

SERVICE NOTES

for

RCA Victor Radiola Automatic Electrola, Model RAE-59

The RCA Victor RAE-59 is a Combination DeLuxe Radio and Automatic Phonograph instrument that provides a large variety of home entertainment features. The radio receiver, amplifier and loud-speaker are identical with those used in Models R-50 and 55. The automatic record changing mechanism is of simple, sturdy design and may be operated at 33 $\frac{1}{3}$ R.P.M. as well as 78 R.P.M.

Excellent home recording is a feature of this instrument, its high quality being due to the use of a two button studio microphone and a high gain amplifier. Also a much greater power output is available, due to the use of Radiotrons RCA-247 in the output stage.

SERVICE DATA

A reference to the R-50 and R-55 Service Notes will give the details of any service work necessary in conjunction with the receiver and amplifier assemblies. Figure 1 shows the schematic wiring diagram and Figure 2 the assembly wiring. A reference to the Service Notes on the RCA Victor Record changing mechanism will give any details of service work in conjunction with this unit. The replacement parts are listed below. The service notes on the Automatic Mechanism will be found valuable in identifying many of these parts.

REPLACEMENT PARTS

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
RECEIVER					
2726	Socket—UY Type Radiotron socket with insulator—7 used.....	\$0.70	8559	Ring—Cone retaining ring.....	\$0.80
2731	Resistor—10,000 Ohms—Carbon type—Package of 5..	2.00	8713	Coil—Reproducer field coil.....	5.00
2732	Resistor—110,000 Ohms—Carbon type—Package of 5..	2.00	AMPLIFIER		
2736	Resistor—170 Ohms—Carbon type—Package of 5....	2.00	2546	Resistor—1 Megohm—Carbon type—Package of 5....	3.00
2746	Socket—Dial lamp socket.....	.50	2725	Fuse—Glass type—1.5 amperes—Package of 5.....	.50
2970	Resistor—500,000 Ohms—Carbon type—Package of 5..	2.50	2882	Socket—UY Radiotron socket with insulator.....	.50
3031	Board—Terminal board with insulator—Three terminals.....	.50	3045	Resistor—40,000 Ohms—Carbon type—Package of 5..	2.50
3081	Resistor—16,000 Ohms—Carbon type.....	.60	3058	Resistor—100,000 Ohms—Carbon type—Package of 5..	2.50
3137	Knob—Tuning and control knob—Package of 5.....	3.25	3099	Capacitor—.005 Mfd. paper capacitor.....	.75
3138	Board—Terminal board with soldering terminal bracket and insulator.....	.50	3145	Resistor—700 Ohms—Carbon type—Package of 1....	.85
3139	Coil—Detector coil and shield.....	3.95	3146	Board—Terminal board with insulator—Less capacitor	1.25
3142	Control—Volume control with mounting nut.....	1.65	3147	Cover—Fuse cover with insulator.....	.95
3143	Control—Tone control with mounting nut.....	1.50	3149	Switch—Starting switch—Toggle type—With mounting nuts and escutcheons.....	1.25
3144	Inductor—Tone control inductor.....	1.65	5817	Resistor—20,000 Ohms—Carbon type.....	.90
3152	Resistor—30,000 Ohms—Carbon type—Package of 5..	2.75	7217	Transformer—Step down transformer—230 volts to 115 volts.....	18.00
