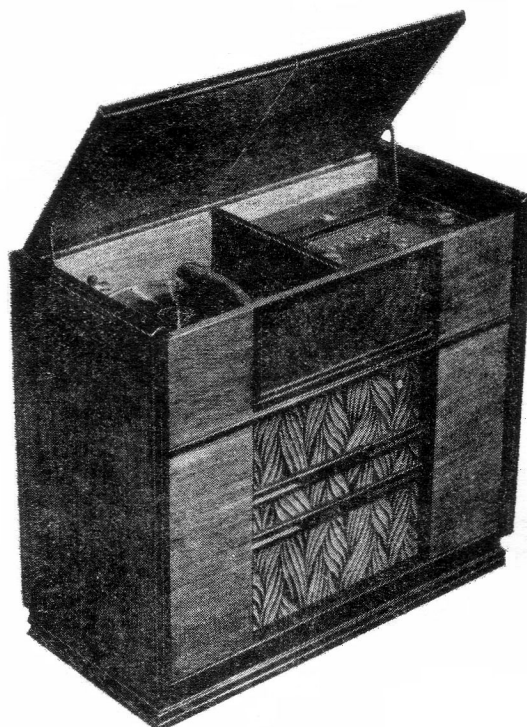


ROGERS MAJESTIC SERVICE DATA



MODEL R-237

RADIO PHONOGRAPH COMBINATION



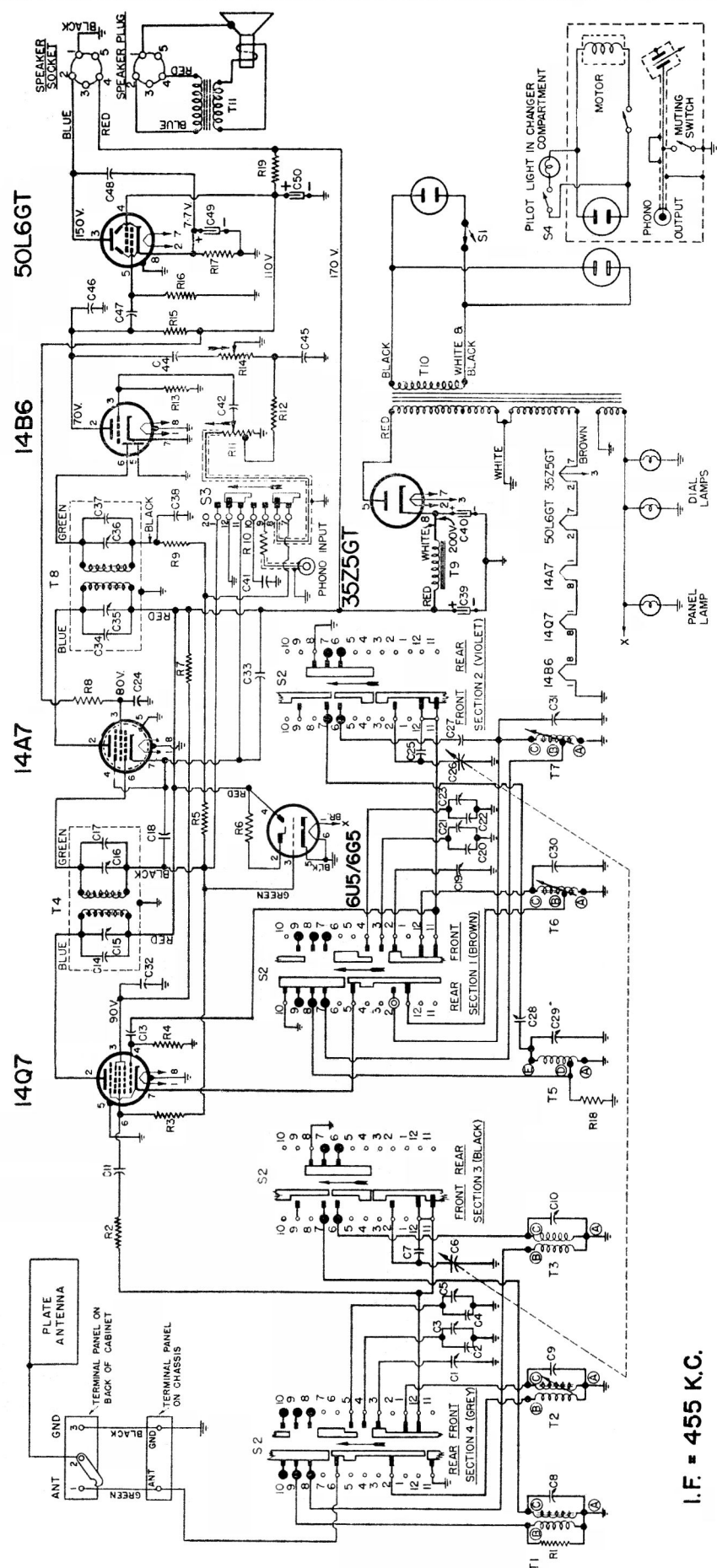
Compiled and Published by

ROGERS MAJESTIC LIMITED

11-19 BRENTCLIFFE ROAD

LEASIDE (TORONTO 12) ONTARIO

T	1	2	3	5	7	8	9	10	11	
C	1	2	3	4	5	6	7	8	9	10
C	1	2	3	4	5	6	7	8	9	10
R	1	2	3	4	5	6	7	8	9	10



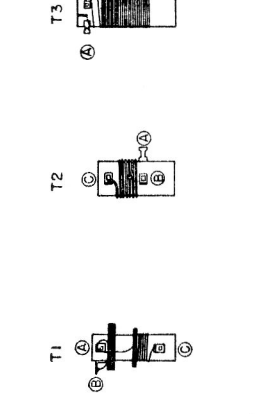
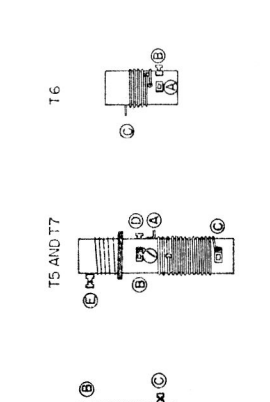
NOTE
ALL VOLTAGES MEASURED TO CHASSIS
WITH A 20,000 Ω/VOLT METER
NO SIGNAL APPLIED PHONO-RADIO SWITCH
IN RADIO POSITION.

PHONO UNIT

TOP OF CHASSIS

NUMBERING SYSTEM

SWITCH IS SHOWN AS VIEWED FROM FRONT OF CHASSIS

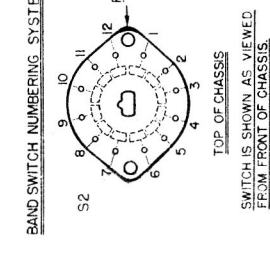


BAND SWITCH SECTIONS ARE SHOWN IN BAND NUMBER 5 POSITION WHICH IS EXTREME COUNTERCLOCKWISE POSITION OF SWITCH (FULL COUNTERCLOCKWISE POSITION OF KNOB VIEWED FROM FRONT OF CHASSIS).

ARROW → INDICATES COUNTERCLOCKWISE ROTATION OF POTENTIOMETER AND SWITCHES (BUT ANTICLOCKWISE ROTATION OF WAVE CHANGE SWITCH KNOB) VIEWED FROM FRONT OF CHASSIS

