

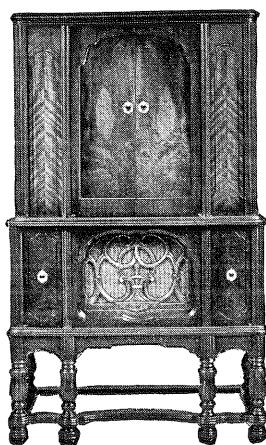
RCA Victor Duo 380

Twelve-Tube Superheterodyne Receiver

with

Automatic Phonograph

INSTRUCTIONS



RCA Victor Company, Inc.

CAMDEN, N. J., U. S. A.

INTRODUCTION

This distinctive radio-phonograph combination embodies the latest developments and improvements in home entertainment from broadcasts and recordings. Splendid voice and musical reproduction with abundant reserve volume from either radio programs or phonograph records is realized through the use of aural (automatic tone) compensation, Class B power amplification, and a large electro-dynamic loud-speaker. The latter member is contained in a specially-designed internal compartment which renders the cabinet acoustically correct, preventing sound distortion from resonance effects commonly known as "boominess."

In addition to a refined superheterodyne circuit using twelve tubes, the radio receiver incorporates the following features: (1) secondary tuning range for reception of police calls, amateur and other phone communications between 1500 and 2800 kilocycles as a diversion from the accustomed broadcasts, (2) "automatic volume control" to minimize fading and prevent blasting, (3) "silent-tuning control" to permit adjustment for quiet tuning between station settings, and (4) "dual tone control" to afford altera-

tion of the bass or treble response independently as desired. Colored illuminated indicators on the front panel of the cabinet show at a glance just where the volume, silent-tuning and tone controls are set. An illuminated tuning meter is mounted directly above the station selector dial to facilitate *exact* adjustments of that dial and thus insure most pleasing reproduction.

The electrical phonograph is fully automatic, capable of playing in sequence without attention one side of several ten- or twelve-inch records of the standard-speed (78 R. P. M.—revolutions per minute) or long-playing ($33\frac{1}{3}$ R. P. M.) variety. In addition, the mechanism may be quickly converted to function as an ordinary non-automatic phonograph, thus permitting individual playing at either speed records of any diameter up to 12 inches. It is sturdily constructed and simple to operate, all controls being accessible from the front of the instrument. Record changing is accomplished in a minimum interval of four seconds. Two enclosed compartments are provided at the bottom of the cabinet for the storage of records.

INSTALLATION

Preliminary—After withdrawing the instrument from its shipping container and removing the packing framework bolted to the underside of the cabinet, extract the interior wooden brace fastened by screws to the radio chassis shelf and one of the motor-board mounting rails. Also remove the two red hex-head bolts which pass through the mounting rails and withdraw the two wooden blocks from between those rails and the motor-board, which should then float freely on its spring suspension.

Tubes—This instrument is equipped and tested at the factory with RCA Radiotrons and is shipped with these tubes installed. Remove the packing material inserted to protect the tubes against damage in transit, then refer to the chassis diagram printed on the license label inside the cabinet and *make certain*:

- (a) That all tubes are in the proper sockets and pressed down firmly. *Never apply power to the instrument unless all tubes are in place.*
- (b) That the shields are rigidly in place over those tubes represented by double circles on the diagram.
- (c) That the spring connectors of the short flexible (grid) leads, shown on the diagram, are securely attached to the dome terminals of the proper tubes. It is important that the adjacent green and black leads shall be connected as indicated—that is, not reversed.

NOTE—The grid lead for the RCA-55 must be enclosed by the cylindrical tube shield. A slot is provided at the bottom of this shield for entrance of the lead.

- (d) That the lids are securely in place on the shields of the two tubes designated by a heavy outer circle on the diagram.

Phonograph Compartment—Open the large doors on the front of the cabinet and remove all packing material from the playing compartment.

Withdraw the turntable, used-needle cup, compartment lamp and associated lamp shade from the Outfit Package. Referring to Figure 2, lift the record ejector to its upright position (see paragraph 3 (c) under "Procedure—Automatic Operation—Phonograph") and, with the speed shifter set in the outward or 78 R. P. M. position, mount the turntable on the motor spindle. Make certain that the spindle drive key engages the slot in the turntable hub.

Insert the used-needle cup in the opening provided in the motor-board and install the compartment lamp and lamp shade. The socket for this lamp is located at the top of the compartment directly above the front doors, which doors conceal and actuate the lamp switch.

Location—The instrument should be located close to the antenna lead-in and ground connections and near an electrical outlet. To insure proper operation of the automatic mechanism, the instrument must be level. If the floor is uneven at the location selected, therefore, one or more of the cabinet legs should be blocked up to attain the required level position. This is very important; for further details, see note 2 of paragraph 8 under "Procedure—Automatic Operation—Phonograph."

Antenna and Ground—A well-insulated outdoor antenna having a length of from 50 to 100 feet including the lead-in wire is recommended. It should be erected as high as conveniently possible and sufficiently remote from power lines and street railways to prevent excessive local interference. If the instrument is installed in a building of non-metallic construction, an indoor antenna ordinarily will afford satisfactory reception and may be considered the

most practical. Buildings in which the roof or framework is of metal, however, form an effective shield which greatly impedes the passage of radio waves; to insure best results in such installations, therefore, an outdoor antenna is essential.

A good ground connection also is essential for best performance. The ground lead should be as short as possible and attached preferably to a cold-water pipe. An approved ground clamp should be used to insure a tight and permanent connection.

A terminal board containing three terminals is provided on the receiver chassis at the rear to facilitate connection to the antenna and ground. Connect the antenna lead to the middle terminal (marked "2") and the ground lead to the right-hand terminal (marked "3"). Tighten the terminals with a screw driver to insure permanent electrical connections.

NOTE—The left-hand terminal (marked "1") is provided for use only with shielded lead-in equipment (designed especially for this receiver) which can be purchased from and installed by the dealer who sold this instrument. Such an installation is effective in eliminating or greatly reducing noise interference caused by local electrical disturbances ("man-made static").

Power Supply—Connect the power cord to an electrical outlet supplying alternating current at the voltage and frequency (cycles) specified on the license label. During the subsequent Operating Test, the most satisfactory position for the connector plug

in the outlet (that which provides least hum on record reproduction) should be determined.

FUSE—This instrument is protected by a fuse located at the rear of the chassis, under the metal cover marked "Caution: Remove Power Supply Before Removing Cover." If the fuse burns out, check the power supply connections and rating, and have all tubes tested by your dealer before installing a new fuse. This is a special fuse—obtain replacement fuses from your dealer—do not use any substitute for this fuse.

In districts where the line voltage is always below 115 volts (225 volts for 200–250 volt models), the fuse should be set in the "110" position ("213" position for 200–250 volt models). Always disconnect the power cord from the a-c outlet before removing the fuse cover.

