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Postal identification statement, page 2

> The phantor picture of the 1951 Electro-Voice 4-way Patrician speaker system was photographed to stress the extent to which technica accomplishment must be coordinated wan estretic design, if a speaker is to be both acoustically correct and socially





AUTHOR'S NOTE— My continuing interest in radio collecting and restoration provided the inspiration for a twelve month series of articles that will make the Antique Audio restoration philosphy and techniques available to the collector.

In 1979 I formed Antique Audio, a full time vintage radio sales and service organization, the only one of its kind in the South. Antique Audio began in a one car garage and blossomed into a successful enterprise near Rice University in Houston. The company ultimately included a large showroom filled with restored sets, a two car garage lined with "gold" junker equipment, two service facilities and a stockroom literaslly bursting with catalogued vintage components. I've since accepted a position in the Physics Department at the University of Texas in Austin, but maintain an active interest in vintage radio restoration.

At Antique Audio I restored equipment for the collector and general public. That meant that repairs had to be of the highest quality, completed in a relative short time and the set guaranteed for some period. Servicing vintage equipment with those criteria required an unique repair philosophy and the development of innovative service techniques that are generally foreign to the casual collector who restores.

In restoring for the fun of it, most people simply want to get their set working in the quickest. easiest and least expensive manner. Many of them feel it is desirable to keep most, if not all, of the old components in the set and will go to great lenghths to find vintage condensers and other parts of reasonable quality as replacements. I agree that for esthetic and sentimental reasons it is comforting to turn a set upside down and see that all the parts are either original or the correct vintage. While I have successfully restored sets using vintage components, I have found that unless one is familar with the "reforming" of condensers (a subject of a future article) and likes to tinker and doesn't intend to use the set for extended periods of time, this type of service is usually not worth the effort— except in the case of classic "breadboards", etc. These sets require that specific components get special attention, a restoration technique that will be discussed in a separate series.

Where the early 20's battery sets were not concerned, Antique Audio took a somewhat different approach to restoration. By following it, your radio will be electrically like new yet vintage above the chassis and will play for as long as you want to listen. This method is known as PRACTICAL RESTORATION.

Practical restoration includes the systematic testing and replacing, when needed, all power supply components, especially the filters and the replacement of virtually all condensers in the set with modern electrical equivalents. Also included will be a technique for disguising any new above the chassis condensers to make them appear vintage. This method of repair eliminates virtually all the problems in a set before power is applied, preventing damage to original components that are in good condition and simplifying any necessary troubleshooting.

I will begin this series of articles next month by listing and discussing the operation of the test equipment necessary to do quality restoration. We'll deal with fashioning a small service area that can be tailored to your space requirements and continue with a step by step sequence to guide you through the restoration of your set and make that time more informative and enjoyable.

AUCTION

DECO 50'S AUCTION

by Harry Poster

There was a large Deco/50's auction in Port Chester, New York on January 15, which included over 50 radios. Many collectors and dealers from the New York, New Jersey and Connecticut area attended; even Philip Collins of California. He is the author of RADIOS, THE GOLDEN AGE.

The prices seemed high even for that area, because of the poor condition of many of the radios. The auctioneer did not mention any defects in the sets, so the bidders were not sure if the prices reflected bids from uninformed customers, or from dealer—collectors who did not care about the condition. It should be noted that preview was for 2-1/2 hours, so anyone who wished, was able to study carefully the sets. They did.

