ lets you tune any antenna automatically -- 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.

MFJ's exclusive IntelliTuner™, Adaptive Search™ and Instant Recall™ 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



MFJ-993B
\$259⁹⁵

amp/1000V relays.

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! 10W x2 3/4 Hx9D". Use 12-15 VDC/1 amp or 110 VAC with MFJ-1316, \$21.95. Radio interface cables, remote control available. See www.mfjenterprises.com

600 Watt MFJ Automatic Tuner



Like MFJ-993B but handles 600 Watts SSB/CW, matches 12-800 Ohms. 10,000 memories. Does not have LCD display, antenna switch, 4:1 current balun, audio SWR meter/feedback. 10Wx2 1/4 Hx9D in.

MFJ-994B
\$359⁹⁵

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

More hams use MFJ tuners than all other tuners in the world!

MFJ-9982 2500 Watt Tuner



The MFJ-9982 ContinuousCarrier™ antenna tuner handles 2500 Watts continuous carrier output on all modes and all HF bands into most unbalanced antennas - even 160 Meters. 6-position antenna switch, 4-core balun, 1.5kW dummy load, true peak/average SWR/Wattmeter, 13 3/4 Wx7 Hx6 1/4 D".

MFJ-9982
\$699⁹⁵

MFJ-989D Legal Limit Tuner



tuner gives you better efficiency, lower losses and a new true peak reading meter. Easily handles full 1500 Watts SSB/CW, 1.8-30 MHz, including MARS/WARC bands. Six position antenna switch, dummy load. New 500 pF air variable capacitors. New improved AirCore™ Roller Inductor. New high voltage current balun. New crank knob. 12 7/8 Wx6 Hx11 3/8 D".

MFJ-989D
\$369⁹⁵

MFJ-962D compact kW Tuner



A few more dollars steps you up to a KW tuner for an amp later. Handles 1.5 KW PEP SSB amplifier input power (800W output). Ideal for Ameritron's AL-811H! AirCore™ roller inductor, gear-driven turns counter, pk/avg lighted Cross-Needle SWR/Wattmeter, antenna switch, balun, Lexan front, 1.8-30MHz. 10 1/2 Wx4 1/2 Hx10 1/8 D in.

MFJ-962D
\$279⁹⁵

MFJ-969 300W Roller Inductor Tuner Superb

AirCore™ Roller Inductor tuning. Covers 6 Meters thru 160 Meters!

300 Watts PEP SSB. Active true peak reading lighted Cross-Needle SWR Wattmeter, QRM-Free PreTune™, antenna switch, dummy load, 4:1 balun, Lexan front panel. 10 1/2 Wx3 1/2 Hx9 1/2 D inches.

MFJ-969
\$199⁹⁵

MFJ-949E deluxe 300 Watt Tuner

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

Handles 300 Watts. Full 1.8 to 30 MHz coverage, custom inductor switch, 1000 Volt tuning capacitors, full size peak/average lighted Cross-Needle SWR/ Wattmeter, 8 position antenna switch, dummy load, QRM-Free PreTune™, scratch proof Lexan front panel. 10 3/8 Wx3 1/2 Hx7 D inches.

MFJ-949E
\$169⁹⁵

MFJ-948, \$139.95. Economy version of MFJ-949E, less dummy load, Lexan front panel.

MFJ-941E super value Tuner

The most for your money!

Handles 300 Watts PEP, covers 1.8-30 MHz, lighted Cross-Needle SWR/ Wattmeter, 8 position antenna switch, 4:1 balun, 1000 volt capacitors, Lexan front panel. Sleek 10 1/2 Wx2 1/2 Hx7 D".

MFJ-941E
\$129⁹⁵

MFJ-945E HF/6M mobile Tuner

Extends your mobile antenna bandwidth so you don't have to stop, go outside and adjust your antenna. Tiny 8Wx2Hx6D in. Lighted Cross-Needle SWR/Wattmeter. Lamp and bypass switches. Covers 1.8-30 MHz and 6 Meters. 300 Watts PEP. MFJ-20, \$6.95, mobile mount.

MFJ-945E
\$119⁹⁵

MFJ-974HB Balanced Line Tuner

The MFJ-974HB true fully balanced antenna tuner tunes any balanced lines. Matches 12-2000 Ohms. Covers 1.8-54 MHz continuously including all WARC bands. 300 Watts SSB/150 Watts CW. Lighted Cross-Needle SWR/Wattmeter. 7 1/2 Wx6 Hx8 D in.



MFJ-974HB
\$199⁹⁵

MFJ-976, \$499.95. 1500 Watt fully balanced antenna tuner. 1-30 MHz.

MFJ-971 portable/QRP Tuner

Tunes coax, balanced lines, random wire 1.8-30 MHz. Cross-Needle Meter. SWR, 30/300 or 6 Watt QRP ranges. Matches popular MFJ transceivers. 6Wx6 1/2 Hx2 1/2 D in.



MFJ-971
\$109⁹⁵

MFJ-902 Tiny Travel Tuner

Tiny 4 1/2 Wx2 1/4 Hx3 D", full 150 Watts, 80-10 Meters, has tuner bypass switch, for coax/random wire.



MFJ-902
\$89⁹⁵

MFJ-904H, \$139.95. Same but adds Cross-needle SWR/Wattmeter and 4:1 balun for balanced lines. 7 1/4 Wx2 1/4 Hx2 3/4 D in.

MFJ-16010 random wire Tuner

Operate all bands anywhere with MFJ's reversible L-network. Turns random wire into powerful transmitting antenna. 1.8-30 MHz. 200 Watts PEP. Tiny 2Wx3Hx4D inches.



MFJ-16010
\$59⁹⁵

Dealer/Catalog/Manuals

Visit: <http://www.mfjenterprises.com> or call toll-free 800-647-1800

• 1 Year No Matter What™ warranty • 30 day money back guarantee (less s/h) on orders direct from MFJ
MFJ ENTERPRISES, INC.
300 Industrial Pk Rd, Starkville, MS 39759 PH: (662) 323-5869
Tech Help: (662) 323-0549
FAX: (662) 323-6551 8-4:30 CST, Mon-Fri. Add shipping.
Prices and specifications subject to change. (c) 2007 MFJ Enterprises, Inc.

MFJ-259B Antenna Analyzer

The world's most popular antenna analyzer gives you a complete picture of your antenna performance 1.8 to 170 MHz. Super easy-to-use -- makes tuning your antenna quick and easy. Read antenna SWR, complex impedance, return loss, reflection coefficient. Determine velocity factor, coax cable loss in dB, length of coax and distance to a short or open in feet. 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 MFJ-259B
reduction **\$279⁹⁵**
drive tuning.

MFJ-99B, \$88.80. Accessory Package for MFJ-259B. Includes MFJ-29C custom foam-filled carrying case, MFJ-66 dip meter adapters, MFJ-1312D 110VAC adapter and 10-pack high capacity Ni-MH MFJ SuperCell™ batteries. *Save \$7!*



**1.8-170 MHz plus
415-470 MHz
Antenna Analyzer**

All-in-one handheld MFJ-269
antenna test lab lets **\$379⁹⁵**
you quickly
check/tune HF, VHF, UHF antennas any-
where. Measures: SWR, Return Loss, Re-
flection Coefficient, R, X, Z, Phase Angle,
Coax cable loss, Coax cable length, Distance
to short/open in coax, Inductance, Capac-
itance, Resonant Frequency, Bandwidth,
Q, Velocity Factor, Attenuation, more!



MFJ Weather-Proof Antenna Feedthrough Panel

Bring three coax-fed HF/VHF/UHF antennas, balanced line, random wire and ground into your hamshack without drilling through walls... **New!** MFJ-4602 **\$59⁹⁵**

MFJ's Weather-proof Antenna Feedthrough Panel mounts in your window sill. Lets you feed three coax-fed antennas, balanced line, random wire and ground without drilling through walls.

Simply place in window sill and close window. One cut customizes it for any window up to 48 inches. Use horizontally or vertically. High-quality pressure-treated wood with excellent 3/4 inch thick insulating properties is painted with heavy coat of white outdoor enamel paint. Edges sealed by weather-stripping. Seals

and insulates against all weather conditions. Gives years of trouble-free service. 3/4"Dx3 1/2"Hx48"W in.

Inside/outside stainless steel plates bond all coax shields to ground. Stainless steel ground post brings outside ground connection inside. 3 Teflon® SO-239 coax connectors, ceramic balanced line/randomwire feedthru insulators.



Current Balun/Center Insulator

MFJ-918 **\$24⁹⁵** True 1:1 Current Balun/Center Insulator forces equal antenna currents in dipoles! Improves all dipoles/doublets! Reduces coax feed-line radiation, field pattern distortion, TVI, RFI, RF hot spots. SO-239. 1.8-30 MHz, 1.5kW. Stainless steel hardware. Direct wire connection to antenna. 5x2 inches.

Antenna Switches

MFJ-1702C 2 position antenna coax switch. Exclusive lightning arrestor and center pos. ground, lightning arrestor. 2.5 kW PEP, 1 kW CW. Loss below .2 dB. 50 dB isolation @ 450 MHz. 50 Ohms. 3x2x3". MFJ-1704. Like MFJ-1702C but has 4 positions. 6 1/4x4 1/4 x1 1/4 in. 50 load. SWR 1.1: 1 to 30 MHz; 1.5:1, 30-650 MHz. SO-239. **\$74⁹⁵**

All Band G5RV Antennas

160-10 Meters with tuner. 102 foot. 1.5 kW. Use as Marconi on 160 Meters with tuner/ground. Ladder line/SO-239. MFJ-1778M, **\$34.95.** Half-size, 52 ft. G5RV-Jr. 60-10 Meters with tuner. 1.5 kW. **\$39⁹⁵**

33 Foot fiberglass Mast

MFJ-1910 **\$79⁹⁵** 33 foot super strong fiberglass telescoping mast collapses to 3.8 feet, weighs 3.3 lbs. Huge, strong 1 1/4 inch bottom section. Flexes to resist breaking. Resists UV. Put up full size inverted Vee dipole/vertical antenna in minutes and get full size performance!