Operating Test—At installation, a thorough trial operation—both radio and phonograph—should be made in accordance with the instructions which follow. The instrument was, of course, in perfect operating condition when shipped from the factory. After transit, however, minor adjustments sometimes may be necessary, particularly on the automatic record-changing mechanism. It is the dealer's responsibility to make sure that the instrument functions perfectly when installed.

A diagrammatic chart giving complete instructions for ordinary adjustments of the automatic mechanism is included in the Service Data section of this booklet. Whenever possible, these adjustments should be made by the dealer from whom the instrument was purchased.

OPERATION—RADIO

All of the radio operating controls are located on the front panel as shown in Figure 1. Proceed as follows:

1. Set the Transfer Switch clockwise (for radio reception) and the Frequency Range Switch as indicated below for reception in either band:

- (a) Counter-clockwise—540–1500 kilocycles (broadcast band). Using the large numerals, the dial scale reads directly in kilocycles for this band.

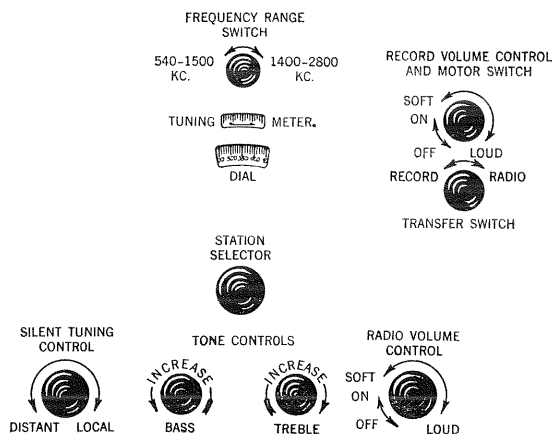


Figure 1

- (b) Clockwise—1400–2800 kilocycles. Frequencies in this band are indicated approximately by the positions of the small numerals at the bottom of the dial (add two ciphers to obtain kilocycles). Available services therein include the following:

- (1) Police Calls—Stations operating at 1574 and 1712 kilocycles and between 2400 and 2500 kilocycles.

- (2) Amateur Radio "Phone"—Assigned band 1800–2000 kilocycles.

- (3) Aviation Communications "Phone"—Between 2500 and 2800 kilocycles.

NOTE—The majority of stations in this range do not offer continuous programs. Police calls are usually intermittent, at regular or irregular intervals. Strong local stations in the broadcast band may be audible (sometimes at more than one point on the dial) when the Frequency Range Switch is set for 1400–2800 kilocycles.

2. Apply power by turning the Radio Volume Control knob clockwise from the "off" position. Set this control near the middle of its range by observing the illuminated colored indicator associated with its control knob. Wait a few seconds for the tubes to heat before attempting further operation.

3. With the Silent-Tuning Control set in the extreme counter-clockwise position, turn the Station Selector to a point, near the middle of the dial range, at which no station is heard within several scale divisions. Then turn the Silent-Tuning Control clockwise until the background noise (static) just disappears.

NOTE—The adjustment just described provides quiet tuning (that is, suppression of background noise between station settings) and permits reception of all stations whose signals are above the existing noise level.

4. Tune the receiver by rotating the Station Selector either at random until a desirable program is heard or in an endeavor to locate any particular station whose assigned frequency is known. In the latter case, turn the selector slowly throughout a

narrow range on each side of that dial setting corresponding to the station frequency.

NOTE—In the event that any particular station cannot be reached in this manner, its signal intensity probably is below the prevailing level of background noise. If especially desired, however, weak signals often may be received by turning the Silent-Tuning Control gradually counter-clockwise, thus calling upon the reserve sensitivity of the instrument. Under such conditions, background noise reproduction naturally will be appreciably greater.

5. After locating a station, turn the Radio Volume Control counter-clockwise (if necessary), until the sound level is fairly low and then adjust the Station Selector accurately to that position at which the indicator of the tuning meter travels furthest to the right (as designated by the arrow on the meter scale). At this setting only will the fine quality of reproduction provided in this instrument be realized and least background noise interference be obtained.

NOTE—When receiving a powerful local station, the Station Selector dial should be set at the *center* of the scale *range* for which the meter deflection is maximum (this range may be narrowed somewhat by turning the Silent-Tuning Control clockwise).

6. Set the Radio Volume Control for the desired sound level.

7. Adjust the two Tone Controls to obtain the tone shading preferred. The full range of musical reproduction is obtained with the right-hand knob turned fully clockwise and the left-hand knob turned to its counter-clockwise extremity, being represented by full illumination of the tone color indicator which extends between the two knobs. Modifications of the tone range may be obtained as follows:

- (a) To reduce the high-frequency (treble) response, or to decrease the background noise (static) interference on *station settings*, turn the right-hand tone control knob counter-clockwise. The extent of high-frequency cut-off thus obtained is indicated by shading of the *yellow* illumination at the right-hand side of the tone color indicator.
- (b) To reduce the low-frequency (bass) response, or to decrease low-pitched hum present on the signals of some stations, turn the left-hand tone control knob clockwise. The extent of low-frequency cut-off thus obtained is indicated by shading of the *blue* illumination at the left-hand side of the tone color indicator.
- (c) The *red* illumination at the center of the tone color indicator represents the middle range of musical response. This illumination is not cut off by rotation of either of the tone control knobs as described in the preceding paragraphs (a) and (b).

8. When through operating, turn the Radio Volume Control fully counter-clockwise, thus switching the power "off."

OPERATION—PHONOGRAPH

Automatic Operation

Important Precautions—The following precautions must be observed during operation:

1. *In loading the turntable, make certain that the first record inserted (last to be played) is flat—that is, essentially free from warpage.*

2. *Before starting the turntable, make certain that the reject pocket (at the left of the phonograph compartment) is either empty or sufficiently clear to permit proper disposal of records by the automatic mechanism.*

3. *Never restrain by force the normal motion of any part of the automatic mechanism while it is changing records.*

Procedure—The phonograph operating controls are located on the front panel and in the playing compartment as shown in Figures 1 and 2. Proceed as follows:

1. Set the Transfer Switch counter-clockwise for record reproduction.

2. Apply power by turning the Radio Volume Control clockwise from the "off" position. Set the two Tone Controls for full-range reproduction (see paragraph 7 under "Operation—Radio").

3. With the Motor Switch in the "off" position (Record Volume Control fully counter-clockwise), load the turntable with records, as follows:

- (a) Set the Index Lever at "Manual." *Always do this before loading or unloading records.*

- (b) Place the electric pickup on the rubber rest
- (c) Raise the Record Ejector arm (*very slowly*, at first, until the internal weight has rolled to the rear of the arm, then as rapidly as desired) to its upper position of rest. *Always raise the ejector arm in this manner.*
- (d) Select the records to be played. *All records for one loading must be of the same diameter (either ten or twelve inches), close to standard thickness and operable at the same speed (either 78 or 33½ R. P. M.).*

CAUTION—*Do not use thin flexible-type records for automatic operation.*

- (e) Place the records, one at a time, on the turntable (see paragraph 1 under "Important Precautions"). The spindle should resume its normal height after each record is added. The turntable is fully loaded when the top surface of the uppermost record is nearly flush with the top of the spindle. (It should not be possible to slide off the top record without lifting its edge or depressing the spindle.)
- (f) Lower the Record Ejector arm gently onto the spindle.

