

ARRL Publications & Products

Winter 2009/2010

Devoted Entirely to

Amateur Radio



ARRL The national association for
AMATEUR RADIO™
www.arrl.org/shop

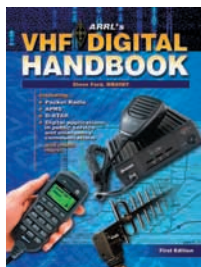
ARRL's VHF Digital Handbook

1st Edition

Steve Ford, WB8IMY

Order No. 1220 – \$19.95

Everything you need to get started in digital radio applications. You'll understand how to setup and operate your equipment and software, and make the best use of your VHF digital station. Includes Packet Radio, APRS, D-STAR, digital applications in public service and emergency communications, and much more!



VoIP: Internet Linking for Radio Amateurs

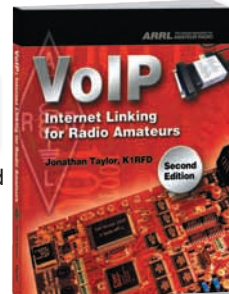
2nd Edition

Jonathan Taylor, K1RFD

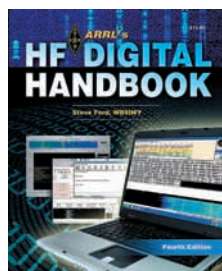
Order No. 1431 – \$21.95

NEW!

Your complete guide to the most widely-used VOIP systems used by hams; with particular attention to EchoLink and the Internet Radio Linking Project, or IRLP.



Dive into the Digital Radio Universe!



ARRL's HF Digital Handbook

4th Edition

Steve Ford, WB8IMY

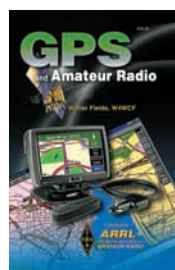
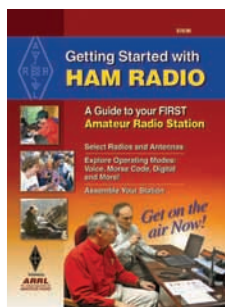
Order No. 1034 – \$19.95

Your guide to understanding the most active HF digital communication modes in use today. Expanded setup information, varieties of PSK, new content on Olivia, DominoEX, HF digital voice and image modes, Automatic Link Establishment and more!

Getting Started with Ham Radio

Order No. 9728 – \$19.95

Get on the air now! A guide to your first Amateur Radio station. Select radios and antennas, explore operating modes, and assemble your station.



GPS and Amateur Radio

Walter Fields, W4WCF

Order No. 9922 – \$18.95

With this book, you'll explore GPS: its history, how it works, and navigating with a GPS receiver. You'll also learn how Amateur Radio operators have made use of GPS technology for direction finding and public service.

FCC Rules and Regulations for the Amateur Radio Service

2nd Edition

Order No. 1173 – \$5.95

Includes the complete Part 97 rules from Title 47 of the Code of Federal Regulations. Now including: *The FCC Rules and You.*

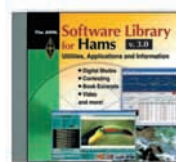


The ARRL Software Library for Hams

CD-ROM, version 3.0

Order No. 1424 – \$19.95

Quick access to utilities, applications and information: software for contesting, digital voice, HF digital (PSK31, MFSK16, MT63, and RTTY), meteor scatter and moonbounce, book excerpts and more! Also includes programs for APRS, Winlink 2000, packet radio and satellite tracking. Requires Microsoft® Windows®.

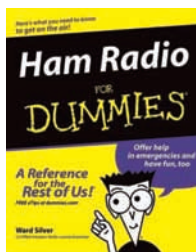
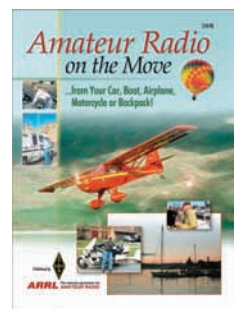


Amateur Radio on the Move

—from Your Car or RV, Boat, Airplane, Motorcycle or Backpack!

Order No. 9450 – \$19.95

Expert advice for radio operating on the go! Mobile radios, installation, antennas, operating tips, software and more.



Ham Radio for Dummies

Ward Silver, NØAX

Order No. 9392 – \$21.99

Here's the scoop, including licensing requirements and how to set up a station.

And if you're already licensed, this book will help you start sounding (and feeling) like a pro!

See page 13 for more Dummies titles.

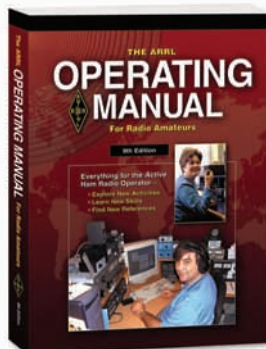
Low Profile Amateur Radio

2nd Edition

Order No. 9744 – \$19.95

Includes all the information you need to operate your station under many types of restrictive situations. Provides details for many real-life examples and techniques for a variety of low profile circumstances.





The ARRL Operating Manual 9th Edition

Order No. 1093 – \$29.95

The ARRL Operating Manual is the most complete book about Amateur Radio operating. It was written to help guide you through the dozens of ways hams communicate with each other. It contains information that every ham needs:

Beginners – explore the broad range of ham radio activities.

Intermediate hams – sharpen your skills and earn awards.

Experienced hams – find new references, details on new technology, and new ways to enjoy your favorite activities.