A 10% buyers premium was added to the following high bids: Addison, small maroon bakelite w/cracked white trim... \$150. -Addison, maroon w/white trim. hole in top, bottom cracked... \$200. - Addison 55, (actually Bendix), brown bakelite... \$30 -King, cracked white bakelite tombstone... \$1,500 --- Arvin, 532A, yellow Catalin, broken Tortoise grill... \$600. — Bendix 0526C, green and black, small chips... \$375. —— Continental #44, plastic, "bullet shaped"... \$40. CRI. 1930's mottled white bakelite. back cracked... \$110. — Crosley Musical Chef... \$20. — Crosley Musical Chef... \$20. —— Cro Blue 11-119 plastic... \$55. Crosley pale blue D10CE... \$60. - Crosley white and chrome E15... \$60. ---- FADA 652 "temple" maroon, open-face model... \$350. - FADA brown bakelite radio... \$20. — Fleetwood Globe, transistor set... \$55. —— GE #517, maroon clock radio... \$15. Majestic wooden "treasure chest"... \$70. — Marconi #271, green fiberglass, bottom broken... \$75. - Mirror with lid. Home made using old radio tube radio... \$125. - Mithchel #1260 lamp radio, rocket ship shape... \$75. --- Motorola 5T22R1, orange plastic 50's set... \$20. — Northern Electric #5508, Canadian brown bakelite... - Philco 46-1209 console with phonograph... \$25. --- Roamer (Farnsworth) L660, green painted bakelite... \$60. — Stewart Warner, A51T2, brown bakelite, cracked side... \$65. --- Sylvania #2101, 50's turquois plastic radio... \$10. — Zenith 7F03, FM only, brown bakelite... \$20... -Plus, an EIOO oscilloscope sold for \$10., and a Admiral 2021 10" bakelite console TV sold for \$125...

Harry Poster
P. O. Box 1883
South Hackensack, New Jersey

ATWATER-KENT CONDENSERS

By W. B. Lyon

If the condenser of the audio output filter in Atwater Kent models, such as the "38" and "40," becomes shorted, choky signals and burning-out of the '71 output tube, or its 1800-ohm hias resistor may result. A continuity test will show a short from the inside speaker binding post to the plate of the output tube socket.

A repair may be made, without dismounting the chassis, by removing the cover of the pack; unsoldering the green wire with yellow tracer (second from the left) from bottom terminal strip; and connecting a new condenser in series with the shorted unit. There is room in the pack for a larger and better component; and a higher capacity will measurably increase the low-frequency response, especially with a dynamic speaker. It is wise to turn the lug under the speaker binding post, and solder it to the plate prong of the 71's socket; thus climinating possibility of trouble from the old condenser.



REPEATED
PRICE INCREASE

To increase the number of currently written articles about vintage radios and phonographs, the subscription price of THE HORN SPEAKER will be increased to \$12.50 yearly or \$20.00 for two years—still a bargain.

The price increase will go into effect on February 15, 1988.

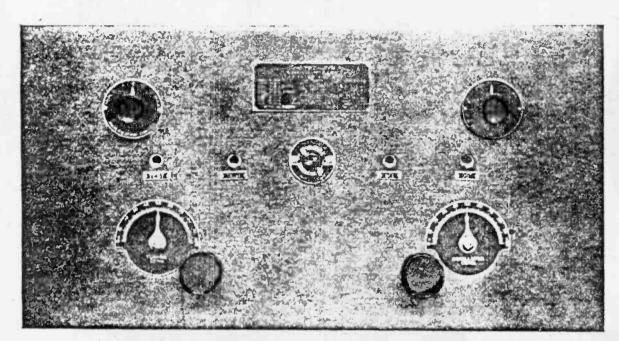
REPEATED

PROBABLE ADDRESS CHANGE

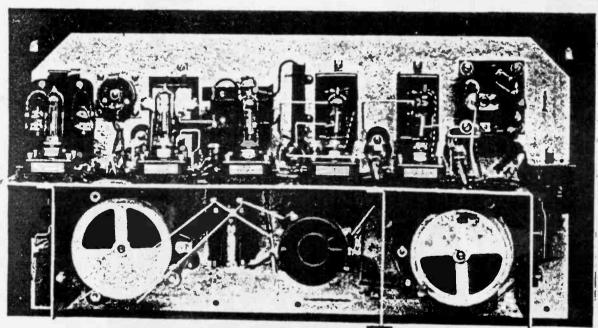
By next month THE HORN SPEAKER should have an address change and a telephone number change. However, mail to the old address will be forwarded to the new address and a new telephone number should be reported by calling the present telephone number.



