

# ENGINEERING DATA

## STROMBERG-CARLSON NO. 530 AND NO. 535 RADIO RECEIVERS

STROMBERG-CARLSON TELEPHONE MANUFACTURING COMPANY  
ROCHESTER, NEW YORK

Model	Input Power Frequency	A. M. Chassis	F. M. Chassis	Power Amplifier Chassis	Cabinet	Speaker	Phonograph Equipment
530-PL	60 Cycles	32113	None	32123	32104	26170	32702
530-PLB	25 Cycles	32113	None	32124	32104	26170	32703
535-PG	60 Cycles	32114	32316	32125	32713	32427	32713
535-PGB	25 Cycles	32114	32316	32126	32714	32427	32714
535-PS	60 Cycles	32114	32316	32125	32103	32427	32822
535-PSB	25 Cycles	32114	32316	32126	32103	32427	32823
535-M	60 Cycles	32121	32317	32125	32107	32427	Use No. 16 Record Player
535-MB	25 Cycles	32121	32317	32126	32107	32427	Use No. 16 Record Player
535-PL	60 Cycles	32114	32316	32125	32106	32427	32713
535-PLB	25 Cycles	32114	32316	32126	32106	32427	32714

### SPECIFICATIONS

Tuning Ranges	Standard Broadcast 540 to 1600 kilocycles Medium Wave 1.6 to 3.6 megacycles Short Wave 5.7 to 18 megacycles
Voltage Rating	105 to 125 Volts
Type of Circuit	Superheterodyne with Automatic Tuning
Number of Tubes	{ No. 530—9 No. 535—15
1—6SK7 R. F. Amplifier	1—5U4G Rectifier (535 Receiver)
1—6SA7 Modulator and Oscillator	1—6AB7 R. F. Amplifier (F. M.)
1—6SK7 I. F. Amplifier	1—6SA7 Modulator and Oscillator (F. M.)
1—6SR7 Demodulator, A. V. C. and Audio	1—6AB7 I. F. Amplifier (F. M.)
1—6U5 Tuning Indicator	1—6AC7 I. F. Amplifier (F. M.)
1—6AC7 Audio Amplifier and Inverter	1—6SJ7 Limiter (F. M.)
2—6V6GT Output	1—6H6 Demodulator (F. M.)
1—5Y3G Rectifier (530 Receiver)	
Input Power Rating	{ 530-PL ..... 120 Watts 535-PL, PS, PG ..... 155 Watts 535-M ..... 130 Watts
Intermediate Frequency	{ 455 Kilocycles (Amplitude Modulation) 4.3 Megacycles (Frequency Modulation)
Speaker Field Coil Resistance	530—1050 ohms; 535—610 ohms
Speaker Voice Coil Impedance	530— 1.5 ohms; 535— 11 ohms

### FEATURES

**GENERAL.** The No. 530 Receivers are nine tube, three gang, three range receivers, designed for the reception of Amplitude Modulated stations. The No. 535 Receivers are fifteen tube receivers of the very latest design, providing reception of both Amplitude and Frequency Modulated stations. The "Armstrong Wide-Swing Frequency Modulation System" used in this receiver is outstanding in that substantially static-free reception is obtained, plus a degree of high fidelity which has heretofore been unobtainable in any radio system.

Six button automatic tuning is provided in these receivers, so that six favorite stations may be set up.

Separate continuously variable bass and treble controls are provided in these chassis.

Provision is made for a record player to be used with all models not already equipped with phonograph mechanism without additional wiring.

The No. 530-PL Receiver is equipped with a record player using a crystal pick-up in conjunction with a

specially equalized circuit. This record player shifts and plays the standard 10" or 12" records.

The No. 535-PG, PL and PS Receivers are equipped with record players using a one-ounce sapphire pick-up in conjunction with specially equalized circuits. This type of pick-up eliminates the frequent changing of needles and reduces record wear to a minimum. This record player shifts and plays the standard 10" or 12" records. The records may be intermixed on the No. 535-PG and PS Receivers.

A loop antenna is provided in these receivers so that no antenna and ground connection whatsoever is required. However, antenna and ground terminals are provided on the chassis so that an external antenna may be used for improved reception if desired.

**PHONOGRAPH OPERATION.** A jack is provided on the back of the chassis of all receivers not already equipped with a phonograph mechanism, into which a record player may be plugged, and a push button is provided on the front of the receiver for switching from "Radio" to "Phonograph".

### ACCESSORIES

**ANTENNA.** The built-in loop antenna provided in these receivers will give satisfactory operation in most locations. However, for improved reception, a Stromberg-Carlson All-Wave Antenna is recommended. These antenna are supplied in kits containing all the necessary parts for mounting and installation, and are designed especially for use with all Stromberg-Carlson receivers.

**HEADSET ATTACHMENT.** Headphones can be very simply attached to this receiver. Ask for Pc-28303 Headset Package Assembly, which comes complete with headphones and installation instructions.

**CARE OF THE CABINET.** The finish of Stromberg-Carlson cabinets should be protected by using Stromberg-Carlson cabinet polish regularly. It is available in pint cans designated as Pc-28601.

Nicks and scratches of most kinds can be repaired quickly and easily by proper use of the Pc-26962 Touch-up Kit. Complete instructions are provided with each kit.

**ADJUSTING THE DIAL LAMP.** To obtain the proper illumination of the dial, slide the two dial lamp sockets on their mounting brackets to the position where maximum illumination of the dial is obtained.

## INSTRUCTIONS FOR SETTING UP PUSH BUTTONS

**IMPORTANT:** The stations selected should be the local or favorite stations which give good reception at all times. If a Frequency Modulation station is available, it may be set up on one of the push buttons on the No. 535 Receivers.

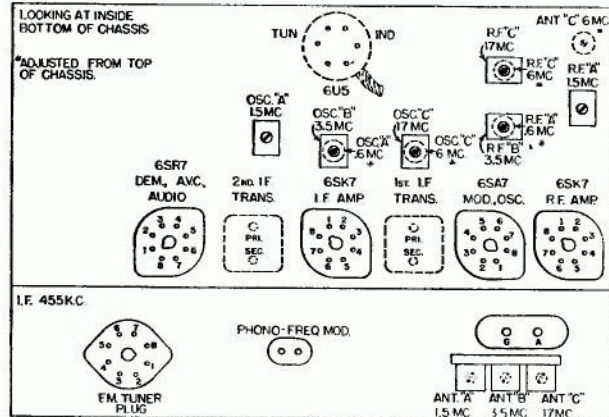
Set up stations in the daytime to avoid unnecessary interference. Allow the set to run for about twenty minutes before setting up stations.