Contents:

- Amateur Radio – All About Operating
- VHF/UHF – FM, Repeaters, Digital Voice and Data, SSB and CW
- Emergency Communications
- Traffic Handling – Getting the Message Through
- DXing – Contacting Those Faraway Places
- Contesting – Competitive Wireless
- HF Digital Communications
- Image Communications
- Amateur Satellites
- The FCC Rules and You – Operating Legally, Safely, and Appropriately
- Operating Awards
- References – Call Sign Prefix List, Antenna Bearing Maps, Abbreviations, and much more.

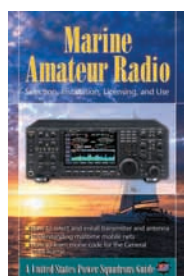
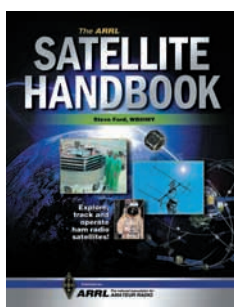
The ARRL Satellite Handbook

1st Edition

Steve Ford, WB8IMY

Order No. 9857 – \$24.95

Bring the thrill of satellite communications within your reach! Filled with understandable descriptions and illustrations, this book includes all the tools you need to participate in this exciting field.



Marine Amateur Radio

Order No. 9723 – \$12.95

Use ham radio for coastal, high-seas, or worldwide communications. Select, install, and operate an inexpensive and completely dependable ham radio system on any boat, power or sail. *Produced by United States Power Squadrons.*

The ARRL Repeater Directory® 2009-2010 Edition

Over **21,500** listings for VHF/UHF repeaters across the U.S. and Canada.

Includes:

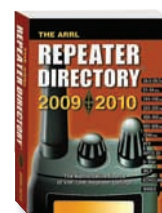
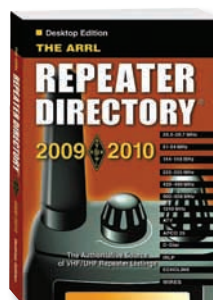
- Frequency Coordinator contact information
 - Tips for handling interference
 - D-Star and APCO 25 repeaters
 - IRLP, WIRES-II, and EchoLink (Internet linked) nodes
 - Emergency Message Handling procedures
 - Transceiver Memory Log
- and much more.

Desktop Edition

Order No. 1318 – \$15.95

Pocket-sized

Order No. 1288 – \$10.95



Desktop Edition
Easy-to-Read Size
(6 x 9 inches)

Pocket-sized
(3.75 x 5.25 inches)

TravelPlus for Repeaters™

CD-ROM, version 13.0

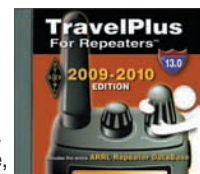
Order No. 1417 – \$39.95

Locate repeaters along your travel route.

Feature-Packed CD-ROM:

- Map your travel route and tune in. Supports GPS.
- View and print maps and repeater lists.
- Access The ARRL Repeater DataBase, global Internet linked nodes, AM/FM radio, broadcast television, and NOAA weather stations, USA and Canadian licenses, and ham radio points of interest.
- Export data for radio programming, handheld devices, and more.

Requires Microsoft Windows™ XP or Vista. GPS feature requires a GPS device. Upgrade available for previous customers. Contact ARRL for details.



More ARRL Operating Publications

- **DXing on the Edge**
Order No. 6354 ~~\$29.95~~ **\$19.95**
- **The ARRL Image Communications Handbook**
Order No. 8616 ~~\$29.95~~ **\$19.95**
- **YASME**
Order No. 8934 **\$24.95**

The ARRL Handbook 2010 Edition

Hardcover. Includes book and CD-ROM (version 14.0),
Order No. 1462 – \$59.95

Softcover. Includes book and CD-ROM (version 14.0),
Order No. 1448 – \$49.95

The Handbook is the single most authoritative reference on practical communications topics. For generations it's been a core resource for radio amateurs, hobbyists, engineers, and scientists.

Introducing the 2010 Edition –
the biggest update in years!

- **Technical accuracy.** Over 70% NEW or completely revised content.
- **Innovation.** More projects to enjoy, including new design software on the book's CD-ROM.
- **Value.** Over 1,250 pages make this the biggest Handbook...ever.

NEW Table of Contents:

INTRODUCTION

What is Amateur (Ham) Radio?

FUNDAMENTAL THEORY

Electrical Fundamentals

Analog Basics

Digital Basics

PRACTICAL DESIGN AND PRINCIPLES

RF Design Techniques

Computer-Aided Circuit Design

Power Supplies

Modulation

Oscillators and Synthesizers

Mixers, Modulators and Demodulators

RF and AF Filters

Receivers

Transmitters

Transceivers

DSP and Software Radio Design

Digital Modes

RF Power Amplifiers

Repeaters

ANTENNA SYSTEMS AND RADIO PROPAGATION

Propagation of Radio Signals

Transmission Lines

Antennas

EQUIPMENT CONSTRUCTION AND MAINTENANCE

Component Data and References

Circuit Construction

Station Accessories

Test Equipment and Measurements

Troubleshooting and Repair

Electromagnetic Compatibility and Direction-Finding

STATION ASSEMBLY AND MANAGEMENT

Safety

Assembling a Station

Space Communications

Digital Communications

Image Communications



*The BIGGEST
Handbook
EVER.*

ARRL's Hands-On Radio Experiments

Ward Silver, NØAX

Order No. 1255 – \$19.95

Over 60 short electronics experiments from the pages of QST. Step-by-step Silver expertly leads you through each experiment—and you'll make discoveries along the way.

