

# 1984 INDEX

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Top-Notch Tuner Time	home-brew antenna tuner	KC2NT	Aug 8	Your Own Optoelectronic Anemometer			
A Tree-Mendous Vertical	tree-mounted 80-meter vertical	KS4B	Oct 62	<b>I/O</b>			
Try Low and Behold	are low antennas best?	W1GV	Oct 38	Another Antenna Approach	TS-1000 antenna design	AD1B	Mar 96
Virginia's Antenna Farmer	simple multiband antennas	WA4BLC	May 60	The Conlog Solution	Atari contest log	N5ATD	Apr 62
Yagi Fear?	Atari yagi-design software	W6WTU	May 84	Decode Soviet Space Messages	satellite telemetry decoder	WDOBCI	Nov 53
<b>CONSTRUCTION</b>				Give Your Micro the World	A/D conversion for the TRS-80	A1OZ	Dec 44
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Around and Around and Around	Q-meter for coil winders	N7APE	Jan 70	Picture-Perfect Audio Filters	Apple II filter designer	K3LF	Aug 66
Breakthrough in Boston	crosslink interface	W1UKZ	Jan 10	Put the DX World on a Screen	VIC-20 DXing aid	WB7RLX	Feb 69
Build the NASA Beeper	simple courtesy beeper for HF	KQ4G	Mar 88	Random VIC	VIC-20 code practice software	WB7RLX	Jul 66
Calculate Your FT-101	digital display and counter	VK8DE	Feb 22	Ryan's Vertical Ecstasy	CoCo vertical modeler	WB5LLM	Oct 32
Cheap Power Ploy	12 V 20 A power supply	K9QLL	Aug 10	Sounds Good to Me	VIC-20/C-64 Morse software	W5VKC	Jun 38
Color Computer SSTV Part I	complete color SSTV system	K6AEP/WB8DQT	Nov 10	Top Drawer, Micro-Style	Apple drafting software	K3LF	Jan 56
Color Computer SSTV Part II	add FAX to the SSTV board	K6AEP/WB8DQT	Dec 18	Try Quality Code	patches K8TT's Morse keyboard	K6APW	Jun 78
Construct the Minuteman Timer	easy ID timer	K8QBQ	Feb 14	Yagi Fear?	Atari yagi-design system	W6WTU	May 84
Creason's Do-It DVM	single-IC digital voltmeter	K6EW	Jun 26	<b>MISCELLANEOUS</b>			
Crystal Microwave	microwave crystal receiver	WA4WDL	Apr 42	Build a Better Hamfest	tips for successful festing	Housholder	Feb 40
The CW Stationmaster	accessory for code lovers	W4RNL	Jan 46	But I Know How to Solder!	basic soldering	WD4S	Nov 28
Don't Grope in the Dark!	emergency lighting system	W7RXV	Jun 16	Doing It at Dayton	preview of the hamvention	WA4BPI	Apr 10
Easy Berardi Building	.5 to 600 MHz counter	Berardi	Jun 10	The Edison Effect	Edison first with wireless?	WB2MVK	Jan 90
Elegant Rotating	automatic beam aimer	W4RNL	Jun 60	The End of the Line	coax connector maintenance	WB5LBI	Nov 56
Emulate an EPROM Elephant	homemade program storage	McCarthy	Apr 40	Flying High with Two Grenada Log	ham radio and ultralights	WB8DQT	Jun 20
Find Fault with Your Coax	time-domain reflectometry	K4IPV	Oct 10	How to Have a Sunny Field Day	ham radio and the invasion	K1XR/N8RK	Jan 20
Free-Form Filter Design	single-chip audio processing	KA4QVK	Nov 34	In Search of the Shuttle	using solar power for FD	W8YZ	Apr 100
Give Your Micro the World	A/D conversion for the TRS-80	A1OZ	Dec 44	Ishmod's Journal	25 hams tell their story	various	Mar 10