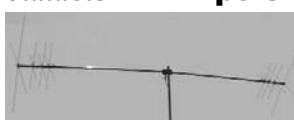
MFJ-915 RF Isolator

MFJ-915 **\$29⁹⁵** MFJ-915 RF Isolator prevents unwanted RF from traveling on the outside of your coax shield into your transceiver. Clears up RFI. Eliminates painful RF "bites" on your rig or microphone. Keeps your transceiver and vehicle displays and settings from locking up. Plugs between coax and transceiver. 5x2 inches. 1.8-30 MHz, 1.5 kW.

6-Band Rotatable mini-Dipole

MFJ-1775 **\$239⁹⁵** Low-profile mini 14 foot rotatable dipole has tiny 7-foot turning radius. Fits on smallest roof -- perfect for town houses, apartments and condos. Easily turned by TV rotator. It's no Wimp! Good directivity reduces QRM/noise and lets you focus your signal in the direction that you want -- so you can work some real DX.

Operate 40, 20, 15, 10, 6, 2 meters. Run full 1500 Watts SSB/CW on all HF bands! Ham radio's most versatile rotatable dipole features automatic band switching. Uses highly efficient end-loading with its entire length always radiating. No lossy traps! Has separate, efficient end-loading Teflon™ coils on fiberglass forms and capacitance hats for each HF band. 6/2 Meters are full-length dipoles. Built-to-last -- super strong solid fiberglass center insulator, 6063 T-6 aircraft strength aluminum tubing. Assembles in an afternoon. MFJ-1775W, **\$239.95.** WARC band version for 12, 17, 30, 60 Meters only.



MFJ W9INN Balun Box

Converts unbalanced MFJ-912 **\$59⁹⁵** coax line to balanced ladder transmission line. Giant 2-core 4:1 balun wound with Teflon® wire. 3 1/4x2 1/4x7 inches. Heavy duty ceramic feed-through insulators. 1500 Watts full legal limit. SO-239. Ground post, mounting holes.

MFJ Field Strength Meters

Huge 3" meter. Tele-scoping ground-independent dipole. .1-500 MHz. Sensitivity control. Remote sensor, MFJ-802R, **\$24.95.** MFJ-801, **\$24.95.** Monopole field strength meter, 1 1/4" meter. **\$44⁹⁵**

Clamp-On RF Ammeter

MFJ-854 **\$109⁹⁵** Clamp-On RF Ammeter snaps over cables up to 1/2 inch diameter. Measure RF currents in antenna elements, radials, ground wires, coax shield. Five calibrated ranges to 3 Amps. 1-30 MHz. 2 1/2Wx5 1/2Hx1 1/2D inches.

Free MFJ Catalog
and Nearest Dealer... 800-647-1800

<http://www.mjenterprises.com>

• 1 Year No Matter What™ warranty • 30 day money back guarantee (less s/h) on orders direct from MFJ

MFJ ENTERPRISES, INC.
300 Industrial Pk Rd, Starkville,
MS 39759 PH: (662) 323-5869
Tech Help: (662) 323-0549

FAX: (662) 323-6551 8-4:30 CST, Mon.-Fri. Add shipping. Prices and specifications subject to change. © 2007 MFJ Enterprises, Inc.

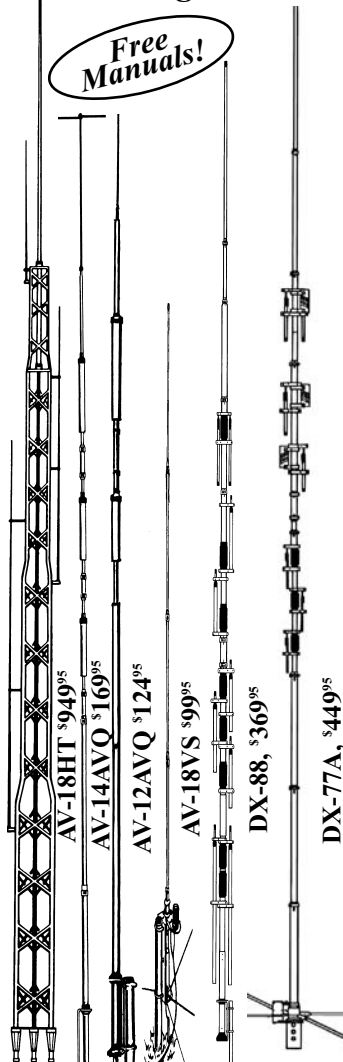
Special Advertising Section **AB-3**

hy-gain[®] HF VERTICALS

Self-supporting -- no guys required . . . Remarkable DX performance -- low angle radiation, omnidirectional . . . Handles 1500 Watts . . . Low SWR . . . Automatic band switching . . . Aircraft quality aluminum tubing . . . Stainless steel hardware . . .

Recessed SO-239 connector . . . Two year limited Warranty . . .

Free Manuals!



hy-gain[®] Classics

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 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. Two year limited warranty.

AV-18HT, \$949.95. (10,12,15,20,40,80 M, 160, 17 Meters optional). 53 ft., 114 lbs.

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. The addition of a base loading coil (LC-160Q, \$109.95), provides exceptional 160 Meter performance. **MK-17, \$89.95.** Add-on 17 Meter kit. 24 foot tower is all rugged, hot-dip galvanized steel and all hardware is iridized for corrosion resistance. Special tilt-over hinged base for easy raising & lowering.

AV-14AVQ, \$169.95. (10,15,20,40 Meters). 18 ft., 9 lbs. The Hy-Gain AV-14AVQ uses the same trap design as the famous Hy-Gain Thunderbird beams. Three separate air dielectric Hy-Q traps with oversize coils give superb stability and 1/4 wave resonance on all bands. Roof mount with Hy-Gain AV-14RMQ kit, \$89.95.

AV-12AVQ, \$124.95. (10, 15, 20 Meters). 13 ft., 9 lbs. 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. Roof mount with AV-14RMQ kit, \$89.95.

AV-18VS, \$99.95. (10,12,15,17,20,30,40,80 Meters). 18 ft., 4 lbs. 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.

DX-88, \$369.95. (10, 12, 15,17,20,30,40,80 Meters, 160 Meters optional). 25 ft., 18 lbs.

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. DX-88 OPTIONS: 160 Meter add-on kit, KIT-160-88, \$199.95. Ground Radial System, GRK-88, \$99.95. Roof Radial System, RRK-88, \$99.95.

DX-77A, \$449.95. (10, 12, 15, 17, 20, 30, 40 Meters). 29 ft., 25 lbs.

No ground radials required! Off-center-fed Windom has 55% greater bandwidth than competitive verticals. Heavy-duty tiltable base. Each band independently tunable.

hy-gain[®] PATRIOT

Hy-Gain's new PATRIOT HF verticals are the best built, best performing and best priced multiband verticals available today. For exciting DX make full use of your sunspot cycle with the PATRIOT's low 17 degree angle signal.

No ground or radials needed
Effective counterpoise replaces radials and ground.

Automatic bandswitching
Single coax cable feed. Each band is individually tunable. Extra wide VSWR bandwidth. End fed with broadband matching unit.

Sleek and low-profile
Low 2.5 sq. ft. wind surface area. Small area required for mounting. Mounts easily on decks, roofs and patios.

Full legal limit
Handles 1500 Watts key down continuous for two minutes.

Built-to-last
High wind survival of 80 mph. Broadband matching unit made from all Teflon[®] insulated wire. Aircraft quality aluminum tubing, stainless steel hardware.

hy-gain[®] warranty
Two year limited warranty. All replacement parts in stock.

AV-640, \$399.95. (6,10,12, 15,17,20,30,40 Meters). 25.5 ft., 17.5 lbs. The AV-640 uses quarter wave stubs on 6, 10, 12 and 17 meters and efficient end loading coil and capacity hats on 15, 20, 30 and 40 meters -- no traps. Resonators are placed in parallel not in series. End loading of the lower HF bands allows efficient operation with a manageable antenna height.

AV-620, \$299.95. (6,10,12,15,17,20 Meters). 22.5 ft., 10.5 lbs. The AV-620 covers all bands 6 through 20

Meters with no traps, no coils, no radials yielding an uncompromised signal across all bands.

Free Hy-Gain Catalog

and Nearest Dealer . . . 800-973-6572

Call your dealer for your best price!

hy-gain[®]

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[®], 2006.

Model #	Price	Bands	Max Power	Height	Weight	Wind Surv.	Rec. Mast
AV-18HT	\$949.95	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	\$134.95	10/15/20 M	1500 W PEP	13 feet	9 pounds	80 MPH	1.5-1.625"
AV-18VS	\$99.95	10 - 80 M	1500 W PEP	18 feet	4 pounds	80 MPH	1.5-1.625"
DX-88	\$369.95	10 - 40 M	1500 W PEP	25 feet	18 pounds	75 mph no guy	1.5-1.625"
DX-77A	\$449.95	10 - 80 M	1500 W PEP	29 feet	25 pounds	60 mph no guy	1.5-1.625"

Antennas built-to-last . . . Use hy-gain parts!

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.



BN-4000B, \$109.95.
Broadband 50 Ohm Yagi current balun is potted to seal out moisture. Rated at 4000 Watts for increased power handling capabilities. 1 to 54 MHz. SO-239 connector. **BN-4000D, \$109.95.** dipoles. **BN-4000N, \$119.95.** "N" connector.

It provides improved front-to-back ratio. Comes with clamp to bolt to boom, SO-239 connector.

hy-gain Center Dipole Insulators



C-1, \$29.95.
Center Insulator for multiband dipole antenna.



C-1C, \$29.95.
Similar to C-1, but has SO-239 antenna connector.

E-1, \$6.95.

6 inch super high-power, high-voltage end insulator for Multi-band doublet antenna. Set of 2.



