

CROSLY RADIO CORP.

MODEL 59 AC
Voltage, Notes
Parts List

MODEL 59 AC

Voltage Limits

Filament Voltages	
All tubes but rectifier	2.3 to 2.4
Rectifier tube	4.5 to 4.9
Plate Voltages	
R. F. Amplifiers	240 to 280
Detector	185 to 190
Output	230 to 270
Rectifier (A. C. voltage)	290 to 330 each plate
Screen Grid Voltages	
R. F. Amplifiers	55 to 65
Detector	125 to 155
Control Grid Voltages	
R. F. Amplifiers	2.5 to 3.5
Detector	11.0 to 13.0
Output tube	50 to 64

To be measured with speaker connected, volume control on full, and line voltage of 117½ (235 for 220 volt receivers). Measure plate and grid voltages with a high-resistance D. C. voltmeter (600 ohms or more per volt) from plate or grid tube contact to emitter contact. Use a low range A. C. meter for filament voltages.

Specifications

Model 59 is a compact, tuned radio-frequency receiver for operation from 110 volt and 220 volt A. C. house-lighting circuits. It is supplied in several cabinet styles in conjunction with Model 299 dynamic speaker.

The ends of the high-voltage secondary are connected to the plates of the rectifier tube, and the middle tap on it is connected to the negative side of the loudspeaker field ("B-"), and through one megohm and 300,000 ohm resistors to ground. The other side of the speaker field ("G") is connected to ground (chassis).

The positive plate supply circuit originates at the rectifier filament. One branch goes to the "B+" speaker terminal, whence it continues through the primary of the speaker output transformer to speaker terminal "P", and thence to the plate of the pentode tube.

A second branch of the B+ circuit goes through a 1100 ohm resistor to the screen grid of the pentode tube, and to the plates and screen grids of the other tubes. It is connected through a 300,000 ohm detector plate coupling resistor to the plate of the detector tube, through the primaries of the second and third radio-frequency transformers to the plates of the r. f. tubes, through a 100,000 ohm resistor to the screen grids of the r. f. tubes, a branch of the circuit returning to the r. f. cathodes through a 300,000 ohm resistor and through an additional resistor of 3 megohms to the screen grid of the detector tube.

The speaker field coil, in connection with two filter condensers—one (effective capacity 6 m. f.) of which is shunted across the speaker field and the other (effective capacity 12 m. f.) of which is connected from B+ to ground—acts as a filter circuit, eliminating hum.

