



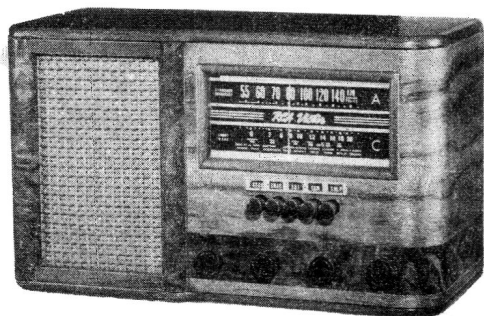
RCA Victor

MODELS A21 & A34

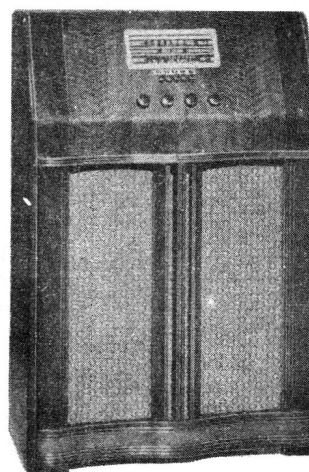
Five-Tube, Two-Band, Push-Button Tuning, A-C,
Superheterodyne Receivers

TECHNICAL INFORMATION AND SERVICE DATA

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL



Model A21



Model A34

Electrical and Mechanical Specifications

FREQUENCY RANGES

"Standard Broadcast" 540-1,720 kc
"Short Wave" 5.8 to 20 mc
Intermediate Frequency 455 kc

TUBE COMPLEMENT

(1) Type-6SA7 First-Detector—Oscillator
(2) Type-6SK7 Intermediate-Frequency Amplifier
(3) Type-6SQ7 Second-Detector A.F. and A.V.C.
Pilot Lamp

R-F ALIGNMENT FREQUENCIES

"Short Wave" 20 mc (osc., ant.)
"Standard Broadcast" 600, 1,500 kc (osc.)
Five Push-Button Tuning Positions 550-1,720 kc

POWER SUPPLY RATING

Rating A 105-125 Volts, 50-60 Cycles, 80 Watts
Rating B 105-125 Volts, 25-60 Cycles, 80 Watts

POWER OUTPUT

Undistorted 2.5 watts
Maximum 4.5 watts

LOUDSPEAKER

Type Electrodynamic
Voice-coil impedance 3 ohms at 400 cycles

(4) Type-6F6G Audio Power Amplifier
(5) Type-5Y4G Full-Wave Rectifier

Mazda 51, 7.5 volts, .2 amp.

CABINET DIMENSIONS

	A21	A34
Height (inches)	9	38
Width (inches)	15	25
Depth (inches)	7	12

Chassis Base Dimensions...12" wide, 5½" deep, 2½" high
Overall Chassis Height 6½ inches
Tuning Drive Ratio 10 to 1

General Description

The RCA Victor Model A21 is a five tube, two band superheterodyne chassis housed in a table type cabinet. Features of design include:—Mechanical push button tuning for five stations, two point tone control, Phono input socket, air core I.F. Transformers, new type, edge lighted three dimensional dial and a five inch electrodynamic speaker. The Model A34 is a five tube, two

band superheterodyne chassis housed in a console type cabinet of functional design. Features of design include:—Mechanical push button tuning for five stations, two point tone control, phono input socket, A.C. outlet socket, Radio-phono switch, air core I.F. Transformers, three dimensional edge-lighted dial and a twelve inch electrodynamic loudspeaker.