Western Electric Type 4B, Super-Heterodyne. This receiver is designed for the "N" Peanut Tube. There is a total of 6 tubes, the filaments of all are in series. The use of these small tubes provides the advantage of portability, but the small tubes will not supply the volume obtainable from the larger tubes. There are only two variable units, the variable Heterodyne Condenser and the variable Wavelength Condenser to tune the loop. The Northern Electric Co., which concern controls the Western Electric Patents in Canada also manufactures a 4-B Receiver. The Northern Electric Set is equipped for both Antenna and Loop Reception, while the Western Electric Set is only arranged for Loop Reception.



The volume control in this design consists of a variable resistance adjustable in steps, connected across the primary of the first intermediate radio frequency transformer. A decrease in the total resistance used decreases the signal strength without destroying the reproduction qualities. A Rheostat is provided to regulate the total filament voltage. A switch is provided to disconnect the stage of audio amplification.



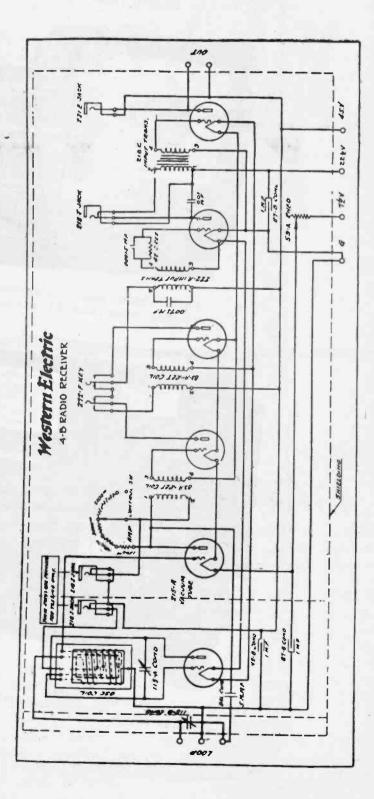
Rear view of the Western Electric 4-B Super-Heterodyne. The front panel is sheilded and there are shielded compartments shielding the amplifier from the oscillator and separating the oscillator from the loop tuning condenser. The volume control resistors are located in the upper right hand corner. The loop tuning condenser in the right hand lower corner and Heterodyne Oscillator Condenser in the lower left hand corner. The oscillator tube and Oscillator Coupler are in the center of the lower section. The main by-pass condenser is directly in back of the oscillator tube. The output transformer is directly in back of the center tube (2nd R.F. Amplifier) in the upper section. The fixed condenser tuning the primary of this transformer is directly to the right of the transformer. The intermediate radio frequency transformers are located behind the first two tubes to the right in the upper section. The audio transformer is located behind the last tube left, upper section. The loop and battery connections are all made from the rear. The small twisted wire shown under the volume control resistor in the upper section right, is the compensating condenser.

