Catalog No. 7102
Chassis No. 101.814-1A

PARTS LIST
AND
INSTRUCTIONS
FOR
INSTALLING AND OPERATING
YOUR
Silvertone
SUPERHETERODYNE RADIO REC
WITH
WIRE RECORDER

WHEN ORDERING CHASSIS PARTS OR WRITING US ABOUT THIS RADIO, ALWAYS GIVE THE CHASSIS NUMBER INDICATED ON THE METAL TAG (PICTURED ABOVE) ON THE CHASSIS AND THE CATALOG NUMBER SHOWN ON THE CABINET STICKER.

IMPORTANT

PLEASE READ THESE INSTRUCTIONS VERY CAREFULLY BEFORE OPERATING YOUR RADIO.
THE INSTRUCTIONS TELL YOU:

1 ● HOW TO INSTALL AND OPERATE YOUR RADIO PROPERLY SO THAT YOU WILL HAVE THE FINEST POSSIBLE RECEPTION.
2 ● HOW TO KEEP YOUR RADIO IN GOOD CONDITION.
3 ● HOW TO OBTAIN PROPER SERVICE ATTENTION SHOULD YOU EVER REQUIRE IT.

IF YOU FOLLOW THE INSTRUCTIONS CAREFULLY YOU WILL BE ASSURED OF THE FINE PERFORMANCE AND CONTINUED SATISFACTION BUILT INTO ALL SILVERTONE RADIOS.

SEARS, ROEBUCK AND COMPANY

KEEP THIS BOOKLET. IT CONTAINS VALUABLE SERVICE INFORMATION

INSTALLATION

Preparing The Receiver For Installation

Do not connect this unit to a power outlet until all shipping items on the wire recorder, as indicated below, have been removed.

The wire recorder is floated on spring mountings. For shipping purposes only, these mountings are made rigid. Loosen both these hold-down screws until the wire recorder floats freely on its spring mountings. Illustration on Page 3.

Remove the rubber band used to hold the pick-up arm during shipment. The microphone is located in a receptacle at the rear of the cabinet. Remove the paper wrapping and replace the microphone in the receptacle until used.

Tubes

The receiver is shipped with the tubes in their proper sockets. See that the tubes are firmly pushed down in their sockets. See illustration on Page 14 for tube positions.

Location

The receiver should be put on a level surface convenient to an electric outlet. Do not place the receiver near a radiator or other heater since the cabinet may be damaged. If the receiver is placed against a wall, allow an inch or two of space between the back of the cabinet and the wall. This will insure the best tone quality.

Power Supply

This unit is designed for operation from 105-125 volt, 60 cycle, alternating current supply only. See label attached to the inside of the cabinet. Do not attempt to operate it on a direct current (DC) supply. Never connect to a supply having a different frequency or voltage than that specified on the label.

Better reception may sometimes be obtained by turning the power plug half-way around and reinserting it into the power receptacle. Try the plug both ways and leave it in the position which gives the best reception.

CAUTION: TO REMOVE THE ELECTRIC OR POWER CORD FROM THE WALL OR FLOOR OUTLET BEFORE REPLACING TUBES, REMOVING, ADJUSTING, OR CLEANING THE CHASSIS OR WHILE CONNECTING AN AERIAL WIRE.

ANTENNA

This radio has built into it the Silvertone "Radionet" aerial system. This special self contained aerial system will provide excellent local reception under normal conditions without the use of an outside aerial system. Since only a power connection is normally required, the receiver may be operated in any part of the home convenient to an electric outlet.

Antenna And Ground Connections For Unusual Conditions

For reception of exceptionally weak or distant stations, or in areas where local conditions make it necessary, provision is made for connecting an outdoor antenna.

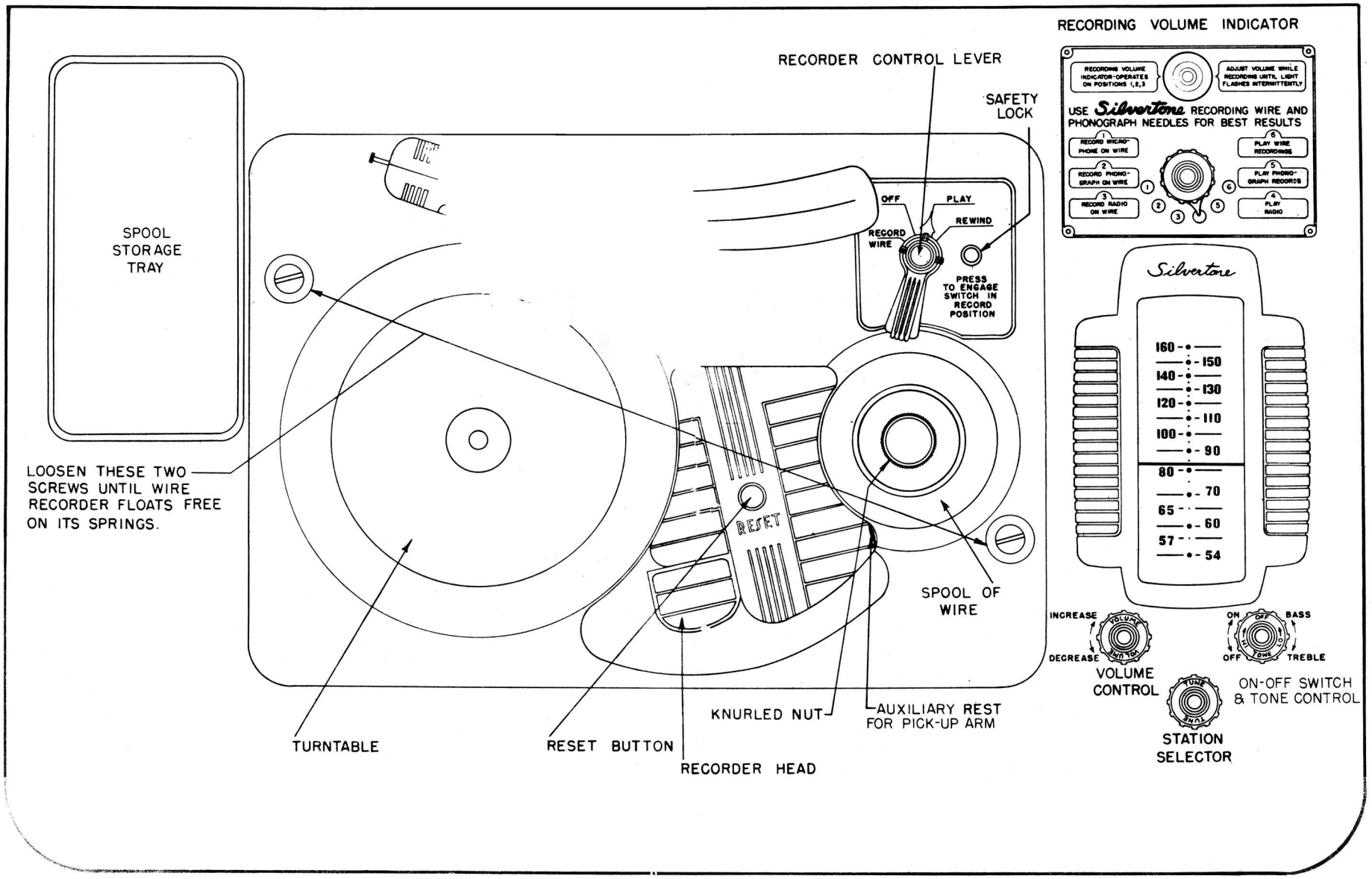
When an outside antenna is used, its lead-in wire should be fastened under the clip located on the "Radionet" antenna at the rear of the radio.