- Radio and Electronic Fundamentals
- Semiconductor Basics
- Building Block Circuits
- Power Supplies
- Filters
- Oscillators and Buffers
- Transmission Lines & Impedance Matching
- Workshop & Design Techniques

Includes a complete **parts list!**



Hands-On Radio Parts Kit

Order No. 1255K – \$79.95

Use the parts kit to build the experiments yourself!
Kit and book sold separately.

Experimental Methods in RF Design



Revised 1st Edition

Order No. 9239 – \$49.95

Explore wide dynamic range, low distortion radio equipment, the use of direct conversion and phasing methods, and digital signal processing. Use the models and discussion to design, build and measure equipment at both the circuit and the system level. Laced with unpublished projects and illustrated with CW and SSB gear.

CD-ROM included with design software, listings for DSP firmware, and supplementary articles.

Contents:

- Basic Investigations in Electronics
- Amplifiers, Filters, Oscillators, and Mixers
- Super-heterodyne Transmitters and Receivers
- Measurement Equipment
- Direct Conversion Receivers
- Phasing Receivers and Transmitters
- DSP Components
- DSP Applications in Communications
- Field Operation, Portable Gear and Integrated Stations

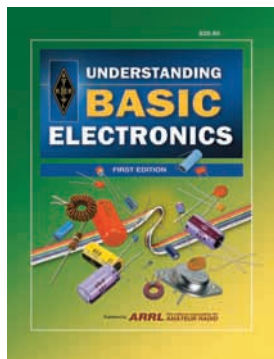
L/C/F and Single-Layer Coil Winding Calculator

Order No. 9123 – \$12.95

Use this handy slide rule when you're tinkering with filters, oscillators, impedance matching circuits or antenna coils and traps. Quick and easy circuit calculations.



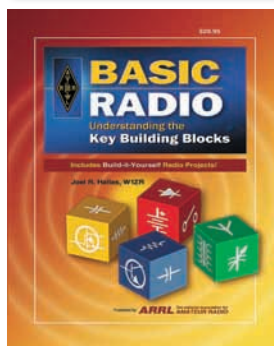
ARRL "Basic" Book Series



Understanding Basic Electronics

Order No. 3983 – \$29.95

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!



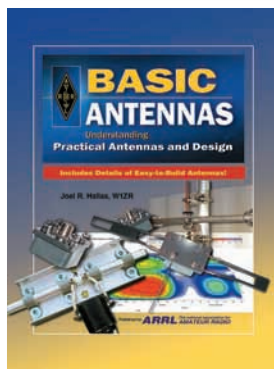
Basic Radio

Understanding the Key Building Blocks

Joel Hallas, W1ZR

Order No. 9558 – \$29.95

This is an introduction to radio for everyone. Reveals the key building blocks of radio: **receivers, transmitters, antennas, and propagation**. Includes simple, build-it-yourself projects to turn theory into practice.



Basic Antennas

Understanding Practical Antennas and Design

1st Edition

Joel Hallas, W1ZR

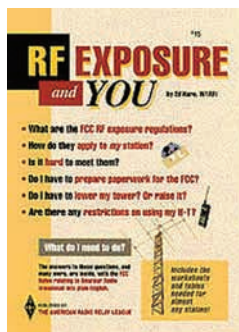
Order No. 9994 – \$29.95

A comprehensive introduction to antennas. Includes basic concepts, practical designs, and details of easy-to-build antennas. You'll learn how to make antennas that *really* work!

RF Exposure and You

Order No. 6621 – \$22.95

Meet the FCC RF exposure regulations! It's not complicated! Learn how to operate your station safely and legally using simple step-by-step ARRL worksheets and tables.

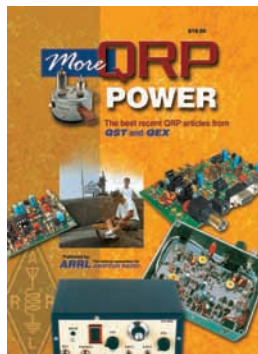
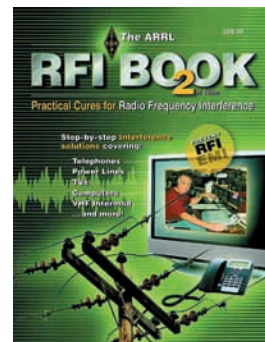


The ARRL RFI Book

2nd Edition

Order No. 9892 – \$29.95

Advice on every type of radio frequency interference: automotive, television, computers, DVD players, audio equipment, and telephones. Resources for tackling power line noise, cable television interference, and RFI solutions for other electrical devices.



More QRP Power

Order No. 9655 – \$19.95

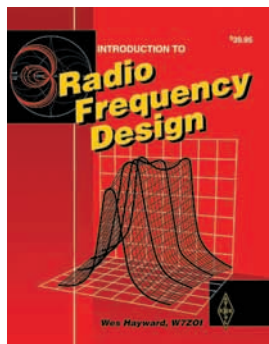
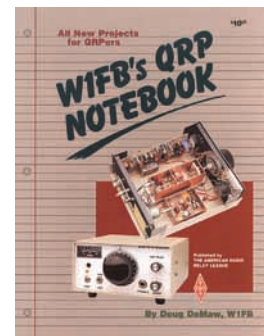
Here are *more* projects and articles for low power radio operating, from the pages of QST and QEX magazines: **construction practices, transceivers, transmitters, receivers, accessories, and antennas.**

W1FB's QRP Notebook

Doug DeMaw, W1FB

Order No. 3657 – \$10

Experience first-hand the thrill of making contacts using equipment that you built!