Arrowpoint Anchor



APA-3, \$14.95. Up to 2000 lbs. pull-out resistance to secure antennas, towers. Use one per guy wire. **DR-3, \$29.95.** Drive Rod.

Glazed Ceramic Insulator

E-2 \$79¢ each **E-26 \$4.56 6-Pack**

Extra-strong -- will not break, arc over or melt even under full legal power. Molded ridges give extra-long path to prevent high-voltage breakdown.



Ground Rod

Durable four foot by 3/8 inch diameter copper

bonded steel earth ground rod. Sharp point makes it easy to insert into ground. Bleed off static/RFI. Prevent RF hot spots. Use several to form a good RF ground.

hy-gain Rotator

World's most rugged rotator! Many in use after 25 years. Highly resistant to lightning, static, RFI. Bell design gives total weather protection. 15 sq. ft. wind-load, 5-sec. brake delay, 5000 in-lb steel wedge brake, ring gear handles 100,000 PSI, dual 98 ball bearing race, -30° F operation. Max mast 2 1/8"



HAM-IV \$559.95

hy-gain Aluminum Tubing

6063 T832 round, drawn aluminum tubing sold in 2 styles: 6' standard or 6' slitted one end, (.083" gaps, 1-2" slit lengths).

Tubing are sized to allow telescoping into one another from .625 OD to 2 inches OD. Select slitted tubing for telescoping. Use Hy-gain Stainless Steel hose clamps to secure.

OD x Wall-Th x ID	6'strnd; p/n, price/ea	6'slitt; p/n, price/ea.	Ad'l/ft.
.625"x.035"x.555"	810-0625C-6U, \$5.70	810-0625C-6S, \$6.90	\$1.00
.750"x.058"x.634"	810-0750E-6U, \$10.55	810-0750E-6S, \$12.66	\$1.85
.875"x.058"x.759"	810-0875E-6U, \$8.72	810-0875E-6S, \$9.92	\$1.53
1.000"x.058"x.884"	810-1000E-6U, \$11.46	810-1000E-6S, \$12.66	\$2.01
1.125"x.058"x1.009"	810-1125E-6U, \$10.03	810-1125E-6S, \$11.73	\$1.76
1.250"x.058"x1.134"	810-1250E-6U, \$11.57	810-1250E-6S, \$12.27	\$2.03
1.375"x.058"x1.259"	810-1375E-6U, \$13.17	810-1375E-6S, \$14.37	\$2.31
1.500"x.058"x1.384"	810-1500E-6U, \$17.95	810-1500E-6S, \$19.16	\$3.15
1.625"x.058"x1.509"	810-1625E-6U, \$21.32	810-1625E-6S, \$22.52	\$3.74
1.750"x.058"x1.634"	810-1750G-6U, \$27.86	810-1750G-6S, \$29.62	\$4.88
2.000"x.120"x1.760"	810-2000I-6U, \$38.93	810-2000I-6S, \$41.03	\$6.83

hy-gain Stainless Steel Hose Clamps

Part No.	Price	Description
745-3106S	\$1.00	#6 Clamp for .75" OD to .875" OD tubing
745-3110S	\$1.00	#10 Clamp for 1" OD to 1.125" OD tubing
745-3116S	\$1.25	#16 Clamp for 1.25" OD to 1.50" OD tubing
745-3128S	\$2.84	#28 Clamp for 1.75" OD to 2" OD tubing



hy-gain Telescopic Aluminum Mast

ATM-65, \$199.95. Pictured left. 11-section multi-purpose aluminum telescopic pole can be used as a vertical antenna or as a mast. Great for portable, temporary use and permanent use -- traveling, camping, etc. Includes one size of each slitted tube listed above and ten hose clamps. 65 ft. fully extended, 6 ft. collapsed without clamps. Guying required if mast is extended beyond 30 feet. Top section is .625" OD. Bottom section is 2 inches OD x .120 wall.

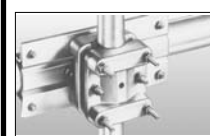
810-2000I-6W, \$44.95 each. Unique tubing has one end slitted and one end swaged to make it stackable. Slide one end into another tubing for longer poles. Secure with standard host clamp. Strong, 2"OD x .120" wall. Good for base sections of vertical antennas. Standard 6-ft. length, longer sections, to 20 ft. available. Add \$6.83 each add'l foot. 6 ft. lengths ship by UPS, longer units must ship UPS oversize/truck.

hy-gain Base Mount Assembly Kit

ATM-65 \$199.95 **877200, \$69.95.** New! Complete ATM-65 base assembly kit with base mounting plate, insulators, hardware.



hy-gain Custom Precision Antenna Hardware



BMC-249, \$79.95. Boom to Mast Clamp
Heavy duty 1/4" OD thick aluminum die casted boom to mast clamp designed for heavy antennas. Supports 2-inch boom antennas, such as the TH-11DX, Long John Monobanders and other beams with a 2" boom. The BMC-249 allows mast to extend past the top of the clamp. This feature allows stacking of several antennas on one mast. Clamp is adjustable for mast sizes from 1/4" to 2 3/4" OD. The tilt-over feature permits easy assembly of the elements and simplifies maintenance of the antenna. 4Wx4Hx1 1/4" thick. Kit comes complete with stainless steel hardware.



Element to Boom Clamps
Made from high tensile strength aluminum alloy. Custom die is used to stamp these clamps. No miss-drilled holes. They fit perfect everytime. Required 2 clamps per element. Element Insulators available (left).

Element Insulators These element insulators are made to fit the element bracket (right). Precision injection molded with black UV resisted ABS plastic.

Part No.	Price	Fits these Element sizes	Insulator Size	Fits Element to boom clamp
465216	\$3.42	7/16" OD	7/16" OD x 2 1/2"	163409
461057	\$4.40	3/8" OD	1 1/4" OD x 3"	165919
463767	\$4.40	7/8" OD	1 1/4" OD x 3"	165919
465833	\$4.80	1 1/4" OD	1 1/2" OD x 4"	165920

hy-gain TH-series HF Beam Trap Caps

A. 464723, \$.75 ea. Trap caps, for large Hy-gain TH-series traps. **B. 466221, \$1.59 ea.** Trap caps for Hy-gain TH-3Jr. traps.



hy-gain Vertical Antenna Hardware
A. 463011, \$14.00. Base tubing insulator, fits 1/2" OD tube. Six 3/16" mounting holes. Super strong fiberglass filled ABS. Used in Hy-tower to isolate tower legs from ground. Tubing not included.
B. 877130, \$28.64. Vertical antenna bracket assembly. Includes bracket (C), base cover insulator (D), support insulator (E) and SO-239. Fits 1 1/4" tubing. Tubing not included.
C. 160043-1, \$11.84. Base mount bracket. Custom-tooled 1/8" thick x 12 inch length aluminum bracket with vertical ridges for super strength. Pre-punched holes for SO-239 or N-connector.
D. 863427, \$6.90. Base tubing insulator. Molded pin connects base tubing to SO-239 or N-connector.
E. 463056, \$3.12. Base antenna support insulator. Made to fit top support of antenna bracket (C). Hole fits 1/4" OD tubing.
F. 460316, \$12.96. Tubing coupler/insulator. Used to couple/insulate 1" tube to 3/8" tubing. Made of fiberglass filled ABS, 5" long.

hy-Gain Tower Bases

Specialty designed for hy-gain crank-up towers. Complete with base hinge and foundation welded steel-cage. Specify tower model. *Shipped by truck, call for quote.

Model#	Tower	Price	Weight
TB-37	HG-37SS	\$299.95	50 lbs.*
TB-52	HG-52SS	\$299.95	80 lbs.*
TB-54	HG-54HD	\$299.95	90 lbs.*
TB-70	HG-70HD	\$349.95	102 lbs.*

Free hy-gain Catalog and Nearest Dealer . . . 800-973-6572
Call your dealer for your best price!

hy-gain®

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®, 2007.

Andrew Cinta® Cable Assemblies



ANDREW® Cinta CNT-600



HALF INCH SIZE SHOWN

Connector: **N, PL259, TNC & 7/16**, Burial: **Yes**, UV Resistant: **Yes**.
 Shields: **2** (100% bonded foil +90% TC Braid) VP 87%, Attenuation 3.9dB @ 2 GHz at 100ft.
 Usage 450 MHz and Higher.

PL259 CONNECTORS EACH END

Part #	Footage	Price
600C125	125 ft	\$235.95
600C100	100 ft	\$205.95
600C75	75 ft	\$175.95
600C50	50 ft	\$145.95
600C25	25 ft	\$115.95
600C3	3 ft	\$ 88.95

"N" MALE CONNECTORS EACH END

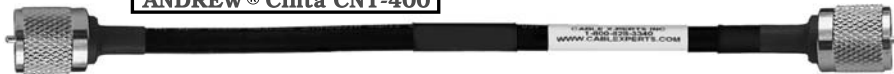
Part #	Footage	Price
600N100	100 ft	\$168.95
600N75	75 ft	\$139.95
600N50	50 ft	\$108.95
600N25	25 ft	\$ 77.95
600N15	15 ft	\$ 66.49
600N6	6 ft	\$ 55.49

PL259(UHF) TO "N" MALE CONNECTOR

Part #	Footage	Price
600CN100	100 ft	\$187.95

Or CREATE YOUR OWN CUSTOM LENGTH ON-LINE.

ANDREW® Cinta CNT-400



RG8U SIZE SHOWN

Connector: **N, PL259, TNC, SMA, BNC & QMA**, Burial: **Yes**, UV Resistant: **Yes**.
 Shields: **2** (100% bonded foil +90% TC Braid) VP 85%, Attenuation 6.0dB @ 2 GHz at 100ft.
 Usage 450 MHz and Higher.