3153	Resistor—1,500 Ohms—Carbon type—Package of 5....	2.75	7290	Reactor.....	4.75
3154	Resistor—2,000 Ohms—Carbon type—Package of 5....	2.75	7291	Board—Resistor terminal board—Less resistors.....	.50
3155	Resistor—9,000 Ohms—Carbon type—Package of 5....	3.00	7293	Strip—Terminal strip—8 terminals.....	1.15
3240	Nut—Chassis shield removable cover mounting nut—Package of 13.....	.50	7294	Cover—Terminal strip cover—8 terminals.....	.60
7062	Capacitor—Adjustable capacitor—2 used.....	1.00	7295	Strip—Terminal strip—5 terminals.....	.85
7063	Capacitor—Adjustable capacitor—3 used.....	1.00	7296	Cover—Terminal strip cover—5 terminals.....	.60
7278	Coil—R. F. coil.....	2.50	8710	Transformer—Power transformer—105-120 V., 50-60 cycles.....	12.50
7280	Board—Terminal board—Six terminals.....	.90	8711	Transformer—Audio transformer.....	6.60
7281	Transformer—1st Intermediate transformer.....	3.25	8712	Capacitor—Comprising one 2 Mfd., one 3 Mfd., one .1 Mfd. and two .5 Mfd. condensers in metal container.	7.80
7282	Transformer—2d Intermediate transformer.....	3.50	8749	Transformer—Power transformer—25-30 cycles.....	20.50
7283	Transformer—3d Intermediate transformer.....	3.25	8750	Transformer—Power transformer—220 volts—60 cycles.....	13.00
7284	Board—Resistor board with insulator—Less resistors, coils and capacitors.....	2.70	8751	Capacitor pack—Comprising two 4.0 Mfd., two 0.5 Mfd., one 0.1 Mfd. capacitor in metal container....	9.50
7285	Capacitor—Comprising one 1.0 Mfd., one 0.5 Mfd., and two 0.1 Mfd. capacitors in metal container....	3.50	10907	Fuse—3 amperes—Package of 5.....	.50
7286	Capacitor—Comprising one 1.0 Mfd., one 0.5 Mfd., and three 0.1 Mfd. capacitor in metal container....	4.50	MOTOR BOARD AND AUTOMATIC RECORD CHANGER		
7287	Bracket—Pilot lamp bracket.....	.50	2614	Switch.....	1.40
7288	Scale—Dial scale—Package of 5.....	2.50	2620	Cushion—Pickup rubber cushions—Comprising two pivots and one damper cushion—Package of 5 sets..	1.25
7297	Coil—R. F. choke coil.....	.75	2767	Spring—Pickup magnet spring—Package of 10.....	.50
7298	Capacitor—Capacity 0.01 Mfd.....	.80	2768	Armature—Pickup armature.....	.50
7299	Capacitor—Capacity of 745 Mfd.....	.70	2769	Coil—Pickup coil.....	.50
8708	Condenser—Tuning condenser assembly—Comprising four condensers, drive, drive cord and dial drum—Assembled.....	12.25	2770	Plate—Pickup damper plate—Package of 5.....	.50
8714	Shield—Receiver shield complete.....	6.50	2771	Screw—Pickup damper plate mounting screw—Package of 10.....	.50
8777	Cover—Receiver shield removable cover.....	1.30	2779	Pointer—Recording control switch metal pointer—Package of 10.....	.50
SPEAKER					
7292	Screw Assembly—Comprising two screws, two nuts, two lock washers and plate—For mounting speaker to amplifier—Package of 1 set.....	.95	2857	Plug—Three way male connector plug.....	.70
8558	Cone—Reproducer paper cone.....	4.00	2893	Spring—Trip lever spring—Package of 10.....	.60
			2896	Spring—Cable lever spring—Package of 10.....	.50
			2897	Screw and Nut—Pickup arm cable adjusting screw and nut—Package of 5.....	.50