● INDICATES CONTACTS CONNECTED THROUGH RIVET FROM FRONT TO REAR OF SWITCH SECTION.

○ INDICATES INSULATED CONTACT.



I.F. = 455 K.C.

ROGERS MAJESTIC

SERVICE DATA

MODEL R237

SPECIFICATIONS

Model R237 is a radio phonograph combination consisting of a six-tube superheterodyne receiver (including tuning indicator) and an automatic record changer. This model is manufactured in two versions: 115 volts, 25 cycles and 115 volts, 60 cycles. The five tuning ranges contain a standard broadcast band plus four short wave bands.

ROGERS MAJESTIC TUBES:

14Q7	Pentagrid Converter
14A7	I.F. Amplifier
14B6	Diode Detector, A.V.C. and 1st A.F. Amplifier
50L6GT	Audio Power Amplifier
35Z5GT or 35Z4GT	Rectifier
6U5/6G5	Electronic Tuning Indicator

FREQUENCY RANGES:

Range 1	— 540 Kc. to 1620 Kc.
Range 2	— 2.6 Mc. to 7.5 Mc.
Range 3	— 9.3 Mc. to 10.5 Mc.
Range 4	— 10.4 Mc. to 12.2 Mc.
Range 5	— 14.8 Mc. to 21.9 Mc.