Here's the Split-Second Timer	audible darkroom timer	WA3REY	Feb 54	Let's Have More Hams	mysterious trek to Fundy	Whipple	Apr 64
Homemade Defroster	automatic defogger memory	KB2WM	Nov 68	Part I	how to run a Novice class	ADOK	Jul 26
Me and My Stupid Old PMOS Converter	convert +5 to -12 V	WB1HKU	Apr 14	Part II	how to pass the FCC exam	KC3HW	Jul 30
Modern-Eyes the S-Meter	add-on signal strength meter	Patterson	Jul 24	Meeting Ends Make	tips for better club meetings	N6HYK	Jun 30
Painless Op-Amp Filter Design	step-by-step instructions	W4RNL	Apr 102	No-Etch Circuit Boards	cut-and-pry technique	N6JH	Sep 34
Peak your Picture with Home-Brew SSTV Gear	gray scale and color bars	Cikas	Feb 60	Not-So-Famous Garriott Words	Owen speaks	N6BIS	Jun 48
Penn's Two-Tone Gadget	dual-tone generator	W1BG	Aug 21	Op Art	using operational amps	KCOEW	Feb 62
Perfboard and Solder-tail?	PC board construction tips	W4RNL	Jul 42	The Secret of Remote Control	radio-controlled aircraft	WB3BQO	Feb 18
Piggy-Bank Repeater Project	easy repeater controller	KT2B	Jun 42	Secrets of Nicads	the real truth about nicads	WB2FYW	Jan 88
Rampant RTTY	multi-speed dual-shift mailbox	KOWVN	Nov 50	Shoot at Will	Dayton hamfest photo odyssey	KK2Y	Jul 10
Requiem for the Tube	displays for old bottles	WA2EWT	Jun 68	Sky Power	contacts via meteor-scatter	WB4CHZ	Mar 90
Rx for Ailing Antennas	build a noise bridge	K4IPV	Oct 28	Stare-Way to Heaven	visit the Arecibo observatory	AJON	Aug 33
Some Alarming Techniques	burglar alarm circuits	WA4CCA	Jan 32	Take a Trip to Europe	European shortwave stations	Peterson	Apr 48
Son of Nicad Conditioner	smart charger for nicads	W1GSL	Jul 36	The Tops of the Palm Trees	DXpedition to Mellish reef	VK2BJL	May 28
Sound Off!	repeater beeper indicates received signal strength	K3JML	Jan 28	Wet Battery Quiz	do you know everything?	VE3AZX	Mar 92
Strictly for FM Deviates	deviation meter for VHF	K8OBL	Feb 36	When Darkness Calls	160-meter grayline prediction	VE7BS	Oct 66
Take the Two-Tone Challenge	two-tone generator for SSB	W8DCC	Mar 84	<b>MOBILE</b>			
The Terminal Terminal Unit	variable-shift TU	K3PUR	Apr 70	Control Your Mobile Power	reliable power for mobiles	KB5QZ	May 56
Tester Project: England 84	multi-use transistor tester	Penfold	Jun 34	Flying High with Two	ham radio and ultralights	WB8DQT	Jun 20
Thank You for Listening	speech de-compressor	VE1BZJ	Jan 86	Four Bands, One Whip	four-band mobile antenna	K3OF	Apr 56
A Times Square Data Display	scrolling touchtone decoder	WA4TEM	Dec 8	On the Move With 10 FM!	quick mods for Comtronix FM80	W7AR	Jan 84
Top-Band Power Punch	kilowatt amp for 160 meters	WAOVNY	Aug 70	Trade Secrets of Mobile Installation	the right way to mobile-mount	K4TWJ	Jan 64
Top-Notch Tuner Time	home-brew antenna tuner	KC2NT	Aug 8				
A Useful Present							
You Can Build	digital kitchen timer	WB4YOD	Nov 58				
Watch That Signal!	cheapie signal monitor	W4RNL	Apr 20				
Wheeling and Dealing with Preamps	remote preamp switching	W8PMS	Apr 84				