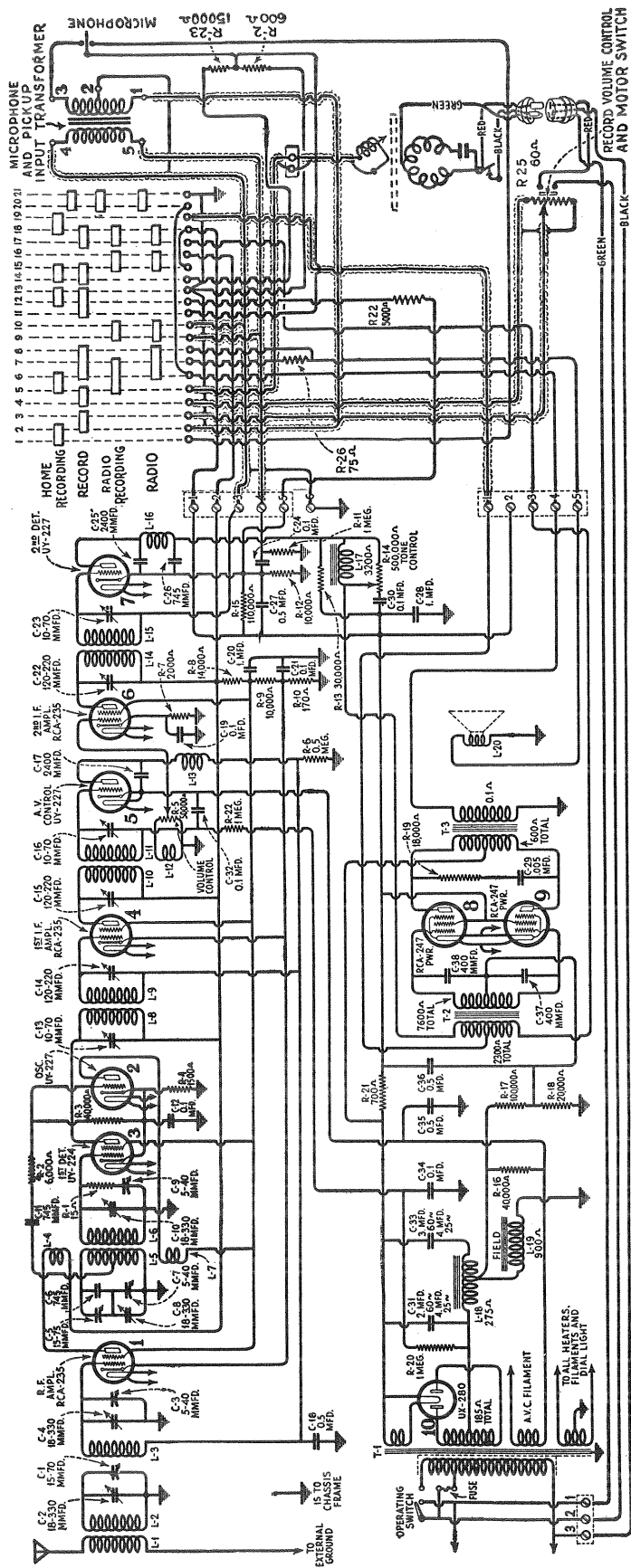


Figure 1—Schematic Wiring Diagram of Model RAE-59

REPLACEMENT PARTS (Continued)