INTERMEDIATE FREQUENCY: 455 kilocycles

AUDIO POWER OUTPUT: 2 watts undistorted (approximately)
3 watts maximum (approximately)

CURRENT DRAIN: 0.95 amperes maximum

SPEAKER:

The speaker is a permanent magnet dynamic type having a voice coil D.C. resistance of 2.9 ohms and a 400 cycle impedance of 3.2 ohms.

TONE CONTROL

The correct operation of the Tone Control is as follows: With the control shaft in the full clockwise position there is no tone compensation introduced for either bass or treble. As the control is rotated counter-clockwise the bass only is boosted until the mid-position is reached. From the mid-position to full counter-clockwise the bass remains boosted and the treble is attenuated.

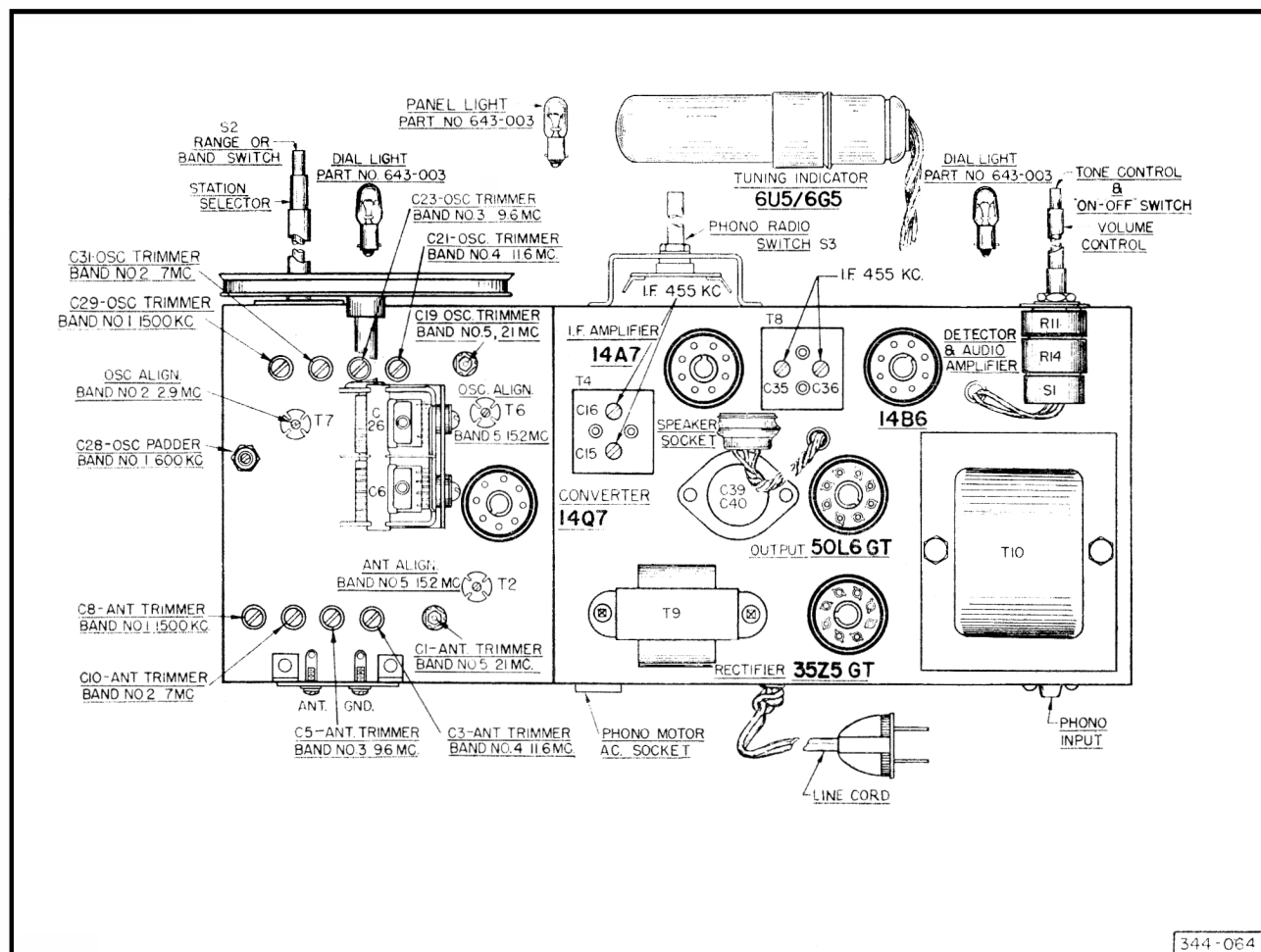
RECORD CHANGER

The Record Changer unit is a Seeburg Model "K" Automatic Record Changer Unit utilizing a Shure Brothers Crystal Pickup Cartridge No. P93S. The turntable is rotated by a 115 volt motor suitable for the frequency rating of the version.

The Record Changer receives its A.C. power from a 2-contact receptacle on the receiver chassis. For service data on the record changer, refer to the accompanying Seeburg Record Changer Service Manual.

TO REMOVE CHASSIS

1. Disconnect plug from A.C. line socket.
2. Remove Back Cover.
3. Remove Antenna and Ground Connections from chassis.
4. Disconnect Phonograph power cable, pickup cable and speaker cable from chassis.
5. Remove the control knobs.
6. Remove Receiver Panel mounting screws and lift out panel.
7. Remove the four chassis mounting screws and lift chassis through top of cabinet.