Always use the tuning indicator unit when setting up stations, in order to determine when the station is exactly in tune.

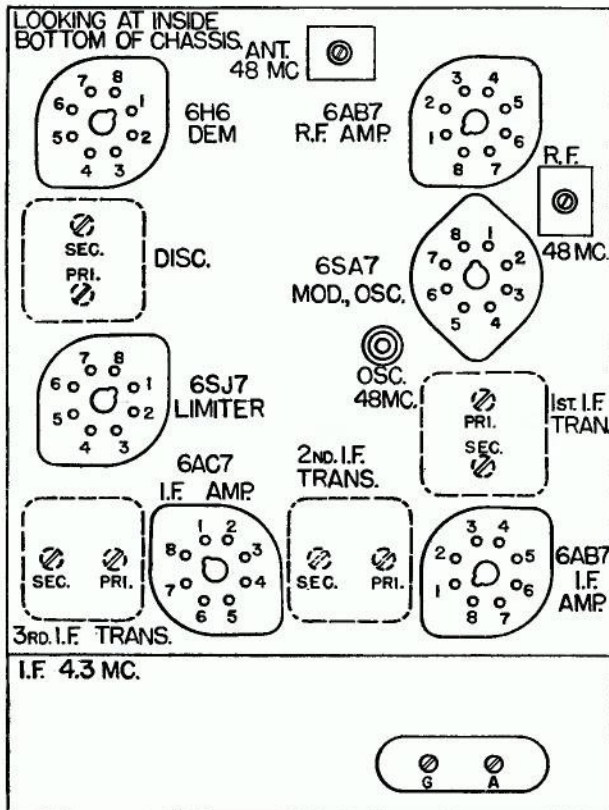
1. Turn the receiver "On".
2. On the No. 530 Receivers, push in the "Radio" button. On the No. 535 Receivers, be sure the "Phono" and "F. M." buttons are in the proper position to receive the desired stations.
3. Set the range switch to the "BC" position.
4. Turn volume control about three-quarters of the way on (in a clockwise direction).
5. Pull the six station push buttons off their levers.
6. Remove the call letters of the six selected stations from the call letter sheets, which are in an envelope stapled to the cabinet. Insert the station call letters part way in the slots at the sides of the buttons. Next, insert a transparent tab in each slot in front of the station letters. Then push both the transparent tabs and the call letters all the way into the slot. (A pencil eraser may be helpful.)
7. Loosen the set screw of the lever to be set up.
8. Push in the lever and manually tune in the desired station, observing the tuning indicator in order to obtain exact resonance.

**IMPORTANT:** For accurate set-up, be sure that the lever is pushed in, in the same manner and with the same amount of pressure as will be used when operating the push buttons.

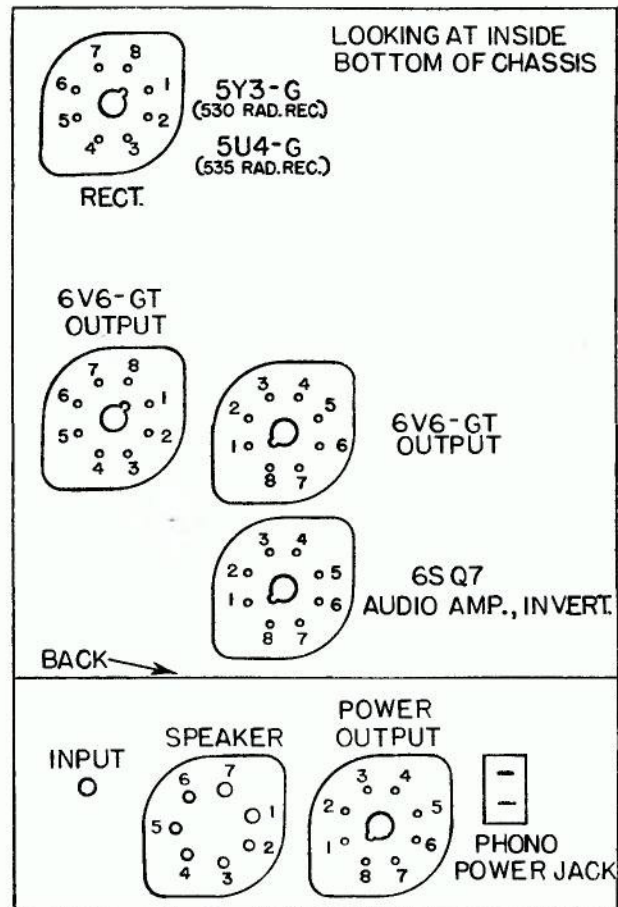
9. Tighten the set screw. Be sure not to disturb the adjustment in any way while tightening the screw.
10. Place the proper button on the lever.
11. Check the accuracy of the adjustment by detuning the station and retuning with the button several times, pushing the button with an even pressure. Readjust if necessary.
12. Set up the other five stations in the same manner.



**Location Chart (Ampl. Mod.)**



**Location Chart (Freq. Mod.)**



**Location Chart (Power Ampl.)**

## ALIGNING INFORMATION

**NEVER REALIGN UNLESS ABSOLUTELY NECESSARY.**

**GENERAL.** All aligning adjustments are carefully made at the factory with special equipment which is designed for aligning Frequency Modulation receivers. The limitations of commercial oscillographs and other ordinary test equipment are such that alignment should not be attempted in the field unless absolutely necessary.

If alignment is attempted, it will not be successful unless the instructions which follow are adhered to exactly.

The following equipment will be required:

1. Standard signal generator with sweep circuit.
2. Wide band sweep signal generator.
3. Oscillograph.
4. Microammeter—0 to 200 microamps.
5. Center "0" microammeter with 100 divisions either side of "0".

See location chart on Page 2 for location of all aligners.

### ALIGNING PROCEDURE (AMP. MOD.)

#### I. Dial Pointer Adjustment. (A. M.)

With the plates of the gang tuning capacitor fully engaged, check to be sure that the dial pointer is in a vertical position directly on the calibration marks located at the low frequency end of the dial scale. Adjust if necessary.

