



ARRL Periodicals Archive – Search Results

A membership benefit of ARRL and the ARRL Technical Information Service

ARRL Members: You may print a copy for personal use. Any other use of the information requires permission (see Copyright/Reprint Notice below).

Need a higher quality reprint or scan? Some of the scans contained within the periodical archive were produced with older imaging technology. If you require a higher quality reprint or scan, please contact the ARRL Technical Information Service for assistance. Photocopies are \$3 for ARRL members, \$5 for nonmembers. For members, TIS can send the photocopies immediately and include an invoice. Nonmembers must prepay. Details are available at www.arrl.org/tis or email photocopy@arrl.org.

QST on CD-ROM: Annual CD-ROMs are available for recent publication years. For details and ordering information, visit www.arrl.org/qst.

Non-Members: Get access to the ARRL Periodicals Archive when you join ARRL today at www.arrl.org/join. For a complete list of membership benefits, visit www.arrl.org/benefits.

Copyright/Reprint Notice

In general, all ARRL content is copyrighted. ARRL articles, pages, or documents--printed and online--are not in the public domain. Therefore, they may not be freely distributed or copied. Additionally, no part of this document may be copied, sold to third parties, or otherwise commercially exploited without the explicit prior written consent of ARRL. You cannot post this document to a Web site or otherwise distribute it to others through any electronic medium.

For permission to quote or reprint material from ARRL, send a request including the issue date, a description of the material requested, and a description of where you intend to use the reprinted material to the ARRL Editorial & Production Department: permission@arrl.org.

QST Issue: Aug 1979

Title: Ten Tec 544 Supplement

[Click Here to Report a Problem with this File](#)



2009 ARRL Periodicals on CD-ROM

ARRL's popular journals are available on a compact, fully-searchable CD-ROM. Every word and photo published throughout 2009 is included!

- **QST** The official membership journal of ARRL
- **NCJ** National Contest Journal
- **QEX** Forum for Communications Experimenters

SEARCH the full text of every article by entering titles, call signs, names—almost any word. **SEE** every word, photo (including color images), drawing and table in technical and general-interest features, columns and product reviews, plus all advertisements. **PRINT** what you see, or copy it into other applications.

System Requirements: Microsoft Windows™ and Macintosh systems, using the industry standard Adobe® Acrobat® Reader® software. The Acrobat Reader is a free download at www.adobe.com.

2009 ARRL Periodicals on CD-ROM

ARRL Order No. 1486
Only \$24.95*

*plus shipping and handling

Additional sets available:

2008 Ed., ARRL Order No. 9406, \$24.95
2007 Ed., ARRL Order No. 1204, \$19.95
2006 Ed., ARRL Order No. 9841, \$19.95
2005 Ed., ARRL Order No. 9574, \$19.95
2004 Ed., ARRL Order No. 9396, \$19.95
2003 Ed., ARRL Order No. 9124, \$19.95
2002 Ed., ARRL Order No. 8802, \$19.95
2001 Ed., ARRL Order No. 8632, \$19.95



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)

Bird Ham-mate Wattmeters

	HF Model 4360	VHF Model 4362
Frequency range:	1.8-30 MHz	140-180 MHz
Forward power range:	0-200/2000 W	0-25/250 W
Reflected power range:	0-200/2000 W	0-25/250 W
Impedance:	50 ohms	
Insertion VSWR:	1.1 to 1.0 max.	
Accuracy:	± 8 percent of full scale.	
Directivity:	20 dB min.	
Connectors:	Female UHF (SO-239).	
Dimensions (HWD):	3-15/16 × 6 × 3-3/8 inches (100 × 152 × 86 mm).	
Weight:	1 lb. (0.45 kg).	
Price class:	\$95.	
Manufacturer:	Bird Electronic Corp., 30303 Aurora Rd., Cleveland, OH 44139, tel. 216-248-1200.	

two new Ham-mate hf and vhf models just introduced are much more than dressed-up versions of the original Ham-mates. Each of the new models has the meter movement and circuit components tightly shielded. This, plus the use of a rotating element, provides excellent directivity. Without such precautions, it is possible that some forward current could be picked up during the measurement of "reverse power." This would cancel out the desired reading, and the result would be a false minimum reading of "reverse power."

The Ham-mates are designed to be placed near the transmitter, and the meter cannot be separated from the rest of the unit. Controls consist of a HIGH, OFF or LOW power selector and a forward-reflected switch. The case housing the unit is made of high-impact plastic. Connection to the feed line is made through two SO-239 (UHF) connectors. Insertion VSWR is rated at 1.1 to 1.0 maximum.

Although the manufacturer claims eight percent accuracy, we found no discernible difference between the hf Ham-mate we tested and the Thruline (model 43) meter. On the models 4360 and 4362, a wider meter scale with large printing makes precise meter readings quite easy. The meter is very well damped, and will indicate the average power of most transmitters. The instruction booklet includes power-to-SWR nomographs if SWR readings are desired. — *John Nelson, W1GNC*

SDI-700 QUICK-DISCONNECT SLIDE MOUNT AND SDI-500 UNIVERSAL MOUNTING BRACKET

Almost every law enforcement official preaches the same line. "If you want to safeguard your valuables, put them beyond reach." Until now, this has been a bit difficult with most Amateur Radio equipment installed in cars. It has been inconvenient, awkward and very time-consuming to disconnect external speaker leads, power leads and coaxial connectors. Some of us have even adapted audio slide mounts in an effort to make things easier when it came time to remove radio gear — but still — those pesky coaxial connectors. First you have to reach them, and that's not always easy.