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
	AUTOMATIC RECORD CHANGER—Continued		7189	Lever—Front and rear elevator cam lever—Package of 5.....	\$2.20
2898	Screw and Nut—Adjusting screw and lock nut for elevator shaft—Package of 10.....	\$0.50	7190	Lever—Locating lever.....	.85
2902	Screw and Nut—Motor turntable spindle thrust screw and nut—Package of 10.....	.50	7191	Lever—Cable lever.....	.60
2903	Screw—Motor mounting screw—Package of 10.....	.50	7192	Cam—Cam gear and cam.....	1.50
2904	Lever—Front elevator actuating lever.....	.50	7194	Rotor and shaft—60 cycles.....	8.00
2905	Screw—Gear and bracket mounting screw—Package of 10.....	.50	7204	Rotor and shaft—50 cycles.....	8.00
2906	Spring—Check lever spring—Package of 10.....	.50	7305	Gear reducing unit—Complete.....	4.50
2907	Screw—Clutch set screw—Package of 10.....	.50	7309	Cable—40" black lead shielded cable—Record changer to control switch—Package of 2.....	1.00
2908	Spring—Clutch pawl spring—Package of 10.....	.50	7310	Cable—From switch to tapped resistor.....	.60
2909	Spring—Four finger lever spring— $1\frac{3}{16}$ " long—Package of 10.....	.60	7311	Resistor—20675 Ohm tapped porcelain resistor.....	2.00
2910	Spring—Four finger lever spring— $1\frac{1}{16}$ " long—Package of 10.....	.60	7312	Transformer—Input transformer.....	6.55
2911	Screw—Slide bracket screw—Package of 10.....	.50	7313	Switch—Selector switch with mounting nut and escutcheon.....	6.40
2912	Roller—Slide roller complete with screw stud—Package of 5.....	1.50	7314	Cable—Power cable—From S.P.U. to Automatic record changer.....	1.25
2913	Spring—Cable lever spring—Package of 10.....	.60	7315	Spindle and gear—Turntable spindle with gear—25 cycles.....	6.00
2914	Spring—Flat spring with screws—Package of 10.....	.50	7316	Spindle and gear—Turntable spindle with gear—30 cycles.....	6.00
2915	Spring—Locating lever spring—Package of 10.....	.50	7317	Spindle and gear—Turntable spindle with gear—50 cycles.....	5.00
2916	Plate—Latch plate with mounting screws—Package of 5.....	.50	7318	Spindle and gear—Turntable spindle with gear—60 cycles.....	5.00
2917	Washer—Spring washer—Package of 10.....	.50	7319	Rotor and shaft—25 cycles.....	10.00
2918	Spring—Index lever spring—Package of 10.....	.50	7320	Rotor and shaft—30 cycles.....	10.00
2919	Screw and Nut—Stop screw and nut—Package of 10.....	.50	7321	Lever—Cable guide lever with pulley.....	.90
2920	Washer—Friction washer—Package of 10.....	.50	7322	Lever—Manual Index lever.....	.60
2929	Lever—Rear elevator actuating lever—Package of 2.....	.50	7323	Magazine bearing—Located on motor board.....	1.35
3052	Screw Assembly—Pickup pole shoe mounting screws, nut and washer—Package of 10 sets.....	.50	7324	Pickup arm base.....	.85
3159	Friction brake—Gear reducing friction brake spring and pad with mounting rivets—Package of 4.....	2.00	7325	Pickup—Pickup unit complete.....	12.50
3161	Spring—Shift lever spring—Package of 5.....	1.20	7326	Cover—Turntable cover.....	.50
3167	Magnet—Pickup magnet.....	2.60	7327	Mechanism—Microphone mechanism.....	14.95
3169	Pole shoe—Pickup pole shoe—R. H.....	1.45	7328	Cover assembly—Microphone cover frame and screen.....	1.25
3170	Pole shoe—Pickup pole shoe—L. H.....	1.45	7329	Frame—Microphone frame with handle—Less cover assembly.....	1.50
3173	Plug—Three prong female connector plug.....	1.30	7330	Capacitor—Motor capacitor 3.75 Mfd. for 25 or 30 cycles.....	4.00
3175	Receptacle—Needle receptacle.....	.75	7363	Pad—Rubber pad for front elevator—Package of 10.....	.50
3181	Cable—10" Red lead shielded cable—Volume control to control switch—Package of 2.....	.70	7364	Lever—Speed reducing shift lever.....	.50
3182	Cable—10" Green lead shielded cable—Volume control to control switch—Package of 2.....	.70	7387	Reactor—Tone compensating reactor with bracket.....	.85
3183	Socket—Microphone socket—Package of 5.....	2.00	8644	Capacitor—Motor capacitor 1.25 Mfd., for 105-125 volts—50-60 cycles.....	1.40
3184	Board—Terminal board.....	.50	8646	Slide—Main slide.....	2.20