#### II. Intermediate Frequency Adjustments. (A. M.)

1. Set the range switch to standard broadcast position.
2. Tune set to extreme low frequency end of dial.
3. Connect the ground terminal of the signal generator to the ground terminal of the chassis.
4. Introduce a modulated signal of 455 kilocycles to the grid of the 6SA7 Modulator and Oscillator tube (terminal No. 8), using a 0.1 mmf. capacitor in series with the output lead of the signal generator.
5. Adjust the I. F. aligners for maximum output in the following order:
  - a. Secondary of second I. F. transformer.
  - b. Primary of second I. F. transformer.
  - c. Secondary of first I. F. transformer.
  - d. Primary of first I. F. transformer.

#### III. Radio Frequency Adjustments. (A. M.)

##### Standard Broadcast Range (A Band)

1. Replace the 0.1 mf. capacitor in series with the output lead of the signal generator with a 200 mmf. capacitor and connect it to the antenna terminal of the chassis.

2. Set the signal generator frequency and the receiver tuning dial to 600 kc.
3. Set the range switch to the Standard Broadcast range (A Band).
4. Adjust the 600 kc. oscillator and R. F. aligners (iron cores) for maximum signal.
5. Set the signal generator frequency and the receiver tuning dial to 1500 kc.
6. Adjust the 1500 kc. oscillator, R. F. and antenna aligning capacitors for maximum signal.
7. Repeat operations three and four.
8. Repeat operations five and six.

##### Medium Wave Range (B Band)

1. Replace the 0.1 mf. capacitor in series with the output lead from the signal generator with a 400 ohm carbon type resistor and connect it to the antenna terminal of the chassis.
2. Set the range switch to the Medium Wave range (B Band).
3. Set the signal generator frequency and the receiver tuning dial to 3.5 megacycles.
4. Adjust the oscillator R. F. and antenna aligning capacitors for maximum signal.

##### Short Wave Range (C Band)

1. Leave the signal generator connected in the same manner as when adjusting the Medium Wave Range (B Band).
2. Set the range switch to the Short Wave Range (C Band).
3. Set the signal generator frequency and the receiver tuning dial to 6 megacycles.
4. Adjust the 6 megacycle oscillator, R. F. and antenna aligners (iron cores) for maximum signal.
5. Set the signal generator frequency and the receiver tuning dial to 17 megacycles.
6. Adjust the 17 megacycle oscillator, R. F. and antenna aligning capacitors for maximum signal.
7. Repeat operations three and four.
8. Repeat operations five and six.

Note: After the receiver has been placed in the cabinet, plug the loops into their respective sockets and readjust the Standard Broadcast, Medium Wave and Short Wave antenna high frequency shunt aligners for maximum signal.

### ALIGNING PROCEDURE (FREQ. MOD.)

#### I. Dial Pointer Adjustment.

Before alignment is attempted, be sure that the variable capacitor plates of the F. M. tuner are fully meshed with the variable capacitor plates of the A. M. tuner when turned all the way in.

## II. Intermediate Frequency Adjustments (F. M.)

Note: All I. F. adjustments are made using a wide band sweep signal generator with a sweep circuit of plus or minus 300 kilocycles.

1. Push in the F. M. button.
2. Tune the set to the extreme high frequency end of the dial (50 megacycles).
3. Connect the 0-200 microammeter across the R-17 4700-ohm resistor. (This resistor is mounted on the terminal strip located on the side of the base.)
4. Connect the oscillograph between ground and the junction of C-43 .01-mf. capacitor and R-26 100,000-ohm resistor located on the same terminal strip with the R-17 resistor.
5. Connect the ground terminal of the wide band sweep signal generator to the ground terminal of the 6AC7 second I. F. tube socket.
6. Introduce a signal of 4.3 megacycles to the grid of the 6AC7 second I. F. tube socket (terminal No. 4), using a 0.1 capacitor in series with the output lead of the signal generator. Keep the 0 to 200 microammeter at approximately 100 microamps.
7. Adjust the secondary and primary of the third I. F. transformer for maximum reading on the 0 to 200 microammeter.
8. Connect the output lead of the wide band sweep signal generator and the 0.1 microfarad capacitor in series with it to the grid of the 6AB7 first I. F. tube socket (terminal No. 4).
9. Connect the ground lead of the signal generator to the ground terminal of the 6AB7 first I. F. tube socket.
10. Adjust the second I. F. transformer in the same manner.
11. Connect the output lead of the wide band sweep signal generator with the 0.1 microfarad capacitor in series with it to the grid of the 6SA7 Modulator and Oscillator tube (terminal No. 8).
12. Connect the ground terminal of the signal generator to the ground terminal of the 6SA7 tube socket.
13. Adjust the first I. F. transformer in the same manner.

## III. Discriminator Adjustment (F. M.)

1. Connect the ground terminal of the standard unmodulated signal generator to the ground terminal of the 6AB7 first I. F. tube socket.
2. Connect the output lead of the unmodulated standard signal generator to the grid of the 6AB7 first I. F. tube (terminal No. 4), using a 0.1 microfarad capacitor in series with the output lead of the standard signal generator, leaving the wide band sweep signal generator connected to the grid of the 6SA7 Modulator and Oscillator tube socket.
3. Adjust the attenuator of the wide band sweep signal generator for a curve on the oscillograph.

4. Set the frequency of the unmodulated standard signal generator to approximately 4.3 megacycles and adjust the attenuator for interference patterns on the oscillograph. Adjust the unmodulated standard signal generator frequency until interference patterns on each trace come together. (This is done in order to assure that the frequency of the standard signal generator which is used to align the discriminator coincides with the mean frequency of the wide band sweep signal generator.)
5. Remove the wide band sweep signal generator.
6. Connect the center "0" microammeter with a .5 megohm resistor in series across one-half of the discriminator load. (From ground to the junction of the two .1 megohm resistors R-23 and R-24.)
7. Set the attenuator of the standard signal generator for maximum output.
8. Adjust the primary of the discriminator transformer for maximum reading on the center "0" microammeter.
9. Connect the center "0" microammeter and the .5 megohm resistor in series with it across the whole discriminator load. (From ground to the junction of R-23 .1 megohm resistor and C-29 .04 mf. capacitor.)
10. Adjust the secondary of the discriminator transformer for center "0" reading of the microammeter.
11. Vary the frequency of the standard signal generator, making sure that the voltage peaks, which should be of the same magnitude, are the same number of kilocycles off on either side of resonance. Any departure from these conditions may be corrected by a slight readjustment of the primary.