WESTERN ELECTRIC

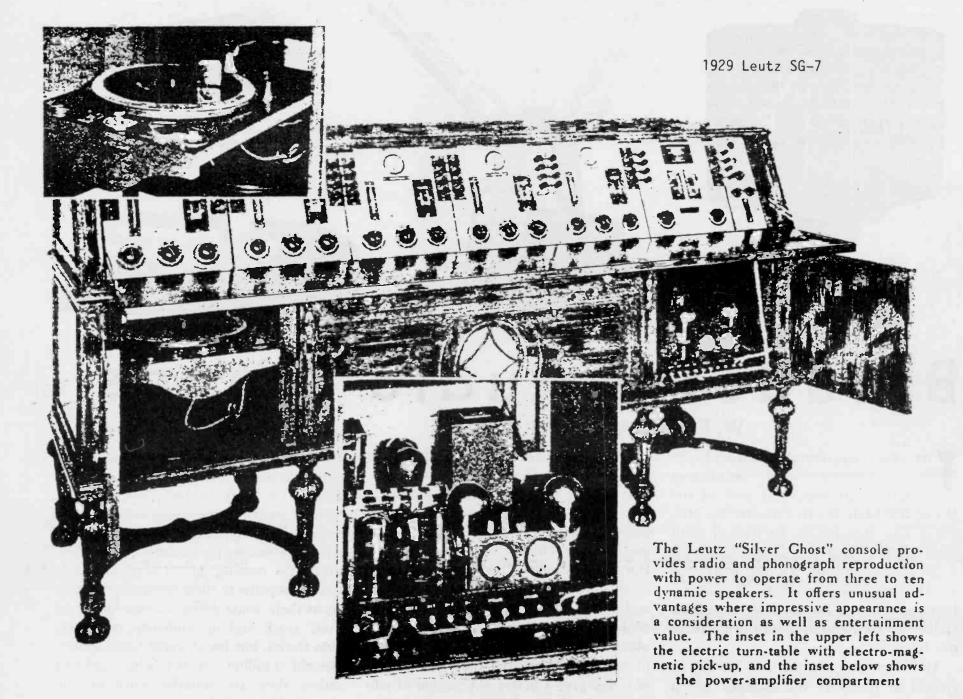
This 1923 Western Electric receiver was sold only for commercial purposes and was not available for amateur purposes. It was of the highest standard, the top of the state of the art, generally known as the double detection system, which was constructed on the Hammond patents.

This 4B has only two stages of amplification and its excellent design is free from reflexing. The 4A had three stages of radio frequency amplification, but three stages was found to be more than adequate in actual practice. Needless to mention the 4A is very rare.

Earlier collectors found these units usually in old radio station storerooms. They now seem to turn up only at club auctions or sales.



8. 65 st 1.



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SALE

The "Flea Market" section is now being classified. The reader should be able to get better results out of the ads being classified. We hope to hear from you about it being better.

THIS SERVICE MANUAL supplement contains a list of electrical values, resistors and condenser, coils and transformers in all Atwater Kent radios 1924–1933 inclusive \$3.00 P.P. 24 pages. ******* THIS BULLETIN contains the complete list of Philco black bakelite "by pass" condensers, new universal types, discontinued types with replacements and condensers with internal resistors \$1.50 P.P. — Lee Williams, 7301 N.E. 175th St., Bothell, WA 98011.

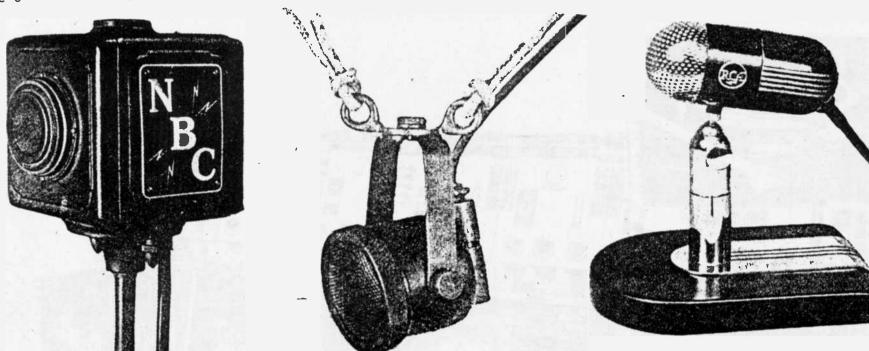
FOR SALE— RIDERS MANUALS, ABRIDGED (VOL. 1-5) AND VOL. 6 THROUGH 16 \$275.00. VOL. 9, 10, 14 \$20.00 EACH. ANTIQUE RADIO SERVICE, 0. H. McDONALD, 2535 WEDGLEA #124, DALLAS, TX 75211.

SCHEMATIC \$1.25 each, give make and model number. New manuals of old tubes, substitution guide, characteristic, VT numbers and pin out guide, Tubes, books, and parts. Send SASE to Housel, 1816 S.W. 12, lincoln, NE 68522.

BACK ISSUES of THE HORN SPEAKER—Any year 1975 through 1978 \$5.00 per year, all 4 years \$15.00, all postpaid. THE HORN SPEAKER, Box 53012, Dallas, TX 75253-0012.