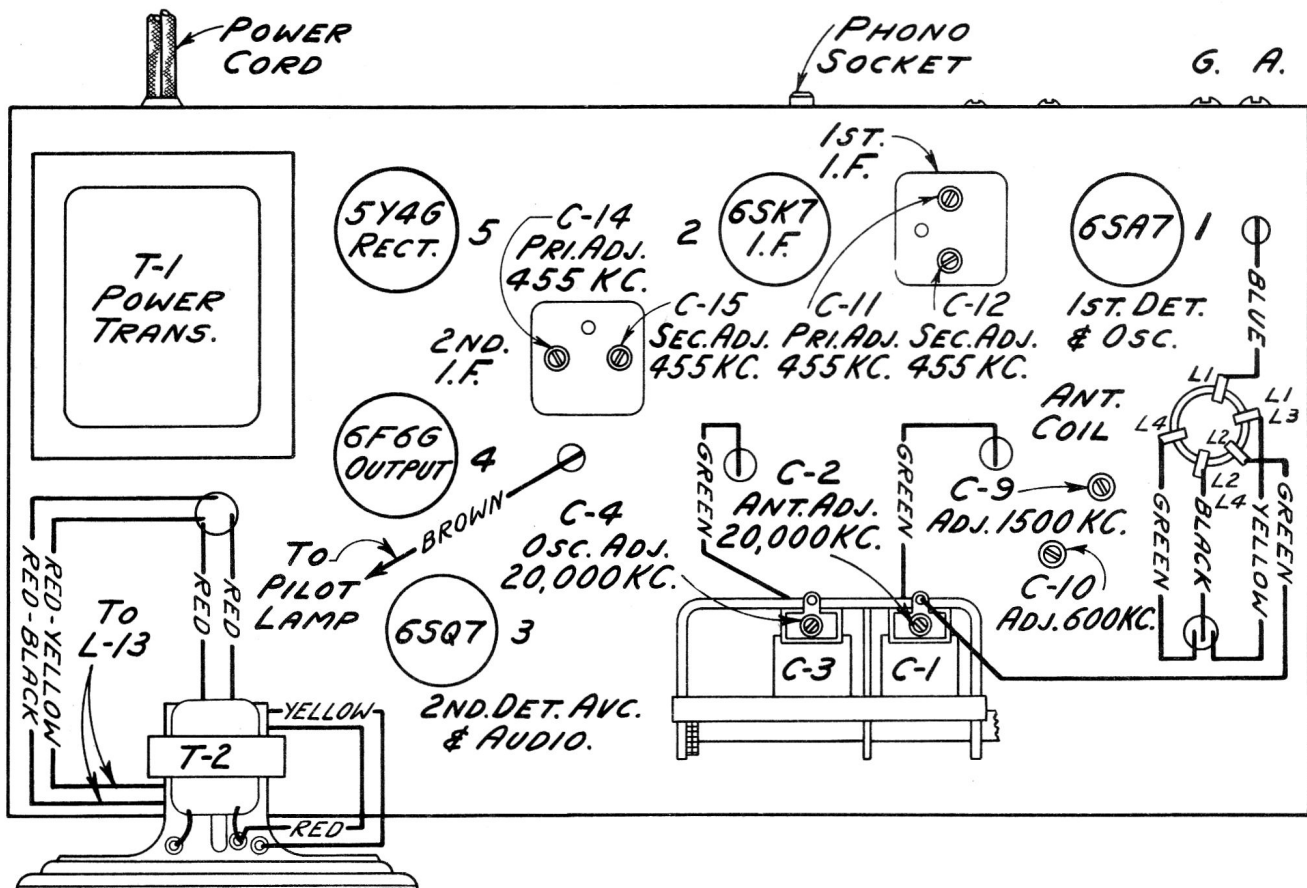
Adjustments for Electric Tuning

These models have five push buttons for mechanical tuning of five different stations in the standard broadcast range. Allow at least a five minute warm-up period before making any adjustments.