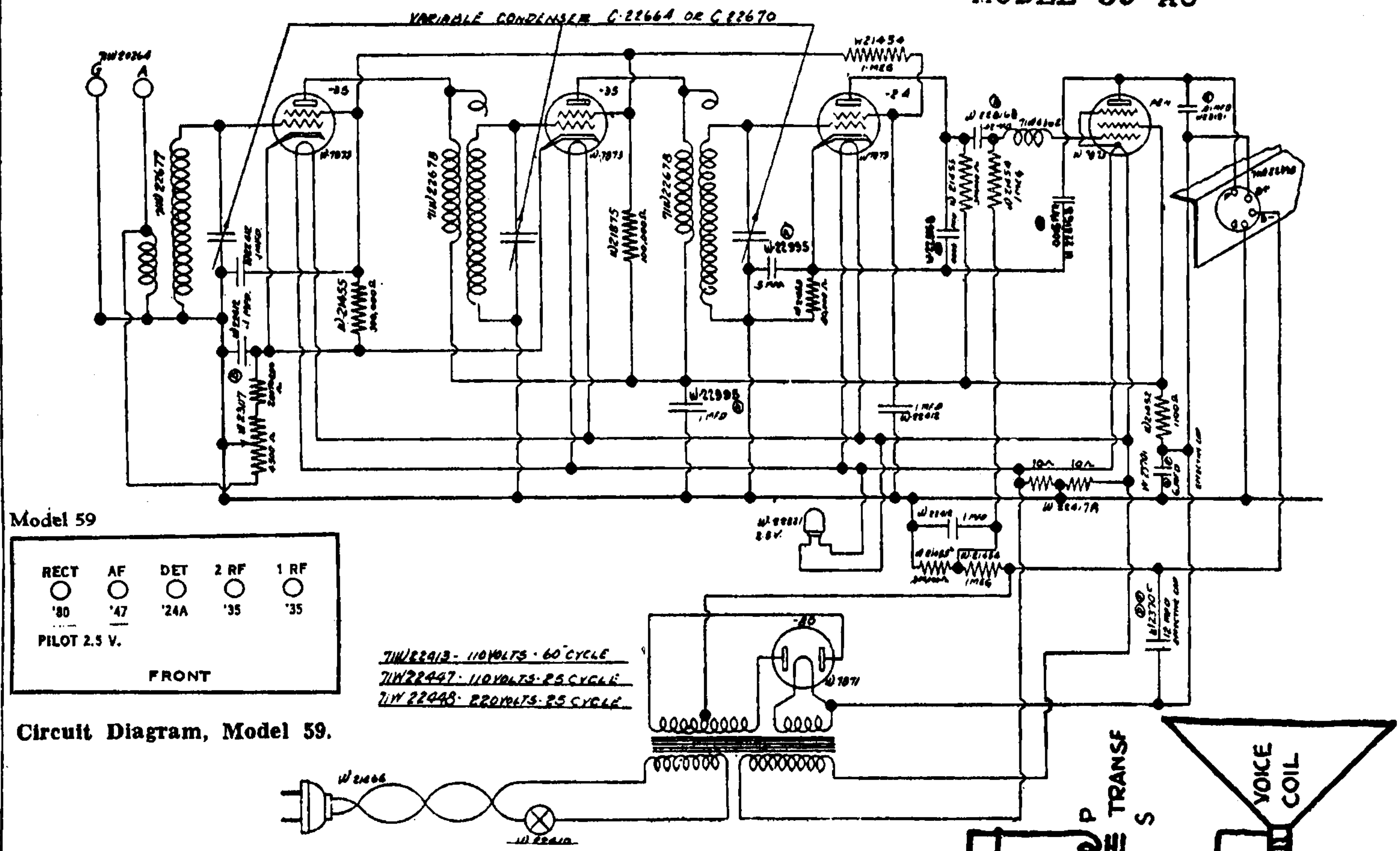
Biasing of the r. f. tubes is accomplished by the volume control resistor. Adjustment of the volume control simultaneously varies the bias of the r. f. tubes and the value of a resistor shunted across the primary of the antenna coil. A 40,000 ohm biasing resistor is used in the detector emitter circuit. Biasing of the audio tube is accomplished by returning the audio grid to the negative side of the 300,000 ohm resistor in the B- circuit, connected to chassis.

Qty.	Part No.	Description	List Price	Qty.	Part No.	Description	List Price
1	D-22669A	Chassis	\$.75	1	W-22329	Dial Light Bracket Assem- bly Less Lamp .....	.25
4	W-7873	Socket (5 Prong) .....	.30	1	W-22410	Switch .....	.75
1	W-7871	Socket (4 Prong) .....	.25	1	W-23117	Volume Control	1.25
1	W-21297	Socket Guide (280) .....	.10	1	B-22929	Tube Shield Assembly .....	.25
1	W-22818	Socket Guide (Pen.) .....	.10	PARTS UNDER CHASSIS			
1	W-22819	Socket Guide (224) .....	.10	1	W-22995	.5 - .1 Mfd. Fixed Condenser	1.00
2	W-22820	Socket Guide (235) .....	.10	1	W-22677	R. F. Transformer (ant)	1.50
1	W-22418	Power Trans. 110 V. 60 Cy.	6.00	2	W-22678	R. F. Transformer (int.)	1.50
1	W-22666	Power Trans. 110 V. 25 Cy.	6.25	3	W-7558A	R. F. Coil Shields .....	.20
1	W-22667	Power Trans. 220 V. 25 Cy.	6.25	1	W-22863	Mounting Plate .....	.30
1	W-21459	Mershon Condenser 8 Mfd.	2.50	1	W-21452	Flexible Resistor 1100 Ohms	.25
1	W-21485	Mershon Condenser Socket ..	.25	1	W-23191	.01 Mfd. Fixed Condenser ...	.25
1	W-22680A	Mershon Condenser 12 Mfd. ..	3.50	1	W-21453	Fixed Resistance 40000 Ohms	.30
1	W-23147	Insulating Washer .....	.05	2	W-21454	Fixed Resistance 1 Megohm	.30
1	W-22684	Tuning Condenser Gang	7.00	1	W-21455	Fixed Resist. 300000 Ohms	.30
3	W-21973	Grid Connectors .....	.25	1	W-4362	R. F. Plate Choke .....	.50
CONDENSER DRIVE				1	W-22417	Potentiometer 10-10 Ohms ...	.15
1	W-22685	Pulley .....	.25	1	W-22816B	.0015 - .02 - .0005 Mfd. Fixed Condenser .....	.75
1	W-22334	Drive Cord (39") .....	.25	1	W-22412	.1 - .1 - .1 - .1 Mfd. Fix. Con.	.75
1	W-22682	Idler Bracket Assem. (top) .....	.15	1	W-21454	Fixed Resistance 1 Megohm	.30
1	W-22683	Idler Br. Assem (lower) .....	.15	1	W-21455	Fixed Resist. 300000 Ohms ...	.30
1	W-22460A	Drive Pulley Bracket .....	.10	1	W-21875	Fixed Resist. 100000 Ohms ...	.30
1	W-22827	Drive Shaft .....	.30	1	W-21455	Fixed Resist. 300000 Ohms ...	.30
1	W-22463	Stop Washer .....	.05	1	W-22895	Speaker Socket .....	.25
1	W-22828	Stop Washer .....	.05	1	W-22397	Insulator .....	.05
1	W-22681	Idler Bracket Assem. (Ten.) ..	.15	1	W-20264	Terminal A & G .....	.30
1	W-22684	Spacer .....	.05	1	W-21466A	Cable & Plug .....	.50
1	W-22464B	Spring .....	.05				
1	W-22679	Dial Strip .....	.15				