4. Insert a *new* needle in the pickup as far as it will go and tighten the needle screw. For long-playing (33½ R. P. M.) records, use *only* the *orange Chromium* needle. For standard (78 R. P. M.) records, use the latter needle or, if preferred, either the *green Chromium* or the full volume (full tone)

Tungstone needle. Transparent-faced (illustrated) records, however, should not be reproduced with Tungstone needles.

NOTE—With care, the orange Chromium needle should play 75, the green Chromium 100, and the Tungstone 100 to 150 records. *Never re-insert in the pickup a Chromium needle which has been used (however slightly) as damage to the record grooves would result.*

5. Place the pickup needle on the smooth outer rim of the record, near the first groove. Then move the Index Lever to the position (12 or 10) corresponding to the diameter (inches) of the records on the turntable. Be careful not to move the lever *beyond* the proper index hole. Push the index pin firmly into the hole.

CAUTION—*Never attempt to move the Index Lever from the Manual position when the pickup is on the rubber rest.*

6. Start the turntable by turning the Motor Switch clockwise; then set the Speed Shifter for the

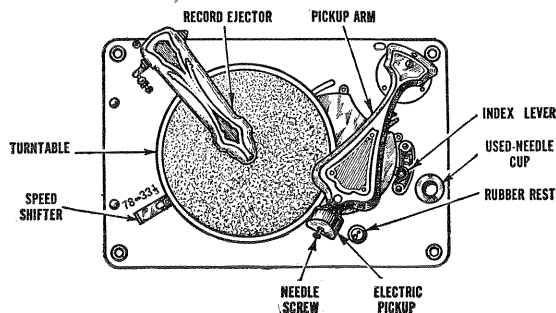


Figure 2

speed (78 or $33\frac{1}{3}$ R. P. M.) corresponding to the records on the turntable.

NOTE—The speed shifter should not be moved inward (from the 78 to the $33\frac{1}{3}$ R. P. M. position) while the turntable is at rest.

7. Adjust the Record Volume Control to obtain the desired volume.

8. Close the cabinet doors to extinguish the compartment lamp and to render less prominent the mechanical noises incident to record playing and changing. If needle scratch reproduction (particularly noticeable with old records) is considered excessive, turn the *treble* Tone Control slightly counter-clockwise. For most faithful reproduction, however, both Tone Controls should be left in the positions which provide full illumination of the tone color indicator.

NOTE 1—When a record has been played, the ejector arm slides it off into the record pocket and the pickup moves to the outside of the next record. The records on the turntable are thus played consecutively until only one record remains on the turntable. This record will be played repeatedly until the motor is stopped by means of the Motor Switch.

NOTE 2—After a record has been played and changed, the needle is lowered automatically onto the smooth rim of the next record and is fed by gravity into the starting groove. After the instrument has been leveled with reference to the top of the cabinet, further slight compensation may be necessary, thus: (1) If the needle fails to enter the playing groove, the right-hand side of the

instrument must be raised by inserting thin blocks under the front and rear legs on that side; or (2) If the needle slides over several grooves, thus failing to reproduce the beginning of the selection, the left-hand side of the instrument must be similarly raised.

9. To reject a record while playing, lift the pickup arm and move it to the extreme left. Hold the pickup lightly until it is moved by the mechanism.

10. Before reloading or when through operating, turn the Motor Switch to the "off" position, set the index lever at "Manual" and place the pickup on the rubber rest. Never leave the pickup resting on a record (or on the turntable) when not in use. Turn the power switch "off" and close the cabinet doors when discontinuing operation of the instrument.

Manual Operation

Records may be played individually as follows:

1. Set the Transfer Switch counter-clockwise and apply the power with the Radio Volume Control as directed for automatic operation. Adjust the two Tone Controls for full-range reproduction.

2. Make sure that the Index Lever is at "Manual," the pickup is on the rubber rest, and the Motor Switch is in the "off" position.

3. Raise the Record Ejector arm to the upper rest position (see paragraph 3 (c) under "Automatic Operation").

4. Place a record on the turntable and insert a needle in the electric pickup. For needle information, see paragraph 4 under "Automatic Operation."

NOTE—Ordinary steel needles (full volume or full tone) can be used with standard (78 R. P. M.) records, provided a new needle is inserted for each selection. Do not use Tungstone needles with either thin flexible type or transparent-faced (illustrated) records.

5. Start the turntable by turning the Motor Switch clockwise, then set the Speed Shifter for the speed corresponding to the record on the turntable. Lower the needle gently onto the smooth outer rim of the record.

6. Adjust the Record Volume Control and close the cabinet doors (see paragraph 8 under "Automatic Operation").

7. At the completion of the record, lift the pickup arm and move it toward the right to stop the motor (motor stops automatically at the end of a record having the *eccentric* final groove). Turn the Motor Switch to the "off" position and place the pickup on the rubber rest.

8. When through operating, turn the power "off" and close the cabinet doors.

Maintenance

With normal use and handling, trouble-free service is to be expected. The automatic phonograph mechanism and associated parts, however, should be kept clean and well-lubricated. To insure continued efficient operation, it is recommended that the entire instrument be thoroughly inspected and adjusted by an experienced service man once each year.