DO NOT CONNECT A GROUND WIRE TO THIS RADIO.

DESCRIPTION

This Silvertone radio-phonograph combination with wire recording offers the opportunity of recording radio, phonograph record, or microphone instantaneously on wire up to one hour in length. This is in addition to the regular use of playing phonograph records and listening to radio programs.

The following illustration shows the locations and functions of the various controls.


RECORDING VOLUME INDICATOR
RECORDER CONTROL LEVER
SAFETY LOCK
SPOOL STORAGE TRAY
OFF
PLAY
REWIND
RECORD WIRE
PRESS TO ENGAGE SWITCH IN RECORD POSITION
RECORDING VOLUME INDICATOR-OPERATES ON POSITIONS 1, 2, 3
ADJUST VOLUME WHILE RECORDING UNTIL LIGHT FLASHES INTERMITTENTLY
USE Silvertone RECORDING WIRE AND PHONOGRAPH NEEDLES FOR BEST RESULTS
1 RECORD MICRO-PHONE ON WIRE
2 RECORD PHONO-GRAPH ON WIRE
3 RECORD RADIO ON WIRE
6 PLAY WIRE RECORDINGS
5 PLAY PHONO-GRAPH RECORDS
4 PLAY RADIO
Silvertone
160
150
140
130
120
110
100
90
80
70
65
60
57
54
LOOSEN THESE TWO SCREWS UNTIL WIRE RECORDER FLOATS FREE ON ITS SPRINGS.
RESET
SPOOL OF WIRE
INCREASE
DECREASE
VOLUME
VOLUME CONTROL
ON
OFF
BASS
TREBLE
TONE
ON-OFF SWITCH & TONE CONTROL
TUNE
STATION SELECTOR
KNURLED NUT
AUXILIARY REST FOR PICK-UP ARM
TURNTABLE
RESET BUTTON
RECORDER HEAD

CONTROL FUNCTIONS

Master Selector Switch

The master selector switch selects the various circuits in the chassis necessary for each operation. Its position for each use is shown on the plate under the knob and is more fully described in the following paragraphs.

On-Off Switch And Tone Control

This is the knob on the right-hand side below the dial. When it is turned to the extreme left (counter-clockwise) the chassis is turned off. This only turns the chassis off—the recorder unit has a separate power switch.

As this knob is turned to the right, a click is heard, the dial light is turned on, and in about thirty seconds the chassis will be ready for use. With the control just past the ON position, low tones will be emphasized. Turning it further to the right emphasizes the higher tones. Turn this control to the position most pleasing to you.

This control operates only on radio, or "playback" positions, but is automatically cut out on all recording positions of the selector switch as the tone conditions for best recordings are built into the circuit.

V

his is the knob on the left-hand side below the dial. As this knob is turned
ht (clockwise) the sound becomes louder, and when it is turned to
er-clockwise) the sound becomes softer.

control for each use is covered in the following paragraphs:

S

o directly below the dial. Its use is covered under "RADIO

b on the recorder unit. Its use is covered under the sub-
dings and playing records. This should be in the OFF
ecorder unit is not in operation.

OPERATION

To Play Radio

1. Turn chassis on.
2. Set master selector switch at position 4 "PLAY RADIO".
3. Set volume control at about half rotation.
4. Using the dial pointer as a guide, turn the station selector knob until the desired station is heard and the sound has the deepest tone and the least amount of background noise. The dial calibration is shown in kilocycles but the last "O" is omitted, so that 54 is 540 kilocycles and 160 is 1600 kilocycles, etc.
5. Adjust the volume control for the desired loudness. Never reduce loudness by tuning off the station with the station selector knob. Always use the volume control.
6. Set tone as desired.