To adjust the push-buttons proceeds as follows:—

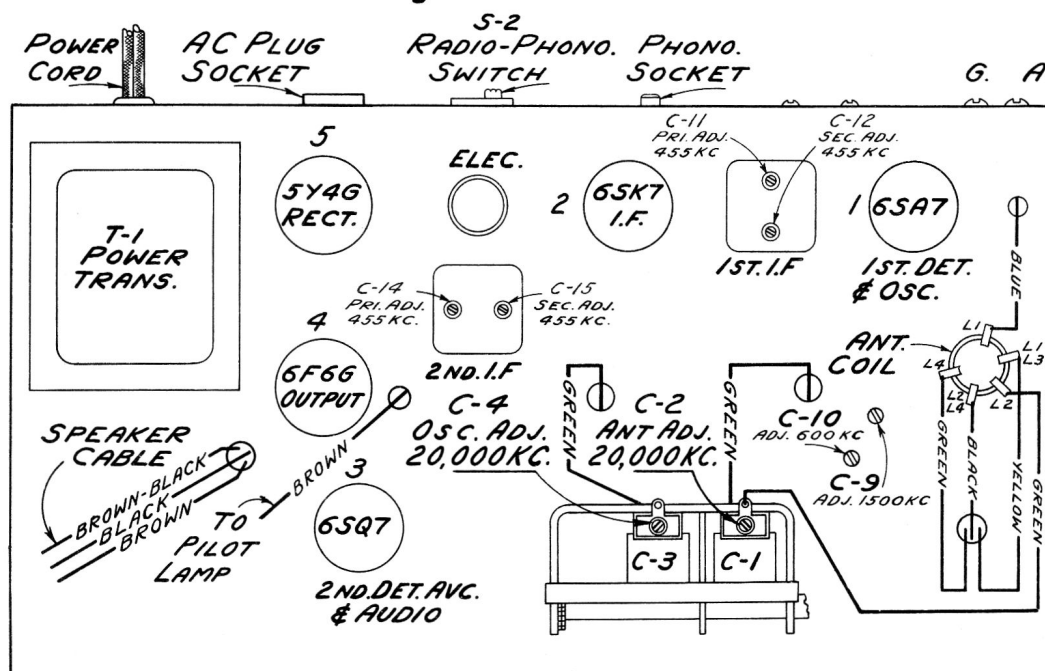
1. Make a list of the desired stations, arranged in order from the low to the high frequencies.

2. Manually tune in the desired station accurately.
3. Loosen push button by turning counterclockwise.
4. Press the push button in as far as it will go and accurately retune station.
5. With the push button still held in, tighten it by turning in a clockwise direction.



Chassis Layout and Alignment Adjustments (A21)

Alignment Procedure



Chassis Layout and Alignment Adjustments (A34)

Cathode-Ray Alignment is the preferable method. Connections for the oscillograph are made in the usual manner.

Output Meter Alignment.—If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-Oscillator.—For all alignment operations, connect the low side of the test-oscillator to the receiver

chassis, and keep the output as low as possible to avoid A-V-C action.

The Alignment Procedure is carried out in the usual manner. By no means attempt to align these receivers without the assistance of an accurate test oscillator and visual output indicator.

Dial Indicator Adjustment.—With gang in full mesh (max. cap.) position, adjust pointer to the extreme left mark on dial plate.

Steps	Connect the high side of test-osc. to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. peak output
1	6SK7 I-F grid in series with .01 mfd.	455 kc	"A" band, Quiet Point between 550-750 kc	C14 and C15 (2nd I-F Trans.)
2	6SA7 det. grid in series with .01 mfd.	455 kc		C11 and C12 (1st I-F Trans.)
3	Antenna Terminal, in series with 300 ohms	20 mc	20 mc "C" band	C4* (osc.) C2** (ant.)
4	Antenna Terminal in series with 200 mmf.	600 k.c.	600 k.c. "A" band	C10 (osc.)
5	Antenna Terminal, in series with 200 mmf.	1,500 kc	1,500 kc "A" band	C9 (osc.)

*Use minimum capacity peak if two peaks can be obtained.

**Rock gang slightly and use maximum capacity peak if two peaks can be obtained with C2. Check to determine that C4 has been adjusted to the correct peak by tuning to approximately (19.09 mc), where a weaker signal should be received.