ALIGNMENT OF RECEIVER

EQUIPMENT REQUIRED:

Signal Generator, capable of supplying modulated frequencies from 540 kc. to 22 Mc.

Output Meter, a high resistance A.C. voltmeter, a power output meter or any visual output meter.

ALIGNMENT PROCEDURE AND EQUIPMENT CONNECTIONS:

Signal Generator: Allow a sufficient length of time after the generator is turned on for it to become thermally stable before making any tests. Connect the ground lead of the signal generator to the ground terminal of the receiver. Always be sure to use the specified capacitance or resistance, in series with the output lead, as specified in the alignment procedure chart, to be connected as close as possible to receiver antenna post.

Output Meter: If a power output meter is used adjust it for 3 ohms impedance and connect it in place of the speaker voice coil. Do not exceed a 500 milliwatt reading. If an A.C. voltmeter is used it should be connected across the voice coil, and the output kept below 1.25 volts during alignment. When the output indication increases, regulate the signal generator attenuator to restore the original indication.

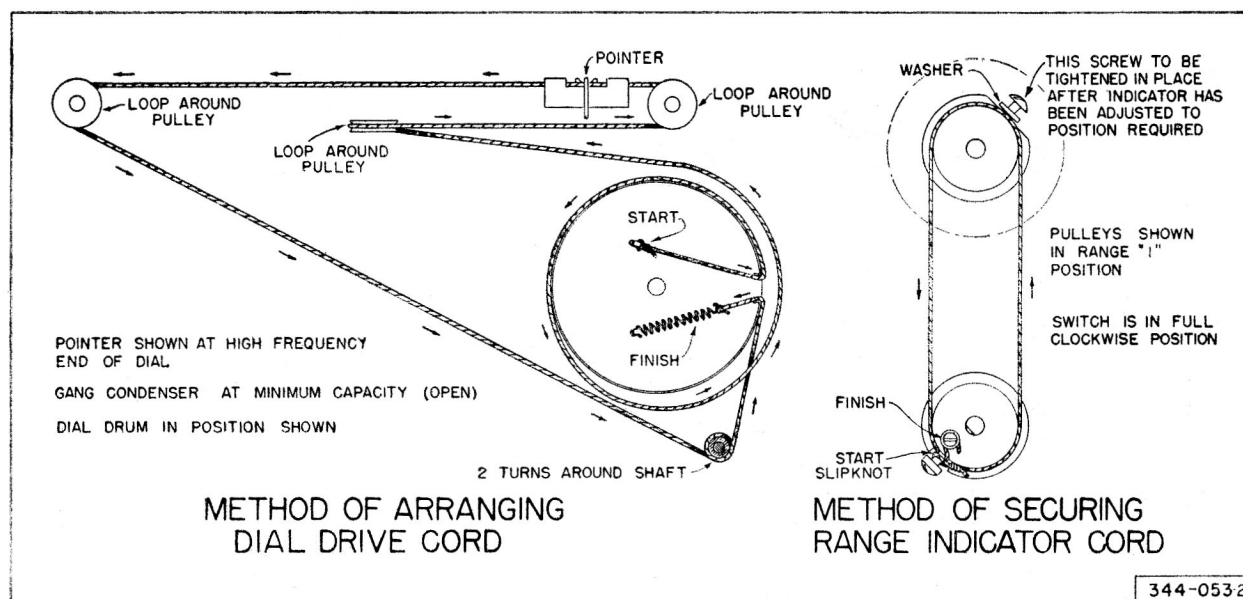
Receiver: Set the tone control in the full clockwise position and the volume control to the maximum (full clockwise) position. This helps avoid overloading and permits more accurate adjustments. When the gang condenser is fully closed adjust the dial pointer on the alignment marks on the top and bottom edges of the dial, to the left of the 550 kc. calibration mark.