MODEL 59 AC
Schematic
Bottom View

CROSLLEY RADIO CORP.

MODEL 59 AC



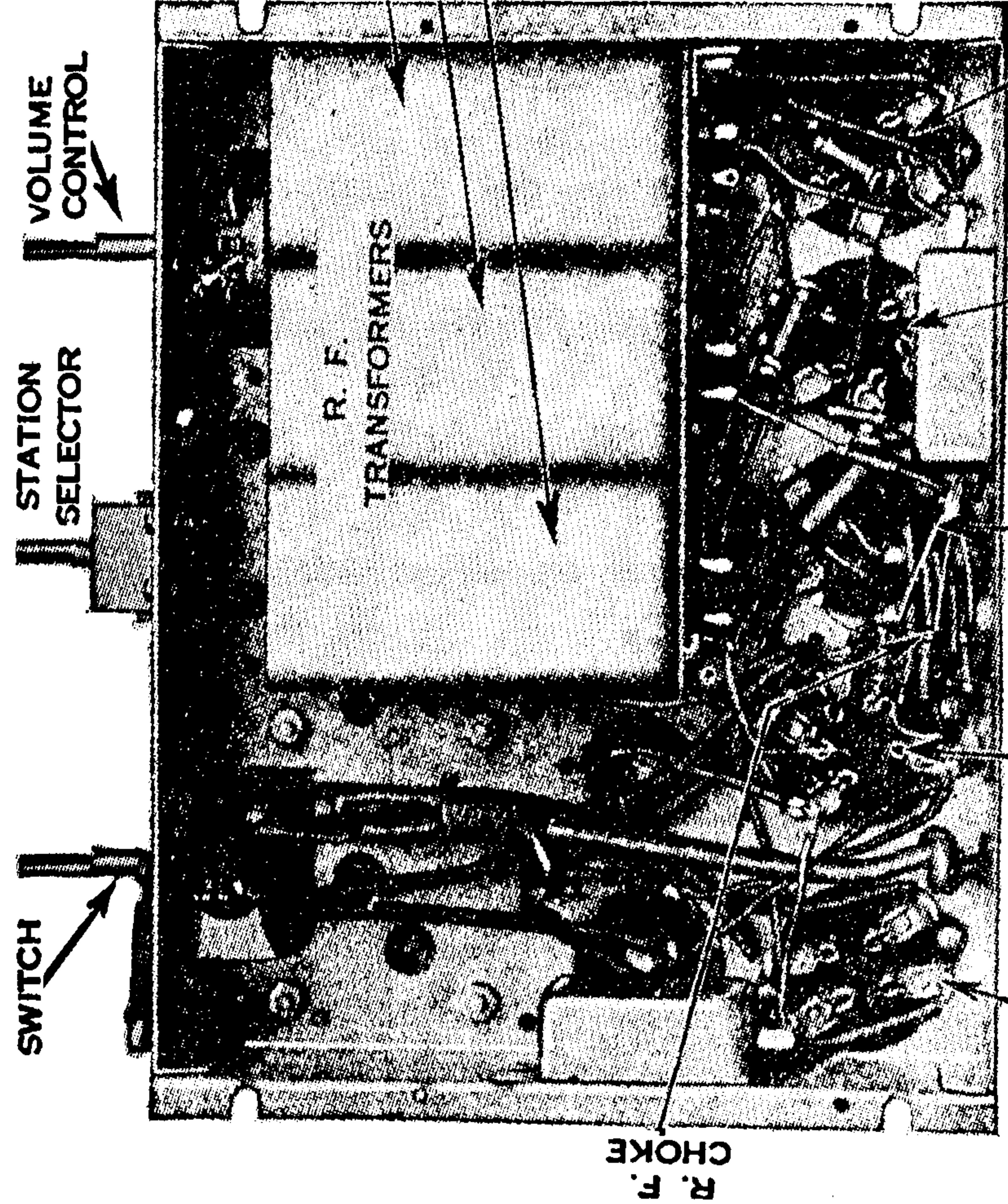
Model 59

RECT	AF	DET	2 RF	1 RF
○ '80	○ '47	○ '24A	○ '35	○ '35
PILOT 2.5 V.				
FRONT				

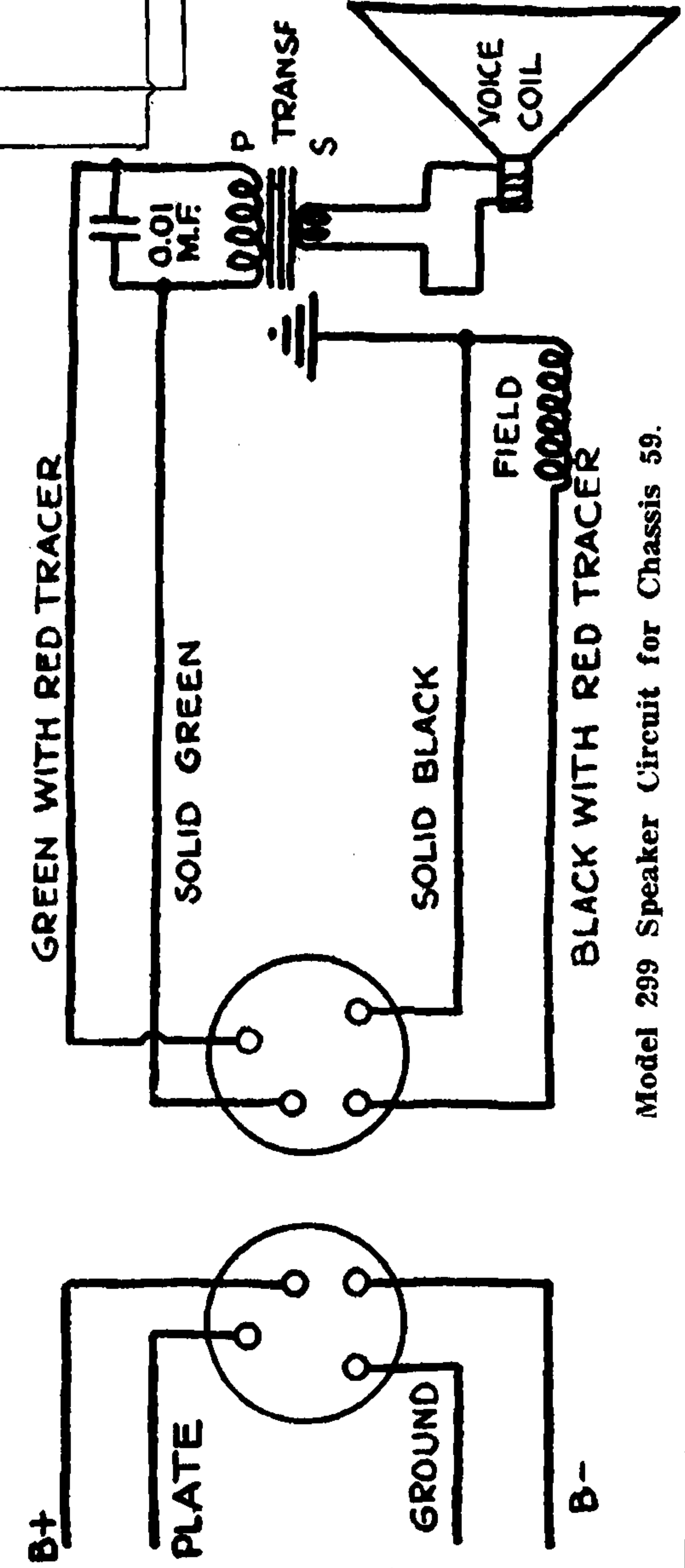
71W2241B - 110 VOLTS - 60 CYCLE
71W2247B - 110 VOLTS - 25 CYCLE
71W2248B - 220 VOLTS - 25 CYCLE

Circuit Diagram, Model 59.

1ST 2ND 3RD Voltage On Opposite Page



Bottom View Model 59.



Model 299 Speaker Circuit for Chassis 59.