Introduction to Radio Frequency Design

1st Edition, 4th Printing

Wes Hayward, W7ZOI

Order No. 4920 – \$39.95

The fundamental methods of radio frequency design using mathematics as needed to develop intuition for RF circuits and systems. Simple circuit models are used to prepare you to actually design HF, VHF and UHF equipment.

ARRL's Low Power Communication The Art and Science of QRP

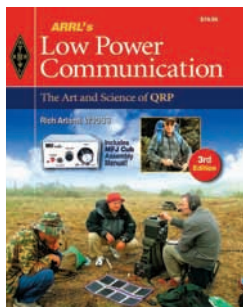
3rd Edition

Rich Arland, W3OSS

Order No. 1042 – \$19.95

Welcome to the world of QRP!

Explore the excitement of low power radio operating with equipment and station accessories, antennas, operating strategies, emergency communication, surplus military equipment and more. Includes the complete assembly manual for the MFJ Cub Transceiver Kit. Kit not included.



Get the book with the kit!



Order No. 1042K – \$99.95

ARRL's Low Power Communication with 40-meter CW Cub Transceiver Kit. Build the kit in just a few hours, and you'll be working the world with low-power fun!

Order No. 0018 – \$89.95

20-meter CW Cub Transceiver Kit. Book not included.

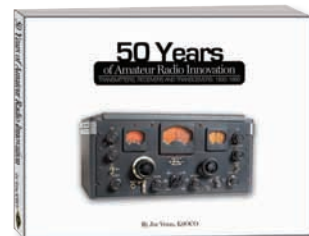
50 Years of Amateur Radio Innovation

Transmitters, Receivers and
Transceivers: 1930-1980

Joe Veras, K9OCO

Order No. 0228 – \$39.95

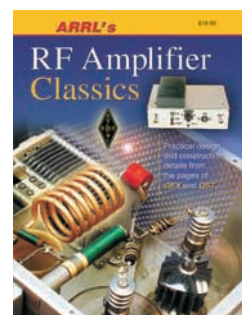
This guided tour of more than 400 legendary radios from 1930 to 1980, depicts the "golden age" of American radio technology. Each photo includes a brief description, the year the radio was introduced and its selling price at the time.



ARRL's Vintage Radio

Order No. 9183 – \$19.95

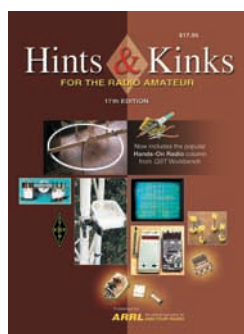
QST articles about the lure of vintage Amateur Radio gear: equipment, techniques, personal experiences, restoration, and classic QST ads. Includes "Old Radio" QST columns by John Dilks, K2TQN and other articles published between 1977 and 2003.



ARRL's RF Amplifier Classics

Order No. 9310 – \$19.95

Two-dozen projects and articles to help shorten your discovery work. There are amps for HF, MF, VHF and microwave. Build safe and reliable amplifiers. Produce loud and clean signals!



Hints and Kinks for the Radio Amateur

17th Edition

Order No. 9361 – \$17.95

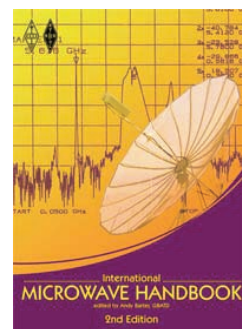
The best of Amateur Radio tips and techniques from the pages of QST —antennas, weekend projects, shack accessories and operating. Now including articles from the columns **The Doctor is IN** and **Hands-On Radio**.

International Microwave Handbook

2nd Edition

Order No. 0330 – \$29.95

Learn the fundamental principles to designing and constructing equipment for the microwave bands. Includes operating techniques, system analysis and propagation, microwave antennas, transmission lines and components, semiconductors and valves, and more.

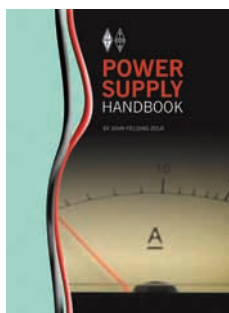


Power Supply Handbook

John Fielding, ZS5JF

Order No. 9977 – \$29.95

Gain the knowledge and confidence you need to understand and make power supplies of all types. Explains how power supplies work, selecting each component, building and modifying, measuring the finished supply, and more.



Digital Signal Processing Technology

Doug Smith, KF6DX

Order No. 8195 – ~~\$44.95~~ \$34.95

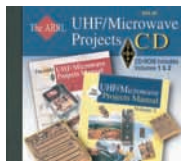
The book begins with basic concepts, details digital sampling including fundamental and harmonic sampling, aliasing and mechanisms at play in real data converters and other current topics.