PL259 CONNECTORS EACH END

Part #	Footage	Price
400C100	100 ft	\$ 82.49
400C75	75 ft	\$ 63.95
400C50	50 ft	\$ 45.49
400C25	25 ft	\$ 27.49
400C6	6 ft	\$ 14.95
400C3	3 ft	\$ 11.95

"N" MALE CONNECTORS EACH END

Part #	Footage	Price
400N50	50 ft	\$ 54.95
400N6	6 ft	\$ 22.95
400N3	3 ft	\$ 20.95

Or CREATE YOUR OWN CUSTOM LENGTH ON-LINE.

ANDREW® Cinta CNT-240



RG8X SIZE SHOWN

Connector: **N, PL259, TNC, SMA, BNC & QMA**, Burial: **Yes**, UV Resistant: **Yes**.
 Shields: **2** (100% bonded foil +90% TC Braid) VP 84%, Attenuation 3.0dB @ 150 MHz at 100ft.
 Usage 1 MHz and Higher.

PL259 CONNECTORS EACH END

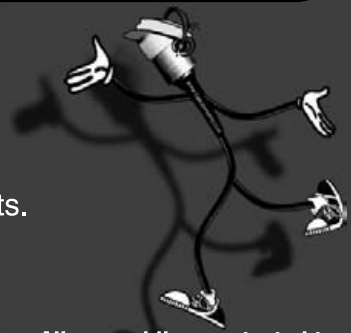
Part #	Footage	Price
240C6	6 ft	\$ 14.75
240C3	3 ft	\$ 12.95

Or CREATE YOUR OWN CUSTOM LENGTH ON-LINE.

Prices subject to change without notice or obligation.

What makes us better than the competition?

- Quality products at competitive prices.
- Prompt service and customer attention.
- State-of-the-art cable assembly manufacturing facility.
- Stringent quality control to ensure top-quality finished products.
- A large inventory of raw materials.
- Short lead times on custom cable assemblies.
- Experienced engineering and knowledgeable sales staff.
- Centrally located in the Chicago area.



All assemblies are tested to ensure optimum performance.

Many more cables listed on-line
www.cablexperts.com
 or call: **800-828-3340**





www.cq73.com

High Sierra AntennAs

Professional Antennas for the Amateur Since 1993



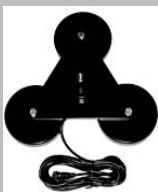
HF Transceiver Speaker



HF Antenna Tripod Deluxe



HF Antenna Stake Hole Mount



HF Antenna Magnet Mount

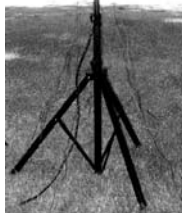


HF, WX, AM, FM, TV
Solar, Battery, AC
Crank Powered
Radio

Explore All of HF with Your Sidekick Antenna



Motor Driven Remotely Tunes 75 to 6 Meters
160 Meters with an 8 Foot Whip & Six Shooter Capacity Hat
1.5:1 or Less Typical SWR
Rated at 200 Watts
Includes 3 Foot Stainless Black Whip & Standard Controller
Can Be Used Just About Anywhere!
No Hazardous Beryllium
Weighs Less Than 3 Pounds
EZ-Tune Controllers Available
See Our Website www.cq73.com for Package Deals

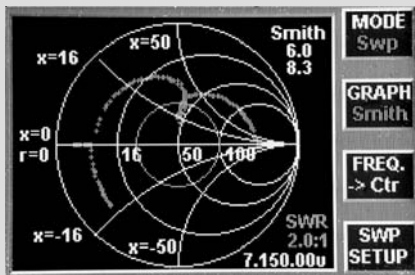
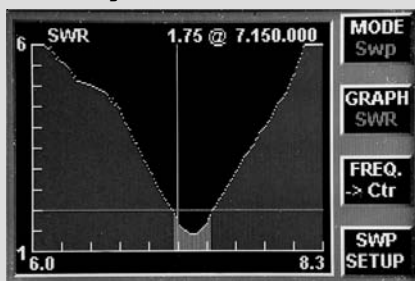


High Sierra AntennAs
530-273-3415 www.cq73.com
See Our New Website with Lots of HF Products

Introducing the... **AntennaSmith™!**



Patent Pending



TZ-900 Antenna Impedance Analyzer

2 Sec Sweeps, Sweep Memories, 1 Hz steps, Manual & Computer Control w/software, USB, low power. Rugged Extruded Aluminum Housing - Take it up the tower!

- Full Color TFT LCD Graphic Display
- Visible in Full Sunlight
- 0.2 - 55 MHz
- SWR
- Impedance (Z)
- Reactance (r+jx)
- Reflection coefficient (ρ , θ)
- Smith Chart



Rev. 2
Now Shipping!

**Check Your Antennas and Transmisson Lines
Once you use the TZ-900 -
you'll never want to use any other!**

and... our new line-up

Data & Rig Control:

- **HamLinkUSB™ Rig Control Plus**
TTL serial interface with PTT
- **U232™ RS-232-to-USB Adapter**
Universal Conversion Module
replaces PCB-mount DB-9 & DB-25
- **PK-232/USB Multimode Data Controller**
(upgrades available)
- **PK-96/USB TNC**
(upgrades available)

- **HamLinkBT-Lite™ Bluetooth Rig Control**
Coming soon for your radio!
- **HamLinkBT™ Bluetooth
Wireless Remote Control Head**
Coming soon for Kenwood, Icom & Yaesu!

Noise & QRM Control:

- **DSP-599zx Audio Signal Processor**
- **ANC-4 Antenna Noise Canceller**

From the Timewave Fountain of Youth - Upgrades for many of our DSP & PK products. Call Us Now!



Ginpole for Rohn 25-55 and round leg towers up to 2" O.D. Shown here with optional base pulley. Also ginpoles for BX type Towers.

KENDOO Batteries

WBØW, INC.

800-626-0834

816-364-2692 • Fax 816-364-2619
P.O. Box 8547, St. Joseph, MO 64508

WWW.WBØW.COM

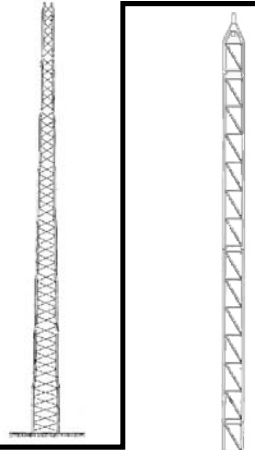
E-mail **WBØW@WBØW.COM**

Tower Insulators for Rohn 25G
\$399.00



Nifty! Reference Guides
Free Shipping in Continental U.S.

BX Tower & Accessories



ROHN/Radian Tower & Accessories
25G/45G/55G \$99/199/259

RF Connectors

TURBO TUNER \$239.00
Automatic Motorized Antenna Controller

ARRL Books, Cd's, & Study Guides
25% off if you mention ARRL Antenna Handbook Ad!

TarheelAntennas

Get the quality that only CNC machined blueprinted components in either aircraft aluminum or stainless steel can offer.

ANTENNA SPECIFICATIONS

Little Tarheel II * 3.5 Mhz-54.0 MHz * 200 watts PEP * 1-1/4" coil
16" base * 32" whip * 1.9 lbs * 48" @ 54.0 MHz * 54" @ 3.5 MHz

Model 75 "Stubby" * 3.7 Mhz - 34.0 MHz * 400 watts PEP * 2" coil
16" base * 6' whip * 5.5 lbs * 7' 6" @ 54 MHz * 8' @ 3.5 MHz

Model 100 * 3.4 Mhz - 30.0 * 1.5 Kw PEP * 2" coil * 3' base * 6' whip
8 lbs * 9' 4" tall @ 30.0 MHz * 12' tall @ 3.5 MHz

Model 200 * 3.4 Mhz - 28.0 MHz * 1.5 Kw PEP * 2" coil * 4' base
6' whip * 10' 4" tall @ 28.0 MHz * 12' tall @ 3.5 MHz

Model 300 * 1.8 Mhz - 30.0 MHz * 400 watts PEP * 2" coil * 3' base
6' whip * 8.5 lbs * 9' 4" tall @ 30.0 MHz * 11' tall @ 1.8 MHz

Model 400 * 1.8 Mhz - 28.0 MHz * 400 watts PEP * 2" coil * 4' base
6' whip * 9 lbs * 10' 4" tall @ 28.0 MHz * 12' tall @ 1.8 MHz



Model 100
10-80 mtrs.
\$349



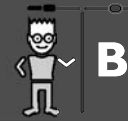
Model 75 "Stubby"
10-80 mtrs.
\$349



Little Tarheel II
6-80 mtrs.
\$349

Model 200
6-80 mtrs.
\$369

All Prices Subject to Change without Notice



BUDDIPOLE

BUDDIPOLE

www.buddipole.com



The Buddipole™ Portable Dipole fits in your travel bag and assembles in minutes. The Buddipole is more than an antenna, it's a versatile system for launching your signal. Optimized for transmit power and proven for DX work, the Buddipole is the secret weapon used by HF portable operators all over the world.



Antenna Systems starting at \$199!

What is the Buddipole?

- > Multi-band design works 9 bands – 40 meters thru 2 meters with one set of adjustable coils!
- > Rated from QRP to 250 watts PEP
- > Modular Design – create dozens of different antennas with interchangeable parts
- > Rotatable/Directional
- > Lightweight, rugged components
- > Optional Rotating Arm Kit allows users to instantly change antenna configurations
- > Used by the U.S. Military Special Forces and Emergency Services Groups throughout the world

Call or write for free brochure!

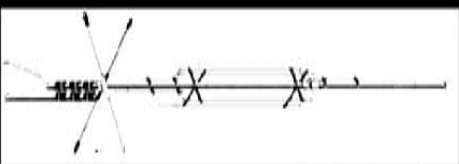
2390 Templeton Dr.
Redding, CA 96002
tel: (530) 226 8446
fax: (530) 232 2753
info@buddipole.com

THE PERFECT ANTENNA

For almost 2 decades GAP has stated there is no perfect antenna. No singular antenna can do it all. That is why we designed a family of antennas that utilize the patented (# 5,592,183), GAP Technology, to give you options. Within this family is the antenna or antennas right for you. If deed restrictions or visibility are a problem, take a look at the Eagle DX. If you are looking for a simple general coverage antenna with capture area, consider the Challenger DX. What about a low band antenna with great 40m and 80m performance? Then the Voyager DX is worth your attention. If you seek the most popular multiband antenna, then the Titan DX will end your search.