To Play Records Disc Type

1. Turn chassis on as for radio operation.
2. Set master selector switch at position 5 "PLAY PHONOGRAPH RECORDS."
3. Remove pick-up arm from permanent pick-up arm rest by sliding it sideways out of the clip, and place it on the auxiliary rest for pick-up arm over spool spindle.
4. Press RESET button down.
5. Place disc record on turntable.
6. Set recorder control at PLAY.
7. Be sure needle is securely fastened in pick-up.
8. Place needle on starting grooves of the disc record.
9. Adjust volume and tone controls as desired, same as for radio operation.
10. When disc record is finished playing, set recorder control at OFF, lift pick-up off record and set it on the auxiliary rest. When disc type records are not being played, the pick-up arm should always be clipped in the permanent rest.

RECORDINGS

To make recordings on wire is not at all difficult if a few simple precautions are taken. After a little practice and attention to the small details you will be able to make good recordings of radio programs, disc records, and voice or music through the microphone.

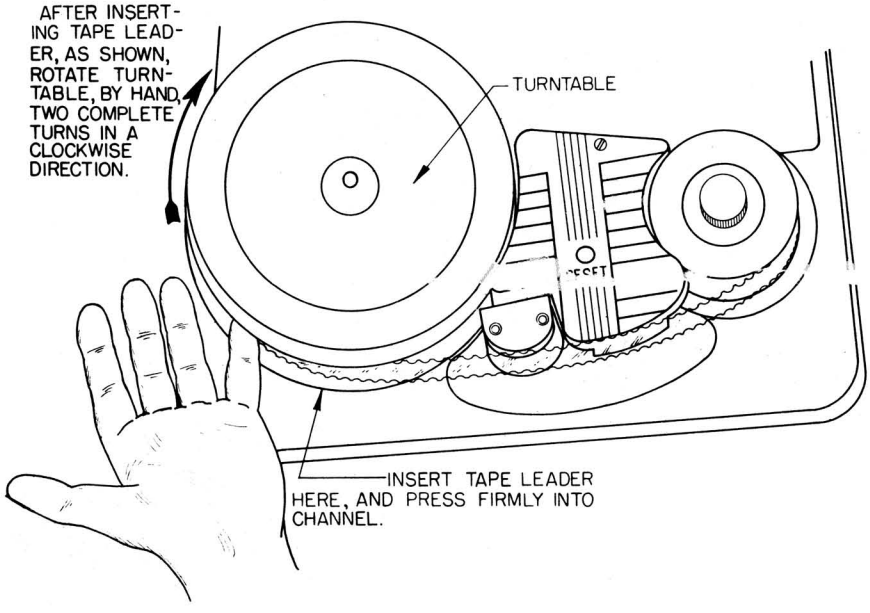
Each machine has been carefully tested and retested so that any variations in results will be due largely to the manner in which you operate the machine.

Following are some of the details which may be easily overlooked, but which can mean the difference between a good and a poor recording:

Placing the wire on the machine is probably the most important beginning operation. If not done properly, you will have "wows" due to variations in speed.

To Load Wire

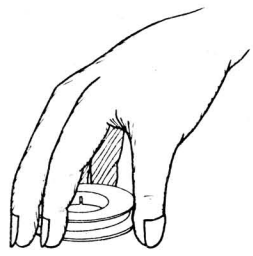
1. Press RESET button.
2. Before placing the wire on the recorder mechanism, turn the recorder control to REWIND. Allow recorder head to approach its top position. This head is on a level winding mechanism and travels up and down as the wire is spooled off.



3. Place the spool of wire, label side up, over the spindle and press on the spool until it is firmly seated. If the spool has a slot in the hub, be careful not to line the slot up with the ball on the side of the spool spindle.
4. Loosen the end of the tape leader from the spool and carefully pull it past the recorder head. Place it in the channel in the rim of the turntable. Hold the leader against the inner surface of the channel with the little finger of the left hand and rotate the turntable with the right hand until two complete turns of wire are in the channel. Failure to press the full length of the leader firmly against the inner surface of the channel will cause the wire speed to vary, causing "wow" and an unsteady tone on sustained notes of instrumental recordings.
5. The wire will slide into place in the slot of the recorder head as soon as the mechanism is put into operation.
6. Press the RESET button down. The wire is now in position for operation.

Recorder Switching

When changing the position of the recorder control lever, SNAP THE LEVER quickly from one position to the other. DO NOT HANDLE THE WIRE. It is not necessary, nor is it advisable, to touch the wire at any time. When handling a spool of wire, always hold the edge of the spool as illustrated.



Store spools without carton in spool storage tray. Save spool cartons for surplus spool storage and/or for mailing purposes.

DO NOT PULL THE POWER PLUG FROM THE WALL OUTLET while the wire is being rewound. This will cause the wire to fly off of the spool due to the inertia of the turntable which will revolve for a few seconds after the motor stops.

RECORDING TECHNIQUE

1. Set up wire and make all switch and volume control adjustments before turning the recorder mechanism to "Record Wire". This will prevent waste of wire.
2. When using the microphone, don't talk or sing directly into the microphone. 6" to 12" away is best for speaking to avoid too much lip and breathing sound. 12" to 18" away is best for singing. For group singing and instrumental recordings, you will have to experiment for the best location. Keep in mind that the loudness of your voice and musical instruments is much greater than the ordinary speaking voice, so that the microphone should be farther away in order to avoid distortion.
3. Don't over-record. Correct level is when the indicator just flashes intermittently on louder passages. If the indicator lights brightly, distortion will occur.

To Record Radio Programs

1. Place wire on recorder as covered in the preceding paragraphs.
2. Turn master selector switch to position 4 "PLAY RADIO", and turn radio chassis ON.
3. Tune in the radio programs as you would for normal listening.
4. Place master selector switch in position 3 "RECORD RADIO ON WIRE".
5. Adjust volume control so that indicator lamp just flashes on loud passages.

Safety Lock Operation

6. Press down safety lock and simultaneously turn the recorder control lever to "Record Wire". It is necessary each time a recording is to be made to press the safety lock button. This protection device was incorporated to prevent accidental erasure of previously recorded material.

