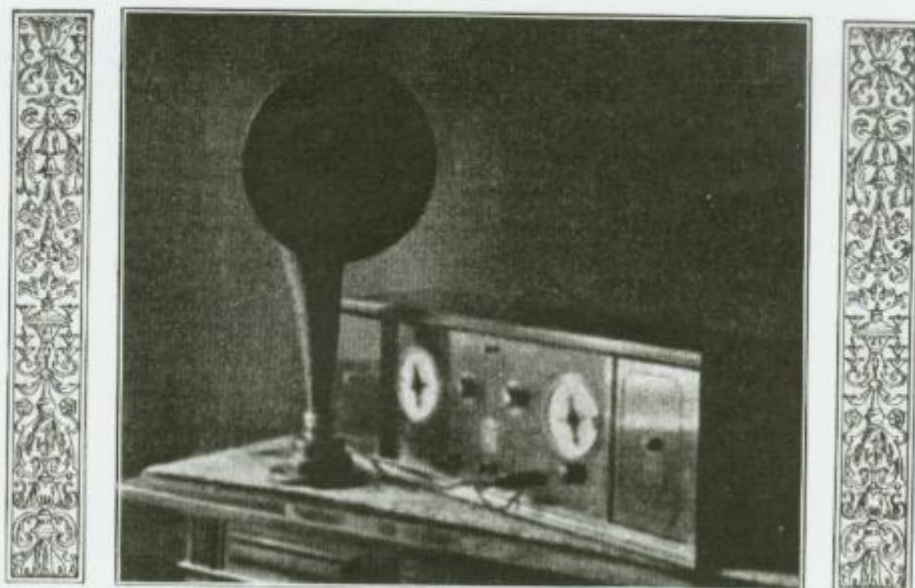




Radiolas



A Step Forward

Painstaking research on the part of the Radio Corporation and its manufacturing associates has brought forth the improvements needed to make radio entertainment more enjoyable. There was a need for non-radiating receivers; for super selectivity; for more melodious tone reproduction; for dry battery receivers which would be more sensitive for long distance reception; for even simpler operation. There was a need for a worth while receiver at a popular price. The Radiolas described in this booklet represent new and remarkable radio achievements; triumphs of radio research which meet every requirement of present day conditions. Thus the Radio Corporation of America fulfills its purpose—bringing together great new discoveries of the foremost inventors—making possible things that seemed impossible in radio, bringing these newest achievements to every home, with "a Radiola for every purse."

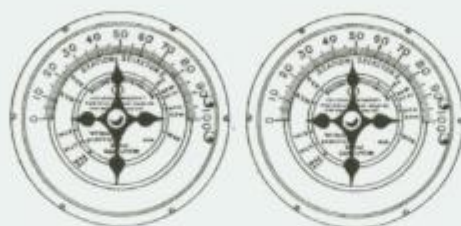
Radiola Super VIII

RADIOLA Super VIII is a six-Radiotron, non-radiating broadcast receiver, employing the Super-Heterodyne — second harmonic — principle in a more sensitive and greatly simplified design. The beautiful cabinet contains the operating mechanism, a newly developed loud speaker, a concealed loop which may be rotated by a panel control knob and space for all the necessary batteries. It has two tuning controls, vernier operated, a loop control, a battery and a volume control. New inventions make the six Radiotrons employed deliver results equal to sets having *eight or nine tubes*.



The peer of all Radiolas, Radiola Super VIII, is particularly designed for use in cities and areas local to broadcast stations, where the erection of an antenna is often impracticable, and where an extremely high degree of selectivity is absolutely imperative. The Super-Heterodyne principle, improved beyond any comparison to previously existent designs, provides super-selectivity, enabling one to tune in distant stations under the shadow of a local broadcast station.

Although the Radiola Super VIII offers advantages to the purchaser wherever located, it is particularly adapted to use in apartment houses and thickly populated districts where often there is not sufficient room to erect a multi-



**Tuning Dials
of the
Radiola Super VIII**
*Showing Method
of Calibration*

plicity of antennas. Indeed in some such locations it is difficult to erect an antenna that is not shielded from the broadcasting station by steel buildings, wires and metal roofs. It was not sufficient, however, to produce a set for installation in such places which would enable reception only from local broadcasting stations. The real problem facing the research engineers was the development of a receiver using a self-concealed loop that would give universal performance under the limitations thus imposed.