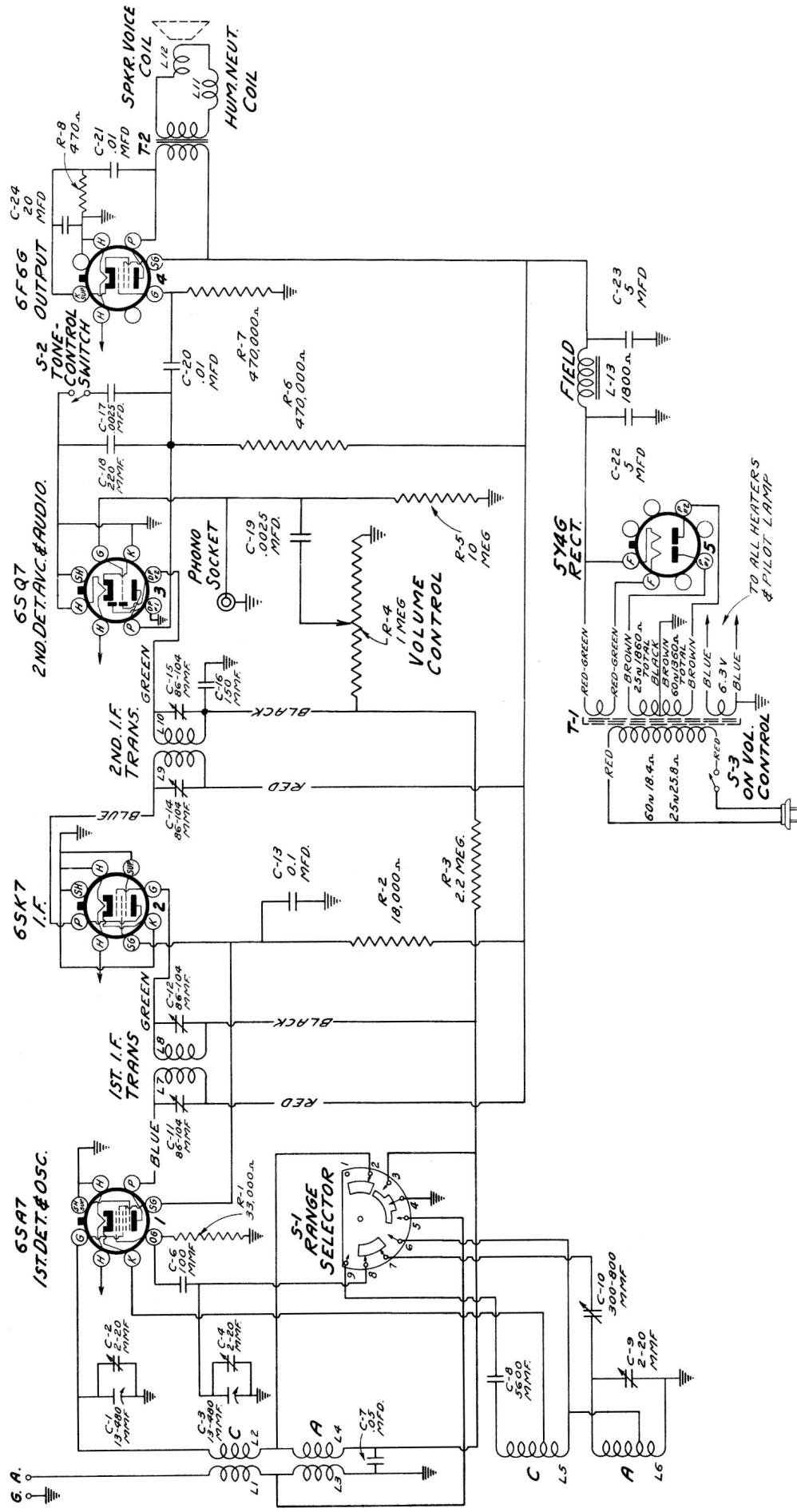
Note: Oscillator tracks 455 kc above signal on all bands.