3186	Control—Volume control and operating switch complete with mounting washer and nut.....	2.20	8647	Lever—Four finger lever.....	1.20
3187	Weight—Recording weight.....	1.40	8748	Cable—Main cable—From S.P.U. receiver chassis, input transformer and motor board.....	2.90
3189	Box—Needle box with lid—Package of 2.....	.70	8748	Microphone—Complete.....	21.50
3190	Clutch pawl.....	1.25	8752	Motor—Motor complete—25 cycles.....	41.00
3191	Ratchet—Gear and ratchet with set screw.....	.90	8753	Motor—Motor complete—30 cycles.....	41.00
3192	Post—Roller post assembly for supporting magazine.....	.75	8754	Motor—Motor complete—50 cycles.....	41.00
3193	Screw—Magazine bearing mounting screw and nut—Package of 10.....	.50	8755	Motor—Motor complete—60 cycles.....	33.50
3194	Screw—Pickup arm base mounting screw and nut—Package of 10.....	.50	8756	Motor board—Motor board with elevator bushings, turntable speed plate and shaft lever.....	5.50
3195	Lever—Record transfer lever with screw and nut.....	1.65	8757	Arm—Pickup arm complete with weight—Less pickup unit.....	6.00
3196	Screw—Record transfer lever mounting screw and nut—Package of 10.....	.50	8758	Magazine—Record magazine.....	4.00
3197	Escutcheon—Turntable speed escutcheon plate with mounting rivets—Package of 2.....	.70	8759	Turntable—Turntable with cover.....	5.00
3198	Bushing—Insulator rubber bushing—Package of 10.....	.50		CABINET	
3199	Screw—Bottom plate mounting screw—Package of 10.....	.50	2776	Catch—Door catch and strike with nail—Package of 2 sets.....	.50
3200	Shaft—Front or rear elevator shaft.....	.80	2785	Hinge—Lid hinge with mounting screws—Package of 2.....	.50
3201	Rear elevator pad—Package of 5.....	2.75	3156	Metal label—Trade mark label—Package of 5.....	2.50
3202	Front elevator pad—Package of 5.....	3.00	3172	Knob—Door knob and mounting screw with back plate—Package of 2.....	1.00
3203	Screw—Elevator pad mounting screw—Package of 10.....	.50	3176	Fill piece—Front and rail angle fill piece.....	.75
3204	Cable—Pickup arm cable—Package of 5.....	1.50	3177	Fill piece—Front end rail bottom fill piece.....	.55
3205	Screw—Pickup needle holder screw—Package of 10.....	.80	3178	Fill piece—Front end rail center fill piece.....	.60
3206	Cover—Pickup cover.....	.75	3179	Fill piece—Front end rail top fill piece.....	.55
3207	Screw—Pickup cover mounting screw—Package of 10.....	.50	3180	Fill piece—Front rail angle fill piece.....	1.25
3208	Screw assembly—Pickup mounting screw, nut and washer—Package of 10.....	.60	7095	Hinge—Door hinge—One set complete—Comprising 4 hinges.....	1.00
3209	Lever—Trip lever.....	1.10	7279	Screen holder.....	.50
3210	Lever—Magazine lever.....	.65	8703	Escutcheon—Tuning dial escutcheon.....	2.15
3211	Washer—Turntable spindle leather washer—Package of 10.....	.50	8736	Doors—R. H. and L. H. Doors—1 Pair.....	9.50
3212	Spring—Turntable spindle plunger spring—Package of 10.....	.50	8738	Leg—Front leg—R. H. or L. H.....	5.00
3213	Bolt—Motor board mounting bolt—Package of 8.....	.90	8739	Leg—Back leg—R. H. or L. H.....	3.55
3214	Pulley—Cable pulley with mounting stud—Package of 5.....	.50	8740	Foot—Front leg foot—R. H. or L. H.....	1.60
3215	Plug—Microphone cord plug.....	.50	8741	Foot—Back leg foot—R. H. or L. H.....	1.55
3216	Cushions—Microphone rubber cushions—Package of 6.....	.50	8742	Grille—Wood grille.....	4.60
3217	Lever—Check lever.....	.50	8743	Ornament—Door top rail ornament.....	2.15
3261	Cap—Rubber cap for turntable spindle—Package of 5.....	.50	8744	Overlay—Front top rail end overlay—R. H. or L. H.....	1.20
3262	Screw and Nut—Record transfer lever adjusting screw and nut—Package of 10.....	.60	8745	Overlay—Front top rail center overlay.....	2.05
7151	Back—Pickup back housing.....	.50	8746	Board—Baffle board grille cloth and cone felt—Assembled.....	1.55
7186	Gear—Gear and bracket.....	1.40	8760	Support—Lid support.....	1.25
7188	Bracket—Slide bracket with roller.....	.75	9384	Cabinet—Cabinet complete—Less equipment.....	133.00
			9385	Lid.....	14.45
			9386	Panel—Control panel.....	6.50
			9387	Stretcher.....	6.90