FOR SALE — CROSLEY

(Continued on page 8)



Broadcast Audio Trends

W. E. STEWART* 1951

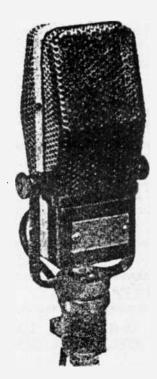
The Audio equipment required to set up a satisfactory studio installation comprises an important part of the Broadcast Station's investment. Its purchase and installation is treated with serious study, and once installed it must serve for a long time. To discern trends, we must go back over 20 to 25 years of Broadcast history, since most of the installations of 10 to 15 years are still in use today.

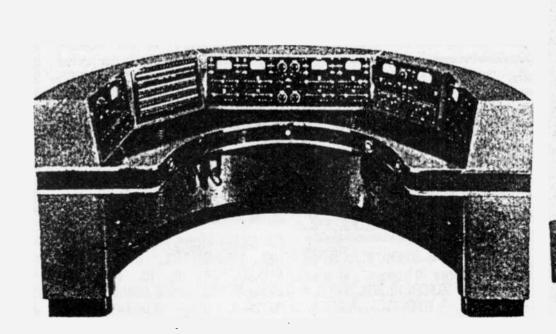
The accompanying pictures have been chosen to illustrate the changes which have occurred during the last 25 years. Most of the early control room equipment was black, as was the power plant and even the automobile of 25 years ago. The first attempts to liven the appearance

*Broadcast Audio Engineering RCA Victor Division, Camden, N. J. of this equipment consisted of adding chrome plating. Color became more common as time went on, and manufacturers chose certain colors to make their equipment distinctive. As color became more popular, the chrome plating went out. For TV, the control room must be darkened, and dull surfaces, lighted meters and dials, and better vision over the control console was demanded. A well planned control room is now a show place for visitors, and the smooth lines of today give a better impression of efficiency than the gadgety racks universally used 15 years ago.

Microphones have had a different history. Because they are always out in front of the producer, they are subject to his demands. They were large and gaudy until TV came along—now they must suddenly become unobtrusive. They must have the glitter removed, lest it becomes a glint in the camera's eye. Smaller microphones, with dull finishes, have become the rule in TV work, and with equivalent performance, they are gradually moving into the radio field. Added impetus to their acceptance comes from their adaptability for use in interview work and on audience participation shows, but for straight radio shows, the old standbys are not being replaced unless they are actually worn out or damaged beyond repair.

In summary, it is seen that over-all trends indicate larger and more flexible installations, centralization of control, and the use of smaller components from microphone to control console. Styling and color have become strictly modern.



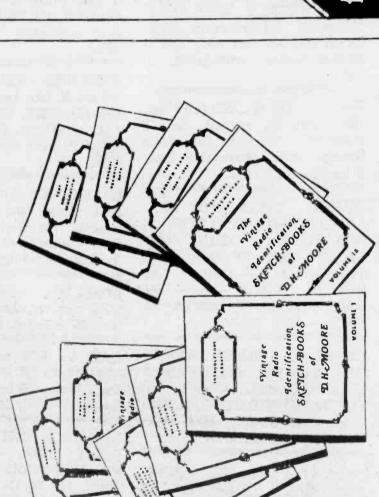


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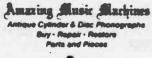
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SERVICES— The following is a list of businesses and individuals that offer services to collectors. Antique Electronic Supply, P. O. Box 1810, Tempe, AZ 85281 kindly published the list in their 1988 catalog supplement #1. We have placed many names of collector service throughout the years in THE HORN SPEAKER. If we can get updates on the availability of these services, we will publish them again. We have to be careful in order not to publish a name no longer in business or someone who has made drastic changes in the services that are offered.

By all means do not miss them and remember to mention THE HORN SPEAKER when writing to any of them.

Alton H. Bowman, 4172 East Avenue, RD2, Canandaigua, NY. 14424, 1920-1960 Radio/TV/ Ham schematics.