Radiotron Socket Voltages

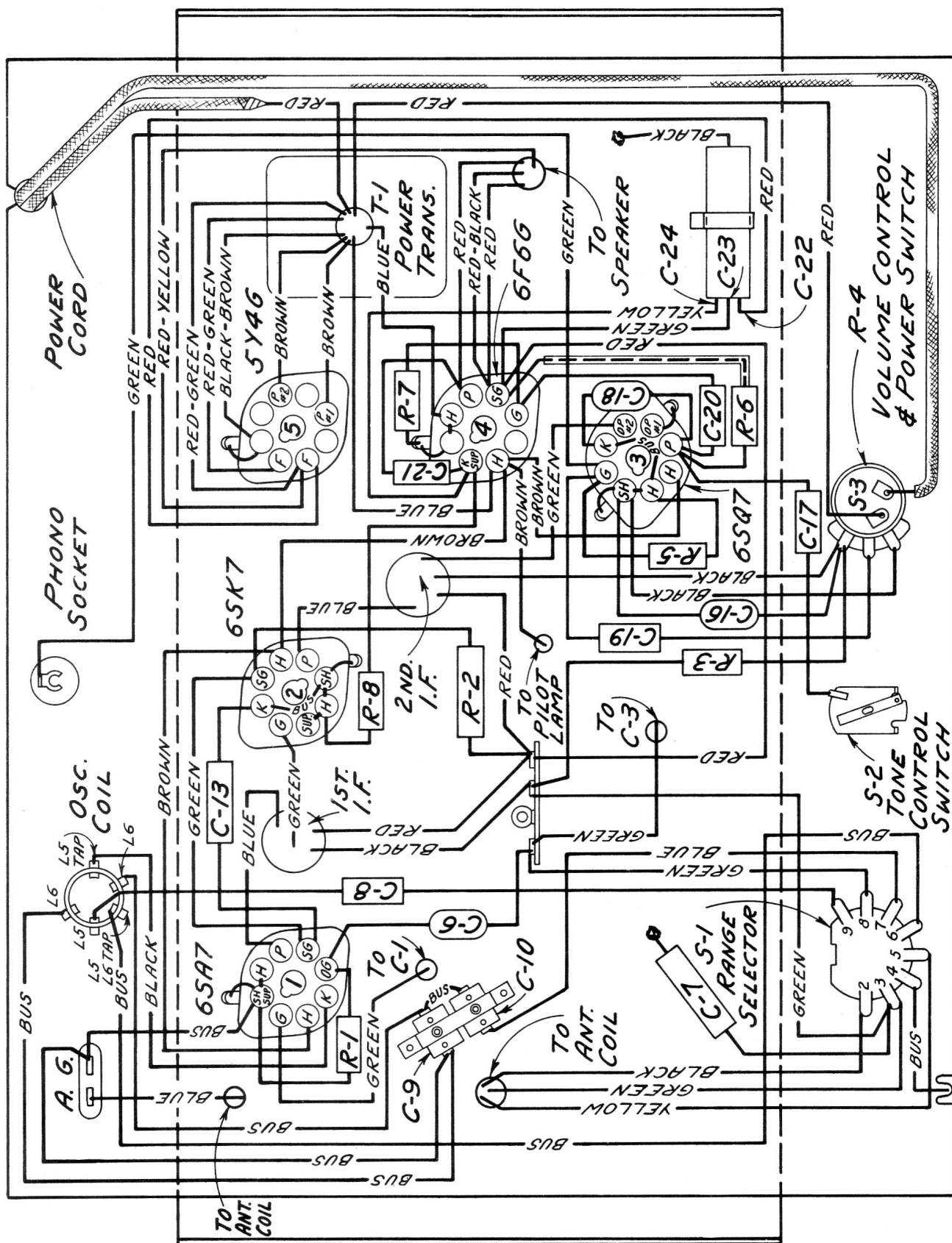
TYPE	PLATE	Screen Grid	Cathode	Heater
6SA7	278V	96V	0	6.6V
6SK7	278V	96V	0	6.6V
6SQ7	66V*		0	6.6V
6F6-G	258V	277V	17.8V	6.6V
5Y4-G		OUTPUT VOLTAGE	358V	

*Cannot be measured with an ordinary voltmeter.