The GAP Technology eliminates traps, electromechanical devices and coils, which can increase loss and decrease reliability. Simplicity in design, results in a very user friendly assembly process. Slide one tube over another until the big hole lines up with the little and insert a screw. A GAP is pretuned, will handle 1500 watts PEP and provides instantaneous coverage with a VSWR under 2:1 across the entire band.*

CATCH THE WAVE



TITAN DX

10m, 12m, 15m, 17m, 20m, 30m, 40m, & 80m
25' tall 25 lbs
Mounts on 1-1/4" OD mast
No radials required.

*VSWR under 2:1 on 80m 100 KHz



CHALLENGER DX

2m, 6m, 10m, 12m, 15m, 20m, 40m, & 80m
31.5' tall 21 lbs
Drop in ground mount supplied.
3 counterpoises required 25' long.

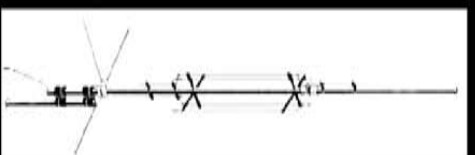
*VSWR under 2:1 on 80m 130 KHz



VOYAGER DX

20m, 40m, 80m, & 160m
45' tall 39 lbs
Supplied with hinged ground mount.
3 counterpoises required 57' long.

*VSWR under 2:1 on 160m 90 KHz



EAGLE DX

10m, 12m, 15m, 17m, 20m & 40m
21' tall 19 lbs
Mounts on 1-1/4" OD mast
No radials required.

*40m limited to 300 watts

QUICK TILT

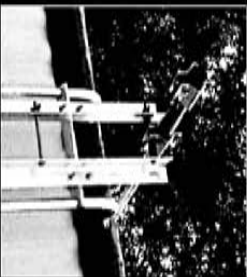
The easy way to raise and lower your antenna, support mast or flagpole. Works with most antennas.

GROUND MOUNT



Accommodates 1 1/4" 2" OD Mast

LADDER MOUNT



ANTENNA ACCESSORIES FOR ALL



GUY KITS

Insure your antenna or support mast against the elements with a Guy Kit.



STAINLESS STEEL & ALUMINUM CLAMP

3/32" UV Protected Black Double Braided Polyester Rope

(772) 571-9922

Visit us at:

gapantenna.com

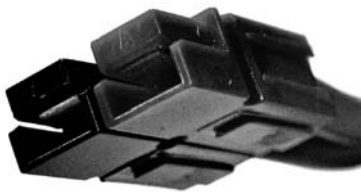
STAINLESS STEEL & ALUMINUM CONSTRUCTION

Your Powerpole Headquarters More Powerpole Stuff Than Anybody

A huge variety of ready-made cables with Anderson Powerpoles for ICOM (including the new IC-7000), Kenwood (including the TS-480), Yaesu, Alinco, and most other HF, mobile, and handheld rigs. Power supply cables for almost any source — home, mobile, or portable.

Accessories including panel mounts, mounting plates, crimpers, and wire.

See us at Hamfests from Maine to Maryland, or visit our Web Site for all of your Powerpole needs

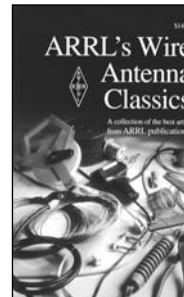


Of course, we also stock a full selection of our famous PaneRelief™ coax feed-through panels, and TuneRite™ tuning modules for ICOM, Yaesu, and Kenwood.

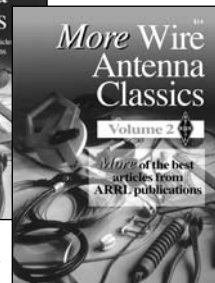
Quicksilver Radio Products • Meriden, Conn.

www.qsradio.com

Antennas to Build— Ideas to Experiment With



Vol 1:
ARRL's Wire
Antenna Classics



Vol 2:
More Wire
Antenna Classics

Hang 'em high or hang 'em low, wires are the best antennas to use to get on the air simply and inexpensively. Experience the satisfaction of building your own wire antennas.

Now you can enjoy a collection of the best antenna articles from ARRL publications. Inside these books, you'll find more than just creative ideas. Each is filled with innovative designs that work!

- Dipoles
- Loops
- Collinears
- Wire Beams
- Vertically Polarized
- Multiband Antennas and more...

— 2 Volumes! —

Vol 1: ARRL's Wire
Antenna Classics
ARRL Order No. 7075

Vol 2: More Wire
Antenna Classics
ARRL Order No. 7709

Available from ARRL
and dealers everywhere!



SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)

ARRL The national association for
AMATEUR RADIO

225 Main Street
Newington, CT 06111-1494 USA

AB 3/2007



MM-Series Mobile Mounts



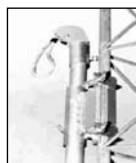
Rotating Standoff



Standoffs and
Gin Poles



Climbing
Steps



Gin Pole Kits

Cell: 708-337-8172
4421 West 87th Street, Hometown, IL 60456
Email: iix@w9iix.com
708-423-0605 • Fax: 708-423-1691

www.w9iix.com



Electronic Parts

**1000s of Component Parts
— No Minimum Order —**

— Shortwave — Ham Gear — Scanners —
— AM/FM Radios — Antennas — Coax —
— Accessories — Books — Computer Cables —

Visa/ MC/AMEX/Discover

Dave's Hobby Shop

600 Main Street, Van Buren, Arkansas

479-471-0750

www.daveswebshop.com

Big Winners from Array Solutions



PowerMaster Watt/VSWR Meter

- Sets the leading edge for all watt/vswr meters to follow
- Unheard of accuracy for the price
- Fast Bright reading meter
- Application software included
- Upgradeable via Internet

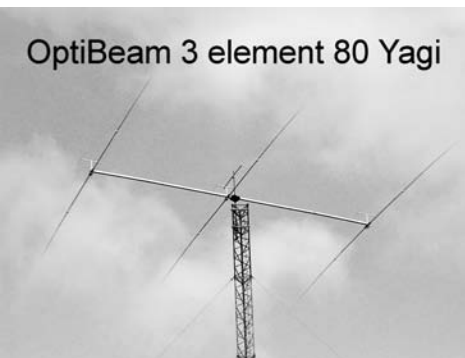
\$430



AIM 4170 Antenna Analyzer

- Most advanced vector impedance analyzer at a fraction of the cost
- Accurate and easy to use
- Application software included
- Lab instrument quality
- Upgradeable via Internet

\$400



OptiBeam 3 element 80 Yagi

OB3-80+

OptiBeam Antennas

German Engineering means High Performance and Reliability

Prosisel Rotators

Strongest Rotators on the Market
Prosisel
PST 71 DC



AS-AYL-4

NEW 4 Direction K9AY Loop Antenna
Hear What You've Been Missing on the Low Bands

www.arrayolutions.com

Phone 972-203-2008

sales@arrayolutions.com

Fax 972-203-8811

We've got your stuff!



Quality Radio Equipment Since 1942

AMATEUR TRANSCEIVERS



Universal Radio is your authorized dealer for all major amateur radio equipment lines including: Alinco, Icom, Kenwood and Yaesu.

SHORTWAVE RECEIVERS



Whether your budget is \$50, \$500 or \$5000, Universal can recommend a shortwave receiver to meet your needs. Universal is the *only* North American authorized dealer for *all* major shortwave lines including: Elad, Icom, Yaesu, Japan Radio Company, Ten-Tec, Grundig, etón, Sony, Sangean, Palstar, RFspace and Kaito.

WIDEBAND RECEIVERS



Universal Radio carries a broad selection of wideband and scanner receivers. Alinco, AOR, Icom, Yaesu and Uniden models are offered at competitive prices. Portable and tabletop models are available.

ANTENNAS AND ACCESSORIES

Your antenna is just as important as your radio. Universal carries antennas for every need, space requirement and budget. Please visit our website or request our catalog to learn more about antennas.

USED EQUIPMENT

Universal carries an extensive selection of used amateur and shortwave equipment. All items have been tested by our service department and carry a 60 day warranty unless stated otherwise. Request our monthly printed used list or visit our website:

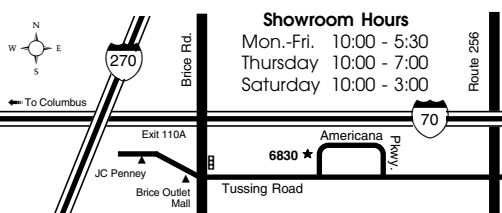
www.universal-radio.com

VISIT OUR WEBSITE

Guaranteed lowest prices on the web? Not always. But we *do* guarantee that you will find the Universal website to be the *most* informative.

www.universal-radio.com

VISIT OUR SHOWROOM



Showroom Hours
 Mon.-Fri. 10:00 - 5:30
 Thursday 10:00 - 7:00
 Saturday 10:00 - 3:00

BOOKS

Whether your interest is amateur, shortwave or collecting; Universal has the very best selection of radio books and study materials.



FREE 112 PAGE CATALOG

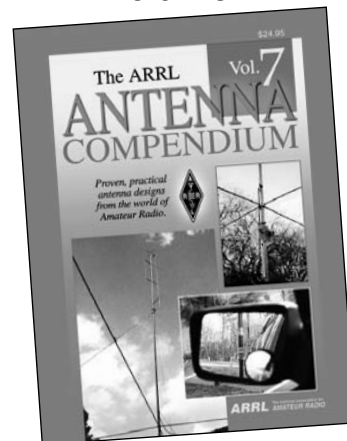
Our informative print catalog covers everything for the amateur, shortwave and scanner enthusiast. All items are also viewable at:
www.universal-radio.com

Universal Radio, Inc.
 6830 Americana Pkwy.
 Reynoldsburg, OH 43068

➤ 800 431-3939 Orders
 ➤ 614 866-4267 Information
 ➤ 614 866-2339 Fax
 ➤ dx@universal-radio.com

- ✓ Established in 1942.
- ✓ We ship worldwide.
- ✓ Visa, Master and Discover cards.
- ✓ Used equipment list available.
- ✓ Returns subject to 15% restocking fee.