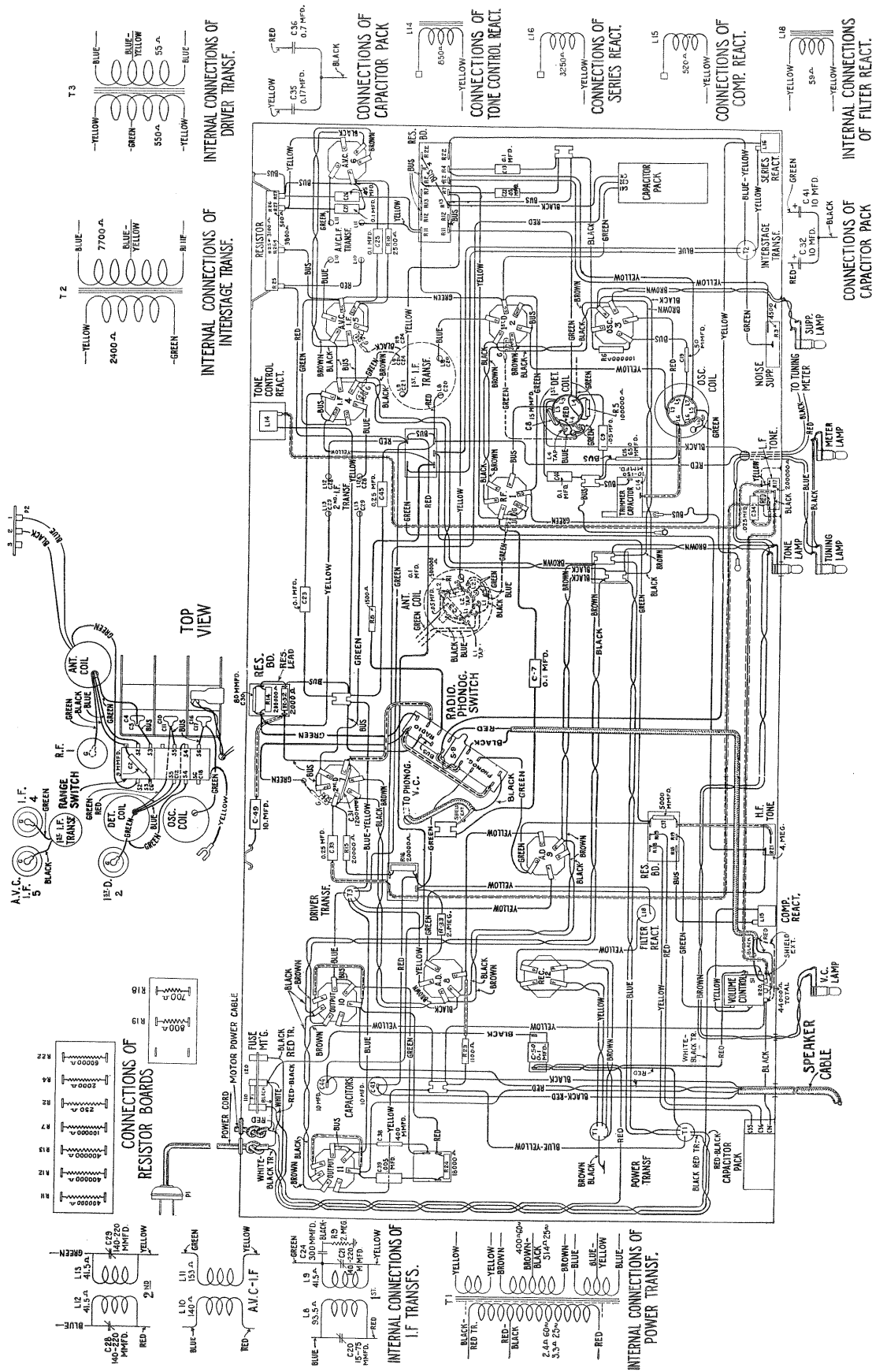


Figure C—Chassis Wiring Diagram

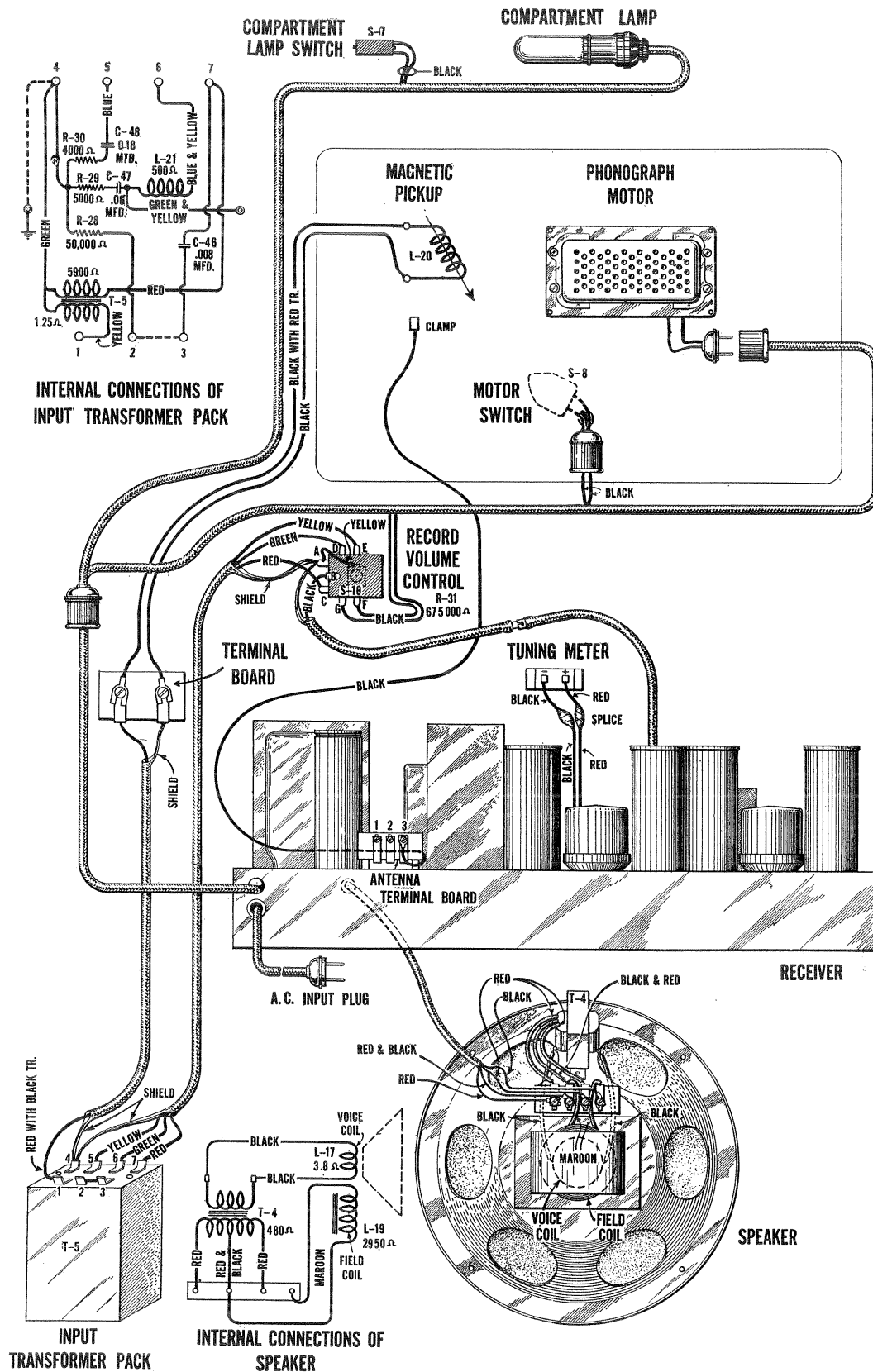


Figure D—Assembly Wiring Diagram

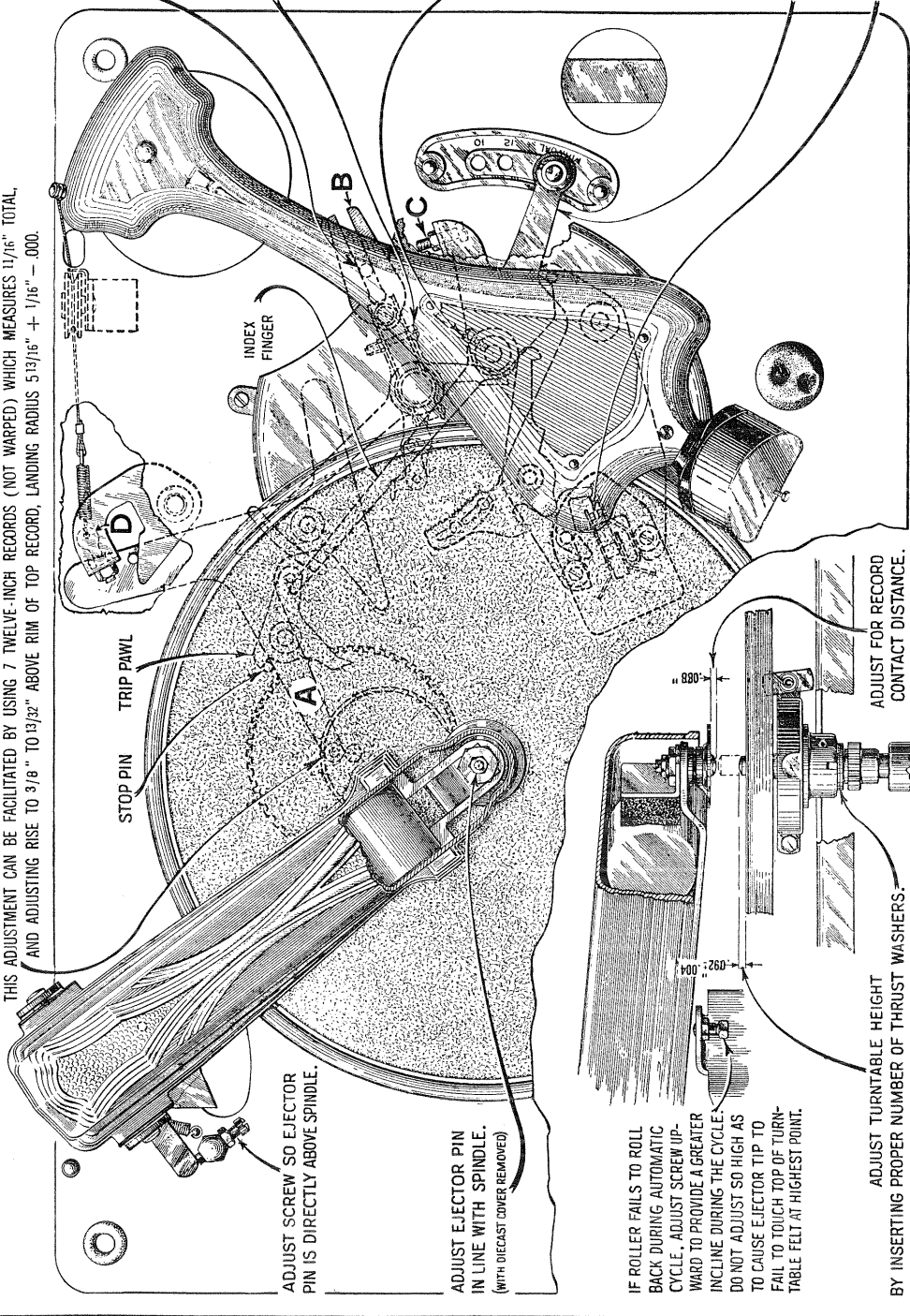
TO ADJUST RISE AND SWING OF TONE ARM — WITH MANUAL INDEX LEVER IN 12" POSITION AND ROLLER ON MAIN LEVER A ENGAGED IN CAM AT HALF CYCLE POSITION AS SHOWN, AND SWITCH LEVER B IS AGAINST STOP SCREW C, ADJUST EYEBOLT D SO NEEDLE POINT (ORANGE SHANK) IS $1\frac{1}{16}" + 1/32"$ — .000 ABOVE TURNABLE FELT. AT THE SAME TIME ADJUST SCREW C SO THAT NEEDLE LANDS AT A RADIUS OF $5.13/16" + 1/16"$ — .000 FROM CENTER OF TURNABLE SPINDLE. THIS ADJUSTMENT CAN BE FACILITATED BY USING 7 TWELVE-INCH RECORDS (NOT WARPED), WHICH MEASURES $1\frac{1}{16}"$ TOTAL, AND ADJUSTING RISE TO $3/8"$ TO $13/32"$ ABOVE RIM OF TOP RECORD, LANDING RADIUS $5.13/16" + 1/16"$ — .000.

ADJUST NEEDLE HEIGHT BY MEANS OF TRIP ROD UNTIL NEEDLE POINT OF ORANGE SHANK NEEDLE IS $1/16" + .010$ INCH BELOW TOP SURFACE OF RUBBER PICKUP REST.

ADJUST SCREW UNTIL FRICTION WILL JUST FORCE FINGER TO MOVE TRIP PAWL. (MAKE THIS ADJUSTMENT WITH COVER REMOVED)

TO ADJUST MANUAL INDEX FINGER, PLACE MANUAL INDEX LEVER IN POSITION SHOWN, (MANUAL) SET MANUAL INDEX FINGER TO FORCE TRIP PAWL AGAINST STOP PIN; TIGHTEN SCREW FIRMLY.