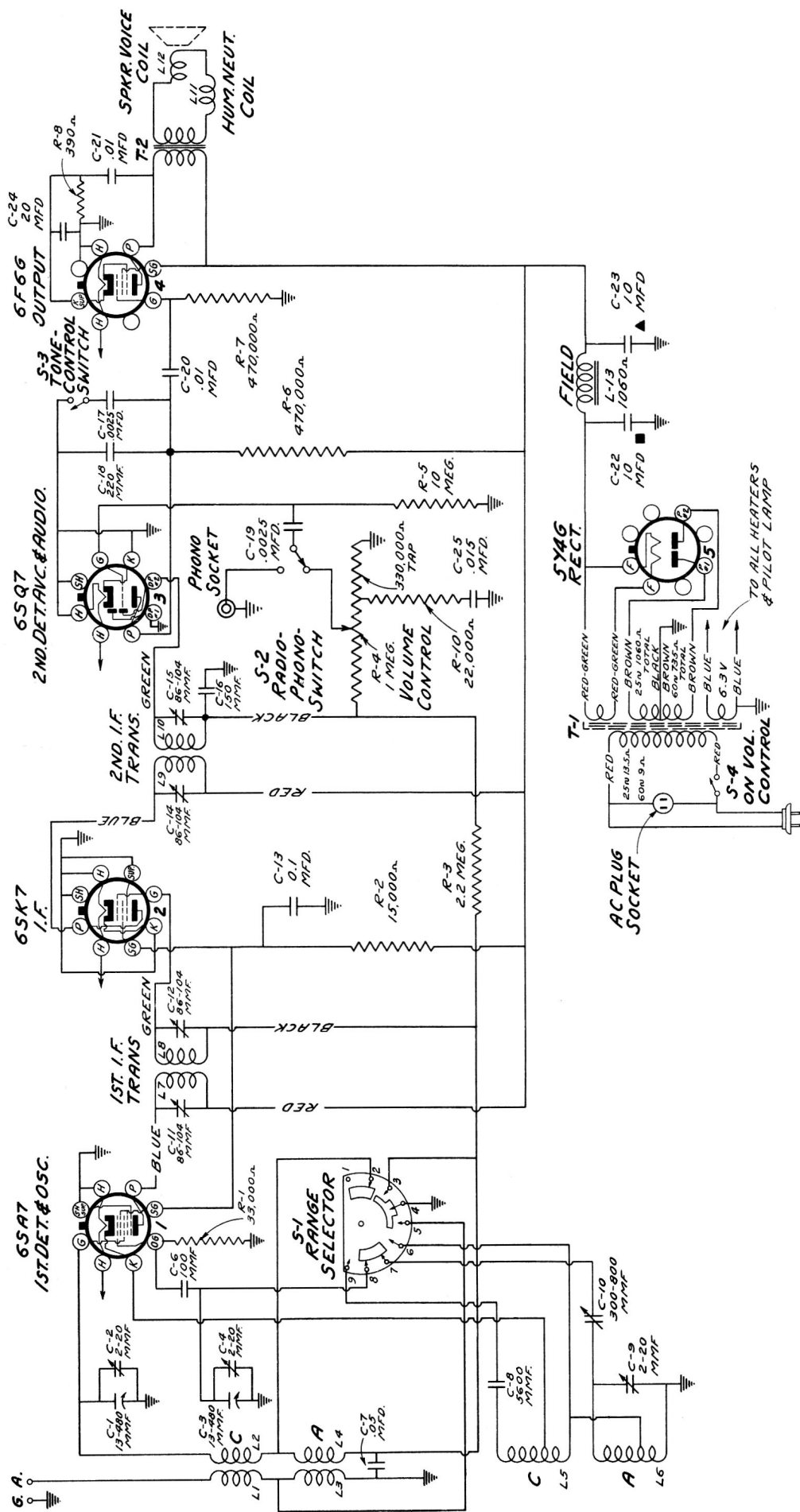
NOTE: The voltage values listed above should hold within plus or minus 20% when measured with a 1,000 ohm per volt meter on a line voltage of 117 volts.