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<b>MODIFICATIONS</b>				<b>RECEIVING</b>			
Better the R-70	modify the ICOM receiver	KE4AQ	Jun 54	Control Your Mobile Power	reliable mobile power	KB5QZ	May 56
Calculate Your FT-101	digital display and counter	VK8DE	Feb 22	Me and My Stupid Old PMOS Converter	get -12 V from +5 V	WB1HKU	Apr 14
Convert the Oddball				Wet Battery Quiz	do you know everything?	VE3AZX	Mar 92
Easy FSK for the IC-730	add what the factory forgot	WA4TTO	Sep 48	<b>REPEATERS</b>			
Hy-Gain Boards	CB boards move to 10 meters	N2DS	Feb 77	A Times Square Data Display	scrolling touchtone decoder	WA4TEM	Dec 8
Messing with Heath	external vfo for the HW-101	AI7C	Aug 46	Breakthrough in Boston	crosslinking interface	W1UKZ	Jan 10
New Orders for the R-109	low-cost surplus mods	K8AXH	Jun 70	Piggy-Bank Repeater Project	simple repeater controller	KT2B	Jun 42
On the Move with 10 FM!	quick mods for Comtronix FM80	W7AR	Jan 84	Sound Off!	repeater beeper indicates received signal strength	K3JML	Jan 28
Quick Qlip Conversion Fax	restore surplus fax gear	KA9GDL	Sep 28	Strictly for FM Deviates	deviation meter for VHF	KA8OBL	Feb 36
Watch a Warhorse Work	10 and 160 for the SB-221	W3JIP	Jul 48	<b>REVIEWS</b>			
<b>NEW PRODUCTS</b>				AEA	CP-1 Computer Patch		Sep 84
A5 ATV Magazine	Hamfest! game		Jun 91	AEA	MBA/Text		Aug 100
Advanced Computer Control	ShackMaster		Jul 81	AEA	Doctor DX		Oct 82
AEA	Doctor DX		Nov 76	B&W	ACL-8-30 antenna		Mar 102
AEA	MBA/Text		Jan 110	B&W	AP-10 portable antenna		Oct 84
AEA	PKT-1 packet controller		Sep 85	Base2 Systems	MUFPILOT		Sep 82
Alpha-Delta	Surge Protector		Oct 100	Bash Educational Services	Novice class study guide		Apr 129
Amateur Wholesale Elec.	EXL-5000		May 109	Belden	9913 coax		Dec 68
BHC	Big Ham Clock		Jan 110	Bencher	ST-2 paddles		Feb 92
Bird Electronic Corp.	4030 field-strength element		Aug 104	Bilal	Isotron 40		Oct 83
Break Communications	equipment console		Mar 109	Break Communications	equipment console		Nov 77
Buccaneer	sealed connectors		May 109	DX Enterprises	DX-1 propagation system		Sep 84
Bullseye	FrameMaker clamps		Oct 100	H. Stewart Designs	DX Hidden Asset antenna		Feb 92
BV Engineering	engineering software		Sep 86	Heathkit	SS-9000 transceiver		Jan 107
Caywood	solid-state dip meter		Mar 109	ICOM	IC-RP3010 70-cm repeater		Jul 82
CES	510SA simplex autopatch		May 109	ICOM	IC-271A		Sep 82
CMC Communications	voice-operated squelch		Sep 86	ICOM	IC-37A		Dec 66
ColoRadio Research	900B RTTY/ASCII/CW terminal		Jul 80	ICOM	IC-751		Aug 101
Com-Rad	Antenna		Jul 90	Idiom Press	The Complete DXer		Apr 129
Connect Systems	CS-16 touchtone decoder		Jul 81	J.C. Labs	Action Monitor		Jan 108
ContactEast	1984 catalog		Jun 91	Kantronics	AMTORSOFT		Aug 100
Crumtronics	Contender		Jul 80	Kantronics	Interface II		Nov 81
Cushcraft	AOP-1		Oct 100	Kantronics	Introduction to AMTOR		Jan 108
Cynwyn	HF antenna design software		Jul 81	Kenwood	TR-2500		Aug 101
Davle Tech	SA-4 desoldering station		Sep 86	Kenwood	TW-4000A		Jun 92
Design Electronics Ohio	QSK 1500		Aug 102	Mizuho	MX-6Z 6-meter hand-held		Nov 78
Doppler Systems	direction-finding gear		Dec 65	NCG	7-21-50 transceiver		Dec 67
Electronic Specialists	interference protection		Jun 91	N2NY	HamMaster tapes		May 117
Flesher	TU-1200 RTTY TU		Apr 117	Rawn Company	Plast-i-Pair		Mar 102
Gilfer Assoc.	Guide to RTTY Frequencies		Jan 111	Regency	Z30 scanner		Jun 93
H. Stewart Designs	DX Hidden Asset antenna		Jan 110	Santec	ST-144/uP hand-held		Jul 82
HAL Communications	AMTOR-10A		Dec 65	Sybox	Astronomy on Your Computer		Aug 101
HAL Communications	PCI-2000 IBM RTTY interface		Nov 76	Ten-Tec	4229 Antenna Tuner		Oct 81
Ham Industries, Inc.	PA-25 2-meter amp		Jan 111	TET	V/UHF discone antenna		Jan 108