ADJUST AUTOMATIC SWITCH AS FOLLOWS: PLACE MANUAL INDEX LEVER IN POSITION SHOWN AND WITH SWITCH IN TRIPPED POSITION, ADJUST SWITCH UNTIL CONTACT POINTS ARE OPENED $.020 + .010$ INCH AS INDICATED. (MAKE THIS ADJUSTMENT WITH TURNABLE REMOVED)



ADJUST SCREW SO EJECTOR PIN IS DIRECTLY ABOVE SPINDLE.

ADJUST EJECTOR PIN IN LINE WITH SPINDLE. (WITH DIECAST COVER REMOVED)

IF ROLLER FAILS TO ROLL BACK DURING AUTOMATIC CYCLE, ADJUST SCREW UPWARD TO PROVIDE A GREATER INCLINE DURING THE CYCLE. DO NOT ADJUST SO HIGH AS TO CAUSE EJECTOR TIP TO FAIL TO TOUCH TOP OF TURNABLE FELT AT HIGHEST POINT.

ADJUST TURNABLE HEIGHT BY INSERTING PROPER NUMBER OF THRUST WASHERS.

ADJUST FOR RECORD CONTACT DISTANCE.

Figure E—Automatic Record Changer Adjustments

SERVICE DATA FOR MAGNETIC PICKUP

The Magnetic Pickup used in this combination instrument is of a new design with an improved frequency range. While in physical appearance it is similar to that of the older type, details of construction are considerably different. It consists essentially of a chromium steel magnet, two thin pole pieces, a mechanism support and bracket, a coil, and an armature that is damped by means of an anchored damping block.