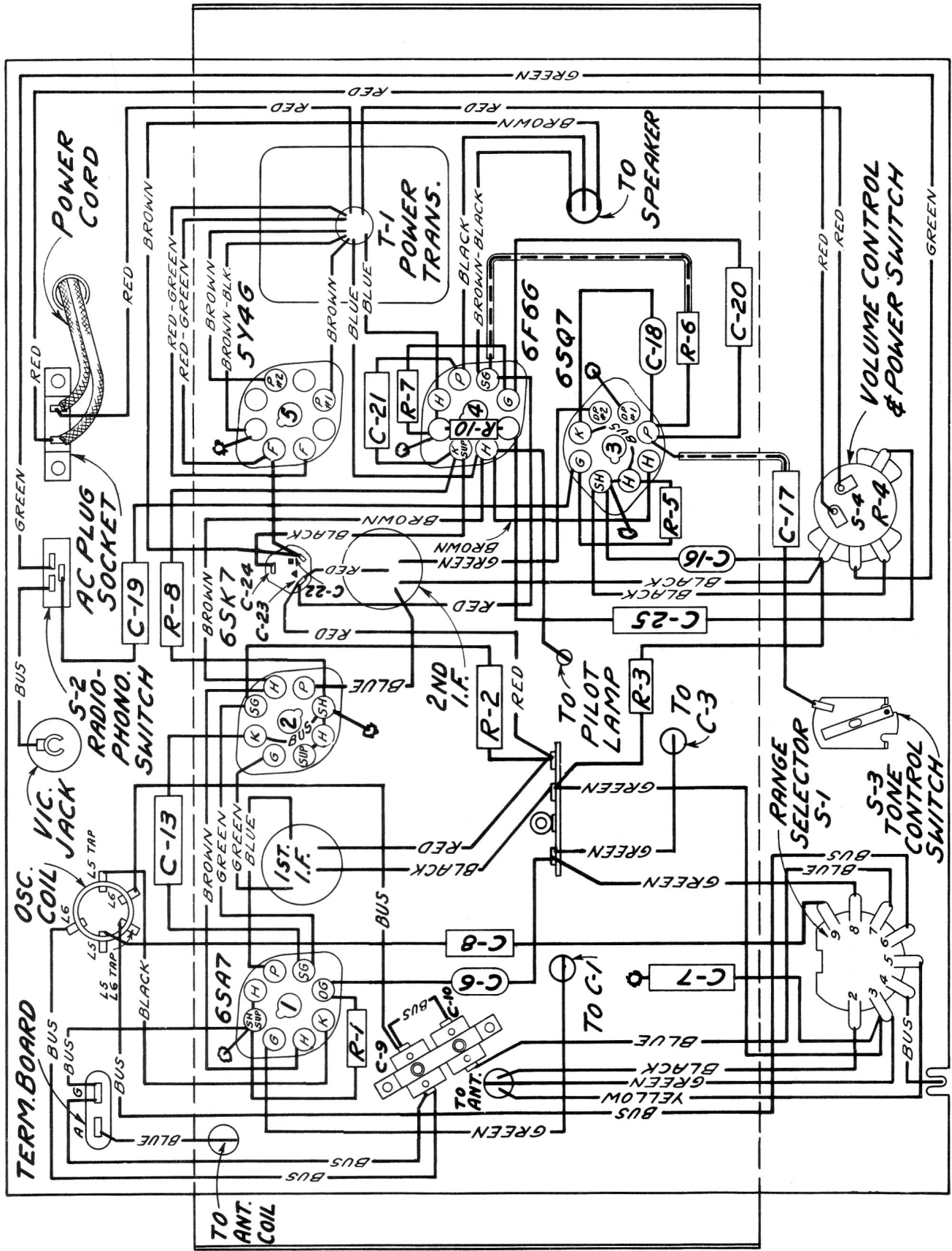
Schematic Circuit Diagram (A21)



Chassis Wiring Diagram (A21)



Schematic Circuit Diagram (A34)



Chassis Wiring Diagram (A34)