Having decided upon the Super-Heterodyne principle, they set about to improve this circuit to the very limits of technical knowledge of this time. The circuit has undergone some radical changes and improvement with the result that we now offer the public a marvelous combination of sensitivity, selectivity and quality of reproduction, known as Radiola Super VIII.

Points of Superiority

Radiola Super VIII, both in cabinet and panel, presents a handsome appearance. It constitutes a beautiful piece of furniture that will contribute to the charm of any room. The master touch of the designing artists is nowhere more evident than in the loud speaker opening of the cabinet, which resembles, in motif and contour, a stage—a world stage, if you will, which, with its kaleidoscopic revue of entertainment, is



brought to the living room of the happy possessors of this masterpiece of the radio art.

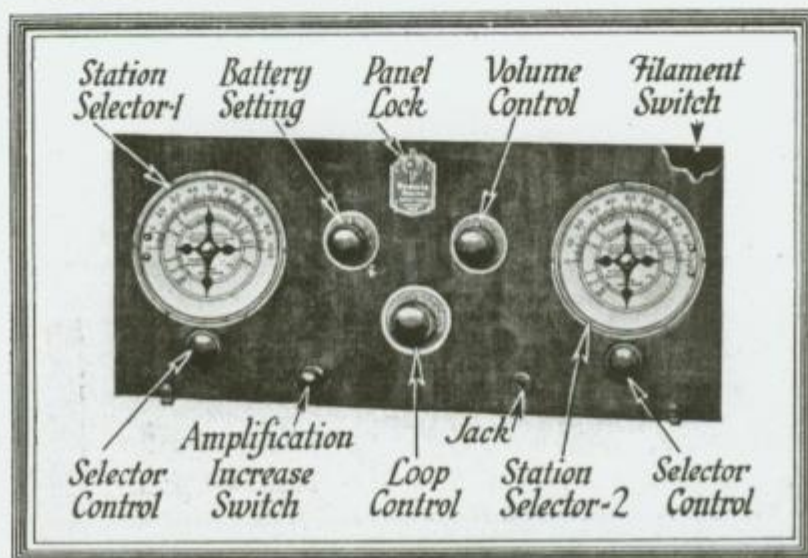
Radiola Super VIII is more sensitive on its concealed loop than other sets are with an outdoor antenna. The selectivity has been carried to the theoretical limits of the science, beyond which it is not necessary—or desirable—to go.

Due to a scrupulously balanced circuit, and an improved loud speaker, the quality of reproduction is far superior to anything ever before attained. It is as though the artist stood before you, when you listen to a Radiola VIII.

The loop gives an additional freedom from interference in that it may be turned at a right angle to interfering stations. Thus it assists in eliminating spark transmitters and other interferences. The loop is controlled by a knob on the panel. This feature makes possible the concealment of what might otherwise be an exposed frame of unattractive appearance.

All Radiotrons are operated by dry cells. This means that the inconveniences of storage battery maintenance are eliminated.

The calibrations are constant, so that when a station has been once heard




Radiola
Super-Heterodyne
Second Harmonic



RADIOLA Super-Heterodyne has all the electrical features of, and is technically the same as, Radiola Super VIII, except that the loud speaker is external, and the concealed loop is smaller, and fixed in position. There is provision, however, for the use of an external loop of larger area.

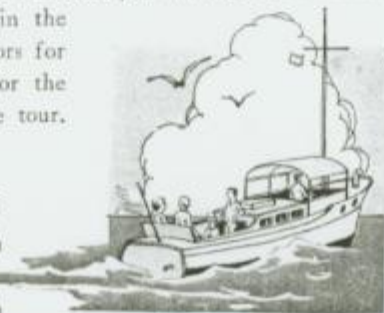
Super-sensitiveness—super-selectivity—faithful reproduction—portability and reliability are the outstanding features of Radio Super-Heterodyne.

Like Radiola Super VIII, this Radiola is especially useful in thickly populated districts, but possibilities for vacation travelling and general use are almost unlimited.

Imagine the utility of Radiola Super-Heterodyne during the vacation season! Dancing on the front porch in the evening. Entertainment snugly indoors for rainy days. Music for the picnic—for the motor boat outing—for the automobile tour. Just take it where it is wanted.