ALIGNMENT PROCEDURE

OPER- ATION	SIGNAL GENERATOR			R E C E I V E R			REMARKS
	Connect To	Freq.	Output Conn. To Receiver	Freq.	Range Switch Position	Adjust For Max. Output	
1	Grid of 14A7	455 kc.	.05 mfd.	Approx. 1600 kc.	1	C36, C35—2nd I.F. Trimmers	Connect generator ground to chassis.
2	Stator of C6	455 kc.	.05 mfd.	Approx. 1600 kc.	1	C16, C15—1st I.F. Trimmers	Upon completion of operation 2, do not readjust C36, C35.
3	Antenna Post	600 kc.	200 mmf.	600 kc.	1	C28 B.C. Osc. Padder	Connect generator ground to receiver ground.
4	Antenna Post	1500 kc.	200 mmf.	1500 kc.	1	C29 B.C. Osc. Trimmer C8 B.C. Ant. Trimmer	See note.*
5	Antenna Post	7.0 Mc.	400 ohms**	7.0 Mc.	2	C31 S.W. Osc. Trimmer C10 S.W. Ant. Trimmer	The 400 ohm dummy must be located close to the antenna post.
6	Antenna Post	2.9 Mc.	400 ohms**	2.9 Mc.	2	T7 S.W. Osc. Coil	Repeat operation 5 upon completion of operation 6.
7	Antenna Post	21.0 Mc.	400 ohms**	21.0 Mc.	5	C19 S.B. Osc. Trimmer	Unscrew C19, then screw in for first output peak.
8	Antenna Post	15.2 Mc.	400 ohms**	15.2 Mc.	5	T6 S.B. Osc. Coil	Repeat operation 7 upon completion of operation 8.
9	Antenna Post	21.0 Mc.	400 ohms**	21.0 Mc.	5	C1 S.B. Ant. Trimmer	Screw in C1, then unscrew for first output peak. See note.*
10	Antenna Post	15.2 Mc.	400 ohms**	15.2 Mc.	5	T2 S.B. Ant. Coil	Repeat operation 9 upon completion of operation 10.
11	Antenna Post	11.6 Mc.	400 ohms**	11.6 Mc.	4	C21 S.B. Osc. Trimmer C3 S.B. Ant. Trimmer	See note.*
12	Antenna Post	9.6 Mc.	400 ohms**	9.6 Mc.	3	C23 S.B. Osc. Trimmer C5 S.B. Ant. Trimmer	See note.*

NOTE.* After the signal has been tuned in with the oscillator trimmers, a greater peak output can be obtained by rocking the gang tuning condensers during adjustments to the antenna trimmer.

** Or a standard dummy antenna with a 200 mmf. condenser in series.



REPLACEMENT PARTS AND PRICE LIST

For dependable repairs use only genuine Rogers Majestic Replacement Parts.