Note: Connect the wide band sweep signal generator to the grid of the 6SA7 Modulator and Oscillator tube socket and make slight readjustments of the I. F. transformers for proper curve, since there is some interaction between these stages and the discriminator.

## IV. Radio Frequency Adjustments. (F. M.)

1. Set the signal generator frequency and the receiver tuning dial to 48.5 megacycles.
2. Replace the 0.1 microfarad capacitor in series with the output lead from the signal generator with a 100 ohm resistor and connect it to one of the F. M. terminals on the back of the chassis.
3. Connect the ground lead of the signal generator to the other F. M. terminal.
4. Adjust the oscillator aligner (air trimmer) for maximum signal.
5. Adjust the R. F. and antenna aligners for maximum signal on the 0 to 200 microammeter, maintaining the center "0" microammeter at "0" at all times by rotating the receiver dial slightly back and forth.

## NORMAL VOLTAGE READINGS

Take all readings with chassis operating and tuned manually to 1000 kc. or 47 megacycles—no signal.

Use a line voltage of 120 volts or make allowance for the variation.

Use a good high resistance voltmeter having a resistance of at least 1000 ohms per volt.

Take all D. C. readings on the 500 volt scale, except when an asterisk appears.

Read from indicated terminals to chassis base.

See location chart on Page 2 for position of terminals.

A. C. voltages are indicated by italics.

**AMPLITUDE MODULATION AND POWER AMPLIFIER CHASSIS, 530 AND 535 RECEIVERS**

Tube	Circuit	Receiver No.	TERMINALS OF SOCKETS							
			1	2	3	4	5	6	7	8
6SK7	R. F. Amplifier	530	0	0	0	0	0	+100	6.3	+260
		535	0	0	0	0	0	+100	6.3	0
6SA7	Modulator and Oscillator	530	0	0	+260	+100	-20*	0	6.3	0
		535	0	0	+260	+100	-20*	0	6.3	0
6SK7	I. F. Amplifier	530	0	0	0	0	0	+100	6.3	+260
		535	0	0	0	0	0	+100	6.3	0
6SR7	Demod., A. V. C., Audio Amp.	530	0	0	+3	0	0	+54	6.3	0
		535	0	0	+3	0	0	+54	6.3	0
6AC7	Audio Inverter	530	0	+165	0	0	+165	+2	0	6.3
		535	0	+165	0	0	+165	+2	0	6.3
6V6GT	Output	530	0	0	+260	+263	0	—	6.3	+14
		535	0	0	+260	+263	0	—	6.3	+14
6V6GT	Output	530	0	0	+260	+263	0	—	6.3	+14
		535	0	0	+260	+263	0	—	6.3	+14
5Y3G 5U4G	Rectifier Rectifier	530	—	+400	—	390	—	390	—	+400
		535	—	+370	—	355	—	355	—	+370
—	Speaker Socket	530	+394	0	0	+400	+400	—	+262	—
		535	+360	0	0	+370	+370	—	+265	—
—	Power Socket	530	+263	0	0	50	50	6.3	0	+240
		535	+263	0	0	50	50	6.3	0	+200

**FREQUENCY MODULATION CHASSIS, 535 RECEIVER**

6AB7	R. F. Amplifier	535	0	0	0	0	+1.8	+150	6.3	+265
6SA7	Modulator and Oscillator	535	0	0	+265	+100	-2*	0	6.3	0
6AB7	I. F. Amplifier	535	0	0	0	0	+2.2	+150	6.3	+265
6AC7	I. F. Amplifier	535	0	0	0	0	+2.2	+150	6.3	+265
6SJ7	Limitter	535	0	0	0	0	0	+42	6.3	+10
6H6	Demodulator	535	0	0	0	0	0	—	6.3	0

\* Read on 1000 volt scale of voltmeter.  
Between terminals 2 and 8 of rectifier socket—5 volts A. C.

**CONTINUITY TEST**

Remove all tubes and disconnect all plugs from the chassis before checking continuity.

Use a good meter capable of measuring accurately up to several megohms.

The resistances given are often approximate, owing to electrolytic capacitors in the circuit. When this is the case, be sure to reverse the test leads and read the highest resistance.

Read from indicated terminals to chassis base unless otherwise specified.

See location chart on Page 2 for position and numbering of terminals.

**IMPORTANT:** The continuity of each chassis may be

checked as a separate unit; however, the power supply of the chassis to be checked should be shorted as follows:

1. A. M. chassis 530 and 535 Receivers: Short terminals 1, 2 and 8 of power supply plug together.
2. Power Amplifier chassis 530 and 535 Receivers: Short terminals 2 and 8 of power socket together.
3. F. M. chassis 535 Receivers: Short terminals 3, 4, 5, 7 and 8 of power supply plug together.

Be sure to remove the shorting wires when continuity is completed.

**AMPLITUDE MODULATION CHASSIS, 530 AND 535 RECEIVERS**

*TERMINALS OF SOCKETS*

<i>Tube</i>	<i>Circuit</i>	1	2	3	4	5	6	7	8
6SK7	R. F. Amplifier	S	S	S	4.5M	S	A	S	1000 $\Omega$
6SA7	Mod. and Osc.	S	S	11 $\Omega$	A	33000 $\Omega$	S	S	B
6SK7	I. F. Amplifier	S	S	S	3.2M	S	A	S	13 $\Omega$
6SR7	Demod., A. V. C., Audio Amp.	S	C	4700 $\Omega$	2M	320000 $\Omega$	250000 $\Omega$	S	S
6U5	Tuning Indicator	S	1M	6.7M	S	S	S	—	—
—	*Power Supply Plug	250000 $\Omega$	S	S	O	O	S	S	250000 $\Omega$
—	Power Supply Socket	S	S	S	2.5M	S	O	S	S

**POWER AMPLIFIER CHASSIS, 530 AND 535 RECEIVERS**

6AC7	Audio Inv.	S	150000 $\Omega$	O	12000 $\Omega$	150000 $\Omega$	1500 $\Omega$	S	S
6V6GT	Output	S	S	50000 $\Omega$	50000 $\Omega$	500000 $\Omega$	12000 $\Omega$	S	S
6V6GT	Output	S	S	50000 $\Omega$	50000 $\Omega$	500000 $\Omega$	O	S	S
5Y3G or 5U4G	Rectifier	O	O	O	60 $\Omega$	O	60 $\Omega$	O	O
—	*Power Output Socket	50000 $\Omega$	S	S	O	O	O	O	50000 $\Omega$
—	Speaker Socket	10000 $\Omega$	S	S	O	10000 $\Omega$	O	50000 $\Omega$	—