Here is a device that, at least for small transceivers up to 50 watts input, will handle the dc and rf power. Currently in use by many commercial communications-gear suppliers and recommended by them, the SDI-700 slide is

specifically designed for mobile communications gear. When you want to take your gear out of the car, just pull up on the latch and out it comes. All wires and coaxial cables are automatically disconnected. The device is made of 16-gauge steel and will hold just about any of the mobile vhf rigs (and some hf ones, too) that an amateur might want to install on it.

The SDI-700 features a modified AMP Dualatch connector system. The connector houses the AMP miniature Coaxicon contact, as well as the four power and accessory contacts.

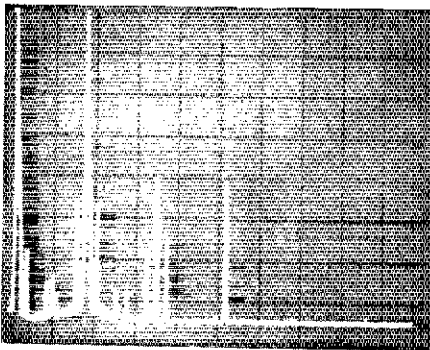
The specifications that AMP places on the connector are impressive: VSWR 1.4:1 at 500 MHz; rf shielding, 38 dB at 500 MHz; durability greater than 2000 matings and separations. A three-way spring lock eliminates rattles while holding the radio firmly until it is removed by the operator.

While the slide mount may be used alone, a companion universal mounting bracket, the SDI-500, offers some unique features. It provides 50 degrees of tilt as well as 50 degrees of turn. Thus, head-on visibility may be obtained just about anyplace the bracket is mounted: hump, floor, roof or under-dash. The bracket is made from the same material as the slide mount.

The SDI-700 Quick-Disconnect Radio Slide Mount and the SDI-500 Universal Mounting Bracket are available from Scientific Dimensions, Inc., 309 McKnight N.E., Albuquerque, NM 87102. Price class, \$20 and \$9 respectively. — *Lee Aurick, W1SE*

TEN TEC 544 SUPPLEMENT

The Ten Tec 544 Product Review, which appeared in July 1979 QST, did not contain the spectral photograph referenced in the text. Here are the worst-case test results, as displayed on the spectrum analyzer. The fundamental (80-meter) is represented by the large pip near the left side of the photo. Vertical divisions are each 10 dB; horizontal divisions are each 2 MHz. The most significant spurious emissions are the second and third harmonics, both approximately 40 dB below the fundamental. The 544 complies with current FCC regulations regarding purity of emissions. Tests were made in the ARRL lab.



New Books

□ *The Radio Amateur Antenna Handbook*, First Edition, by William Orr and Stuart Cowan, published by Radio Publications Inc, Wilton

CT. Paperback, 8 × 5-1/2 inches (203 × 140 mm), 192 pages. Price: \$6.95.

When you stop to consider what subject hams talk about the most, you've got to come up with antennas. We all dream of putting up the largest skyhook around — one that lets us dig out that rare DX station that just happens to be running 10 milliwatts. But in these days of high prices, it's getting hard to realize that dream. However, there are ways to get super antenna performance without high cost. *The Radio Amateur Antenna Handbook* is full of simple and inexpensive antenna designs.

The Radio Amateur Antenna Handbook is divided into two sections. Chapters 1 through 5 discuss fundamental aspects of antenna design, how to choose the best place to locate an antenna, the basics of design evaluation, and a comprehensive section on towers and rotators. Chapters 6 through 10 cover the many different practical applications of proven antenna design. Over 100 pages are devoted to construction projects of all kinds and description; vertical, sloper, Yagi, and wire antennas — both hf and vhf types. Each design is accompanied with helpful hints and illustrations to help ensure that the antenna will work the first time.

The Radio Amateur Antenna Handbook is a good introduction to antennas for the beginner and should make a nice reference for the more experienced builder. — *Craig Clark, N1ACH*

□ *Practical Electrical Wiring*, by H. P. Richter and W. C. Schwan, 11th edition, published by McGraw-Hill Book Company, 1211 Avenue of the Americas, New York, NY 10020. Hardback edition, 6 × 8-1/2 inches, 664 pages. Price: \$18.

Hams are natural do-it-yourselfers. After building a few pieces of station equipment, many amateurs probably start feeling confident that they could repair a defective electrical outlet or even rewire the entire house. "Surely simple electrical wiring can't be any harder to repair than radio equipment, right? Just have to follow the code, that's all. Let's see now . . . I wonder how many pairs of 12-2 I can put in this junction box?"

The answers to questions like this are easily found in *Practical Electrical Wiring*. The book covers most installations in homes, farms, schools, churches, and even small industrial and commercial buildings. All instructions are in accordance with the 1978 National Electrical Code.

The authors explain each type of installation in simple language, giving not only the step-by-step procedure for doing things, but also the reasons why things should be done a certain way. No prior knowledge of electronics is needed to understand the detailed instructions provided in this book. Hundreds of illustrations, tables and charts are included to help the reader through the various stages in the wiring process. All math is kept at a grade-school level.

Although radio equipment installations are not specifically covered in this book, the reader should be able to obtain all the necessary details for wiring 235-volt receptacles and any other special items included in the shack wiring plan.

Amateurs desiring to do their own electrical wiring should benefit from the information contained in *Practical Electrical Wiring*, but should also obtain a copy of the local codes and obtain a construction permit, if necessary. — *Jim Bartlett, K1TX*