CONDENSERS

Symbol	Part No.	Description	List Price
C1, C19	511-014	Trimmer 3-30 mmf.	.35
C2	513-004	Silver Mica 150 mmf. $\pm 10\%$ 500V.	.35
C3, C5, C21, C23	511-008	Trimmer 10-160 mmf.	.35
C4	513-006	Silver Mica 200 mmf. $\pm 10\%$ 500V.	.35
C6, C26	510-004	Variable 2-Gang 13-485.8 mmf.	3.50
C7	513-003	Silver Mica 150 mmf. $\pm 5\%$ 500V.	.35
C8, C10, C31	511-004	Trimmer 3-35 mmf.	.35
C9, C30	513-010	Silver Mica 35 mmf. $\pm 10\%$ 500V.	.35
C11, C13	512-001	Mica Moulded 100 mmf. 500V.	.35
C14, C17	513-007	Silver Mica 75 mmf. $\pm 10\%$ 500V.	.35
C15, C16, C35, C36	511-011	Dual Trimmer 7-45 mmf.	.50
C18	515-204	Paper Tubular 0.05 mfd. 200V.	.30
C20	514-004	Ceramicon 150 mmf. $\pm 10\%$	.35
C22	514-003	Ceramicon 200 mmf. $\pm 10\%$	.35
C24	515-401	Paper Tubular 0.05 mfd. 400V.	.30
C25	514-001	Ceramicon 150 mmf. $\pm 5\%$	.30
C27	513-009	Silver Mica 2340 mmf. $\pm 3\%$ 500V.	.35
C28	511-001	Padder 250-525 mmf.	1.00
C29	511-015	Trimmer 1 6-18 mmf.	.35
C32	515-401	Paper Tubular 0.05 mfd. 400V.	.30
C33	515-407	Paper Tubular 0.02 mfd. 400V.	.30
C34, C37	513-008	Silver Mica 140 mmf. 500V.	.35
C38	512-011	Mica Moulded 50 mmf. $\pm 5\%$ 500V.	.35
C39, C40	516-007	Dual Electrolytic 40-40 mfd.	1.45
C41	515-605	Paper Tubular 0.002 mfd. 600V.	.30
C42, C47, C48	515-603	Paper Tubular 0.01 mfd. 600V.	.30
C44, C45	515-602	Paper Tubular 0.005 mfd. 600V.	.35
C46	512-007	Mica Moulded 200 mmf. 500V.	.35
C49	516-003	Electrolytic 25 mfd. 25V.	.60
C50	516-014	Electrolytic 8 mfd. 150 V.	.75

REPLACEMENT PARTS AND PRICE LIST

RESISTORS

Symbol	Part No.	Description	List Price
R1, R4	501-141	22,000 ohms $\pm 10\%$ $\frac{1}{2}$ watt	.25
R2	501-601	10 ohms $\frac{1}{2}$ watt (non-inductive)	.25
R3, R6	501-161	1 Megohm $\frac{1}{2}$ watt	.25
R5	501-165	2.2 Megohms $\frac{1}{2}$ watt	.25
R7	502-136	8,200 ohms $\pm 10\%$ 1 watt	.30
R8	501-137	10,000 ohms $\pm 10\%$ $\frac{1}{2}$ watt	.25
R9	501-147	68,000 ohms $\frac{1}{2}$ watt	.25
R10	501-149	100,000 ohms $\pm 10\%$ $\frac{1}{2}$ watt	.25
R11 }	506-009	{ 1 Megohm Volume Control Dual.....	3.00
R14 }		{ 2 Megohms Tone Control	
R12	501-145	47,000 ohms $\pm 10\%$ $\frac{1}{2}$ watt	.25
R13	501-173	10 Megohms $\frac{1}{2}$ watt	.25
R15	501-153	220,000 ohms $\frac{1}{2}$ watt	.25
R16	501-157	470,000 ohms $\frac{1}{2}$ watt	.25
R17	502-616	180 ohms $\pm 10\%$ 1 watt	.30
R18	501-125	1,000 ohms $\pm 10\%$ $\frac{1}{2}$ watt	.25
R19	501-139	15,000 ohms $\pm 10\%$ $\frac{1}{2}$ watt	.25