**FREQUENCY MODULATION CHASSIS, 535 RECEIVERS**

6AB7	R. F. Amplifier	S	S	S	S	150 $\Omega$	S	O	1000 $\Omega$
6SA7	Mod. and Osc.	S	S	1000 $\Omega$	6800 $\Omega$	22000 $\Omega$	S	O	O
6AB7	I. F. Amplifier	S	S	S	100000 $\Omega$	150 $\Omega$	5700 $\Omega$	O	1000 $\Omega$
6AC7	I. F. Amplifier	S	S	S	470000 $\Omega$	150 $\Omega$	1000 $\Omega$	O	1000 $\Omega$
6SJ7	Limitter	S	S	S	270000 $\Omega$	S	4700 $\Omega$	O	100000 $\Omega$
6H6	Demodulator	S	S	100000 $\Omega$	S	100000 $\Omega$	100000 $\Omega$	O	200000 $\Omega$
—	*Power Plug	O	O	17000 $\Omega$	130000 $\Omega$	O	O	S	S

Symbols shown on chart are as follows:  $\Omega$ —ohms; M—megohms; S—short; O—open.

- |   |   |
|---|---|
| <p>A. Push Buttons in normal position.... 7200 Ohms<br/>Phono Button pushed in..... 5 Megohms<br/>Radio or F. M. button pushed in.... "Open"</p> <p>B. Range Switch in "A" band..... 3.2 Megohms<br/>Range Switch in "B" band..... "Short"<br/>Range Switch in "C" band..... "Short"</p> <p>C. Operate volume control from most counterclockwise position to extreme clockwise position—should read 50,000 Ohms to 1 Megohm.</p> <p>* Remove shorting wire before making continuity test of power circuits.</p> | <p>Audio output plug: Prong 5 Megohms—Shield "Short".<br/>F. M. Jack: "Open"—A, B and C Bands<br/>Push in F. M. Button—1 Megohm.<br/>Phono Jack: "Open"—A, B and C Bands<br/>Push in F. M. Button—1 Megohm.</p> <p>Power Amplifier Chassis<br/>Audio Input Jack to Chassis Base..... "Open"</p> |
|---|---|