NOTE: If the program has large variations in volume, it may be necessary to reset the volume control during the program to maintain proper recording level.

7. When you have finished recording the radio program, turn the recorder control lever to OFF. To rewind the wire on the spool, simply turn the recorder control lever to REWIND. The rewind speed is approximately 5 times as fast as the forward speed, so it takes only about 12 minutes to rewind a complete one-hour spool.

At the end of the rewind, the leader will automatically trip the RESET button turning the mechanism off. Turn the recorder control lever to OFF when the spool is rewound.

To Play Wire Recordings

1. Load the mechanism as covered under "TO LOAD WIRE". Be sure to press RESET button down.
2. Turn master selector switch to position 6 "PLAY WIRE RECORDINGS".
3. Turn recorder control lever to PLAY.
4. Adjust volume and tone controls for desired loudness and tone.

To Record A Regular Disc Record On Wire

1. Load the mechanism as covered under "TO LOAD WIRE". Be sure to press RESET button down.
2. Remove pick-up arm from the permanent rest.
3. Place the disc record on the turntable as for regular playing.
4. Turn the master selector switch to position 2 "RECORD PHONOGRAPH ON WIRE".
5. Press down on safety lock on recorder and simultaneously turn recorder control lever to RECORD WIRE.
6. Place needle on starting grooves of record as for normal playing.
7. Adjust volume control so that indicator lamp flashes intermittently on louder passages. The tone control is automatically cut out of the circuit in all recording positions to insure quality of recordings.

When the disc record is finished, you may turn the recorder to OFF. Place another disc record on the turntable and continue to record by simply repeating the procedure above. In this way you may put any number of records on wire to make up to an hour's program. You may also change the master selector switch to position 3 and record radio programs in between recordings, or to position 1 and "dub" in voice announcements, singing, etc., from the microphone.

8. Remove disc record from the turntable, place pick-up arm in its permanent rest and rewind.

To Record From Microphone

1. Load wire on mechanism as covered under "TO LOAD WIRE".
2. Turn the master selector switch to position 1 "RECORD MICROPHONE".
3. Speak into the microphone in a normal speaking voice about 12″ to 18″ from the microphone and turn volume control until the indicator lamp just flashes. When recording, it may be necessary to readjust the volume so that the indicator lamp flashes intermittently.
4. Press down on the safety lock and simultaneously turn the recorder control lever to RECORD WIRE.
5. Use the microphone as suggested in the paragraph under "RECORDINGS".
6. After recording, rewind the wire.
7. Play back as in the usual manner.

Mixed Recordings

You will soon learn how to mix the various combinations of disc records, radio programs or microphone pick-up and will be able to make up any kind of program you want. Silvertone one-hour spools of recording wire have 7500 feet of wire on a spool. You need not, however, record the full length at one time. Simply record what you want and then rewind. Before making the next recording, play back what is on the spool and then stop the playback where the new recording is to be added.

If you want to immediately play back a recording after it is made, place the master selector switch at position 6, "PLAY WIRE RECORDINGS", turn the recorder control lever to REWIND, and adjust the volume so you can hear the sound played back. It will sound jumbled but this is because the wire is being run backward and at high speed. When you recognize the part where the recording started, usually by the break in the program or a change from one type of recording to another, such as voice to music, turn the record control lever to PLAY. The recording on the wire will then be played back in the usual manner.

If you want to erase a part of the recording, such as commercial announcements in a radio program, set the controls for playing wire and stop the recorder at the point where you want to start erasing. Determine the approximate time it will take to erase the unwanted portion. Then set the master selector switch to a recording position (1 or 2) and turn the volume control to the minimum position. Turn the recorder control lever to RECORD WIRE. To stop erasing, turn recorder control lever to OFF.

If, instead of erasing, you wish to "dub" in your voice in place of commercial announcements or in place of anything else which may have been recorded, play back from the wire as above and stop the mechanism where the new recording is to start. Set the master selector switch to the position desired (1 or 2), adjust the volume as for a regular recording, turning the recorder control lever to RECORD WIRE. Turn recorder control lever to OFF when the recording time is completed.

Using this Silvertone unit, it is possible to make up a series of recordings using either one continuous spool, or cutting sections of the wire already recorded and tying them together similar to the manner in which films are edited. Tie the sections together securely using the knot described in the following paragraph.

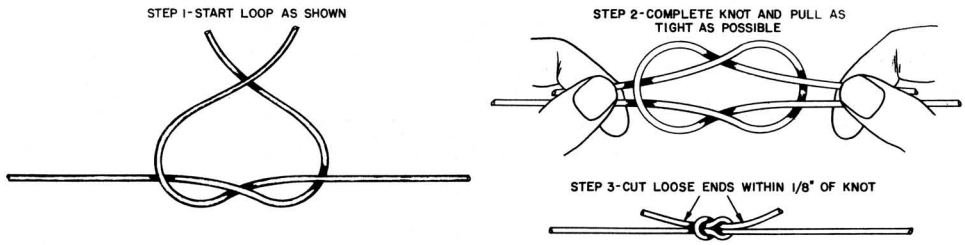
To Splice Or Repair Broken Wire

Under certain conditions the wire may break. A condition which might easily occur is when the wire is handled between sections of a recording, or while loading the spool. If the wire should become loose enough to form a small loop and the loop is not opened when the wire is tightened, a small kink is formed which is not readily noticed. After several plays, the wire may break at such a point.

To splice ends of broken wire, or sections of recordings to be tied together when editing, tie the knot as close to the recorder head as possible so that the slack in the wire is minimum. Tie the ends together with a square knot as shown below.

Leave plenty of wire beyond the point where the knot is to be tied as this makes for easier handling. After the ends of the wire have been looped back, hold both the wire and the free ends between the fingers and pull the knot tight. Be sure it is pulled tight as this forms the wire so it will not slip out. Cut the loose ends, with a pair of scissors, about 1/16″ to ⅛″ from the knot. Turn the wire spool to take up the slack in the wire.