The use of the anchored damping block eliminates any bad peaks in the frequency range. The frequency response characteristic is substantially flat from 50 to 5,000 cycles.

Replacing Magnet Coil, Pivot Rubbers, Armature or Damping Block

In order to replace a defective coil or the hardened pivot rubbers (see Figure G), it is necessary to proceed as follows:

- (a) Remove the pickup cover by removing the center holding screw and needle screw.
- (b) Remove the pickup magnet and the magnet clamp by pulling them forward.
- (c) Unsolder the coil leads and remove the mechanism assembly from the back plate by releasing the two mounting screws and the damping block clamping screw.

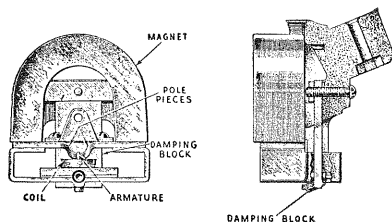


Figure F

- (d) Remove screws A and B, Figure G, and then remove the mechanism assembly from the pole pieces.
- (e) The coil or the front pivot rubber may now be removed and replaced. If it is desired to replace the rear pivot rubber, then the end of the armature soldered to the mechanism support must be unsoldered and the damping block removed. The rear pivot rubber now may be replaced. After putting the pivot rubbers in place a new damping block should be fastened to the armature as outlined in instructions on replacing the damping block.
- (f) The mechanism should now be reassembled, except for the magnet, which must be magnetized. After being magnetized, the mechanism—with the pole pieces upward—should be placed so that the magnet may be slid from the magnetizer onto the pole pieces without breaking physical contact. After placing the pole pieces on the magnet, the entire assembly should be remagnetized thoroughly, being careful not to change the polarity obtained by the initial magnetization.
- (g) After assembling to the mechanism, the entire assembly should be fastened to the back plate by means of the screws provided, making sure the damping block is securely clamped. At the same time, the metal dust cover must be placed in position.
- (h) After remagnetizing, it is necessary to correctly center the armature. This may be done quite accurately by feeling its play after the needle is inserted. A little practice will quickly show which way an adjustment is necessary to have the armature centered properly. The adjustment is made by loosening screws A and B (Figure G), and sliding the mechanism slightly in relation to the pole pieces.
- (i) The cover may be now replaced over the entire assembly, and the pickup returned to the tone arm.

In assembling, it may be desirable to check the armature air gap by means of a small Feeler Gauge. This air gap should be nine mils on each side of the armature. However, a little practice with the needle in place will quickly disclose whether or not the armature is centered.

Replacing the Damping Block

If it is desired to replace the damping block, it may be done in the following manner:

- (a) Disassemble the pickup as described under the preceding section.

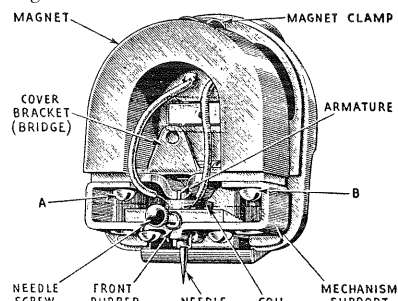


Figure G

- (b) Remove the armature entirely by unsoldering it at its joint with the mechanism support.
- (c) Remove the damping block from the armature and clean the bushing for holding the damping block with emery paper.
- (d) Insert the armature through the new block so that it occupies the same position as that of the old. Also ascertain that the block is in correct vertical alignment with the armature. It will be noted that the hole in the damping block is somewhat smaller than the diameter of the armature. This is done so that a snug fit will be obtained.
- (e) After properly locating the damping block, a soldering iron should be applied to the armature so that the block will melt slightly at its point of contact with the armature. A special tip, constructed as shown in Figure H, will prove desirable for fusing the block in place. The iron should be applied long enough to slightly melt the block and cause a small bulge on both sides, but should not be applied long enough to cause any bubbling. The pickup should then be reassembled as described in the preceding section.

Only rosin core solder should be used for soldering the coil leads in the pickup. Also rosin core solder should be satisfactory for resoldering the end of the spring in the hole in the mechanism, since both these parts have been previously tinned. In case the parts are not well tinned, it will be necessary to scrape the end of the spring and the hole in the mechanism until bright. These parts may now be tinned by using as a flux a water solution of zinc chloride (commonly called

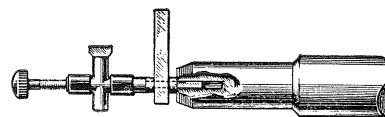


Figure H

acid flux). After tinning, dip the parts in water to wash off the acid flux and thereby prevent serious subsequent corrosion. After making sure that the pivot rubbers and damping block are properly in place, as described under (c) above, the armature may now be soldered in place in the mechanism by using rosin core solder, since the parts are now tinned. Care must be exercised to get the needle hole perfectly square with respect to the mechanism, or otherwise it will be difficult if not impossible to center the armature in the air gap as explained under (h).