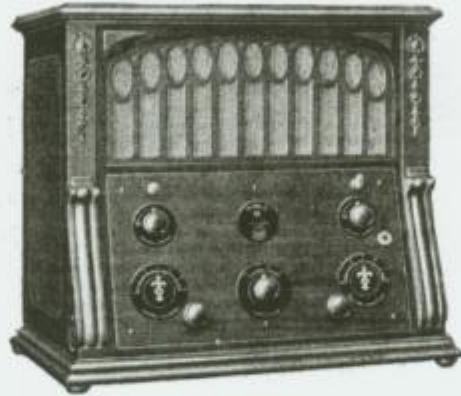
Radiola Super-Heterodyne (second harmonic) with separate Radiola loud speaker, with six UV-199 Radiotrons, but without batteries.....\$286.00

Same as above, but without Radiotrons or loud speaker.....\$220.00



Radiola X

A rare combination of melodious reproduction, selectivity and range.



RADIOLA X, using four Radiotrons WD-11, is a super-sensitive and highly selective broadcast receiver of the antenna type. The attractive mahogany cabinet contains everything necessary to operation—a built-in, new type of loud speaker, battery compartments—everything, in fact, except the batteries and such necessary externals as the antenna and ground.

The circuit consists of one-stage of tuned radio frequency, regenerative detector, and two stages of audio-frequency, the second stage of which is of the balanced type and employs two tubes. Four Radiotrons are thus made to do the work of five in this new receiver of unusual results.

Radiola X is the receiver for general use where the erection of an antenna is easily possible. It is non-radiating and is designed for a degree of selectivity that will prove a revelation to the purchaser—selectivity far beyond that of the average type of antenna receiver.

While an antenna receiver, Radiola X differs in all respects from the usual type of receiver, which operates on an outdoor wire. It does not radiate, and

therefore will not annoy one's neighbors. It incorporates a degree of selectivity that will prove more than adequate for all possible conditions of service. This selectivity is not obtained at the sacrifice of signal strength; on the contrary, sensitivity has been markedly increased by the development of an ingenious new circuit providing superlative performance.

Points of Superiority

Radiola X is a highly attractive article of furniture. It will blend artistically in any home surroundings. Placed on a table or stand, it will enhance the appearance of the living or music room while it serves its primary purpose as a limitless source of entertainment in the home.

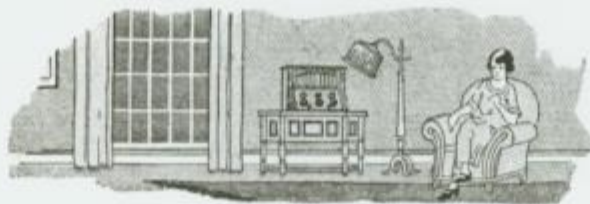
The new "Regenoflex" circuit utilized in Radiola X renders the four WD-11 Radiotrons as effective in their sensitivity as the usual five tube receiver.

Radiola X embodies a degree of selectivity seldom if ever equalled in apparatus of other makes with more tubes and difficult controls. With an antenna 150 to 200 feet in length, this Radiola will bring in extreme distance with unusual clarity.

A special control permits any desired volume of reproduction—a unique and important feature.

All Radiotrons are cushioned in a carefully designed cradle to reduce vibration to a minimum.

An amazing new loud speaker of mellow quality is built in. The set is so designed that high quality of loud speaker reproduction is maintained at all times and at almost any adjustment.



(RCA)

This feature has added melody to the thrill of radio reception, for it appeals to the music lover as well as the radio enthusiast.