TRANSFORMERS AND COILS

T1	070-029	B.C. Antenna Coil	1.45
T2	070-032	B.S. Antenna Coil	.75
T3	070-030	S.W. Antenna Coil	1.00
T4	060-011	1st I.F. Transformer	2.60
T5, T7	070-028	B.C. and S.W. Oscillator Coil	1.45
T6	070-031	B.S. Oscillator Coil	.75
T8	060-012	2nd I.F. Transformer	2.60
T9	050-006	Filter Choke	2.25
T10	050-056	Power Transformer	10.00
T11	050-053	Output Transformer	2.25

SWITCHES

S1		S.P.S.T. Switch, Part of R11 and R14.....	
S2	080-018	Section No. 1, Bandswitch	.75
	080-019	Section No. 2, Bandswitch	.75
	080-016	Section No. 3, Bandswitch	.75
	080-017	Section No. 4, Bandswitch	.75
	080-052	Phono-Radio Switch	1.45
S4	080-059	S.P.S.T. Switch (Lid Operated)	

MISCELLANEOUS PARTS

Part No.	Description	List Price	Part No.	Description	List Price
571-010	Antenna and Ground Strip with Link (Cabinet)	.20	300-110	Knob Spring	.03
120-048	Antenna and Ground Strip (Chassis)	.15	524-505	Knob Set Screw 8/32 in. x $\frac{1}{4}$ in.....	.03
303-093	Back Cover		100-003	Line Cord and Plug, 8 ft.	.75
560-004	Back Cover Clip Fastener (Antenna Connection)	.06	090-031	Phonograph Pickup Cartridge (P93S)	4.50
080-047	Band Switch Clicker Plate and Shaft Assembly	1.00	090-028	Phonograph Record Changer, Type "K" (less motor)	40.00
120-033	Band Switch Gear and Hub Assembly (Fibre)	.35	090-018	Phonograph Motor only 25 cycle.....	10.00
110-091	Band Switch Indicator Disc Assembly	.50	090-019	Phonograph Motor only 60 cycle.....	7.50
310-047	Band Switch Indicator Drive Pulley	.25	643-001	Phonograph Lamp, 115 Volt, 8 Watt, Candelabra C7	.18
030-064	Cabinet Assembly, Wood	P.O.A.	570-115	Phonograph Lamp Socket Assembly	
595-002	Dial Cord, .025 in. dia, length 82 in.	.03	571-135	Phonograph Line Socket, 2-Pole	
310-005	Dial Cord Spring	.03	571-106	Phonograph Connector, Female.....	.15
310-010	Dial Cord Pulley $\frac{5}{8}$ in. dia.	.10	571-107	Phonograph Connector, Male	.10
331-043	Dial Scale Glass	1.50	041-030	Speaker 10 in., P.M. Dynamic, 2.9 ohms, D.C., V.C.	10.00
110-018	Dial Scale Pointer and Slider Assembly	.15	571-118	Speaker Plug, 5-Prong	.20
643-003	Dial Lamp 6-8 Volt Bayonet Bulb....	.14	571-119	Speaker Socket, 5-Prong	.30
570-105	Dial Lamp Socket Assembly	.15	571-105	Speaker Socket Contacts for 571-119	.03
627-021	Grille Cloth, per yd. net	5.00	110-159	Stay (Lid Supporting)	1.00
332-529	Indicator Light Crest (Lucite)	.25	571-009	Terminal Strip, 3-Lug	.10
570-114	Indicator Light Socket Assembly.....	.50	571-010	Terminal Strip, 5-Lug (Left Mtg.)....	.15
609-004	Iron Core Adjustment for T2, T6 and T7	.35	571-005	Terminal Strip, 5-Lug (Right Mtg.)	.15
531-003	Iron Core Adjustment Locking Nut....	.03	570-001	Tube Socket, Octal	.15
572-010	Knob Moulded Volume or Tuning.....	.15	570-002	Tube Socket, Loktal	.15
572-012	Knob Moulded Tone or Band Switch	.15	570-006	Tube Socket, 6-Prong	.15
572-017	Knob Moulded Phono Radio Switch..	.20	110-093	Tuning Drum and Hub Assembly.....	1.00
			310-062	Tuning Shaft	.15
			300-152	Tuning Indicator Mounting Clip.....	.15

Prices subject to change without notice.