The ARRL Antenna Compendium Volume 7



Hooray for antennas! This is the seventh in the very popular **ARRL Antenna Compendium** series. Inside, you'll find articles covering a very wide range of antenna-related topics:

- 30, 40, 80 and 160-Meter Antennas
- Measurements and Computations
- Mobile Antennas
- Multiband Antennas
- Practical Tips
- Propagation and Ground Effects
- Quad Antennas
- Special Antennas
- Stealth Antennas
- Tuners and Transmission Lines
- Vertical Antennas
- VHF/UHF Antennas
- Wire Antennas
- Yagi Antennas

And, this volume includes even more articles on low-band antennas and operating, and great designs for operating on the road-from cars, vans or motor homes.

ARRL Order No. 8608
Only \$24.95*

*shipping \$8 US (ground)/ \$13.00 International

SHOP DIRECT or call for a dealer near you.
 ONLINE WWW.ARRL.ORG/SHOP
 ORDER TOLL-FREE 888/277-5289 (US)

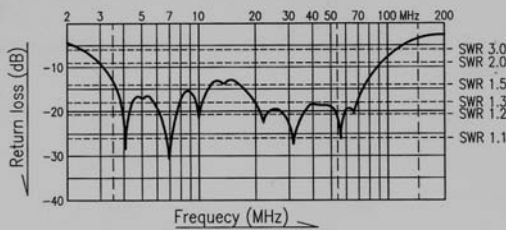


The national association for
ARRL AMATEUR RADIO

AB 3/2007

Life is a JOURNEY. Enjoy the ride!

COMET
and **Maldol**
Base Antennas



CHA-250B VSWR graph

"One person can effortlessly raise the antenna at night when no one can spot it, and take it down before daybreak. This antenna is also a great choice for portable operations, such as quick and easy mini-DXpedition to a campground or a nice tropical island! In short, the Comet CHA-250B is simple to assemble, painless to elevate and is easy on the eyes, while at the same time getting you on 6 meters thru 80 meters without the requirement of an antenna tuner and ground radials. You'll even be able to work some DX while you're at it!" – Dan Dankert N6PEQ

COMET NEW CHA-250B BROADBAND HF/6M GROUND-PLANE ANTENNA

A newly designed broadband vertical with NO GROUND RADIALS. EXTREMELY easy to assemble, requires no tuning or adjustments and VSWR is under 1.5:1 from 3.5-57MHz! • TX: 3.5MHz – 57MHz • RX: 2.0 – 90MHz • VSWR is 1.5:1 or less, continuous • Max Power: 250W SSB/125W FM • Impedance: 50 Ohm • Length: 23' 5" • Weight: 7 lbs. 1 oz. • Conn: SO-239 • Mast Req'd: 1" – 2" dia. • Max wind speed: 67MPH



COMET GP-15 TRI-BAND 52/146/446MHZ BASE REPEATER ANTENNA

Wavelength: 52MHz 5/8 wave • 146MHz 5/8 wave x 2 • 446MHz 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass



COMET CX-333 TRI-BAND 146/220/446MHZ BASE REPEATER ANTENNA

Wavelength: 146MHz 5/8 wave x 2 • 220MHz 5/8 wave x 3 • 446MHz 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections



COMET GP-3 DUAL-BAND 146/446MHZ BASE REPEATER ANTENNA

Wavelength: 146MHz 6/8 wave • 446MHz 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass



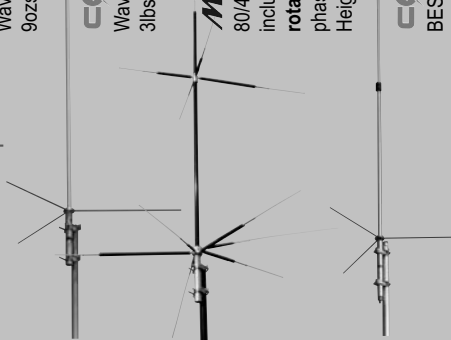
COMET GP-6 DUAL-BAND 146/446MHZ BASE REPEATER ANTENNA

Wavelength: 146MHz 5/8 wave x 2 • 446MHz 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections



Maldol HVU-8 ULTRA-COMPACT 8 BAND HF/VHF/UHF VERTICAL ANTENNA

80/40/20/15/10/6/2M/70cm Only 1/2 the traditional size and weight of vertical HF antennas, and it includes 2M/70cm! Unique radial system rotates for balcony installations, **the radials can all be rotated to one side.** • Wavelength: HF and 6M: 1/4 wave • 2M: 1/2 wave • 70cm: Two 5/8waves in phase • Impedance: 50 Ohm • Max Power: HF 200W SSB • 6W–70cm: 150W FM • Conn: SO-239 • Height: Only 8'6" • Weight: 5lbs. 7ozs.



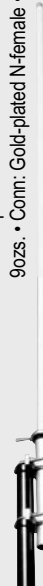
COMET GP-9 / GP-9N DUAL-BAND 146/446MHZ BASE REPEATER ANTENNA

BEST SELLER! • Wavelength: 146MHz 5/8 wave x 3 • 446MHz 5/8 wave x 8 • Max Pwr: 200W • Length: 16' 9" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • GP-9N Gold-plated N-type female • Construction: Fiberglass, 3 Sections



WI-FI/802.11B/LAN/HSMM ACCESS POINT ANTENNAS

COMET GP-24 2.4GHZ ACCESS POINT ANTENNA The standard high gain 2.4GHz access point antenna for maximum range/signal strength. • 2400-2500MHz • Length: 5'10" • Weight: 2lbs. 9ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome



COMET GP-24-3 The same physical high gain 2.4GHz antenna as the GP-24, but with a 3-degree electrical downtilt to concentrate the signal to the horizon and below



COMET GP-24-S MEDIUM GAIN ACCESS POINT ANTENNA For applications where maximum distance is not as important as a solid signal around and directly below the antenna. • Length: 39" • Weight: 1lb. 14ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome

COMET
and **Maldol** Antennas

For a complete catalog, call or visit your local dealer.
Or contact NCG Company, 1275 N. Grove Street, Anaheim, CA 92806
714-630-4541 • 800-962-2611 • FAX 714-630-7024 • www.natcommgroup.com

Alphabet soup got you confused?



There's only one letter you need . . . *it's the G.*

We're the name you've known and trusted for over 56 years!

Our name stands for . . .

Quality

Integrity

Enduring Strength

Choose the original Rohn G Series.

Because everyone knows "G" comes before all the rest!

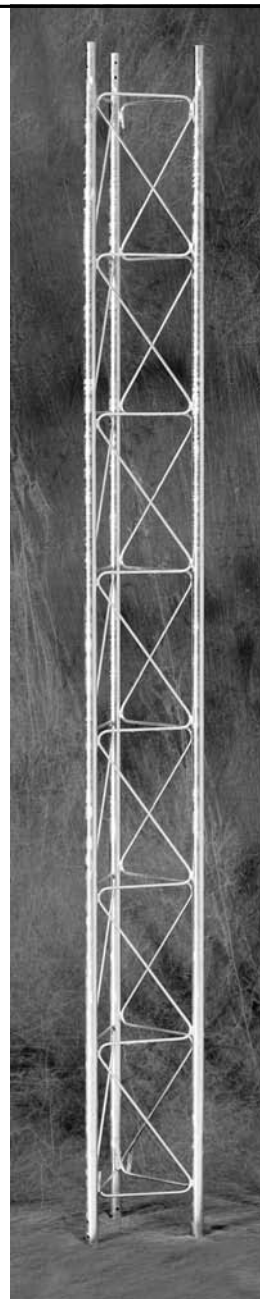
ROHNTM
Products

6718 W. Plank Road ~ Peoria, IL 61604

Ph. 309-697-4400 ~ Fax 309-697-5612

www.radiancorp.com

Division of Radian Communication Services, Inc.



ARRL's Yagi Antenna Classics

—Yagis, Quads, Loops, and other Beam Antennas

Contents:

- **Monobanders:** Beams for your favorite band
- **Multibanders:** Beams that cover two or more bands
- **HF, VHF and UHF Beams:** From 80 meters to 2304 MHz
- **Computer Modeling:** Optimize your beam's performance
- **Towers, Masts and Guys:** Your beam needs solid support
- **The "WOW" Factor:** Can you believe this?

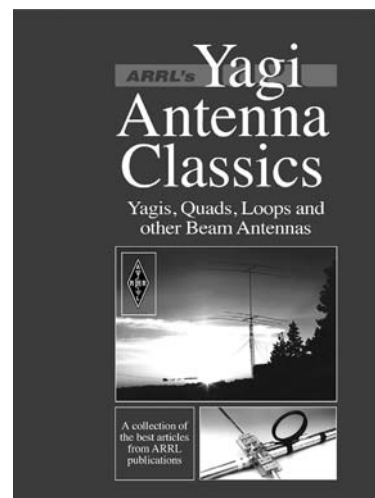


ARRL The national association for
AMATEUR RADIO

SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)

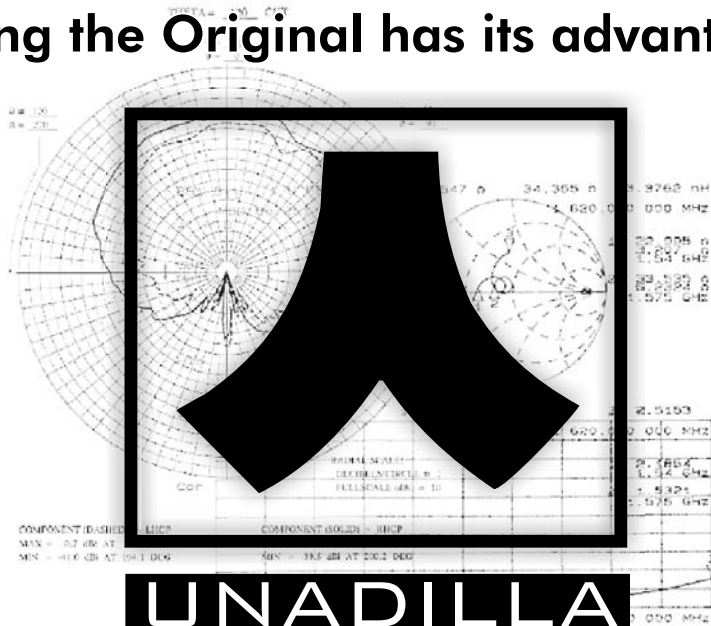
ARRL Order No. 8187
Only \$17.95*

*shipping \$7 US (ground)/ \$12.00 International



AB 3/2007

"Being the Original has its advantages."