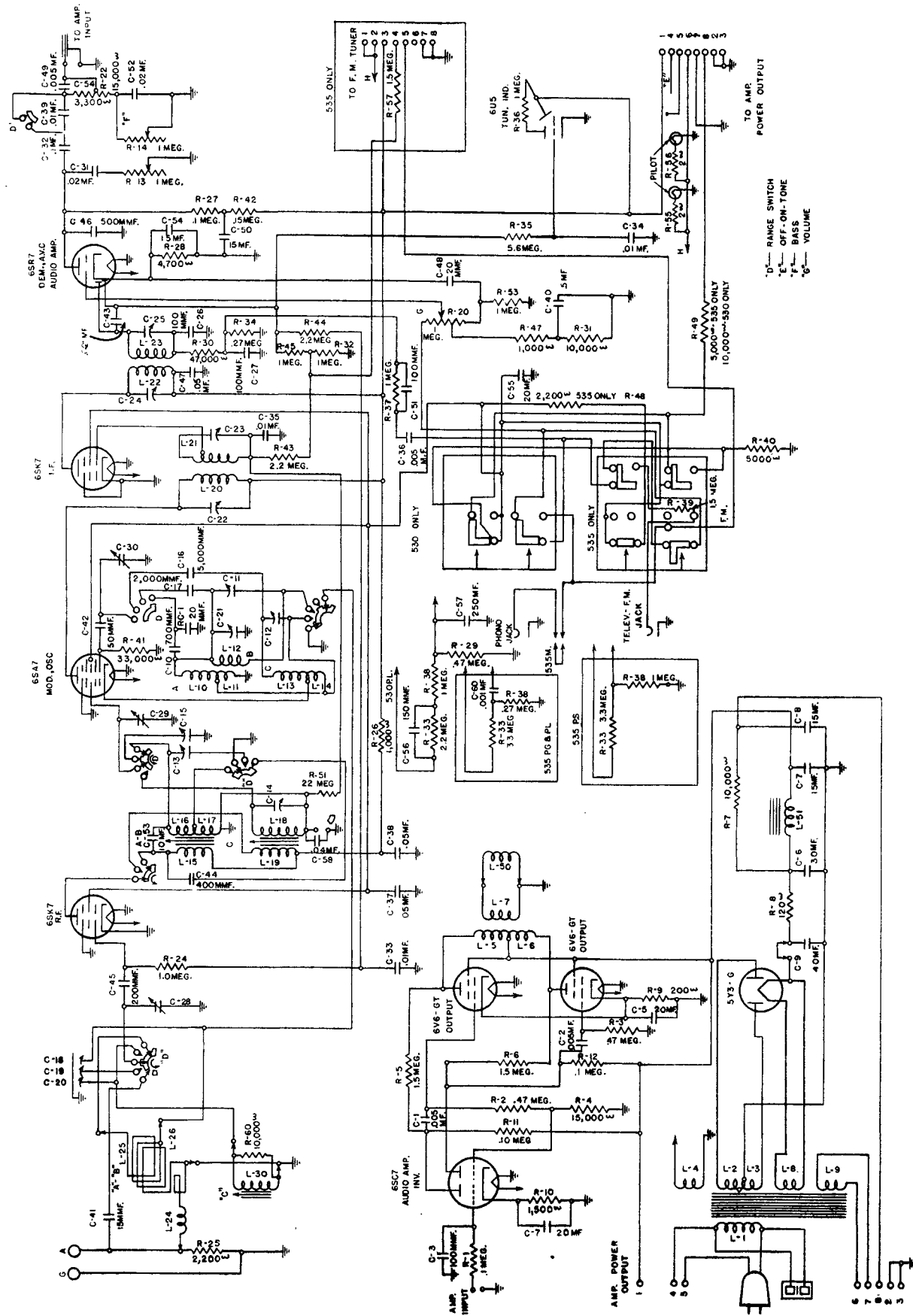
**Other Tests Not Shown on Chart:**

**Amplitude Modulation Chassis:**

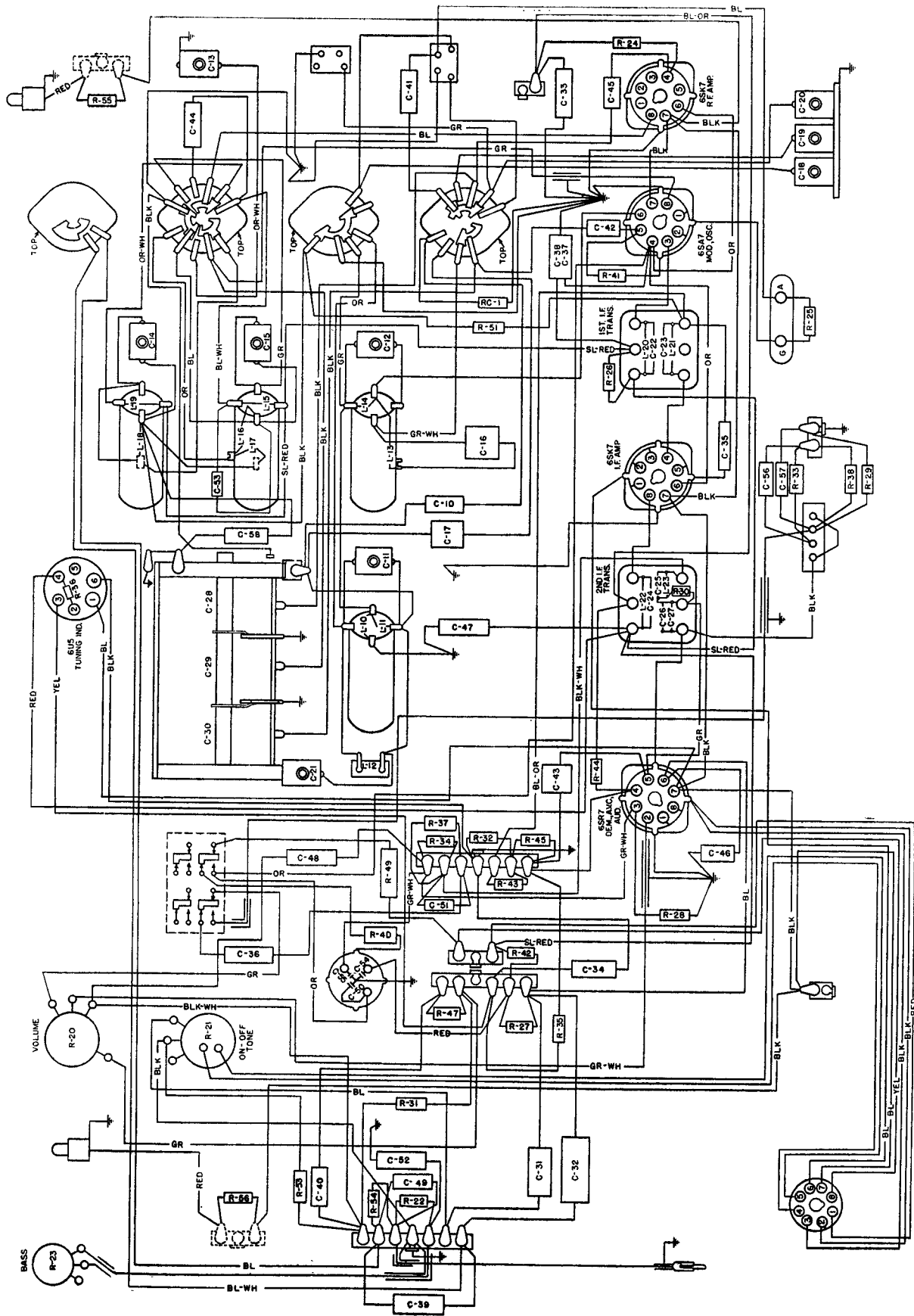
Between terminals 4 and 5 of the Power Supply Plug should read "Open" with A. C. switch open; "Short" with A. C. switch closed.

**Frequency Modulation Chassis**

Audio Plug: Prong "Open", Shield "Short".  
Antenna Terminal to Chassis Base..... "Open"  
Ground Terminal to Chassis Base..... "Open"  
Between Antenna and Ground Terminals ..... "Short"