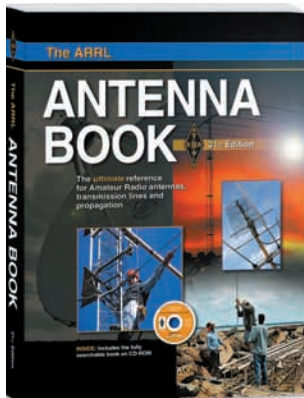


The ARRL UHF/Microwave Projects CD

Order No. 8853 – \$24.95

Practical projects, design and construction ideas. Assemble a high performance antenna or transverter without a room full of special test equipment and machine tools. Includes Volume 1 (1994) and Volume 2 (1997) of *The ARRL Microwave Projects Manuals*.





The ARRL Antenna Book — 21st Edition

The ultimate reference for Amateur Radio antennas, transmission lines and propagation.

Order No. 9876 – \$44.95

The ARRL Antenna Book is THE SOURCE for current antenna theory and a wealth of practical, how-to construction projects. Extensively revised, and featuring antenna designs enhanced by the latest advances in computer modeling. Design, build and install any imaginable type of antenna—from the most simple wire varieties, to specialized or highly optimized arrays.

Fully searchable CD-ROM included

Bundled with this edition is the fully-searchable book on CD-ROM and additional software utilities*. The CD-ROM



supports Windows™ and Macintosh systems. At your command is the entire book—every word and every page—PLUS pages of band-by-band propagation tables for locations around the world! Uses the widely popular Adobe® Acrobat® Reader® software (included) to view, navigate, search and print from all chapters.

*CD-ROM System

Requirements: Microsoft Windows 98 or later for PCs. Publication PDF files can be viewed on any Apple Macintosh computer that has Preview or Adobe Reader ver. 7 or 8 loaded. Additional software utilities are included, for Windows and DOS only.

The CD-ROM contains additional utility programs, including:

YW – Yagi for Windows

TLW – Transmission Line for Windows

HFTA – HF Terrain Assessment for Windows

Range-Bearing – compute range/bearing or latitude/longitude

Arrayfeed1 – designing phased-array feed systems

EZNEC-ARRL – antenna modeling for Windows

Includes a comprehensive glossary and index.

Contents:

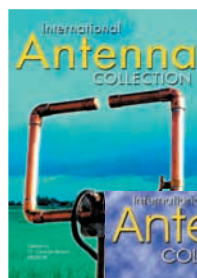
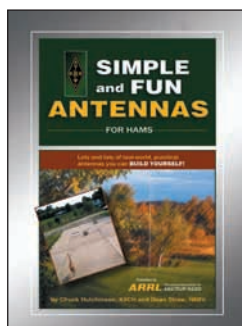
- Safety First
- Antenna Fundamentals
- The Effects of Ground
- Antenna Modeling and System Planning
- Loop Antennas
- Low-Frequency Antennas
- Multiband Antennas
- Multielement Arrays
- Broadband Antenna Matching
- Log Periodic Arrays
- HF Yagi Arrays
- Quad Arrays
- Long Wire and Traveling Wave Antennas
- Direction Finding Antennas
- Portable Antennas
- Mobile and Maritime Antennas
- Repeater Antenna Systems
- VHF and UHF Antenna Systems
- Antenna Systems for Space Communications
- Antenna Materials and Accessories
- Antenna Products Suppliers
- Antenna Supports
- Radio Wave Propagation
- Transmission Lines
- Coupling the Transmitter to the Line
- Coupling the Line to the Antenna
- Antenna and Transmission-Line Measurements
- Smith Chart Calculations

All the information you need to design your own complete antenna system!

Simple and Fun Antennas for Hams

Order No. 8624 – \$22.95

More than 70 well-tested, fun and entirely useful projects. Hundreds of photos and illustrations. Build your first VHF or HF antenna. Explore dipoles, verticals, beams and more. **These antennas work!**



International Antenna Collection

Volume 1

Order No. 9156 – \$19.95

Volume 2

Order No. 9465 – \$21.95

Collections of antenna designs from around the world—from 136 kHz to 1.3 GHz, receiving and transmitting, fixed and mobile designs.



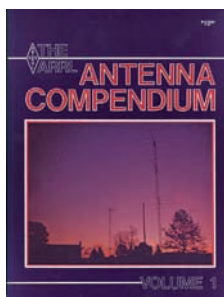
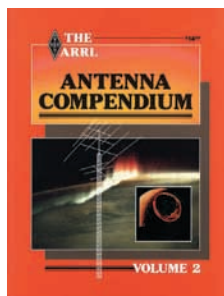
6 Antennas

The ARRL Antenna Compendium Series

Volume 1

Order No. 0194 – \$20

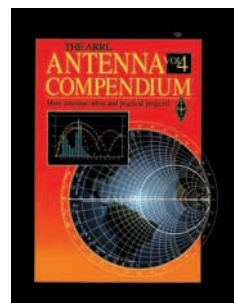
The premiere volume includes articles on a multiband portable, quads and loops, baluns, the Smith Chart, and more.



Volume 4

Order No. 4912 – \$20

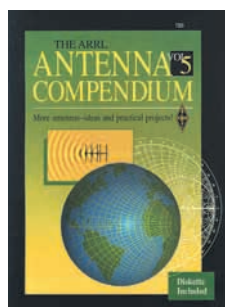
38 articles covering a wide range of topics. Includes simple, practical antenna projects, and heavy-duty, theoretical treatments of complex arrays.



Volume 2

Order No. 2545 – \$14

Covers a wide range of antenna types and related topics, including innovative verticals, an attic tri-bander, antenna modeling and propagation.



