

INSTRUCTIONS

Victor
Radio

and

Victor Radio
with
Electrola

TRADE MARKS REG. U. S. PAT. OFF.



"HIS MASTER'S VOICE"
REG. U.S. PAT. OFF.

VICTOR TALKING MACHINE DIVISION
RADIO-VICTOR CORPORATION OF AMERICA
CAMDEN, N. J., U. S. A.

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DESCRIPTION

The most outstanding developments in the fields of radio and record reproduction are offered in the new Victor Radio and Victor Radio with Electrola.

Embodied in these new instruments are all the features which are essential to the listener's complete enjoyment and appreciation—quality musical reproduction, simplicity and economy of operation, and a high degree of sensitivity and selectivity.

The reproducing system comprises the radio unit, the power-amplifier, and the electro dynamic reproducer. In the combination Radio with Electrola the electric pickup is used to translate into electrical energy the mechanical vibrations of the needle in the record grooves. Unsurpassed tone quality and controllable volume without distortion for both radio and record reproduction are obtained through the power-amplifier and electro dynamic reproducer.

All power for operation is obtained from the electric light line, and is controlled by a small snap switch on the radio panel.

The tuning range of the instrument covers the entire broadcast band of 550 to 1500 kilocycles (545 to 200 meters).

P.S. When the UX-226 is replaced, the other UX-226 should be replaced.

IMPORTANT

The purpose of this book is to assist you in the installation, operation, and care of the instrument. The instructions should be read carefully before installing or operating the instrument, and the book preserved for future use.

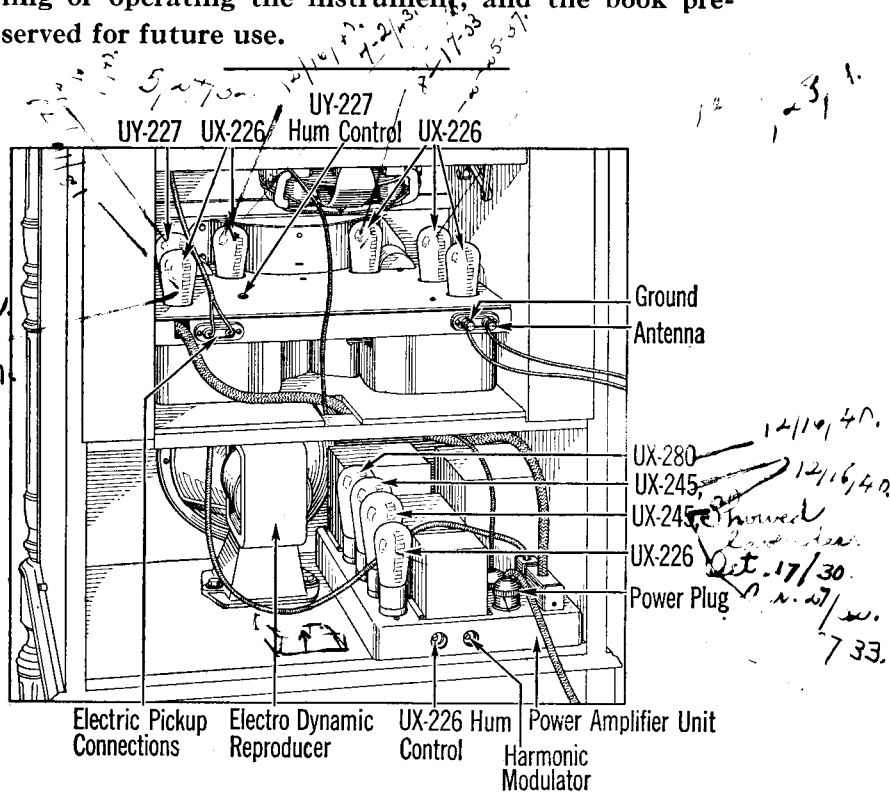


Fig. 1—Back View of Instrument, Showing Location of Radiotrons in Radio and Power-Amplifier Units.

The other UX-226 should be replaced.

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INSTALLATION

1. Equipment—All equipment is supplied with the exception of the Radiotrons, which are required as follows:

6 Radiotrons UX-226
1 Radiotron UY-227

2 Radiotrons UX-245
1 Radiotron UX-280

2. Remove Shipping Blocks—Remove the various shipping blocks used to support the radio, the power unit, and the electro dynamic reproducer.

3. Installing Radiotrons—Referring to Fig. 1, insert the UY-227 and the UX-226 Radiotrons in their sockets in the radio set as shown. Insert the additional Radiotrons in the power-amplifier unit as shown at the bottom of Fig. 1.

4. Installing Selector Lamp—Remove the cover over the metal compartment in back of the selector scale. This cover has a spring clip and can be removed readily. Place the selector lamp in its socket, and replace the cover, taking care that it is fitted properly so that it will not rattle.