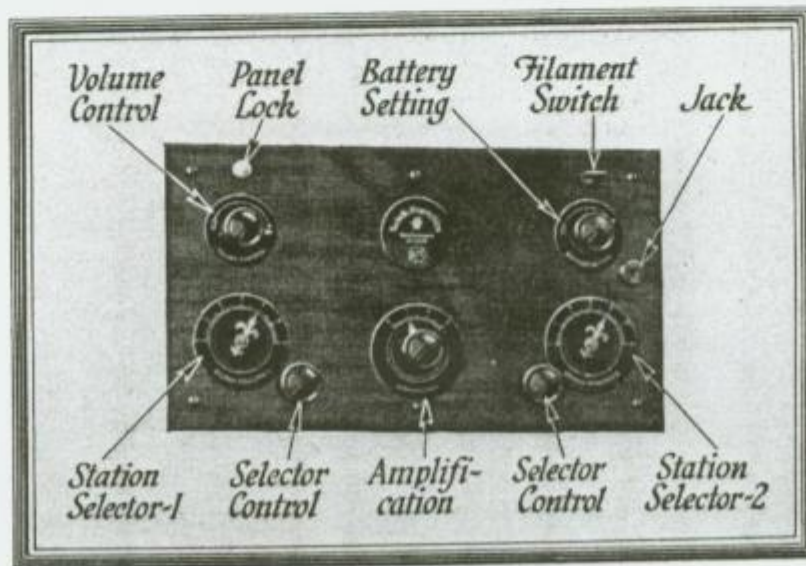
Vernier tuning controls greatly facilitate the tuning adjustments, and render close tuning well within the operating abilities of any novice.

One filament rheostat controls all Radiotrons. So positive and sure is this instrument in its operation that no individual or minute adjustments are required.

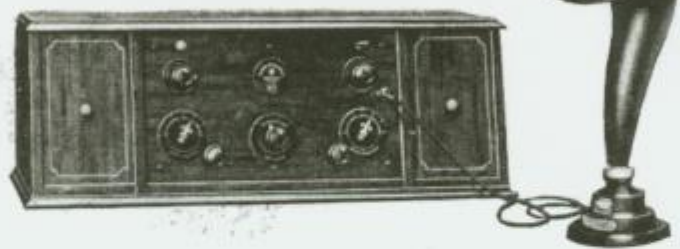
All batteries and the loud speaker are in the one cabinet. Excepting the antenna and ground, no external connections remain to be made.

Radiola X is furnished with a lock switch, that it may be rendered inoperative to unauthorized persons, if so desired.

Radiola X—Complete with four WD-11 Radiotrons, and built-in loud speaker; everything except batteries and antenna \$245.00



Radiola Regenoflex



RADIOLA REGENOFLEX incorporates all those features which are inherent to Radiola X, excepting, of course, the cabinet and built-in loud speaker. Offsetting these two points of difference, however, is the lower price of the Regenoflex, for those who may desire this remarkable receiver in that form.

It is a super-sensitive and highly selective broadcast receiver of antenna type. It employs four Radiotrons WD-11, which, in the new Regenoflex circuit, will give results equal to five, as used ordinarily. The only external connections to be made are the antenna and ground leads.

Radiola Regenoflex is a step beyond any existing type of antenna set, both in efficiency and performance, quality of loud speaker reproduction and sensitiveness, for it embodies the most highly developed engineering principles known at present to the art.

| | |
|--|----------|
| Radiola Regenoflex, with four WD-11 Radiotrons and Radiola loud speaker, but less batteries and antenna..... | \$206.00 |
| Same as above, but without Radiotrons and loud speaker, batteries or antenna..... | 150.00 |



Radiola III

Exceptional performance with a price within reach of everyone.



RADIOLA III is a high grade regenerative broadcast receiver employing two Radiotrons WD-11. One stage of audio frequency amplification is provided, utilizing improved transformers for purer amplification. Radiola III may be adapted to antennas of various lengths, and a choice of two types of tuning circuits is afforded. One is a sensitive tuning circuit, for either local or long distance reception, and the other is a more selective circuit for use when local interference is present. The apparatus is mounted below a horizontal panel of moulded material and enclosed in a mahogany case. A flexible cable of generous length permits concealment of batteries on the floor or in a table drawer.

Radiola III has been designed to fill a great need, in rural districts, for a receiver that would be at once *good* and inexpensive. For this use, in places where the erection of an antenna a hundred or more feet in length presents no problem, Radio III will give excellent all-around performance.

The extremely low cost of Radiola III places this receiver within reach of everyone. People living in the outlying districts, particularly, cannot now afford to be without a Radiola. Market and weather reports, flashed daily, may easily save the farmer what otherwise might become large losses on crops. In addition the farmer and his family may be entertained nightly by the best talent and speakers of the cities.