UNADILLA
ANTENNA MANUFACTURING COMPANY

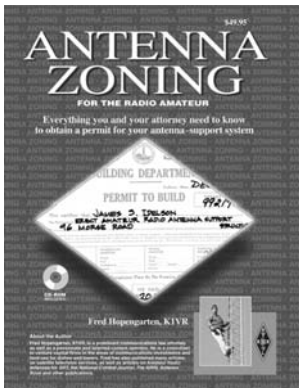
VHF - UHF - HF Applications
Special Models for Beams, Dipoles and Line Isolation
Manufacturing Baluns and Accessories for over 40 years
Ham - Commercial - Industrial - Government - Military

PO BOX 4215-BV
ANDOVER, MA 01810
PLANT 978 975 2711

www.unadilla.com

No Antenna No Ham Radio!

Antenna Zoning for the Radio Amateur
by Fred Hopengarten, K1VR



Here's help navigating the thicket of ordinances and bylaws to obtain a building permit for your antenna system. Don't get caught in the crazy quilt of regulations.

Everything you and your attorney need to know to obtain a permit for your antenna-support system

CD-ROM included containing detailed case law, customizable form letters and other invaluable aids.

Providing your attorney with this information can save many hours—and many dollars!

Antenna Zoning for the Radio Amateur
ARRL Order No. 8217
Only \$49.95*

*shipping \$10 US (ground)/ \$15.00 International



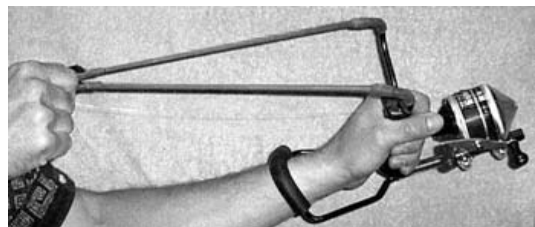
ARRL The national association for
AMATEUR RADIO

SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)

AB 3/2007

Hang your
next wire antenna with the

EZ HANG KIT!



Comes with everything you need:

- The original EZ Hang
- The EZ Winder
- A spare set of Bands and six weights and clips.

EZ HANG

Code AB

2217 Princess Anne St., Suite 105-6
Fredericksburg, VA 22401 ■ Phone: 540-286-0176

Check Our Website for New Products

www.ezhang.com



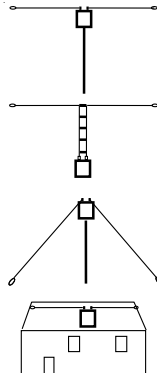
High-Performance Remote Automatic Antenna Tuners

Places the Tuner Circuitry at the Antenna Feedpoint for **Maximum Efficiency!**

1.8 to 30 MHz Balanced π -Network Antenna Tuners:

- **AT-502** – 200W SSB/CW
2 x 85 Memories..... \$699.95
- **AT-515** – 1.5kW SSB/CW
85 Memories \$1,699.95

Desktop Control Unit with LCD; Weather-Protected Remote Tuner Unit (to IP65/66 standards).



www.hamware.de

Int'l: Klaus Bemmerer ■ service@hamware.de

Tel: +49 4371 869145

US: Dillon RF Systems ■ dillonel@mtaonline.net

Backyard Antennas

Simple techniques for building high performance antennas

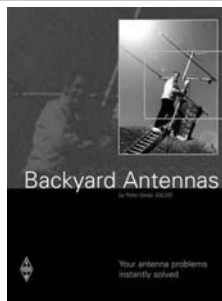
- End-fed and Center-fed Antennas
- Rotary Beams
- Tuning Units
- Antenna and Mast Construction
- Transmission Lines
- Estimating and Measuring the Performance of your Antenna
- Loops
- VHF/UHF Antennas



ARRL The national association for AMATEUR RADIO
SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)

Backyard Antennas
ARRL Order No. RBYA
Only \$34.95*

*shipping \$9 US (ground)/ \$14.00 International AB 3/2007



ADVANCED SPECIALTIES INC.

New Jersey's Communications Store



VX-7R
Quadband Submersible HT



DR-635T
Hi Tech FM Mobile Dual Band

Authorized Dealer

ALINCO * LARSEN * COMET * MALDOL * MFJ * UNIDEN
LDG * ANLI * RANGER * YAESU * TRAM * PROCOMM * PYRAMID



FT-857D
HF, 6M, 2M, 70 CM

AMATEUR RADIO – SCANNERS – BOOKS
ANTENNAS – MOUNTS – FILTERS
ACCESSORIES & MORE



FT-2800M
65W 2M Mobile



Uniden
BCD-396T
Digital Trunk Tracking Scanner

Closed Sunday & Monday
Orders/Quotes 1-800-926-9HAM
(201)-VHF-2067
114 Essex Street, Lodi, NJ 07644

FT-8900R
10M, 6M, 2M,
70 CM FM Mobile

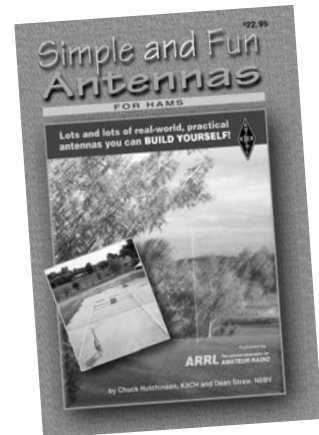


Big Online Catalog at
www.advancedspecialties.net



Simple and Fun Antennas for Hams

Lots and lots of real world, practical antennas you can **BUILD YOURSELF!**



Contents:

- Your First VHF Antenna
- Your First HF Antenna
- Facts About Transmission Lines
- Antenna Masts and Supports
- HF Verticals
- More Simple and Fun Antennas for VHF and UHF
- More HF Dipoles
- Dual-Band VHF/UHF Antennas
- An HF Vertical That Needs No Radials—Try the HVD
- Yet More HF Dipoles
- More Facts About Feed Lines
- A Potpourri of Antenna Ideas
- VHF Beam Antennas
- Towers
- HF Beam Antennas
- Getting the Most Out of Your Antenna

Simple and Fun Antennas for Hams

ARRL Order No. 8624
Only \$22.95*

*shipping \$8 US (ground)/ \$13.00 International



SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)

ARRL The national association for AMATEUR RADIO

AB 3/2007

Vertical Antennas are Everywhere

On cell phones, broadcast towers, portable radios and vehicles. And for good reason! Here are the best articles on vertical antennas from QST and ARRL publications.

- Theory and Modeling
- VHF and UHF
- Directional Arrays
- Radials
- Single-Band and Multi-Band HF Vertical Antennas
- Ground Systems
- Portable Antennas
- Phased Vertical Arrays

and more....

The Sky's the Limit!



Vertical Antenna Classics

ARRL Order No. 5218

Only \$12*

More Vertical Antenna Classics Second Edition

ARRL Order No. 9795

Only \$17.95*

*shipping \$7 US (ground)/ \$12.00 International

SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)



ARRL The national association for
AMATEUR RADIO

AB 3/2007

KØXG Systems

Antenna Rotation Equipment



Orbital Ring Rotor

Unit shown is the 45/55g Orbital Ring rotor with MonstIR Yagi installed.

Models available for any size tower (including cell towers). For any size boom, or tower boom.

1117 Highland Park Dr., Bettendorf, IA 52722

email: k0xg@k0xg.com

(563) 340-5111

Visit our Web Site at:

www.KØXG.com

A picture is worth a thousand words...



With the

ANTENNA MODEL™

wire antenna analysis program for Windows® you get true 3D far field patterns that are far more informative than conventional 2D patterns or wire-frame pseudo-3D patterns.

Now you can have all the advantages of the MININEC code and Sommerfeld-Norton ground too, down to 0.02 wavelengths above ground. No split load, split source, or equivalent monotaper element approximations are needed. Enjoy superior graphing and 2D far field plot comparison capability.

Describe the antenna to the program in an easy-to-use spreadsheet-style format, and then with one mouse-click the program shows you the antenna pattern, front to back ratio, front to rear ratio, input impedance, efficiency, SWR, and more.

An optional **Symbols** window with formula evaluation capability can do your calculations for you. A **Match Wizard** designs Gamma, T, or Hairpin matches for Yagi antennas. A **Clamp Wizard** calculates the equivalent diameter of Yagi element clamps. **Yagi Optimization** finds Yagi dimensions that satisfy performance objectives you specify. Major antenna properties can be graphed as a function of frequency.

There is **no built-in segment limit**. Your models can be as large and complicated as your system permits.

ANTENNA MODEL is only \$90. This includes a Web site download **and** a permanent backup copy on CD-ROM. Visit our Web site for more information about **ANTENNA MODEL**.