5. Connections to Antenna and Ground—Connect the lead-in wire from the antenna to the antenna binding post on the back of the radio set. Connect the ground wire to the ground binding post. The successful operation of the instrument is largely dependent upon a good antenna and ground. See pages 9 and 10 for a description of the best antenna and ground to be used.

6. Connections to Power Supply—Connect one end of the power supply cord to the power-amplifier unit attachment plug, (see Fig. 1) and the other end of this cord to a lamp socket or any other convenient electrical outlet of the proper rating. *Never connect the power cord to a direct current circuit, or to an alternating current circuit of any rating except 105 to 120 volts, 50 to 60 cycles.** If there is any doubt about the power rating, consult your local Electric Light and Power Company.

Turn the power switch, shown in Fig. 2, to the right, and note that all Radiotrons are lighted. The UY-227 Radiotron will light brightly only near the top, while the other Radiotrons will light with a dull glow. When certain that all the Radiotrons light properly, place the metal cover, furnished in the outfit package of the instruments with Electrola, over the UY-227 Radiotron, forcing the cover into the UY-227 opening in the metal panel.

*Special instruments are available for operation on 105 to 120 volts, 25 to 40 cycles, alternating current.

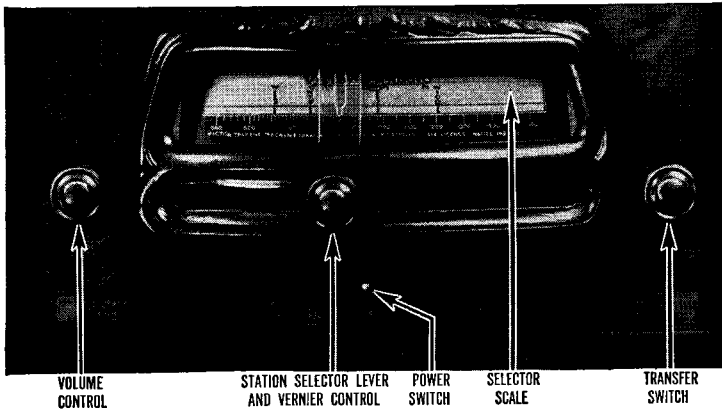


Fig. 2—Radio Panel

7. Adjusting Hum Controls—With the power still turned on, place the transfer switch, shown in Fig. 2, in the record position to the right. With a small screw driver, turn the UX-226 hum control in the power-amplifier unit, shown in Fig. 1, slightly in either direction as required until the hum of the instrument is a minimum. Turn the transfer switch to the left to the radio position and also turn the radio volume control to the left. With a small screw driver, turn the UY-227 hum control in the radio set (see Fig 1) to the right or left as required until the hum is a minimum.

Improved reception and reduction of hum may sometimes be effected by reversing the prongs of the power supply cord. This can be done by removing the power plug, turning it through a half circle, and reinserting it.

Excessive hum may sometimes be caused by one of the Radiotrons not functioning properly, particularly the UY-227. A new Radiotron should be tried if this condition is noted.

8. Rearranging Radiotrons—Improved reception can sometimes be effected by rearranging the Radiotrons UX-226 in their various sockets in the radio set and listening to the reproduction until the best combination is found.

9. Harmonic Modulator—The harmonic modulator, which controls emphasis on the bass section of the scale, can be regulated to suit individual preference or the acoustic qualities of an unusual room. This control, shown in Fig. 1, is set in the factory for the best reproduction over the entire musical range, and should not ordinarily require further

adjustment. It can be regulated, however, by turning with small screw driver, the bass being increased as the control is advanced to the right.

10. Mounting Turntable—In the combination Radiowith Electrola move the electric pickup arm to the right as far as possible. Holding the turntable in both hands, carefully lower it over the turntable spindle. Make certain that the slot in the turntable is engaged with the pin in the spindle.

11. Regulating Speed—Regulate the speed of the turntable to 78 revolutions per minute with the electric pickup and needle on the record. This can be done by placing a piece of paper under the edge of the record on the turntable, counting the number of revolutions for one minute, and turning the speed regulator screw, shown in Fig. 3, with a small screw driver until the proper speed of 78 revolutions per minute is obtained.