The knot will not affect the operation of the unit if it has been tightly tied.



To Remove Wire Under Spool

Occasionally wire may get under the spool spindle. This may be caused by touching the wire, turntable or spool when rewinding, or pulling the power plug from the outlet when rewinding.

Removal of wire from the spool hub is easy:

1. Cut the tangled section of the wire loose from the turntable and the spool.
2. Splice the free ends as covered in "TO SPLICE OR REPAIR BROKEN WIRE" above.
3. Remove the spool from the spindle, take up any slack in the wire and set the spool on the reset button housing.
4. Remove the knurled nut from the spindle by turning to the left, counterclockwise, and remove the spindle by lifting it off the shaft. The tangled wire can now be removed from the shaft.
5. Replace the spindle and knurled nut, being sure to tighten the nut.
6. Replace the wire spool on the spindle and continue to use the machine as desired.

Causes Of Poor Recordings

1. Check the plugs on the connecting cables, and any other connections to the chassis, to be sure they make good contact.
2. Check the indexing of the master selector switch, and the recorder control, to see that it is in RECORD WIRE and position 1, 2 or 3.
3. Check volume control setting so that the indicator lamp flashes on loud passages.
4. Check position of the wire in the recording head. Lift it out of the slot and let it fall back in place. It must be in the groove and not off to one side.
5. If a radio program is recorded immediately upon turning the unit on, it may be necessary to occasionally retune until the receiver has warmed up to a stabilized temperature, usually in about 15 minutes.
6. If a whistle is heard on certain stations when recording, tune the receiver until the whistle is gone or reduced to a negligible point. This will only occur on a few stations, usually weak stations.

Recording Wire

Silvertone stainless steel recording wire has been made to exacting standards. It can be used indefinitely for either re-recording or playback. Silvertone recording wire should always be used for best results and the economical making of wire recordings.

The Needle

When not in use, the phono pick-up arm should always be properly seated in the arm rest provided. The arm may be engaged or disengaged by sliding it horizontally in or out of the rest.

The pick-up arm is equipped with a Silvertone deluxe sapphire needle. Do not attempt to replace it unless it has been accidentally damaged. Only needles of the permanent or semi-permanent type are recommended for best results. Needles wear to the shape of the record grooves and to turn them from the original position is likely to result in damage to your records.

CONDITIONS AFFECTING RECEPTION

There are natural causes that sometimes prevent perfect reception. The more common of them are:

Static

Static is due to electrical discharges in the atmosphere. It is heard in the radio as a crackling or frying noise. It is especially noticeable during the summer when thunderstorms are frequent. Thunderstorms may cause static hundreds of miles away from the location of the storm. Snowstorms in winter also are a cause of static. Most local stations are strong enough to override static although static will interfere with distant reception.

Local Electrical Interference

Any electrical appliance that creates an electric spark during its operation may cause a noise that sounds very much like static. Vacuum cleaners, electric motors, some types of electric refrigerators, electric flat irons with automatic heat regulators, etc., are some of the common household appliances that may cause interference. X-Ray machines, flashing electric signs, trolley cars and medical diathermy machines often cause interference over a wide area.

Fading

Fading is a natural occurrence that causes the program to vary in volume and tonal quality. It is especially noticeable with distant reception.

Station Interference

There are approximately seven times as many broadcasting stations in the United States as there are channels available for them. Therefore, many stations must share the same channel or frequency. This makes it impossible to have clear reception when tuned to these frequencies unless one of the stations is so much stronger than the others that it drowns the others out. The condition appears between 120 and 160 on the dial and is heard as whistles, squeals or growls.

NORMAL CARE AND MAINTENANCE REQUIRED

To maintain the radio at top notch efficiency, it is advisable to have the tubes tested every six months. They can be taken to any Sears retail store for free testing.

A six-volt miniature base dial lamp is used. The dial lamp socket is attached to the dial mechanism by means of a spring clip. To replace a dial lamp, pull the spring clip off the dial mechanism and replace the lamp with another of the same type.

If an outdoor antenna is used, it is advisable to have a Sears service man inspect it periodically, perhaps once a year. All connections should be checked to be sure that they are clean and tight, that no wires are broken, and that the antenna is well insulated from the ground at all points.

IF THE RECEIVER FAILS TO OPERATE PROPERLY

Carefully re-read this instruction leaflet to be sure that the receiver has been installed properly and that it is being operated carefully.

Be sure that the radio power cord plug is making good contact in its receptacle.

Be sure that all of the tubes are pushed all the way down in their sockets.

Remove the tubes and have them tested at your nearest Sears retail store or your local radio dealer.

If you purchased your radio from a Sears retail store and it does not operate properly after you have followed these suggestions, call the radio service department. Sears retail stores are fully equipped to handle your service requirements.

If you purchased your radio from Sears by mail order, fill out the questionnaire packed with the receiver and mail it to the Sears branch from which you ordered your radio. We will then advise what further action to take.

The schematic wiring diagram and authorized parts list that follow are for use by a professional radio service man. Stickers showing the schematic wiring diagram and parts list are also pasted in the cabinet.

GUARANTEE

We guarantee every Silvertone radio to be free from defects in material or workmanship. We will replace or repair free of charge for a period of 90 days from date of purchase any part or portion of the radio chassis, speaker or cabinet which proves to be defective. Silvertone tubes carry a separate guarantee.

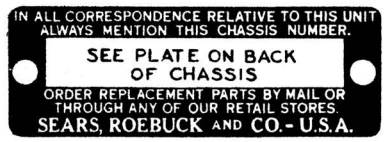
PARTS LIST, WIRING DIAGRAM, AND ALIGNMENT CHART FOR USE BY PROFESSIONAL SERVICE MEN

HOW TO ORDER PARTS FOR YOUR SILVERTONE RADIO

These authorized replacement parts may be ordered through any Sears Retail Store or the Mail Order Store which serves the territory in which you live. Prices upon application from Sears, Roebuck and Co. The parts are shipped prepaid.