Low price, however, is perhaps the smallest part of what can be said of

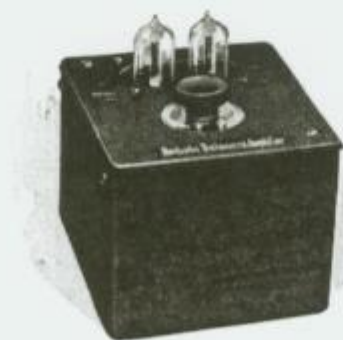


Radiola III. It is not "built down to a price," since it embodies new technique in reproduction and improved tuning. It was designed, first as best the engineers could make it, and then a tremendous production schedule was arranged to bring the price down to an unprecedented level. Head telephone reception up to 2000 miles has been obtained under favorable conditions.

Ease of operation is a delight to all who use these sets. A single control does all tuning, while another knob controls the "tickler" or intensity. Anyone can tune these Radiolas, without a minute's instruction.

All Radiotrons are cushioned in a special shock cradle. This eliminates vibration noises when the set is in operation, and is a protection against knocks and jars which shorten the life of the Radiotrons.

Radiola III, including two dry cell Radiotrons WD-11 and one set of head telephones, but without batteries or loud speaker \$35.00



Radiola Balanced Amplifier

IN order that loud speaker performance may be had with Radiola III on distant as well as local stations, the Radiola Balanced Amplifier has been produced. Headphones permit a few people to enjoy the programs of distant stations, but an amplifier enables the use of a loud speaker, thus entertaining a roomful of people. Radiola Balanced Amplifier was designed for this purpose. It has the same finish as Radiola III and is built in the same



proportions, so that, when placed beside Radiola III the match is perfect. The Amplifier uses two Radiotrons WD-11, arranged in a special balanced circuit to eliminate distortion of voice and music.

Radiola Balanced Amplifier, including two dry cell Radiotrons WD-11, but without batteries, loud speaker or headphones.....\$30.00

Radiola III-A



RADIOLA III-A is Radiola III and Radiola Balanced Amplifier in one case. It is somewhat more portable and compact, for those who wish to purchase the two units together. Otherwise it is, point for point and feature for feature, identical with Radiola III and Radiola Balanced Amplifier. Like Radiola III it incorporates a selective circuit which may be switched on in an instant, to obtain reception from the more distant stations while the near ones are operating. The clear, true reproduction of this receiver is beyond comparison to its cost.

Radiola III-A is the ideal combination for all who wish to enjoy radio entertainment and education at a minimum of expense.

Radiola III-A including four Radiotrons WD-11, one pair head telephones and Radiola loud speaker, everything except antenna and batteries\$100.00
Same as above, but without loud speaker..... 65.00



Radiola
VII-B

A five-tube
Radiola of
unusual
performance



WHERE antennae of any and all types may be employed, extraordinary results may be obtained with Radiola VII-B. This Radiola is a five-tube coupled circuit receiver, having two stages of radio-frequency amplification, detector, and two stages of audio-frequency amplification. It employs five UV-199 Radiotrons which operate entirely on dry cells.

Radiola VII-B is housed in a beautiful mahogany cabinet, grilled and faced with gold gauze, providing an outlet for the loud speaker. The cover may be raised or lowered like a phonograph. The cabinet is beautifully polished and is finished in a warm rich tone which harmonizes with any surroundings.

Radiola VII-B may be operated on either an indoor, outdoor, or loop antenna. Loud speaker performance may be had over distances up to 2000 miles. Thus the user may entertain a roomful of people with programs from scores of stations in all parts of the country. The loud speaker is entirely built in. The reproducing unit embodies new developments in its construction, and the sound chamber is of such design that all music and speech issue forth in perfect reproduction of what transpires in the broadcast studio.





Selectivity in Radiola VII-B reaches surprising efficiency. Local stations may be tuned out in favor of the more distant broadcasters, and with ease and facility. With this truly remarkable Radiola, interference is at a minimum, and the discomfort of listening with straining ears and bated breath, to separate the desired program, is eliminated.