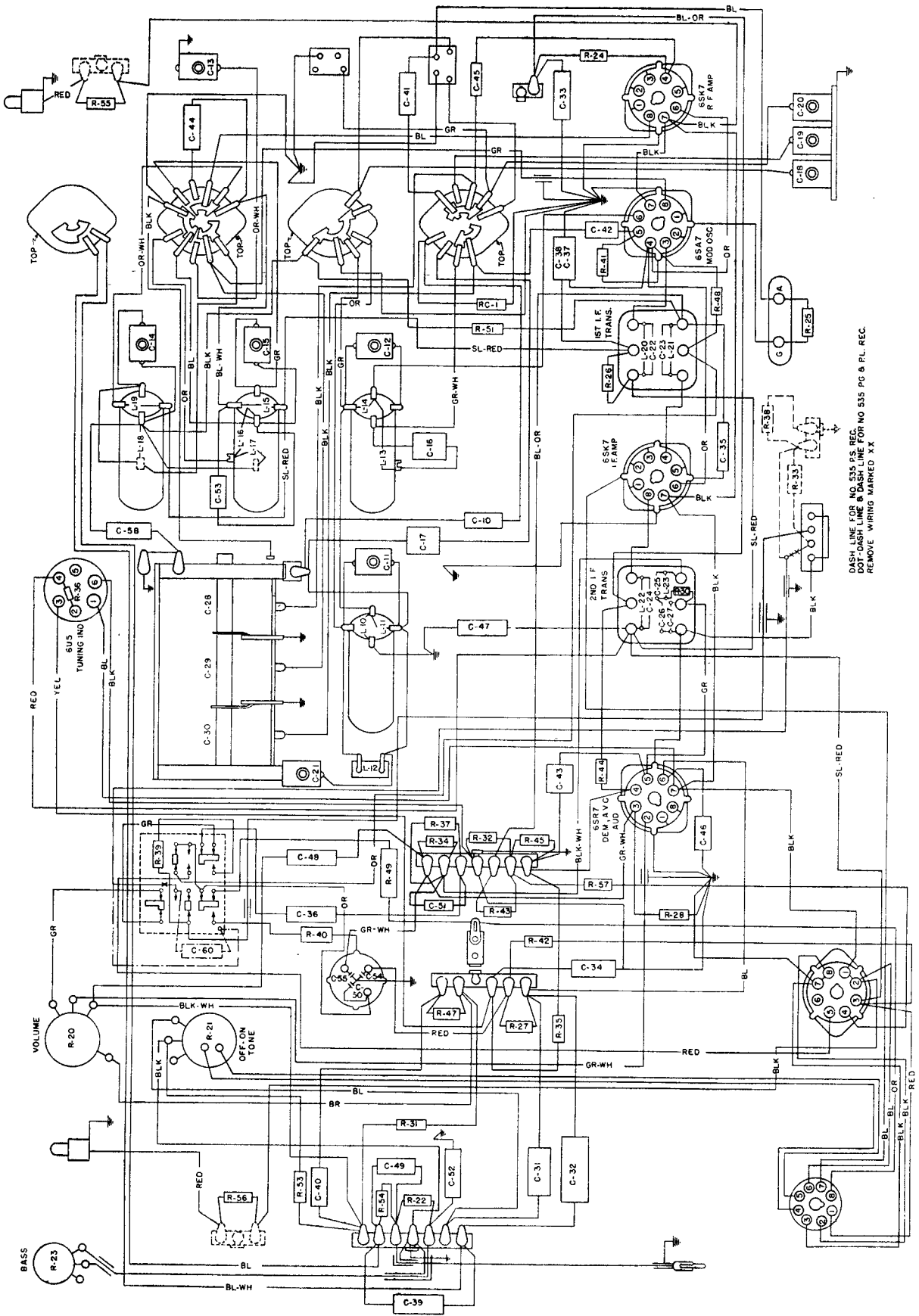


Schematic Circuit Chassis and Power Ampl. (Nos. 530 and 535 Receivers)



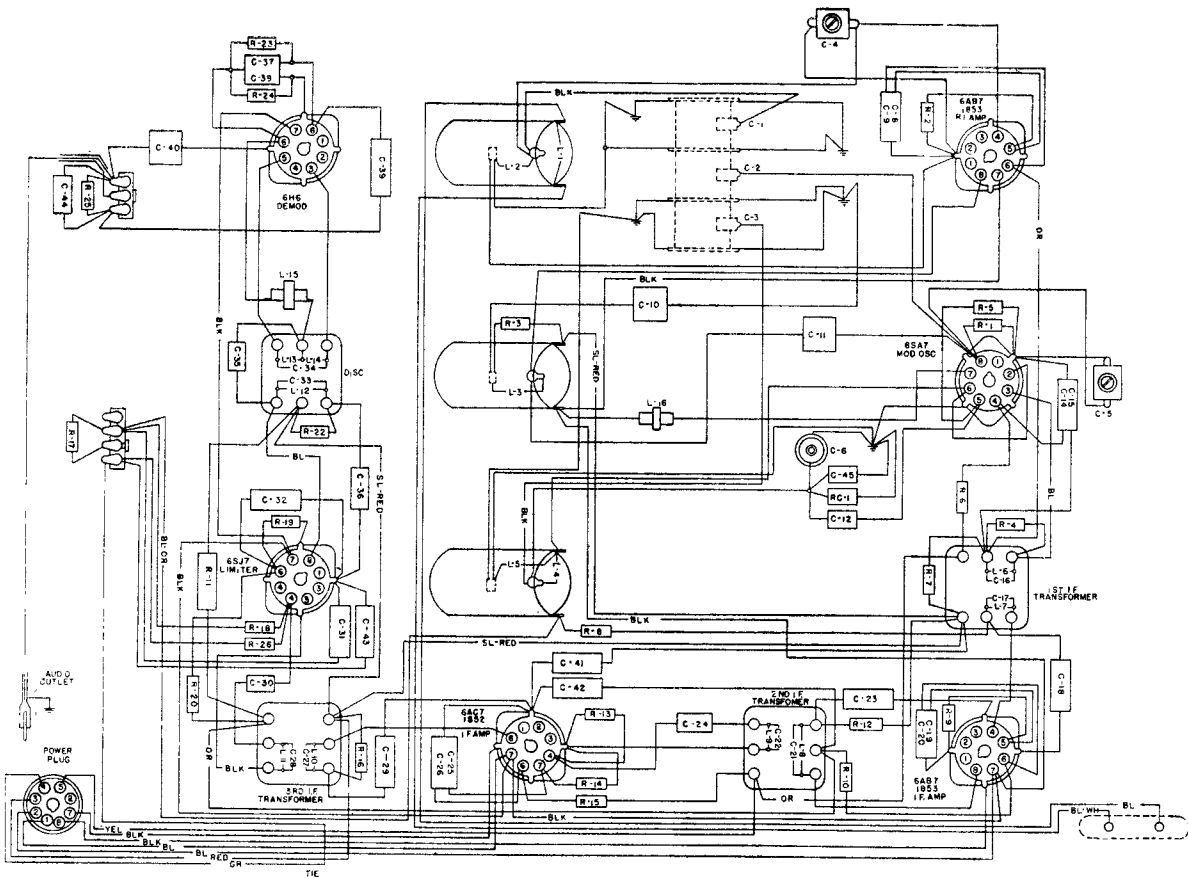
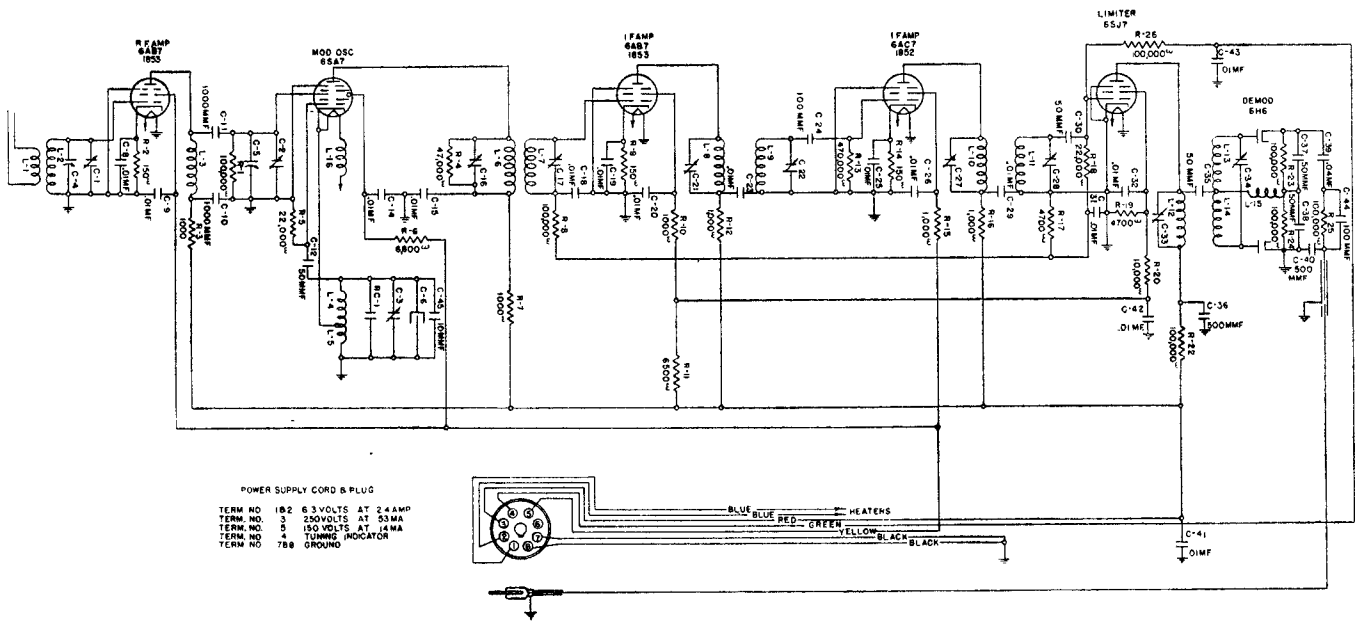
Wiring Diagram (530 Ampl. Mod.)