When ordering parts, always give:

1. The PART NUMBER (number printed on the part if different from that shown in this list) and the DESCRIPTION. When no number is assigned order by description and rating.
2. The CHASSIS and CATALOG NUMBERS. The chassis number will be found on a metal plate at the rear of the chassis. This plate is pictured below. The catalog number will be found on a sticker on the back, inside or bottom of the cabinet.



PARTS LIST FOR CHASSIS

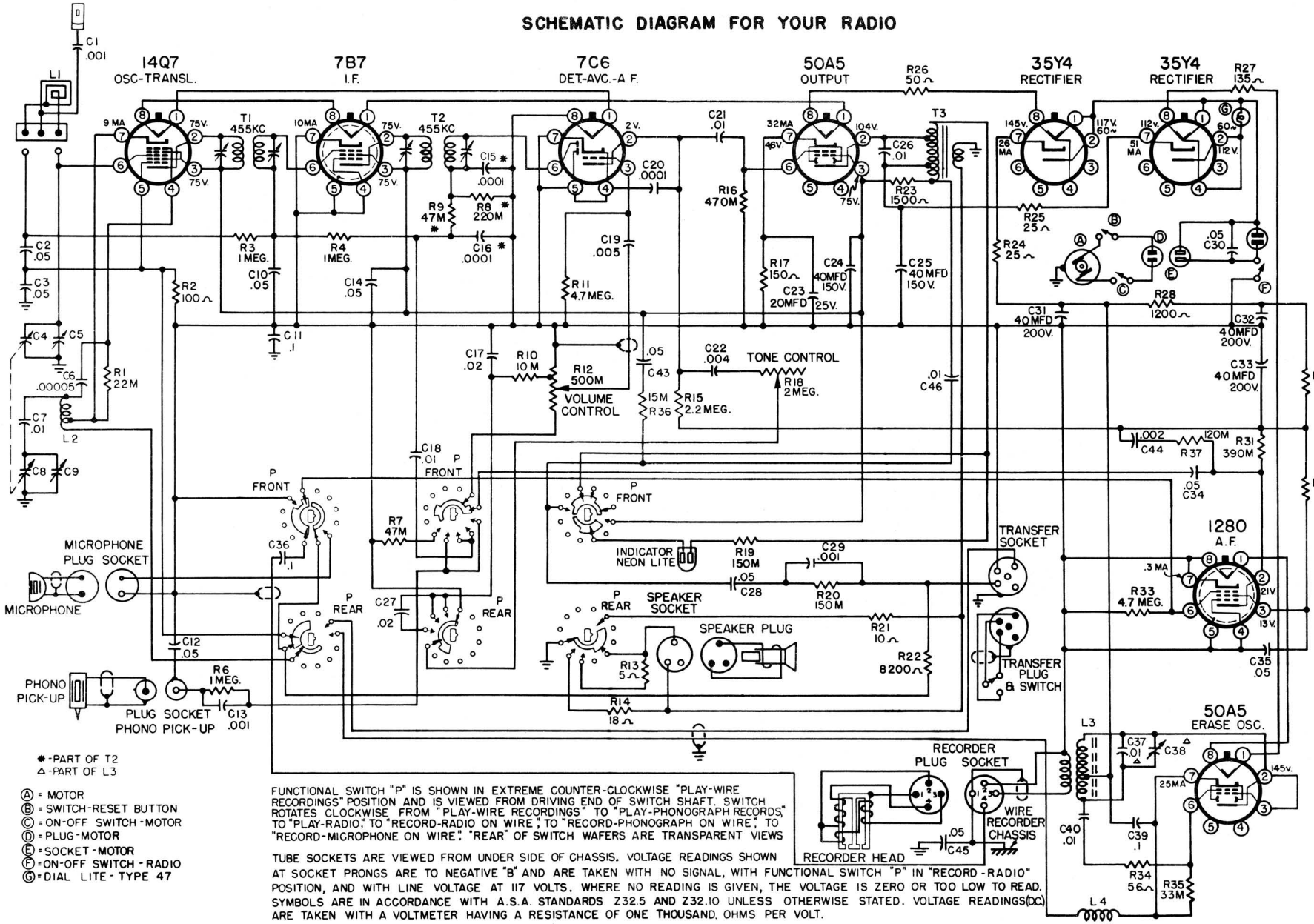
SCHEMATIC LOCATION	PART NUMBER	DESCRIPTION
	R61557	Board Assy.—Loop Antenna
	R13961	Button—Snap (Long)
	R61846	Button—Snap (Short)
	R61541	Cable & Socket—Recorder Head
C1, C13, C29		Capacitor— .001 mfd.—600 V.
C44		Capacitor— .002 mfd.—600 V.
C22		Capacitor— .004 mfd.—400 V.
C19		Capacitor— .005 mfd.—400 V.
C26, C40, C46		Capacitor— .01 mfd.—600 V.
C7, C18, C21		Capacitor— .01 mfd.—400 V.
C17, C27		Capacitor— .02 mfd.—200 V.
C2, C10, C12, C14, C45		Capacitor— .05 mfd.—200 V.
C3, C28, C34, C35, C43		Capacitor— .05 mfd.—400 V.
C30		Capacitor— .05 mfd.—600 V.
C11, C39		Capacitor—0.1 mfd.—400 V.
C36		Capacitor—0.1 mfd.—200 V.
C6		Capacitor—Mica— 50 mmfd.
C20		Capacitor—Mica—100 mmfd.
C23, C24, C25	R60416	Capacitor—Electrolytic 20 mfd.— 25 V. 40 mfd.—150 V. 40 mfd.—150 V.
C31, C32	R61507	Capacitor—Electrolytic—40 x 40 mfd.—200 V.
C33	R61517	Capacitor—Electrolytic—40 mfd.—200 V.
C4, C8	R61100	Capacitor—Variable—2 Gang
L4	R43050	Coil—Choke—R.F.
L3	R61519	Coil—Erase Oscillator
L2	R61107	Coil—Oscillator—BC
R18	R61864	Control—On-Off & Tone
R12	R61128	Control—Volume
	R41748	Cord—Line
	R62039	Cord—Dial Drive
		Dial Lamp No. 47
	R60506	Dial—Station—Lucite
	R60520	Escutcheon
	R62032	Guide—Mounting Screw
	R61408	Knob—On-Off & Tone
	R61566	Knob—Radio Control
	R60480	Knob—Tuning
	R60484	Knob—Volume
	R45981	Lamp—Neon
	R54451	Leaflet—Instruction
	R61137	Lens—Recorder Indicating Lamp
	R61168	Microphone
	R62021	Pointer—Dial
	R61807	Pulley—Metal
	R60442	Pulley—Tuning Shaft
R21		Resistor— 10 ohm—1/3 W.
R14		Resistor— 18 ohm—1/3 W.
R34		Resistor— 56 ohm—1/3 W.
R2		Resistor— 100 ohm—1/3 W.
R17		Resistor— 150 ohm—1/3 W.
R28		Resistor— 1,200 ohm—1/3 W.
R22		Resistor— 8,200 ohm—1/3 W.
R10, R30		Resistor— 10,000 ohm—1/3 W.
R1		Resistor— 22,000 ohm—1/3 W.
R35		Resistor— 33,000 ohm—1/3 W.
R7		Resistor— 47,000 ohm—1/3 W.
R37		Resistor—120,000 ohm—1/3 W.
R19, R20		Resistor—150,000 ohm—1/3 W.
R31		Resistor—390,000 ohm—1/3 W.
R16		Resistor—470,000 ohm—1/3 W.
R3, R4, R6		Resistor—1 megohm—1/3 W.
R32		Resistor—1.5 megohm—1/3 W.
R15		Resistor—2.2 megohm—1/3 W.
R11, R33		Resistor—4.7 megohm—1/3 W.
R13		Resistor— 5 ohm—1 W.
R23		Resistor— 1,500 ohm—1 W.
R36		Resistor— 15,000 ohm—1 W.
R24, R25	R40232	Resistor—Glasohm— 25 ohm—1 W.
R26	R62030	Resistor—Glasohm— 50 ohm—3 W.
R27	R61505	Resistor—Glasohm—135 ohm—5 W.
	R60511	Shaft—Tuning
	R44145	Socket—A.C. to Wire Recorder
	R44897	Socket—1 Prong—Phono Connector
	R61291	Socket—2 Prong—Microphone Connector
	R60597	Socket—5 Prong—Transfer Cable
	R57049	Socket—8 Prong—Tube—Lock-in
	R62043	Socket—8 Prong—Tube—Lock-in (Moulded)
	R60515	Socket—Pilot Lamp
	R60693	Socket—Speaker Cable
		WHEN ORDERING SPEAKER PARTS, ALWAYS GIVE THE PART NUMBER APPEARING ON THE SPEAKER.
	R61558	Speaker—8" P.M.
	R59799	Cone & Voice Coil
	R49743	Plug (Speaker Cable)
	R61597	Switch—Master Control
T1	R61111	Transformer—No. 1 I.F.
T2	R61142	Transformer—No. 2 I.F.
T3	R61506	Transformer—Output
	R60450	Wafer—Electrolytic Mounting