Where reception is desired from far distant stations, it will be found that Radiola VII-B provides reception over exceptionally long distances when used with a carefully constructed outdoor antenna having low resistance losses. To erect an antenna of this type requires considerably more room than is usually found in the cities, but it will be found practicable in the suburban districts. Wherever the necessary space is available, excellent results will follow. An antenna of this kind calls for the use of a counterpoise or secondary antenna underneath the antenna proper. It should be erected at a height of approximately eight to ten feet above the ground. The counterpoise takes the place of the usual ground connection and may have one, two or three wires. It should be strung parallel and underneath the main span, and should be the same length or a few feet longer than the antenna itself. With an antenna of this character, Radiola VII-B will provide coast-to-coast reception on the loud speaker during the favorable periods of the year, or when adverse weather conditions do not prevail.



Radiola VII-B, including six UV-199 dry cell Radiotrons (one spare), but without batteries \$275.00



Radiola Loudspeaker

Model UZ-1320



AS a result of extended research and study of the science of reproducing voice and music by the great laboratories at its disposal, the Radio Corporation of America offers the Radiola Loud Speaker which provides a greater acoustical range than any type heretofore produced.

An analytical investigation of the undesirable characteristics of former types brought to light many important discoveries. It was determined that the size of the diaphragm, the area of the air chamber at either side of the diaphragm, the shape of the horn and the material of which it is made, all had to be scientifically coordinated to achieve that high quality of reproduction which the Radiola Loud Speaker now embodies.

Unusually intelligible speech reproduction, faithful translation of the higher and lower notes of the musical scale and the recreation of the complex tonal vibrations of the orchestra or the band are the outstanding features of this new device. It is a scientific achievement and an artistic revelation, giving forth the renditions of the artists in all their true beauty just as they are given in the broadcasting studio.

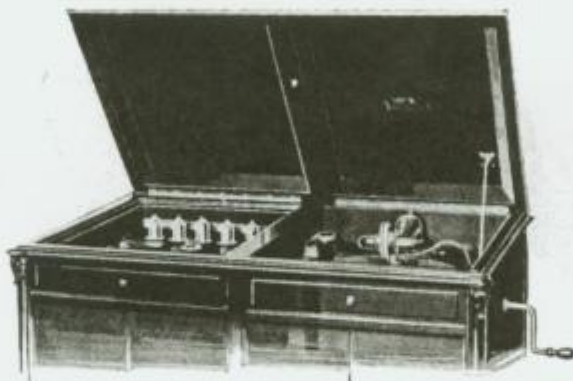
All of the Radiolas put out by the Radio Corporation were designed specifically to fit the operating characteristics of this new Loud Speaker, thus giving more pleasing translation of broadcasted entertainment than anything heretofore produced.

Radiola Loud Speaker Model UZ-1320.....\$36.50



Radiola IX

MUSIC
from
the old masters
—music and
news from our
present day
celebrities. A
simple addition
and your
phonograph is
converted into
a radio receiver
of improved



design. Back again to phonograph music if you wish, with less effort than it takes to change a needle. That is the accommodation afforded by Radiola IX.

Radiola IX is a highly improved receiver with two stages of semi-tuned radio frequency amplification, detector, and two stages of audio frequency amplification. In selectivity it will provide all that can be desired for general use. It employs five UV-199 Radiotrons which are operated by dry cells entirely. All tubes are cushion supported to eliminate noises from mechanical vibration. Grid bias for "C" battery has been provided. The sound chamber of the phonograph is used as the horn of the radio loud speaker. The loud speaker unit is of new design and reproduces all notes clearly and without distortion. Radiola IX is a great space saver. The panel is extremely thin and the whole apparatus occupies less than one-sixth the space of the average type of present day receivers. The panel, which is beautifully finished, is designed to fit into the cover of upright phonographs or the cover or record box of console models. So neatly does it coincide with the design of the phonograph that it seems to be an integral part of it.

Radiola IX is furnished in 3 models as follows:

1395—To fit Columbia Grafonola, G2

1396—Universal panel (17 $\frac{1}{4}$ " x 17 $\frac{1}{4}$ ") which can be cut to minimum of 14 $\frac{1}{4}$ " x 13".