Volume 5

Order No. 5625 – \$20

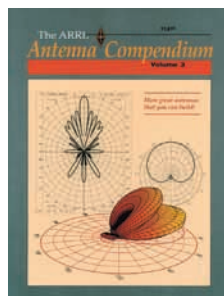
—Includes software

Enjoy excellent coverage of baluns, an HF beam from PVC, low-band Yagis, quads and verticals, curtain arrays, and more!

Volume 3

Order No. 4017 – \$14

Quench your thirst for new antenna designs, from Allen's Log Periodic Loop Array to Zavrel's Triband Triangle. Discover a 12-meter quad, a discone, modeling with MININEC and VHF/UHF ray tracing.



Volume 6

Order No. 7431 – \$22.95

—Includes software

All new articles covering low-band antennas and operating, 10-meter designs, multiband antennas, propagation and terrain assessment. CD-ROM included with propagation prediction software!



The ARRL Antenna Compendium Volume 7

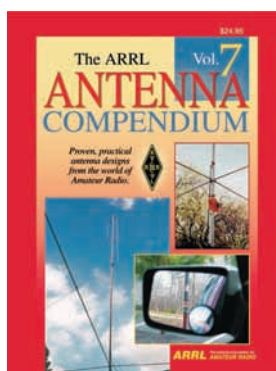
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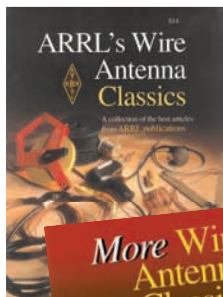
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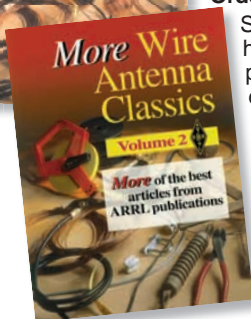
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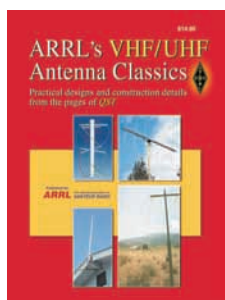


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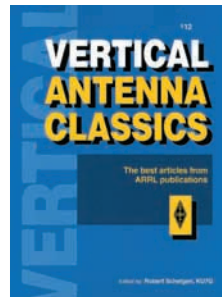
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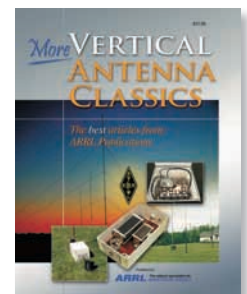
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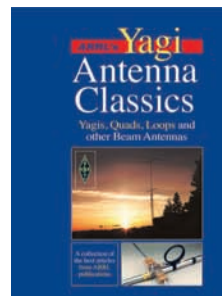
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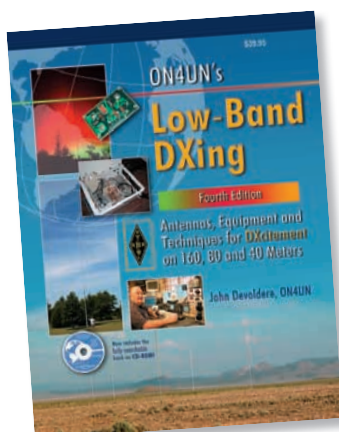
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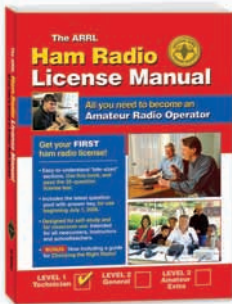
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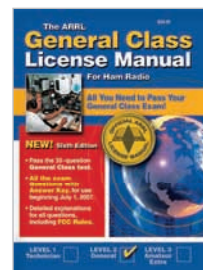
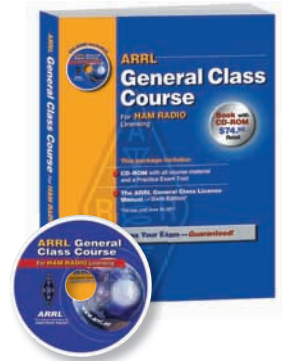
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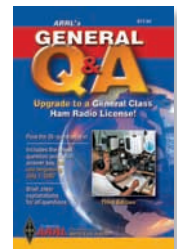
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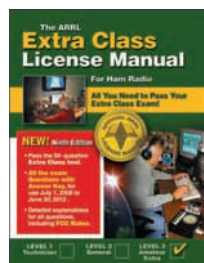
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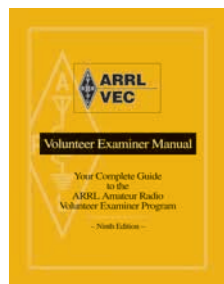
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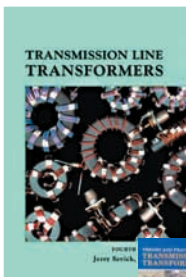
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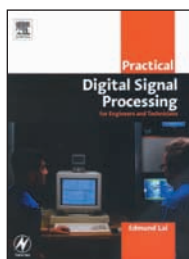
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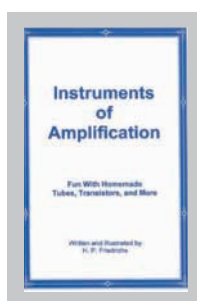
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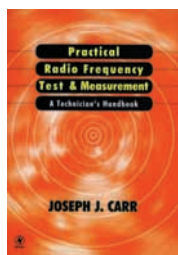
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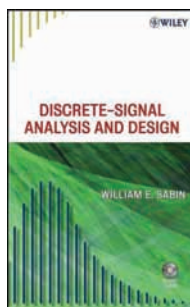
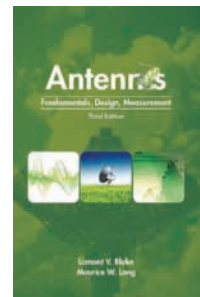
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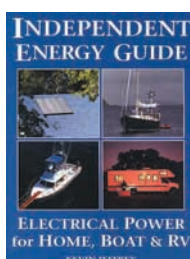
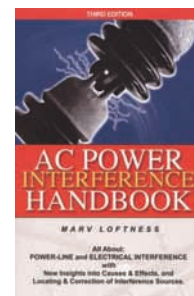
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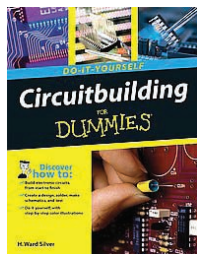
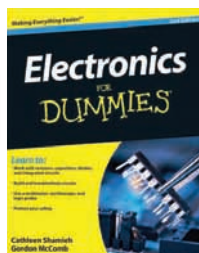