Hamtronics	COR-3		Dec 66	Thompson Software	Morse-code translator		Jun 92
Hamtronics	GaAsFET preamp		Jun 90	Yaesu	FT-726R		Nov 80
Hamtronics	outdoor scanner antenna		Oct 100	Yaesu	FT-980		Feb 90
Hamtronics	1984 catalog		Apr 116	<b>RTTY</b>			
Heathkit	HD-3006		Dec 65	AMTOR How-To	guidelines for operation	W2JUP	Aug 62
Heathkit	HD-8999 keyboard		Aug 104	Easy FSK for the IC-730	add what the factory forgot	WA4TTO	Sep 48
Heil, Ltd.	EQ300		Mar 108	Join the Packet-Radio Revolution - Part III	protocols and procedures	WA7CXD	Jan 36
ICOM	IC-HS10 headset		Mar 108	Ntty Gtty RTTY	complete Sinclair RTTY	WB6GTM	Sep 38
ICOM	IC-O2AT		May 109	Rampant RTTY	multi-speed dual-shift mailbox	K0WVN	Nov 50
ICOM	IC-27H		Oct 100	The Terminal Terminal Unit	variable-shift TU	K3PUR	Apr 70
ICOM	IC-37A		Jul 80	<b>SSTV</b>			
ICOM	IC-471H		Sep 86	Color Computer SSTV Part I	complete color SSTV system	K6AEP/WB8DQT	Nov 10
Info-Tech	M-44 AMTOR converter		Sep 85	Color Computer SSTV Part II	adding FAX to the board	K6AEP/WB8DQT	Dec 18
International Crystal	FOT-12 alignment oscillator		Mar 109	Peak Your Picture with Home-Brew SSTV Gear	gray scale and color bars	Cikas	Feb 60
ISS	Halon extinguishers		Nov 77	<b>TEST GEAR</b>			
J.L. Industries	Ham-Antuner		Oct 100	Around and Around and Around	Q-meter for coil winders	N7APE	Jan 70
Jensen	1984 catalog		Nov 76	Calculate Your FT-101	digital display and counter	VK8DE	Feb 22
John Vesty Co.	VIC-20 Hamware		Jun 90	Creason's Do-It DVM	single-IC digital voltmeter	K6EW	Jun 26
Kikusui	5060 60-MHz oscilloscope		Jul 80	Easy Berardi Building	.5 to 600 MHz counter	Berardi	Jun 10
Larsen	CM-series cellular antennas		Jun 90	Find Fault with Your Coax	time-domain reflectometry	K4IPV	Oct 10
Larsen	NMO antennas		Oct 100	Peak Your Picture with Homemade SSTV Gear	gray scale and color bars	Cikas	Feb 60
Lowrance Electronics	System 70		Feb 86	Penn's Two-Tone Gadget	dual tone generator	WIBG	Aug 21
MCM Electronics	1984 catalog		Aug 104	Rx for Ailing Antennas	build a noise bridge	K4IPV	Oct 28
MCM Electronics	Tenna DMM/DCM		Jun 91	Strictly for FM Deviates	deviation meter for VHF	KA8OBL	Feb 36
MEC	Unimec modular switches		Apr 116	Take the Two-Tone Challenge	two-tone generator for SSB	W8DCC	Mar 84
MFJ	MFJ-407 keyer		Dec 64	Tester Project: England '84	multi-use transistor tester	Penfold	Jun 34
MFJ	MFJ-1423		Mar 109	<b>POWER SUPPLIES</b>			
Micro Logic	design reference card		Dec 66	Cheap Power Ploy	12 V 20 A supply	K9QLL	Aug 10
Microperipheral Corp.	modem jack		Oct 100				
Microtec	50DC1235 dc-to-dc converter		Jan 111				
Moler Antenna	E-field displacement antenna		Jul 80				
Mouser	dip relays		Dec 64				
Nady	EasyTalk		Dec 65				
NCG	7-21-50 transceiver		Jul 81				
Nemal Electronics	TVRO control cable		Jan 110				
P.C. Electronics	TC-1 Plus ATV downconverter		Feb 86				
Palomar	FL-4 audio filter		Nov 77				
Rabbitt Ware, Inc.	Tutorcode		Mar 109				
Radio School	code and theory tapes		Sep 86				
Regency	MX-5000 scanner		Sep 85				
Regency	Z10 scanner		Apr 116				
Robot	1200C SSTV scan converter		Nov 77				
S.E. Corp.	eZ Board prototyping system		Jun 91				
SEA	1612 antenna coupler		Apr 117				
Simpson	1984 catalog		Nov 77				
Smith Software	antenna design software		Oct 100				
Software Protection	Copyrightier		Feb 86				
Spectrum Communications	SCR2000X repeater		Nov 76				
Spectrum Communications	TTC300 DTMF controller		Aug 102				
Spectrum Projects	Voice Pak		Sep 86				
TAU	SPC-3000 ATU		Dec 64				
Telex/Hy-Gain	Ham-SP rotator		Mar 108				
Telex/Hy-Gain	hot line		Aug 104				
Telex/Hy-Gain	ProCom 352-IC headset		May 109				
Ten-Tec	Century/22		Aug 102				
Universal Electronics	RTTY Today		Apr 118				
Wahl Clipper	Oryx soldering system		Apr 117				
Yaesu	FT-757GX		Mar 108				