REPLACEMENT PARTS

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
RECEIVER ASSEMBLIES					
2730	Resistor—18,000 ohms—Carbon type—1 watt (R24)— Package of 5.....	\$1.10	6282	Resistor—60,000 ohms—Carbon type—½ watt (R22)— Package of 5.....	\$1.00
2747	Cap—Contact cap—Package of 5.....	.50	6298	Cord—3-gang tuning condenser drive cord—Package of 5.....	.60
3024	Capacitor—9 mmfd. (C2)—Package of 2.....	.50	6300	Socket—4-contact Radiotron socket.....	.35
3047	Resistor—1,500 ohms—Carbon type—½ watt (R8)— Package of 5.....	1.00	6312	Capacitor—650 mmfd. (C15)—Package of 5.....	1.50
3085	Capacitor—400 mmfd. (C38).....	.30	6316	Resistor—2,500 ohms—Carbon type—½ watt (R10)— Package of 5.....	1.00
3118	Resistor—100,000 ohms—Carbon type—¼ watt (R5)— Package of 5.....	1.00	6437	Coil—Oscillator coil (L5, L6, L7).....	1.24
3252	Resistor—100,000 ohms—Carbon type—½ watt (R6, R7) —Package of 5.....	1.00	6447	Volume control (R20, S1).....	1.92
3376	Mount—Fuse mount.....	.40	6448	Tone control—Low frequency (R17).....	1.04
3435	Resistor—250 ohms—Carbon type—½ watt (R2)—Pack- age of 5.....	1.00	6449	Tone control—High frequency (R21).....	1.06
3460	Capacitor—1,200 mmfd. (C31).....	.30	6450	Rheostat—Noise suppressor rheostat (R3).....	1.24
3526	Resistor—2,000 ohms—Carbon type—½ watt (R4, R32)— Package of 5.....	1.00	6512	Capacitor—0.005 mfd. (C37).....	.28
3527	Resistor—800 ohms—Carbon type—½ watt (R19)— Package of 5.....	1.00	6537	Switch—Range switch.....	1.30
3528	Bracket—Noise suppressor or volume control lamp bracket.....	.18	6539	Coil—Detector coil (L3, L4).....	1.44
3529	Socket—Noise suppressor or volume control lamp socket.....	.32	6541	Dial—Tuning condenser dial and scale.....	.75
3533	Shutter—High frequency tone control shutter.....	.50	6561	Coil—Antenna coil (L1, L2, R1, C3).....	1.65
3534	Shutter—Low frequency tone control shutter.....	.50	6562	Transformer—Audio driver transformer (T3).....	3.04
3535	Socket—High or low frequency tone control lamp socket.....	.32	6564	Transformer—First intermediate frequency transformer (L8, L9, C20, C21, C24).....	2.30
3556	Capacitor—0.05 mfd.—Located on antenna coil (C3).....	.34	6565	Transformer—A. V. C. intermediate frequency transformer (L12, L13, C28, C29).....	2.10
3558	Capacitor—50 mmfd. (C19).....	.36	6566	Transformer—Second intermediate frequency transformer (L10, L11).....	1.72
3564	Bracket—Station selector dial lamp—Mounting bracket.....	.25	6567	Capacitor pack—Comprising one 0.17 mfd., and one 0.7 mfd. capacitors (C35, C36).....	.95
3565	Socket—Station selector dial lamp socket.....	.50	6568	Transformer—Interstage audio transformer (T2).....	3.10
3597	Capacitor—0.25 mfd. (C33, C45).....	.40	6571	Capacitor—10 mfd. (C43, C44).....	1.20
3640	Capacitor—0.05 mfd. (C9, C22, C26).....	.25	6572	Reactor—Tone control reactor (L14).....	.90
3641	Capacitor—0.1 mfd. (C7, C13, C23, C25, C27).....	.35	6574	Capacitor pack—Comprising two 10.0 mfd. capacitors (C32, C41).....	1.80
3643	Capacitor—0.005 mfd. (C39).....	.25	6578	Reactor—Filter reactor (L18).....	3.22
3652	Screw—No. 10-32-¼ set screw for bracket and bushing assembly—Package of 10.....	.32	6797	Capacitor—10.0 mfd. (C49).....	1.04
3719	Socket—7-contact Radiotron socket.....	.30	6847	Shield—Rectifier socket shield and capacitor.....	.65
3726	Arm—Range switch operating arm assembly—Comprising arm, link, studs and set screws.....	.45	7062	Capacitor—Adjustable capacitor (C14).....	.50
3727	Shaft—Shaft and bushing assembly for range switch operat- ing arm—Comprising two washers, shaft, bushing and nut.....	.30	7439	Drum—Dial drum with set screw and three dial mounting nuts.....	.35
3747	Capacitor—15 mmfd. (C8).....	.36	7484	Socket—5-contact Radiotron socket.....	.35
3749	Capacitor—0.1 mfd. (C40).....	.30	7485	Socket—6-contact Radiotron socket.....	.40
3765	Capacitor—0.025 mfd. (C34).....	.34	7700	Condenser—3-gang variable tuning condenser (C4, C5, C6, C10, C11, C12, C16, C17, C18, S2, S3, S4, S5, S6).....	7.44
3774	Resistor—7,400 ohms—Tapped at 3,800 and 500 ohms (R25, R26, R27).....	.80	9468	Transformer—Power transformer—105-125 volts—50-60 cycles (T1).....	7.75
3797	Reactor—Volume control compensating reactor (L15).....	.64	9469	Transformer—Power transformer—105-125 volts—25-40 cycles.....	11.75
3798	Resistor—700 ohms—Carbon type—½ watt (R18)— Package of 5.....	1.00	CABLE ASSEMBLIES		
3799	Capacitor—80 mmfd. (C30).....	.70	6793	Cable—2-conductor shielded—From radio volume control to Radio-Phonograph switch.....	.30
3883	Fuse—2-ampere (F1)—Package of 5.....	.40	6794	Cable—Single conductor shielded—From Radio-Phono- graph switch to Phonograph volume control (R31).....	.38
4035	Switch—Radio-Phonograph switch (S9).....	2.10	6795	Cable—Phonograph motor cable—3-conductor with female section of connector plug.....	1.10
4036	Shield—Low or high frequency tone control light shield.....	.30	6796	Cable—2-conductor—Compartment lamp cable.....	.80
4037	Shield—Antenna, detector or oscillator shield.....	.55	6798	Cable—Compartment lamp and switch cable.....	2.85
4038	Shield—Radiotron shield.....	.30	6848	Cable—Tapped cable with two connectors—From Phono- graph Motor connector to motor starting switch plug and Phonograph volume control.....	2.12
4039	Shield—Radiotron shield—Second detector shield.....	.30	6849	Cable—Single-conductor shielded cable with male section of connector—From Phonograph volume control to re- ceiver chassis.....	.38
4040	Shield—Radiotron tube shield top.....	.25	6850	Cable—Single-conductor shielded cable—From input transformer to terminal board.....	.50
4041	Cover—Fuse cover.....	.25	MOTOR BOARD ASSEMBLIES		
4042	Reactor—Volume control series reactor (L16).....	1.20	2893	Spring—Trip lever latch tension spring—Package of 10.....	.30
4046	Resistor—2-megohm—Carbon type—½ watt (R33)— Package of 5.....	1.00	2917	Washer—Spring washer, "U" type—Package of 10.....	.25
4129	Bracket—Bracket and bushing assembly for radio-phono- graph switch shaft—Located on receiver chassis.....	.28	3654	Roller—Guide roller assembly—Comprising bracket roller and guide pin.....	.34
4130	Shield—R. F. Radiotron shield.....	.30			
5817	Resistor—20,000 ohms—Carbon type—3 watt (R15, R16).....	.25			
6186	Resistor—500,000 ohms—Carbon type—¼ watt—Located on antenna coil (R1)—Package of 5.....	1.00			
6192	Spring—3-gang tuning condenser drive cord tension spring —Package of 10.....	.30			
6228	Resistor—200,000 ohms—Carbon type—½ watt (R14)— Package of 5.....	1.00			
6277	Capacitor—0.1 mfd.—Located on rectifier socket shield (C50).....	.35			
6280	Resistor—400,000 ohms—Carbon type—½ watt (R11, R12, R13)—Package of 5.....	1.00			
6281	Resistor—1,100 ohms—Carbon type—½ watt (R23)— Package of 5.....	1.00			

REPLACEMENT PARTS (Continued)