Jerry's Vintage Radio, 17665 1/2 Sierra Hwy., Canyon Country, CA 91351. Buy, sell, trade and restore.

Michael Durand, 21 Le Grand Ave., Tarrytown, NY 10591. AC radio repair and small cabinet restoration.

Roy Cameron, 114 E. Second Street, Pana, IL 62557. antique radio collector and parts.

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MILWAUKEE AREA RADIO ENTHUSIASTS (Ken Pabst), 4441 N 77th Street, Milwaukee, WI 53218

RADIO COLLECTORS OF AMERICA (Bob Levin), 8 Ardsley Circle, Brockton, MA 02402

NORTHLAND ANTIQUE RADIO CLUB seeks new members. Bi-monthly meetings, swap meets, newsletter. Dues \$10.00 yearly. Box 18362, Minneapolis, MN 55418.

VINTAGE RADIO and PHONOGRAPH SOCIETY CONVENTION, P.O Box 165345, Irving, TX 75016.

ANTIQUE RADIO CLUB OF ILLINOIS, Route 3, Morton, IL 61550.

ANTIQUE RADIO CLUB OF AMERICA, 81 Steeplechase Road, Devon, PA 19333. CALIFORNIA HISTORICAL RADIO SOCIETY, 25 Greenview Ct., San Francisco, CA 94131.

HOUSTON VINTAGE VINTAGE RADIO ASSOCIATION, Lewis Nenno, Jr., 5805 Gulfton #2833, Houston, TX 77081

THE SOCIETY to PRESERVE AND ENCOURAGE RADIO DRAMA, VARIETY and COMEDY, P. O. Box 1587, Hollywood, CA 90078.

GREATER BOSTON AREA ANTIQUE RADIO CLUB, Dave Crocker, 6 Old Farm Road, Duxbury, MA 02332.

WANTED --- LITERATURE

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WANTED --- PARTS, TUBES, ETC.

EARLY OR UNUSUAL TUBES, tube cans, cartons also early light bulbs pre 1900. Please describe with prices wanted to: Bruce Harbeck, 13408 Westwood Lane, Omaha, NE 68144. (402) 333-9013.

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WANTED --- PHILCO

PHILCO MODEL 20B 1930 "Baby Grand" radios. Original finish, and no chassis changes a must. Must be completely original and in working condition. Will pay top price for a

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WANTED --- GENERAL

SIDE TUNING KNOB FOR BELMONT 6D111, manual and schematic measurements model 80 and Heathkit LG-1 signal generators, RIDERS vols. 16-23, and SAMS 1-700. Looking for a book by the title of Histories of Receiver Troubles and their Remedies," published by Rinehart Books in addition to a hard-cover copy of Tyne's "The Saga of the Vacuum Tube." Am also interested in contacting other collectors in Columbus. Ohio Brett area. 276 E. Gundlach, COMO AVE., COLUMBUS, OHIO 43202, HOME 614) 267-0346, WORK (614) 888-9502.

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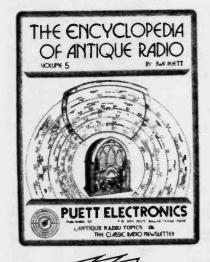
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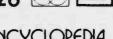
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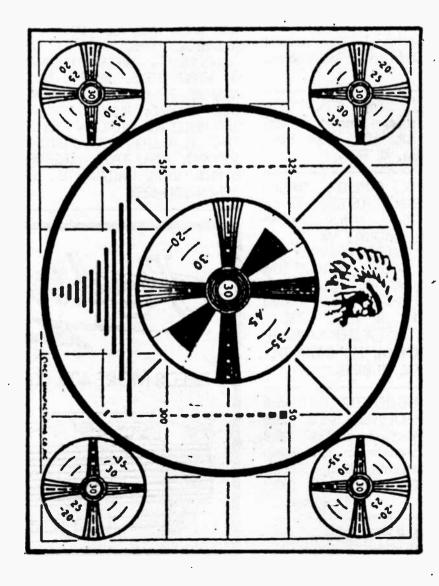
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