PARTS LIST FOR WIRE RECORDER

In addition to the part number, always give the Wire Recorder number appearing on a label (pictured on Page 11). This decal will be found on the Wire Recorder base under the turntable.

PART NUMBER	DESCRIPTION
R62002	Arm and Link Assy.
R61993	Cam and Lever Assy.
R60607	Cap—Plug
R61972	Clip—Spring
R62069	Cover—Automatic Switch
R61977	Crystal Cartridge—Astatic L-71-A
R61999	Drive Control—Bracket Assy.
R61998	Drive Control—Bracket and Post Assy.
R61984	Drive Link Assy.
R61990	Grommet
R61979	Head—Recorder
R61958	Idler—Drive Pulley Assy.
R62000	Idler—Pulley and Bushing Assy.
R61917	Knob—Control
R61965	Level Wind Assy.
R61982	Link Assy.—Movable
R61983	Link Assy.—Rewind
R62001	Link and Stud Assy.
R61986	Motor—117 Volts AC, 60 Cycle
R61973	Pick-up Arm Rest
R60606	Plug—Transfer Cable
R61962	Pulley—Idler
R62004	Pulley—Motor Drive
R61966	Pulley—Rewind
R61967	Rewind Spool Hub Assy.
R61949	Ring—Bracket & Pulley Assy.—Retaining
R61960	Spring—Cam Lever Assy.—Positioning
R61927	Spring—Drive Control
R61964	Spring—Level Wind
R62007	Spring—Recorder Mounting
R61193	Spring—Recorder Mounting (Motor Section)
R61976	Spring—Rewind Pulley
R61975	Spring—Turntable
R61974	Support—Spring, Turntable, Shaft
R62009	Switch Assy.—Automatic
R61997	Switch Assy.—Bracket
R61991	Switch Assy.—Cam
R61992	Switch Assy.—Lever
R61994	Switch Assy.—On-Off
R61995	Switch Assy.—Transfer
R61969	Turntable Assy.
R61968	Washer—Arm & Link Assy.—Retaining
R61970	Washer—Keyed—Turntable & Rewind Pulley Tension