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
3666	Spring—Cable lever tension spring—Package of 10.....	\$0.44			
3670	Finger—Friction finger.....	.32	3388	PICKUP AND ARM ASSEMBLIES	
3672	Pin—Manual index lever pin.....	.42	3728	Screw—Pickup needle holding screw—Package of 10.....	\$0.60
3673	Screw—Manual index lever adjustment screw and nut— Package of 5.....	.20	3737	Coil—Pickup coil (L20).....	.50
3676	Spring—Cam and gear pawl carrier tension spring—Pack- age of 10.....	.52	4062	Damper—Package of 5.....	.65
3677	Lever—Cable lever assembly.....	.40	4063	Rod—Automatic brake trip rod.....	.20
4059	Screw—Trip lever clutch tension adjustment screw—Pack- age of 10.....	.22	4064	Screw—Pickup mounting screw assembly—Comprising one screw, one nut, and one washer—Package of 10.....	.54
4060	Escutcheon—Manual—12-10.....	.28	4128	Cable—Pickup arm cable—Package of 5.....	1.00
4061	Spring—Main spring—Package of 10.....	.38	6811	Armature—Pickup armature.....	.96
4124	Plate—Actuating plate assembly.....	.50	6812	Pickup—Pickup unit complete.....	4.30
4127	Spring—Actuating plate spring—Package of 10.....	.24	6813	Cover—Pickup cover.....	.34
6502	Cam—Cam and gear assembly.....	1.18	6813	Back—Pickup housing back.....	.68
6503	Pawl—Trip pawl assembly.....	.40	6814	Cover—Pickup back cover.....	.34
6806	Lever—Manual index lever—Less pin.....	.55	6815	Escutcheon—Pickup arm escutcheon with mounting rivets.	.64
6807	Lever—Trip lever assembly.....	1.16	7707	Arm—Pickup arm complete, less escutcheon, pickup, pickup mounting screw, nut and washer.....	4.12
6808	Clutch—Trip lever friction clutch.....	.30		TURNTABLE ASSEMBLIES	
6809	Finger—Manual index finger assembly.....	.25	3340	Washer—Thrust washer—Package of 2.....	.56
6810	Lever—Main spring lever.....	.44	3341	Pin—Groov-pin—Package of 2.....	.56
6846	Lever—Main lever and link assembly.....	1.45	3342	Spring—Latch spring—Located on clamping ring—Pack- age of 2.....	.56
7710	Cover—Metal cover for trip lever and friction finger as- semblies.....	.28	3344	Cover—Grease retainer cover—Package of 2.....	.70
	MOTOR ASSEMBLIES		3347	Spring—Speed shifter lever spring—Package of 2.....	.30
3777	Motor mounting spring washers and stud assembly—Compr- ising three upper and three lower springs, six cup wash- ers, three spring washers, and three studs.....	.62	4065	Bushing—Speed shifter lever bushing—Package of 4.....	.82
9011	Motor—Motor complete—105-125 volts—60 cycles.....	19.72	6816	Ring—Clamp ring assembly—Comprising spring, latch lever, and stud.....	.42
9012	Motor—Motor complete—105-125 volts—25 cycles.....	24.16	6817	Sleeve—Sleeve complete with ball race.....	2.25
9013	Motor—Motor complete—105-125 volts—40 cycles.....	24.16	6818	Lever—Speed shifter lever.....	.38
9014	Motor—Motor complete—105-125 volts—50 cycles.....	19.72	7711	Turntable—Complete.....	5.10
	EJECT ARM ASSEMBLIES			MISCELLANEOUS PARTS	
3655	Retainer—Ball retainer with three ball bearings.....	.45	3638	Scale—Tuning meter scale—Package of 5.....	.60
3656	Bearing—Ejector tip bearing.....	.48	3763	Motor mounting board spring, washer and stud assembly— Comprising one bolt, two "C" washers, one bottom spring, one top spring, two cup washers, one shakeproof washer, and one nut.....	.42
3657	Tip—Ejector tip.....	.30	3780	Shutter—Noise suppressor shutter.....	.30
3658	Ball—Ball bearing—Package of 20.....	.30	3781	Shutter—Volume control shutter.....	.30
3662	Plate—Ejector plate—Package of 5.....	.95	4043	Switch—Operating switch (S7).....	.80
3665	Screw—Eject arm horizontal adjustment screw and nut— Package of 5.....	.25	4044	Socket—Compartment lamp socket.....	1.28
3729	Roller—Counter balance roller—Located inside of eject arm.	.45	4045	Shade—Compartment lamp shade.....	.50
3930	Cushion—Counter balance cushion and bracket—Located inside of eject arm.....	.18	4047	Receptacle—Needle receptacle.....	.55
4054	Bracket—Eject arm bracket assembly.....	1.35	4066	Rest—Pickup rest.....	.14
4055	Post—Vertical adjustment post—Located on eject arm.....	.30	4080	Knob—Range switch knob—Package of 5.....	.75
4056	Yoke—Eject arm yoke assembly.....	1.04	4081	Knob—Station selector, volume control or noise suppressor knob—Package of 5.....	1.08
4057	Shaft and collar—For eject arm.....	.24	4082	Knob—High or low frequency tone control, radio-phono- graph switch or phonograph volume control knob— Package of 5.....	1.08
4058	Collar—Eject arm shaft collar.....	.18	6456	Escutcheon—Volume control escutcheon and color screen..	.50
4067	Spring—Eject arm bracket spring—Package of 10.....	.30	6457	Escutcheon—Noise suppressor escutcheon and color screen.	.50
4125	Spring—Eject arm horizontal action tension spring— 60 cycle operation—Package of 10.....	.42	6458	Escutcheon—High and low frequency escutcheon and color screen.....	.92
4126	Spring—Eject arm horizontal action tension spring—For 25 cycle operation—Package of 10.....	.60	6461	Meter—Tuning meter.....	2.14
7708	Arm—Eject arm complete.....	7.74	6547	Bezel—Tuning meter bezel.....	.45
7709	Cover—Eject arm cover.....	1.38	6799	Volume control—Phonograph volume control (R31, S10) ..	3.00
	SWITCH ASSEMBLIES		6800	Transformer—Phonograph input transformer—Comprising one transformer, one .008 mfd., one 0.06 mfd., and one 0.18 mfd. capacitors, one 50,000 ohm, one 4,000 ohm, and one 5,000 ohm resistors, and one choke coil (R28, R29, R30, C46, C47, C48, L21, T5).....	6.30
3322	Switch—Motor switch (S8).....	.75	6801	Shaft—Flexible drive shaft for Radio-Phonograph switch..	1.15
6805	Switch assembly—Automatic switch complete.....	1.90	6802	Bearing and plate assembly—For Radio-Phonograph switch shaft—Located on cabinet.....	.34
10174	Springs—Automatic brake springs—Package of 4.....	.50		REPRODUCER ASSEMBLIES	
10184	Plate—Automatic brake latch plate—Package of 5.....	.40	4131	Mounting assembly for reproducer—Comprising two plates, two bolts, two nuts, and two lockwashers.....	.44
			6569	Transformer—Output transformer (T4).....	1.95
			6618	Cable—4-conductor—Reproducer cable.....	.54
			8969	Cone—Reproducer cone (L17)—Package of 5.....	6.35
			9031	Coil—Field coil magnet and cone support (L19).....	4.90
			9472	Reproducer complete.....	8.50