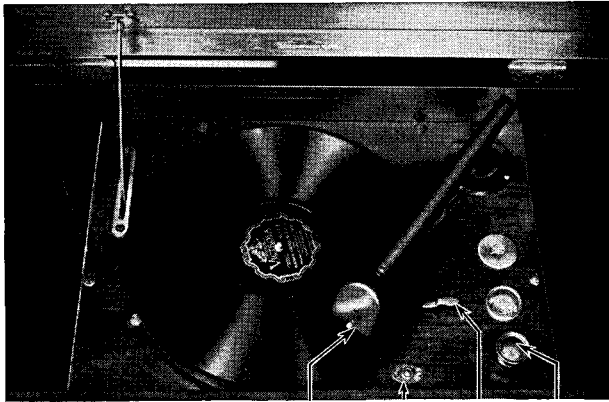
RADIO OPERATION

Referring to Fig. 2 for location of the controls:

1. Snap the power switch to the right to the "on" position.
2. Turn the transfer switch to the left to the "Radio" position.
3. Turn the radio volume control about half way to the right.
4. After approximately 30 seconds from the time the power switch is first turned on (this interval is required for the Radiotrons to heat properly), move the station selector lever over the scale, lifting the lever slightly while it is being moved, until a station is heard.
5. If no station is heard, it may be that no local or powerful stations are broadcasting, in which case the volume control should be advanced to the right to maximum, and the station selector lever again moved over the scale until a station is heard.

It will be noted that the station selector is readily operated as a lever, and that the fine vernier adjustment is obtained by turning the vernier control knob slightly to the right or left as required.

6. Adjust the vernier control for maximum volume by turning the knob to the right or left.
7. Regulate to the desired volume by means of the radio volume control.
8. After becoming more familiar with the simple and rapid tuning operation, it will be possible to slide the station selector lever to any desired kilocycle position of the dial to



Electric Pickup Speed Regulator Motor Starting Switch Record Volume Control

Fig. 3—Electrola Playing Compartment

receive a station which is known to be broadcasting and which is within receiving range of the instrument.

9. When it is desired to discontinue operation, snap the power switch to the left.

LOGGING STATIONS

The positions on the selector scale at which different stations are received can be marked on the light space provided if desired. The slot on the indicator is so shaped that the scale can be accurately marked with a soft lead pencil to ensure ease of erasure. It will be noted that the scale is calibrated directly in kilocycles, so that the low frequency stations (high wave length) will be received toward the left end and the high frequency stations (low wave length) toward the right end of the scale. A short line should be placed opposite the scale calibration at which the station is received, and the station call letters then marked vertically as shown in Fig. 2.

ELECTROLA OPERATION

Referring to Figs. 2 and 3 for the location of the controls

1. Turn the transfer switch to the right to the "record" position.

2. Snap the power switch to the right to the "on" position.

3. Insert a new Victor steel needle or a Victrola Tungstone needle in the electric pickup, and tighten the needle screw firmly.

4. After placing the record on the turntable, swing the pickup arm to the outer edge of the record, and pull the motor starting switch forward.

5. After the turntable has acquired speed, lower the electric pickup onto the record.

6. Regulate the volume by means of the record volume control. Maximum volume is obtained when the control is turned all the way to the right.

7. To discontinue operation of the Electrola, lift the electric pickup and move it to the right to clear the record. The motor will be stopped automatically at the end of a Victor eccentric groove record. (All Orthophonic records have this eccentric groove.) When playing records without the eccentric groove, stop the motor by pushing the motor starting switch toward the rear of the cabinet. Snap the power switch on the radio panel to the left to its "off" position.

GENERAL INFORMATION

1. Antenna—In general the best results will be obtained by using a single wire outdoor antenna. It should be from 50 to 75 feet long including the lead-in and ground wires, which should be short and direct. A longer antenna will increase the sensitivity and decrease the selectivity, while the opposite will apply to a shorter antenna. The antenna should be isolated from other objects and as high as possible. It should be at right angles to electric light, traction, power, and other wire lines, and should not cross either above or below such lines.

The antenna should be supported at both ends by glazed porcelain or glass insulators. The lead-in wire should preferably be a continuation of the antenna wire. If it is necessary to make a connection between the antenna and lead-in wire, or between sections of either, these joints should be securely soldered together. The lead-in wire should be brought through the wall or window frame, and insulated by means of a porcelain tube. It is important that the antenna and lead-in should not make contact with any object except the insulators. When an outdoor antenna is used, it should be protected by means of an approved lightning arrester.

Where the installation of an outdoor antenna is not practicable, satisfactory results may be obtained by using about 50 feet of ordinary double cotton covered bell wire (No. 18 B. & S.) strung around the picture molding. It may also be run the length of the attic. Such an antenna will not be satisfactory in a building with metal lath under the plaster. An indoor antenna is not as efficient as a properly installed outdoor antenna. Various possible arrangements should be tried if the first is not satisfactory.

2. Ground—A good ground is as necessary as a good antenna. The best ground is a good electrical connection to a water pipe. If this is not convenient, a connection to the steam or hot water heating system may be tried. Connections to gas pipes should not be used. If none of those recommended above is available, a pipe or metal rod may be driven into the ground to a depth of 3 or 4 feet, preferably where the soil is moist. The ground connection should be made with a ground clamp, the wire being soldered or held by clamping under a screw or nut. Be sure to scrape and clean the pipe thoroughly before attaching the ground clamp. A poor ground connection may not be apparent on local reception but it is an important factor in distant reception. Usually connection to more than one ground, for instance to both water and steam pipes, will improve reception.