1398—To fit Victrola VV-100

Radiola IX with six UV-199 Radiotrons (one spare), mahoganzed metal battery box, phonograph loud speaker attachment with adapter, and all accessories for installing, except batteries..... \$215.00

Radiotrons

For Storage Battery Operation



UV-200—For a tube that is to be used for detection only, UV-200 is without a peer. The tube is "soft," that is, special gases are introduced during the manufacturing process giving that characteristic which provides "detection" with great sensitivity. UV-200, which operates from a storage battery, has a standard base and may be used in any circuit. Stability, and uniformity in performance are the outstanding qualities of this remarkable detector.

*Battery Source 6 volts
Filament Terminal voltage 5 volts
Plate Voltage 15-25.5 volts*

Radiotron UV-200..... \$5.00

UV-201-A—UV-201A is a highly efficient detector and amplifier intended for operation from a storage battery. The filament is specially designed to give large electron emission with a current consumption of but .25 ampere.

*Battery Source 6 volts
Filament Terminal 5 volts
Detector Plate voltage 20-45
Amplifier Plate voltage 40-120*

Radiotron UV-201-A..... \$5.00



Radiotrons

For Dry Cell Operation



UV-199—, the smallest of the Radiotron family, is but $3\frac{1}{2}$ " in height, and 1" in diameter. It is a dry cell tube and not only makes an exceptional detector, but is an excellent amplifier of both radio and audio frequencies as well. This little tube requires but .06 ampere to energize the filament, which current can be supplied by three No. 6 dry cells in series. The UV-199 fits special socket UR-590 and requires a rheostat of 30 ohms, similar to PR-539.

*Battery source 4.5 volts
Filament terminal 3.0 volts
Detector Plate Voltage 20-45 v.
Amplifier Plate Voltage 40-100 v.*

Radiotron UV-199.....\$5.00

WD-11 and WD-12 — Radiotrons WD-11 and WD-12 gained instant popularity from the time they were introduced, because of their economical operation and uniform performance. They operate on a single $1\frac{1}{2}$ volt dry cell and draw but .25 ampere. They are exceptional detectors and, as both radio and audio frequency amplifiers, are unusually effective.




WD-11 and WD-12 are the same in all respects, except that the WD-12 is equipped with the standard base, whereas the WD-11 requires a special WD-11 socket or adapter.

These tubes are noted for their long operating life, the special, oxide coated filament giving high electron emission at low filament temperature.

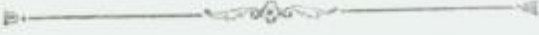
*Battery source 1.5 volts
Filament terminal 1.1 volts
Detector Plate Voltage 20-45 v.
Amplifier Plate Voltage 45-90 v.*

Radiotron WD-11.....\$5.00
Radiotron WD-12.....5.00





Patent Notice



(1) Purchasers of tubes, grid leaks, transformers, condensers, or other parts, or of sets are not licensed by the Radio Corporation of America under any patents owned by the Radio Corporation of America, or under which it is licensed to use the same for commercial purposes. The sole license the purchaser of any such part or set obtains by the purchase thereof is to use it for amateur and experimental radio use involving no business feature and including broadcast reception of news and music and other entertainments but not broadcast transmission.

(2) Purchasers of parts are given no license either express or implied by reason of such purchase to assemble or make up sets or parts of sets which sets or parts of sets (as distinguished from the separate parts) infringe patents under which the Radio Corporation of America holds rights. The purchaser of a part is licensed by such purchase to use such part only and is not licensed under any patent covering a combination or organization composed of such part and other parts. The right under any patents relating to such a combination or organization to assemble parts into complete sets or to assemble in part such sets is reserved by the Radio Corporation of America, except to the extent that it from time to time permits amateurs to assemble sets under certain conditions as provided below.

(3) To meet and develop the interest of amateurs in the radio art, such amateurs are, until further notice, authorized under the patents under which the Radio Corporation of America has the right to grant licenses, to assemble and use sets (but only for amateur and experimental radio purposes as above defined in section (1)), provided the tubes forming elements of, or used with, such sets have been sold by the Radio Corporation of America or such other persons, if any, as have been authorized by it to manufacture and sell the same for use in the United States of America, and provided that such amateur does not use any assembled or partially assembled set, but himself assembles the various distinct parts.

(4) No license under any such patent covering a combination or organization of elements is granted to replace any tubes in any set sold by the Radio Corporation of America or assembled under license from it, with other tubes not sold by the Radio Corporation of America.

RADIO CORPORATION OF AMERICA