Teri Software

P.O. Box 277

Lincoln, TX 78948

www.antennamodel.com

e-mail sales@antennamodel.com

phone 979-542-7952

Fourth Edition

ON4UN's

Low-Band DXing

Antennas, Equipment
and Techniques for
DXcitement on 160,
80 and 40 Meters

by John Devoldere, ON4UN

Thoroughly updated with entirely new material on low-band antennas and high-gain transmitting arrays. Includes new insights and new design techniques for receiving antennas and vertical arrays.

"John is one of the most recognizable figures on the DX scene. He has spent more than 1,500 hours rewriting and updating **ON4UN's Low-Band DXing**, known far and wide as the 'low-bander's bible.'" —R. Dean Straw, N6BV, Editor

CD-ROM included! This edition is bundled with the fully searchable and complete book on **CD-ROM** for *Windows*[®] and *Macintosh*[®] systems. (Also contains additional **ON4UN software** and over 2000 quality pictures.)



ARRL Order No. 9140—**\$39.95***
*shipping: \$9 US (ground)/\$14 International

Shipping and Handling charges apply. Sales Tax is required for orders shipped to CA, CT, VA, and Canada.

Prices and product availability are subject to change without notice.

ARRL The national association for
AMATEUR RADIO

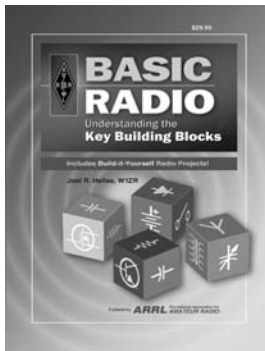


SHOP DIRECT or call for a dealer near you.
ORDER TOLL-FREE 888/277-5289 (US)
ONLINE WWW.ARRL.ORG/SHOP

AB 3/2007

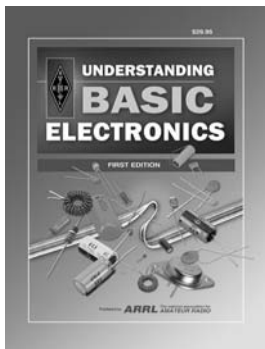
Basic Radio

Understanding the Key Building Blocks



Finally — an introduction to radio FOR EVERYONE! — what it does and how it does it.

Basic Radio reveals the key building blocks of radio: **receivers, transmitters, antennas, and propagation.** Includes simple, build-it-yourself projects to turn theory into practice.



Basic Electronics

The foundations taught in this book will prepare you for more advanced concepts in electronics. The text is written in an easy-to-understand style that nontechnical readers will enjoy. You don't have to be an engineer or a math whiz to enjoy the thrill of experimenting with electronics circuits!

Basic Radio

ARRL Order No. 9558

Only \$29.95*

Understanding Basic Electronics

ARRL Order No. 3983

Only \$29.95*

*shipping \$9 US (ground)/ \$14.00 International

SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)



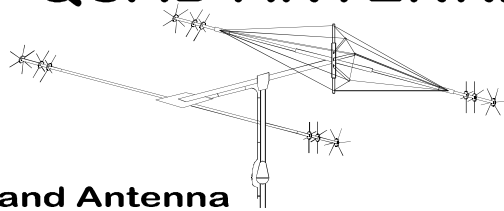
ARRL The national association for
AMATEUR RADIO

AB 3/2007

HYBRID-QUAD ANTENNA

MQ-24SR

MINI HF BEAM



MQ-1 Four-Band Antenna

6,10,15,20 Meters, Two element

MQ-24SR Four-Band Antenna

6,10,15,20 Meters, Enhanced reflector

MQ-34SR Four-Band Antenna

6,10,15,20 Meters, Three element, E/Ref.

MQ-26 Six-Band Antenna

6,10,12,15,17,20 Meters, Two element

MQ-26SR Six-Band Antenna

6,10,12,15,17,20 Meters, Enhanced Refl.

MQ-36SR Six-Band Antenna

6,10,12,15,17,20 Meters, Three element, E/R



T.G.M. Communications

121 Devon St. Stratford,

ON Canada N5A 2Z8

Tel. & Fax (519) 271-5928

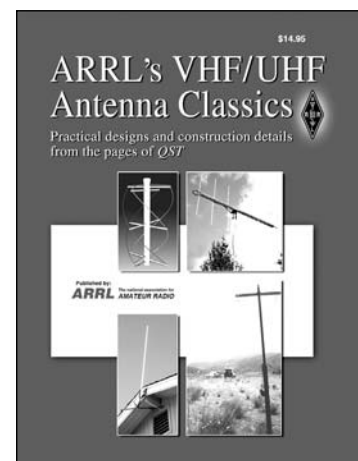
www3.sympatico.ca/tgmc

ARRL's VHF/UHF Antenna Classics

Build portable, mobile, and fixed antenna designs

Ground planes, J-poles, mobile antennas, Yagis, and more. Build a better antenna for your hand-held radio.

Construct a 2-meter Yagi that will rival similar commercial antennas. Build a dual-band vertical for 146 and 445-MHz. The results will be rewarding! Includes projects gathered from the pages of QST.



ARRL Order No. 9078

Only \$14.95*

*shipping \$7 US (ground)/\$12.00 International



ARRL The national association for
AMATEUR RADIO

SHOP DIRECT or call for a dealer near you.
ONLINE WWW.ARRL.ORG/SHOP
ORDER TOLL-FREE 888/277-5289 (US)

AB 3/2007

MORE DEALS THAN YOU CAN SHAKE A STICK AT!

- Great Gear
- Great Deals
- Great Service
- Free UPS S/H!*

*On all radio orders shipped within the contiguous USA.



Alfa-Spid, Alpha-Delta • Ameritron • ARRL • Astron • Bencher • Butternut • Cal-Av • Comet • Cushcraft • Daiwa • Diamond • Force 12 • Gap • Glen Martin • Hustler • Hygain • Icom • Kantronics • Kenwood • Lakeview • Larsen • LDG Electronics • M2 • MFJ • Mirage • Palstar • Phillystran • Rohn • Tex-Com • Times Microwave • Unadilla • Universal Tower • US Tower • Van Gorden • Vectronics • Vibroplex • Yaesu

KENWOOD



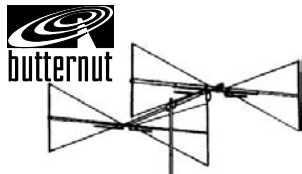
KENWOOD TS-2000X
Huge Band Coverage, All Mode HF/6m/2m/70cm/23cm, Auto Tuner, CW Memory Keyer, Dual RX, Dual DSP, Built-in 1200/9600 bps TNC, and More!
CALL FOR YOUR BEST PRICE!



KENWOOD TS-480SAT
Mobile Performance, All Mode HF/6m, Auto Tuner, Separate Front Control Panel, 16-Bit DSP, CTCSS Encode/Decode, More!
CALL FOR YOUR BEST PRICE!



KENWOOD TM-D700A
Mobile 2m/70cm FM XCVR With TNC, Separate Front Control Panel, CTCSS Encode/Decode, 200 Memories, and More!
CALL FOR YOUR BEST PRICE!



BUTTERNUT HF-5B
Lightweight five band beam, small enough to turn with a TV rotator—perfect for portable or limited space operation or for deed restricted stations.
CALL FOR MORE BUTTERNUT!



CUSHCRAFT A3S
Three element triband beam with optional 30/40m kit. Compact yet rugged design with all stainless steel hardware. Perfect for limited space application.
CALL FOR MORE CUSHCRAFT!



HYGAIN TH-3MK4
Three element triband beam designed for broadband performance. Rugged construction and all stainless steel hardware for long term reliability.
CALL FOR MORE HYGAIN!



M2 KT-34M2
Four element, short boom triband beam is long on performance! Rugged, with all stainless hardware. Broad gain, high F/B, flat match. Balun supplied.
CALL FOR M2 ANTENNAS!



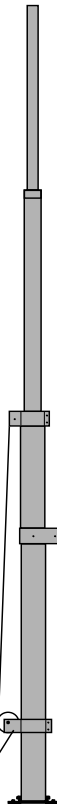
ANTENNA ROTATORS

Hygain, AR-40Call
 Hygain, CD-45IICall
 Hygain, Ham-IVCall
 Hygain, Ham-VCall
 Hygain, T2XCall
 Hygain, T2X DigitalCall
 Hygain, HDR-300ACall
 M2, OR-2800PDXCall
 Yaesu, G-450ACall
 Yaesu G-550Call
 Yaesu, G-800SACall
 Yaesu, G-800DXACall
 Yaesu, G-1000DXACall
 Yaesu, G-2800DXACall
 Yaesu G-5500Call
ROTOR CABLE IN STOCK, CALL!



MA SERIES Neighbor Friendly Design offers a flag-pole-like appearance, while supporting antenna loads up to 22 square feet. Models range from 40–85 feet in height and come with a hand winch and house bracket. Optional self supporting bases are also available.

TOWER EXPERTS We Ain't Braggin'! But we've helped so many Hams order US Towers over the years that we've become the US Tower experts. Please call for help selecting the perfect US Tower for your QTH!



Universal

B-18 SERIES Light Duty Aluminum Self Supporting Towers. Five models range from 30–50 feet in height, and support up to 12 sq. ft. of antenna load.
CALL FOR MORE INFO!

B-26 SERIES Medium Duty Aluminum Self Supporting Towers. Thirteen models range from 30–90 feet and support up to 34.5 sq. ft. of antenna wind load.
CALL FOR MORE INFO!

B-30 SERIES Heavy Duty Aluminum Self Supporting Towers. Nineteen models range from 40–100 feet, and support up to 34.5 sq. ft. of antenna wind load.
CALL FOR MORE INFO!



TEXAS TOWERS

1108 Summit Avenue, #4 • Plano, TX 75074

Hours: M-F 9 AM–5 PM Central Time

Email: sales@texastowers.com

TOLL FREE

(800) 272-3467

Proudly Serving Ham Operators Since 1978!

Visit Our Website for More Great Deals:

<http://www.texastowers.com>

MASTERCARD
 VISA • DISCOVER