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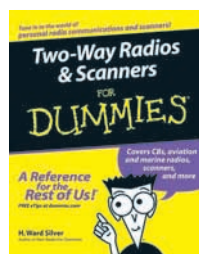
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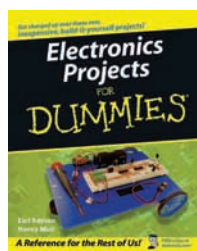
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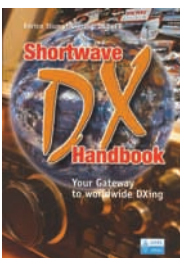
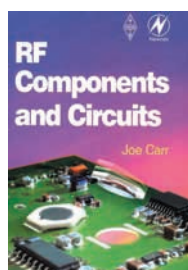
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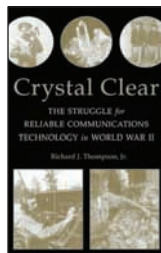
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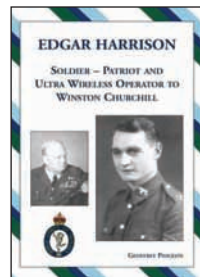
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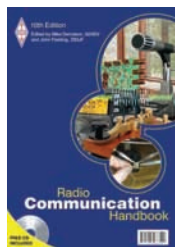
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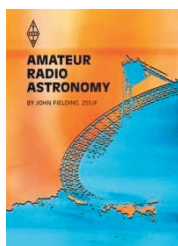
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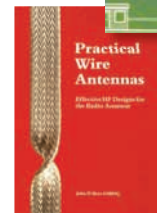
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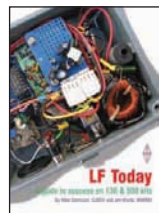
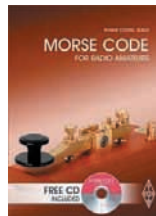
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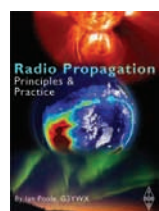
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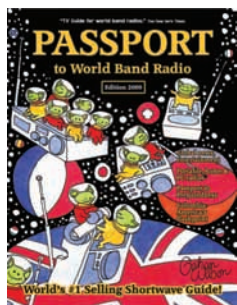
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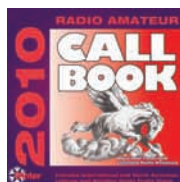
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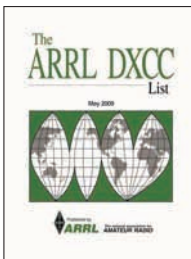


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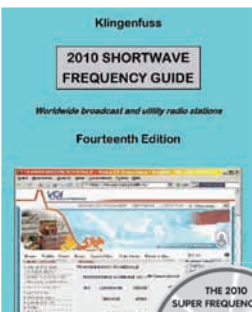