SCHEMATIC DIAGRAM FOR YOUR RADIO



* - PART OF T2
△ - PART OF L3

Ⓐ = MOTOR
Ⓑ = SWITCH-RESET BUTTON
Ⓒ = ON-OFF SWITCH-MOTOR
Ⓓ = PLUG-MOTOR
Ⓔ = SOCKET-MOTOR
Ⓕ = ON-OFF SWITCH-RADIO
Ⓖ = DIAL LITE-TYPE 47

FUNCTIONAL SWITCH "P" IS SHOWN IN EXTREME COUNTER-CLOCKWISE "PLAY-WIRE RECORDINGS" POSITION AND IS VIEWED FROM DRIVING END OF SWITCH SHAFT. SWITCH ROTATES CLOCKWISE FROM "PLAY-WIRE RECORDINGS" TO "PLAY-PHONOGRAPH RECORDS," TO "PLAY-RADIO," TO "RECORD-RADIO ON WIRE", TO "RECORD-PHONOGRAPH ON WIRE", TO "RECORD-MICROPHONE ON WIRE". "REAR" OF SWITCH WAFERS ARE TRANSPARENT VIEWS

TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO NEGATIVE "B" AND ARE TAKEN WITH NO SIGNAL, WITH FUNCTIONAL SWITCH "P" IN "RECORD-RADIO" POSITION, AND WITH LINE VOLTAGE AT 117 VOLTS. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ. SYMBOLS ARE IN ACCORDANCE WITH A.S.A. STANDARDS Z32.5 AND Z32.10 UNLESS OTHERWISE STATED. VOLTAGE READINGS(D.C.) ARE TAKEN WITH A VOLTMETER HAVING A RESISTANCE OF ONE THOUSAND. OHMS PER VOLT.

Catalog No. 7102
Chassis No. 101.814-1A

ALIGNMENT PROCEDURE

PRELIMINARY:

Output meter reading to indicate 0.05 watt across voice coil ..... 0.4 volt
Generator ground lead connection ..... Receiver chassis
Generator modulation ..... 30%, 400 cycles
Position of volume control ..... Fully on
Position of tone control ..... HI
Position of pointer with tuner fully closed ..... Last line below 540 calibration mark

POSITION OF TUNER	GENERATOR FREQUENCY	DUMMY ANTENNA	GENERATOR CONNECTION	TRIMMER ADJUSTMENTS (IN ORDER SHOWN)	TRIMMER FUNCTION
Closed	455 Kc.	0.1 mfd.	Transl.-Grid	T2 & T1	I.F.
1500 Kc.	1500 Kc.	200 mmfd.	Ant.	C9	Osc.
1500 Kc.	1500 Kc.	200 mmfd.	Ant.	C5	Transl.

IMPORTANT ALIGNMENT NOTES:

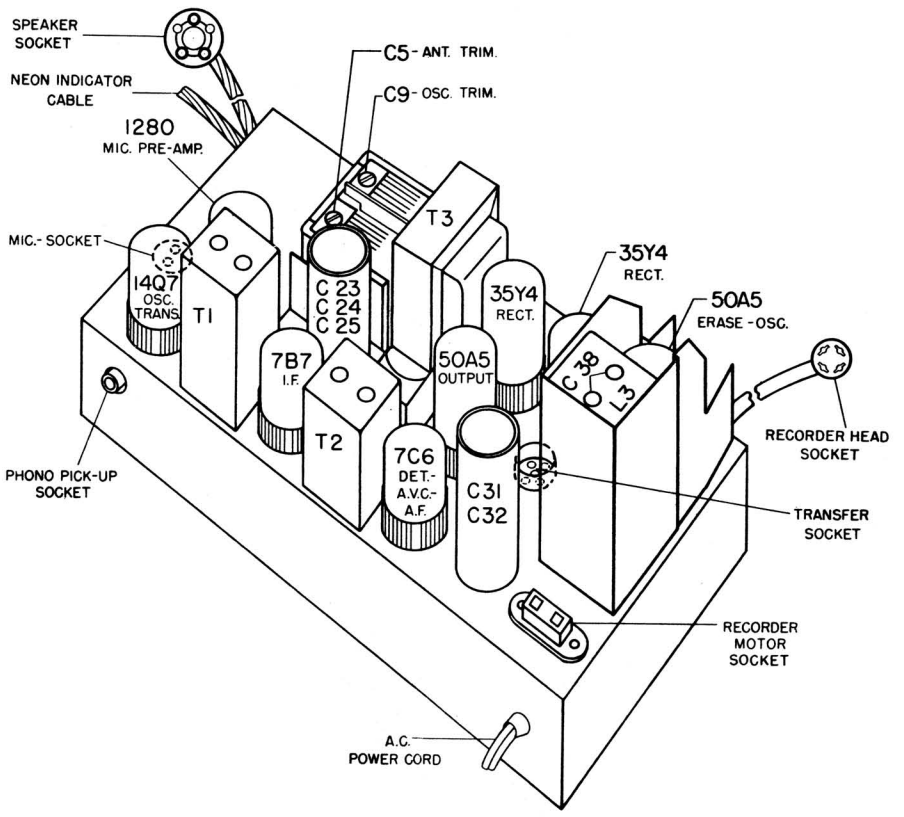
The alignment must be done in the order given.

The alignment procedure should be repeated step by step in the original order for greatest accuracy.

Always keep the output voltage from the generator at its lowest possible value to prevent the AVC of the receiver from interfering with accurate alignment.

The erase oscillator coil has been set at 39.5 Kc. at the factory. If necessary it can be adjusted with the use of a beat frequency oscillator.

The erase voltage on the recording head should be approximately 3.3 volts as measured with a vacuum tube voltmeter.



SILVERTONE TUBES ARE MATCHED TO SILVERTONE RADIOS.
FOR BEST RESULTS RE-TUBE WITH SILVERTONE TUBES.

R54451
101.771
101.814-1A