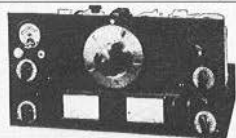


THE COMMUNICATION RECEIVER

EDITED BY

WILLIAM FIZETTE, K3ZJW
RD #1 Box 55, Henryville, PA 18332

All correspondence requires SASE for reply



THE RCA AR-60 RECEIVER

H.A. ROBINSON, W3LW

INTRODUCTION

Roby Robinson was a design engineer on special receivers at GE, 1929-30, and at RCA, 1930-71. He worked on a number of familiar early units, including the RAA, RAB, ARB, BC-312, BC-348, AVR-1, AN/ARC-2, AN/ARC-65, and AN/PRC-25.

RCA RADIO RECEIVER AR-60

H. A. Robinson, W3LW

This receiver, also coded as the ER44A-1, was designed and produced by the RCA Manufacturing Company, Camden, NJ. Covering the short-wave HF spectrum, it tuned from 1.5 to 25 MHz in six bands. The rugged design of the chassis and components reflect the state of the electronics art at the time. It was intended as a top-of-the-line SW receiver for the affluent radio amateur and for the utmost reliability in SW reception at the shore stations of the Radiomarine Corporation of America, an RCA subsidiary.

To achieve the unusually high order of selectivity and image rejection required in the intended service, the design incorporated two 6D6 tuned RF stages, an IF of 750 kHz, and a crystal filter. This required a four-gang main tuning capacitor with front-panel tuning control, indicator, and dial scale. Similarly, for bandspread tuning a lower-capacity four-gang variable was provided with its own scale integrated with the main dial. The two capacitors were combined in a custom-built assembly. The four ganged RF circuits included the two RF stages, 6C6 mixer (first detector), and 6C6 high frequency oscillator. A specially designed, ceramic-insulated bandswitch with a high degree of shielding isolated and stabilized the RF amplifiers. The heavy use of shielding is reflected in the three IF amplifier stages (6D6s and 1/2 6E7) along with the beat-frequency oscillator (1/2 6F7) controlled from

the panel. The second detector (1/2 6B7) is coupled to the first audio amplifier (1/2 6F7) and 41 output stage, with a lowpass audio filter available for extra selectivity. The receiver, operating from the 115-V AC line, includes an internal power transformer, 84 rectifier, and filter. A 991 gaseous voltage regulator in the power supply enhances the frequency stability of the HF oscillator, a novel design feature at the time.

These receivers were produced in limited quantities (200 to 300) and hence are rather rare on the antique market.



RCA AR-60-S

Rack mounting, \$475; black ripple-finished case, \$485. Amateur net prices, C.O.D. factory.

\$495

Some editorial notes: RCA announced the AR-60 in the November, 1935 issue of QST. It was originally priced at \$495, in a Depression year when average U. S. per-capita income was only \$474.

Both dials have simple 0-100 scales. Contemporary photos show two versions: a prototype with black dial scales on all controls and "RCA Victor Company, Inc." on the nameplate, and a production version with silver dials and "RCA Manufacturing Company" as the listed maker. The preproduction panel finish was black crackle paint, whereas the later units offered a smooth two-tone gray finish also.

(Continued on p. 40)

RESTORING (continued from page 25)

these provides quite a source of enjoyment.

TWO TIPS FOR RADIO RESTORERS

Serge Krauss

Many power-operated table-model radios are found without their fiber backs. Not only are these sets incomplete, but the transformerless types present a risk of shock or, in the case of the "hot-chassis" models, outright death. Fortunately, finished fiber sheet material in a variety of colors may be obtained from auto body shops. Generally called "kick panel" stock, this material is both strong and scuff-resistant. It makes a good simulation of the missing back.

A factor often overlooked by collectors is potential liability in the disposal of an unwanted electrical appliance with a known shock hazard. I always cut off the power cord so an unsuspecting trash picker cannot "plug it in."

-OTB-

AVAILABLE: to give presentations on the Hallicrafters Company and its products at radio conventions, etc. Chuck Dachis, WD5EOG, 4500 Russell Drive, Austin, TX 78745.

RCA AR-60 (continued from page 27)

Bud Hall, K2LP, obtained a pair of AR-60s that had been used at the North Chatham, Mass. receiving site of RCA Radiomarine station WCC a couple of years ago. He restored them (a blown power transformer, dried-out electrolytics, a bad power switch, tobacco residue on the panels) and donated one to the AWA Museum last year. They are reportedly quite sensitive, with a good signal-to-noise ratio due, in part, to an electrostatic shielding feature on the antenna coupling unit. Bud comments that the AR-60 is illustrated in the 1936 Radio Amateur's Handbook. It was replaced by the AR-77 and the AR-88 in turn. Bud assisted in preparation of these notes by coming up with a copy of the original manual!

-KB2EVN-

Note: Part 2 of the story of the Western Electric Series-9 receivers will be presented in the February OTB.

-OTB-

SILENT KEYS

Ken Stecker, W8SS.
Don DeNeuf, WALSMP, OTB contributing editor.
Hyman Wallin, amateur since 1912 and commercial radio operator since 1919.

NEW MEMBERS (continued from page 34)

Tim Peterson, NY

David Traphagen, NJ

Murray Shapiro, NY

Chuck Porter, ex-W8RCI, NY, Cleveland AM stns

Paul J. Trudel, MA

Ed Sharpe, AZ

Michael Prosise, MD

Bill Utley, M. D., CA

Keith A. Shetlar, OK

Patsy J. Pugliese, NY

Wm. F. Wakefield, MD

Henry Soesselberg, WB2IMR, NJ, USA Sig. C., RCA, GE, etc.

Cdr. Glenn W. Ritchey, USN Ret., WA (W7SAB, ex-2BEM, etc.), Navy, RCA

John H. Walker, Jr. KS

Dennis Stahler, WB3HCR, PA, USA Signal Corps, Shulmerich Carillons

C. L. Roberts, W4KBI, VA

Richard W. Welson, Australia, Orpheus Radio Museum

James Stanfield, KB4ZGB, AL

Jack A. Savlan, NM

Craig F. Williams, W6DZV, CA, WSAY-WENY-WESG-WHEC

Fred Stephens, IN, Owne Radio-TV, Rogers-Majestic

Martin L. Scott, NY WCMF

Joseph M. Yanul, OH

Royce H. Sweet, TX

Robert See, NY

Alfred E. Zemp, HE9PYN, Switzerland

John Taylor, IL, Dir. of Public Relations, Zenith

Lilburne D. Sheats, VA Comm. engr., US Army

Michael Zirneskie, OH

James L. Thomas, CA

-OTB-