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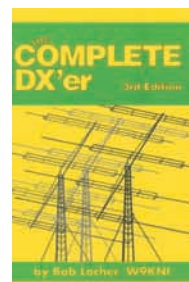
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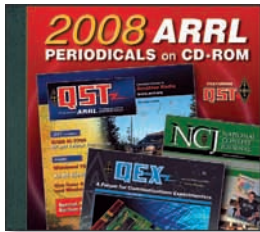
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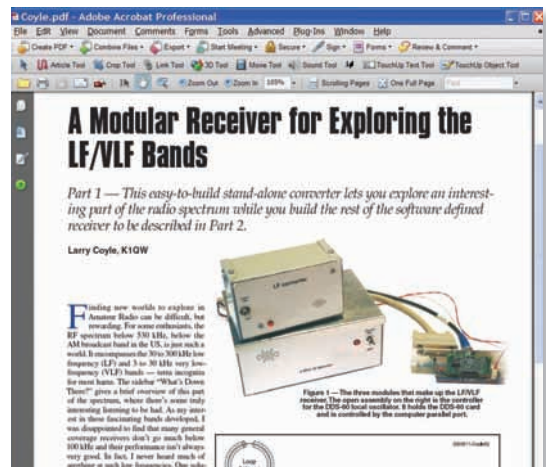
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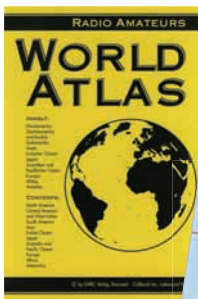
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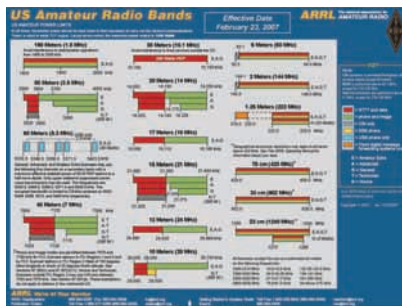
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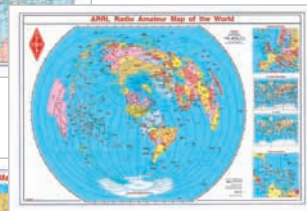
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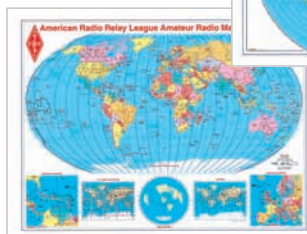
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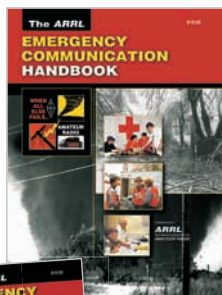
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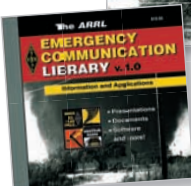
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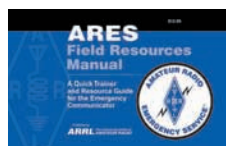
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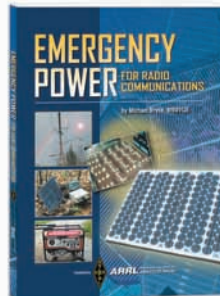
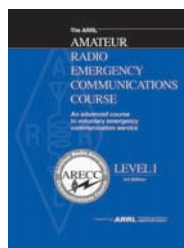
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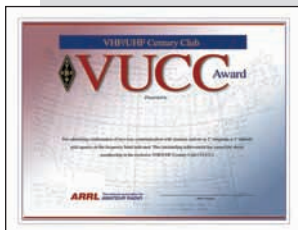
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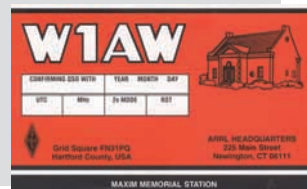
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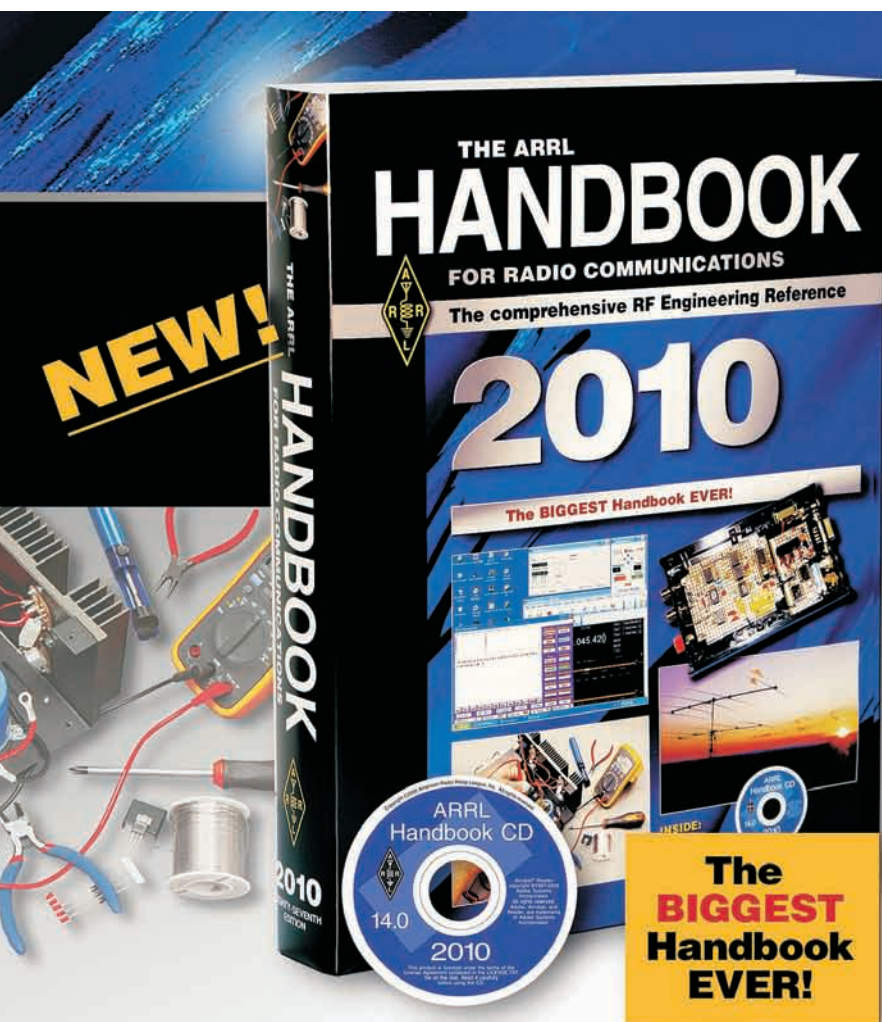
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