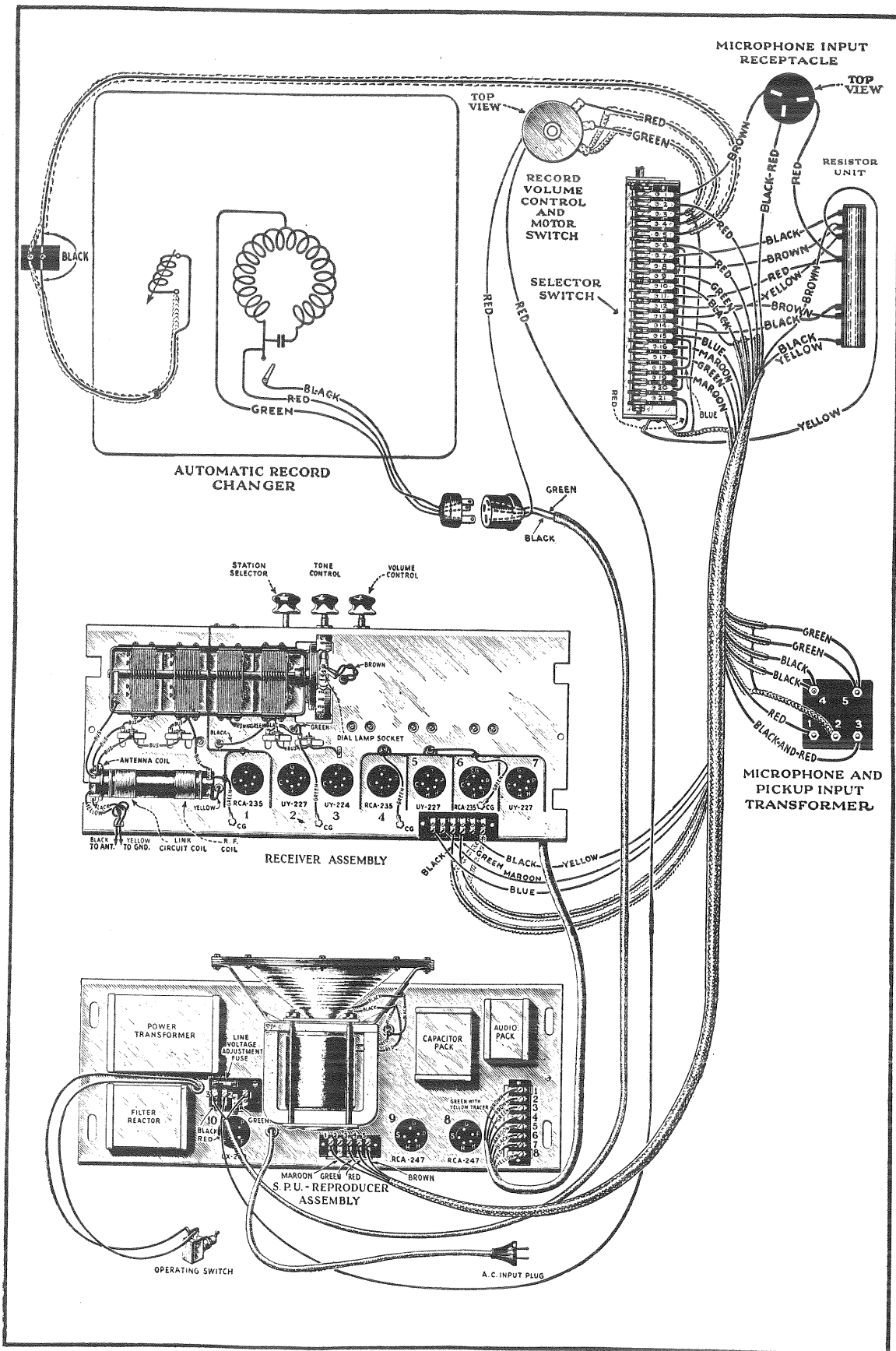


Figure 2—Assembly Wiring Diagram of Model RAE-59

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