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Watch That Signal!	simple signal monitor	W4RNL	Apr 20	TRANSMITTING			
THEORY				Build the NASA Beeper	simple courtesy beeper for HF	KQ4G	Mar 88
Around and Around and Around	Q-meter for coil winders	N7APE	Jan 70	Convert the Oddball	CB boards move to 10 meters	N2DS	Feb 77
But I Know How to Solder!	basic soldering	WD4S	Nov 28	Hy-Gain Board	kilowatt amp for 160 meters	WAOVNY	Aug 70
Counter-Productive Basics				Top-Band Power Punch	10 and 160 for the SB-221	W3JIP	Jul 48
Part I	digital design fundamentals	K4IPV	Aug 40	Watch a Warhorse Work			
Part II	problems in counter design	K4IPV	Sep 8	VHF/UHF			
Digital Design: How to Interface ICs	connecting to the real world	K4IPV	Apr 30	Another Eggbeater	two-meter omni	WD5DNL	Oct 48
Find Fault with Your Coax	time-domain reflectometry	K4IPV	Oct 10	Crystal Microwave	microwave crystal receiver	WA4WDL	Apr 42
Give Your Micro the World	A/D conversion for the TRS-80	AIOZ	Dec 44	Disco Duckie?	HT headphones	N6CSI	Sep 36
Join the Packet Radio Revolution	protocols and procedures	WA7GXD	Jan 36	Elementary, My Dear: Watts 'n' Swr	stripline V/UHF wattmeter	KT2B	Sep 14
LEDs You've Never Seen	how they work	W5LFM	Mar 58	How to Gain with PVC	world's cheapest 2-m quad	WB6BHI	May 37
Op Art	using operational amplifiers	KCOEW	Feb 62	Perfect Timing	multi-use repeater ID	VE2DWG	Sep 22
Perfboard and Solder-tail?	pc board construction tips	W4RNL	Jul 42	Piggy-Bank Repeater			
Secrets of Nicads	the real truth about nicads	WB2FYW	Jan 88	Project	simple repeater controller	KT2B	Jun 42
Simple Parabolic Theory	dish design basics	OA4KO/YV5	May 52	Simple Parabolic Theory	dish design basics	OA4KO/YV5	May 52
Transistors: A Biased Approach - Part I	basic transistor theory	KCOEW	Dec 34	Sky Power	contacts via meteor-scatter	WB4CHZ	Mar 90
Try Low and Behold	are low antennas best?	W1GV	Oct 38	Stare-Way to Heaven	visit the Arecibo observatory	AJON	
Wet Battery Quiz	do you know everything?	VE3AZX	Mar 92	The Big-Car Break-Down			
When Darkness Calls	160-meter grayline prediction	VE7BS	Oct 66	Beam	two-meter fold-down beam	N3BEK	May 46
Your Own Optoelectronic Anemometer	intro to optoelectronics	K3VDB	Nov 42	Throw in TV	build a UHF helix	WA4WDL	May 64
				Wheeling and Dealing	remote preamp switching	W8PMS	Apr 84
				with Preamps			