3. Radiotrons—The only parts ordinarily requiring replacement will be the Radiotrons. These should last for many months if not abused either by rough handling or by operation at too high voltage. The latter may be caused by operating the instrument when the voltage of the power line exceeds 120 volts.

Often improved reception may be obtained by interchanging the Radiotrons UX-226 as described on page 6. This may be the case even when the Radiotrons are new. In no case, however, should any of the UX-226 Radiotrons be placed in the UX-245 or UX-280 sockets since the higher filament voltage would burn out the UX-226.

It is recommended that one or two spare Radiotrons of each type be kept on hand for emergency use. This will afford some assurance against annoying interruptions due to the possible failure of a Radiotron, and will permit ready detection of any Radiotron not operating properly.

4. Care of Cabinet—Victor cabinet cleaner is recommended for cleaning and polishing the cabinet. This prepara-

tion can be used freely without injuring the finish of the cabinet. The cleaner can be purchased from any Dealer in Victor products.

5. Care of Records—Records should be kept as free from dust as possible. Gritty dust on the record not only wears out the record rapidly, but causes harsh and unpleasant reproduction. The records should not be exposed to severe heat, and should be cleaned only by brushing with a velvet or plush pad. If a record becomes cracked or badly scratched, it is best to destroy it. Playing a scratched or imperfect record may result in injury to the electric pickup.

6. Electric Pickup—*Imperfect Reproduction*—A loose needle may cause noisy reproduction. Hence, if your Electrola reproduces improperly, see that the needle is securely fastened in the electric pickup.

If you are using steel needles, put in a new needle after every record. The Tungs-tone needle can be used until the reproduction becomes imperfect. The Victor full-tone steel needle or full-tone Tungs-tone needles give the best reproduction, and only Victor needles are recommended.

If noisy reproduction should develop and tightening or changing the needles does not eliminate the condition which persists with various records, it is possible that the electric pickup is injured or out of adjustment. Take the pickup to a dealer in Victor products for repairs.

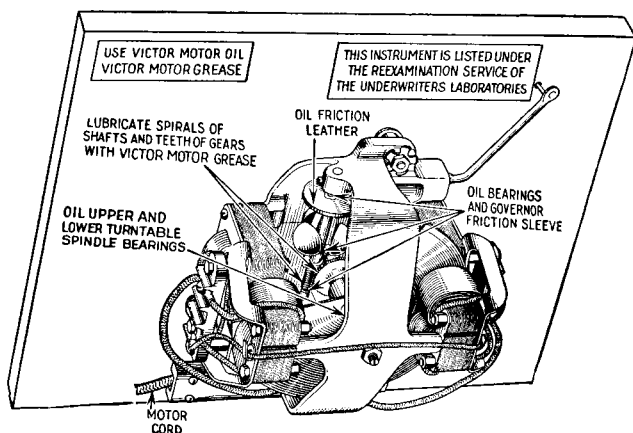


Fig. 4—Electric Motor Oiling Diagram

7. Lubricating Motor—The Electrola motor should be kept clean and should be lubricated at least once in six months. To permit ready inspection and lubrication of the motor, remove the turntable and the four screws at the corners of the Electrola motor board. Lift up the front edge of the motor board. The parts requiring lubrication are shown in the oiling diagram, Fig. 4. Before lubricating, wipe the motor with a clean cloth dampened with kerosene. The proper lubricants required for the motor can be secured from any dealer in Victor products, and only Victor lubricants are recommended. Samples of the proper lubricants are furnished with the instrument.

8. Failure in Operation—Should the instrument at any time become inoperative, or its operation become unsatisfactory, determine first that it is being supplied with power by observing if the operating lamp in the rear of the tuning scale is lighted when the power switch is on. Then observe if all the Radiotrons in the radio set and the power-amplifier are lighted.

Even though all the Radiotrons seem to light, the trouble may be due to the improper functioning of one of these units or to a poor contact in one of the sockets. Disconnect the power supply cable from the instrument by pulling the power plug. Remove all the Radiotrons from their sockets, one at a time, and clean the contact pins with sandpaper. Wipe the pins carefully; then slide the Radiotron in and out of its socket several times. If the operation is not yet corrected, replace each Radiotron, successively, with a new one of the proper type until the poor one is detected.

If the instrument still operates improperly, examine the connections of the antenna and ground. These should all be good metallic connections free from any corrosion.

9. Service—The tests described above can be readily carried out, but you should look to your Victor dealer for assistance in case of trouble. Ordinarily, arrangements can be made with the dealer for a periodical inspection and test of the instrument at a reasonable price. He is capable of rendering efficient service, and it is recommended that you take advantage of this service.