REPLACEMENT PARTS FOR MODELS A21 and A34

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

STOCK NO.	DESCRIPTION	STOCK NO.	DESCRIPTION
RECEIVER ASSEMBLIES			
S-2821	Board-Ant. ground terminal board....	33722	Transformer-1st I.F. transformer...
S-2466	Capacitor-Adjustable capacitor one section 2-20 mmfd., one section 300-800 mmfd.(C9,C10).....	33723	Transformer-2nd I.F. transformer...
12720	Capacitor-100 mmfd.(C6).....	S-2067#	Transformer-Power transformer 105-125 volts 25/60 cycle.....
12725	Capacitor-150 mmfd.(C16).....	S-2066#	Transformer-Power transformer 105-125 volts 50/60 cycle.....
12694	Capacitor-220 mmfd.(C18).....	33619X	Transformer-Power transformer 105-125 volts 25/60 cycle.....
13895	Capacitor-5600 mmfd(C8).....	S-2457X	Transformer-Power transformer 105-125 volts 50/60 cycle.....
5107	Capacitor-.0025 mfd.(C17,C19).....	33631#	Volume control and power switch....
4858	Capacitor-.01 mfd.(C20,C21).....	33776X	Volume control and power switch....
11315X	Capacitor-.015 mfd.(C25).....	#REPRODUCER ASSEMBLIES (CRL-503-6)	
32787	Capacitor-.05 mfd.(C7).....	32907	Cap-Dust cap for cone center (Pkg.5)
4839	Capacitor-.01 mfd.(C13).....	32906	Coil-Hum neutralizing coil.....
S-2822#	Capacitor-Electrolytic comprising 2-5mfd, 1-20 mfd.sections(C22,C23,C24)	S-2387	Coil-Field coil.....
32240X	Capacitor-Electrolytic, 2 sections 10 mfd, one section 20 mfd.(C22,C23,C24)...	S-2375	Cone-Reproducer cone, dust cap and gasket.....
33732	Coil-Antenna coil.....	S-2838	Reproducer complete.....
33733	Coil-Oscillator coil.....	S-2389	Transformer-Output transformer.....
S-2823	Condenser-2 gang variable tuning condenser complete with push arms, gears, etc.(C1,C2,C3,C4).....	X REPRODUCER ASSEMBLIES (12 inch)	
S-2837	Cord-Variable condenser drive cord.	13866	Cap-Dust cap for cone center (Pkg.5)
33633	Indicator-Station selector indicator pointer.....	S-2458	Coil-Field coil.....
11765	Lamp-Pilot lamp Mazda #51.....	11469	Coil-Hum neutralizing coil.....
5119X	Plug-3 contact female speaker plug.	31275	Cone-Reproducer cone and voice coil
31388X	Resistor-390 ohm, 1 watt.(R8).....	5118	Plug-3 contact male plug.....
30499#	Resistor-470 ohm, 1/2 watt.(R8).....	S-2827	Reproducer complete.....
33489X	Resistor-15,000 ohm, 2.5 watts(R2).	14355	Transformer-Output transformer.....
S-2060#	Resistor-18,000 ohm, 1 watt..(R27).	MISCELLANEOUS ASSEMBLIES	
13998X	Resistor-22,000 ohm, 1/4 watt.(R10).	S-2641	Button-Station selector bush button
12454	Resistor-33,000 ohm, 1/4 watt.(R1)...	S-2829#	Dial-Station selector dial scale...
12285	Resistor-470,000 ohm, 1/4 watt(R6,R7)	S-2830X	Dial-Station selector dial scale...
12679	Resistor-2.2 meg., 1/4 watt.(R3)....	32994	Escutcheon-Push button escutcheon..
13601	Resistor-10 meg., 1/4 watt.(R5)....	S-2831X	Escutcheon-Dial escutcheon complete
33725	Shaft-Station selector knob shaft...	30863#	Knob-Tuning volume, tone or range control knob.....
31319	Socket-Tube socket.....	S-2832X	Knob-Tuning volume, tone or range control knob.....
31364	Socket-Pilot lamp socket.....	31589	Marker-Push button call letter markers (1 set).....
S-2824X	Socket-A.C. input socket.....	30900#	Spring-Knob retaining spring (Pkg.5).....
14278	Socket-Phono input socket.....		
31418	Spring-Drive cord tension spring (Pkg.2).....		
S-2825	Switch-Range switch.....		
33634	Switch-Radio-phono switch.....		
S-2826	Tone control switch.....		

X - A-34 only.

A-21 only.