# HAM HELP

We are happy to provide Ham Help listings free, on a space-available basis. We are not happy when we have to take time from other duties to decipher cryptic notes scrawled illegibly on dog-eared postcards and odd-sized scraps of paper. Please type or print your request (neatly!), double spaced, on an 8 1/2" x 11" sheet of paper and use upper- and lowercase letters where appropriate. Also, please make a "1" look like a "1," not an "l," which could be an "el" or an "eye," and so on. Hard as it may be to believe, we are not familiar with every piece of equipment manufactured on Earth for the last 50 years! Thanks for your cooperation.

I am a handicapped ham and would greatly appreciate any working equipment anyone would be willing to donate to set up a station. I have multiple sclerosis

and have been taken off work so I have no money for ham equipment. Anything you send will be so greatly appreciated.

**J. T. Statham KA5UKP**  
1506 Sheila Dr.  
McComb MS 39648  
(601)-684-9558

I need a replacement power transformer for an NCX-A power supply or the name of a transformer rewinder.

**Joseph Karr KA5RKD**  
RR1, Box 579  
Lakeview AR 72642

I would like to get in touch with someone who would be interested in setting up a repeater in Wisconsin Dells or the immediate vicinity. The repeater would not only

be nice for hams who go there yearly, but also for hams traveling through the area.

**Klaus Spies WB9YBM**  
8502 N. Oketo Ave.  
Niles IL 60648

I have a Commodore PET 2001 and would like to hear from persons who have information regarding C-64/VIC-20 compatibility or who have a user's manual.

**Dale Warner**  
815 Hwy. 190  
Mandeville LA 70448  
(504)-626-5801

I need information on how to improve the performance of the Drake R4-B, T4-X, and AC-4.

**Walter Pereira da Costa, Jr. PY4ZO**  
Rua Daniel Xavier 414  
PO Box 207  
Araquari-MG Brazil 38440

I am looking for a schematic for a Sears Roadtalker-40 SSB/AM CB radio, model 663.38100050, for conversion to the ten-

meter band. I will gladly refund copying charges and postage.

**Bill Springer KC9YJ**  
4014 N. Grant St.  
Westmont IL 60559

I have a 23-channel Midland 13-882C Citizens Band radio. I would like to convert it to a 15-meter CW rig, but I have no idea how to do this. Can anyone help?

**Lawrence R. Barley, Jr. KA4ROY**  
1427 Byron Ave.  
Ypsilanti MI 48197

I would like a schematic and service information for a Hewlett-Packard model HP-130B oscilloscope. I will gladly pay copying charges and postage.

**Bill Springer KC9YJ**  
4014 N. Grant St.  
Westmont IL 60559

I am seeking technical assistance in modifying the TX/RX switching speed of a Yaesu FT-101ZD for use on AMTOR.

**Daniel Murray WA7YIC**  
1541 Oxbow Circle RR #11  
Billings MT 59101

# NEW PRODUCTS

## MFJ-407 DELUXE ELECTRONIC KEYS

MFJ Enterprises, Inc., introduces the MFJ-407 Deluxe Electronic Keyer to its line of amateur-radio products. The MFJ-407 features iambic operation with squeeze-key, dot-dash insertion, and semiautomatic operation that provides automatic dots and manual dashes. The keyer also features a dot-dash memory, self-completing dots and dashes, jam-proof spacing, and instant-start keying.

Solid-state keying is provided for use with tube or solid-state transmitters. Front-panel controls include linear speed, weight, tone, and volume controls as well as on/off, tune, and semiautomatic switches.

Weight control allows you to adjust the dot-dash space ratio, thus making your signal distinctive to penetrate QRM. A tune switch keys the transmitter for tuning.

The MFJ-407 is rf-proof, has a built-in speaker, and uses a 9-volt battery (not included) or 110 V ac with an ac adapter (MFJ-1305.) The keyer comes in an attrac-



MFJ's electronic keyer.

tive black aluminum cabinet with a black front plate. The unit measures 7 x 2 x 6 inches.

For more information, write MFJ Enterprises, Inc., PO Box 494, Mississippi State MS 39762. Reader Service number 480.

## MOUSER RELAYS

Mouser Electronics announces its entry into the relay market with a quality line of DIP reed relays, the ME431-2000 series. Their DIP-style packaging makes them

completely compatible with in-line ICs, and the terminal patterns mate with standard 14-pin DIP sockets. They feature a stable transfer of low signal levels that minimizes interface buffering.

The relays are available in three standard contact forms—1A, 2A, and 1C. Their contacts are rated at 4 or 10 W, with switching currents of 0.3 or 0.5 A and a switching voltage of 30 or 100 V dc. They feature a minimum insulation resistance of 10<sup>10</sup> Ohms and a maximum operation/release time of 1.0 ms.

For further details and for a free catalog, write or call Mouser Electronics, 11433 Woodside Ave., Santee CA 92076; (619)-449-2222. Reader Service number 476.

## TAU SPC-3000 ATU

TAU Systems, Ltd., has announced a new addition to their line of antenna-matching units. The SPC-3000 ATU uses an infinitely-variable roller inductor and 5-kV air-dielectric capacitors arranged in an SPC configuration. A built-in 4:1 balun, rated at 1 kW, is also included.

The front panel sports a counter for the roller inductor, a five-position antenna switch, and two meters—one monitors forward power, the other swr. The unit will