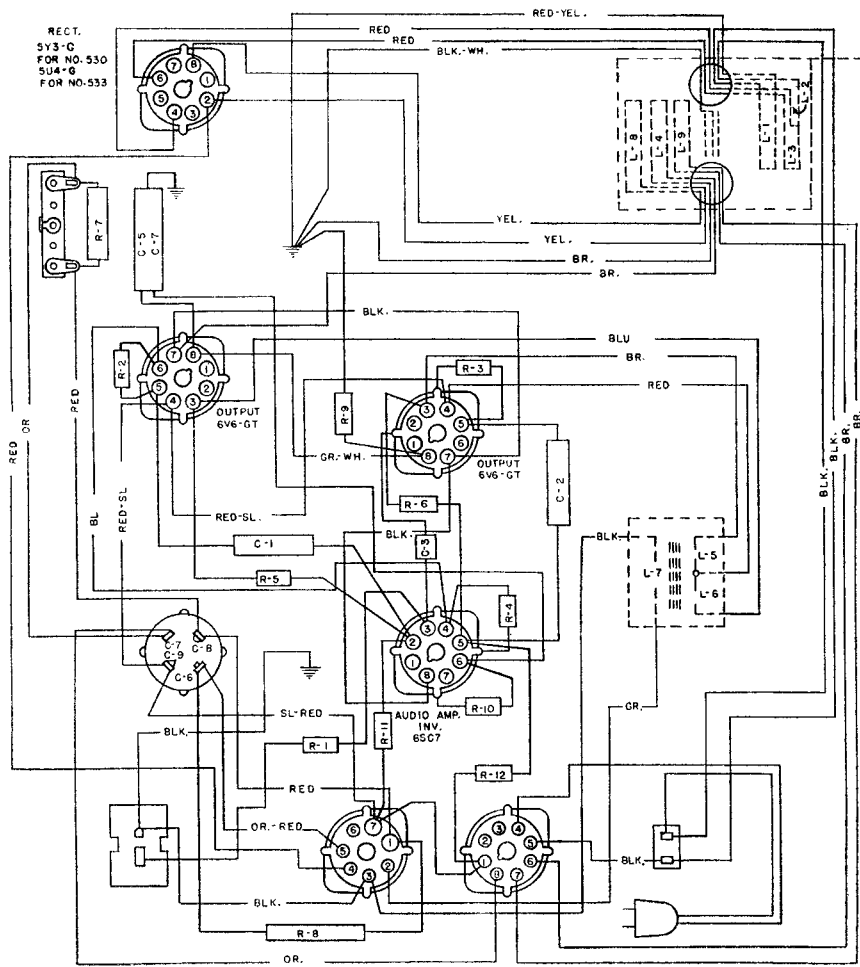


DASH LINE FOR NO. 535 P.S. REC.  
 DOT-DASH LINE & DASH LINE FOR NO. 535 PG & P.L. REC.  
 REMOVE WIRING MARKED XX

Wiring Diagram (585 Ampl. Mod.)



Schematic Circuit and Wiring Diagram (535 Freq. Mod.)



Wiring Diagram Power Amplifier (Nos. 530 and 535 Receivers)

REPLACEMENT PARTS (AMPLITUDE MODULATION)

Capacitors

Piece No.	Circuit Designation	Part
24314	C-53	10 mmf. Capacitor
24402	C-32	.1 mf. Capacitor
24405	C-58	.04 mf. Capacitor
24994	C-47	.05 mf. Capacitor (530-PL, 535-PS, PL, PG)
25054	C-56	150 mmf. Capacitor (530-PL)
25150	C-31, 52	.02 Capacitor
25376	C-57	250 mmf. Capacitor (530-PL)
25487	C-60 (535-PG, PL)	100 mmf. Capacitor
26778	C-49	.005 mf. Capacitor
27101	C-17, 45	.002 mf. Capacitor
27108	C-37, 38	2—.05 mf. Capacitors
27305	C-42	50 mmf. Capacitor
27538	C-16	.005 mf. Capacitor
27685	C-48	Electrolytic Capacitor, 20 mf.
28568	C-51	100 mmf. Capacitor
29283	C-41	15 mmf. Capacitor
29284	C-43	.001 mf. Capacitor
29371	C-46	500 mmf. Capacitor
30322	C-36	.005 mf. Capacitor
31373	C-44	400 mmf. Capacitor
31481	C-33, 34, 35, 39	.01 mf. Capacitor
32055		
32057	C-10	700 mmf. Capacitor
32245	C-18, 19, 20	
32246	C-15	Aligning Capacitor
32247	C-21	Aligning Capacitor
32273	C-28, 29, 30	Variable Capacitor and Pulley
32479	C-50, 54, 55	Electrolytic Capacitor, 2—15 mf., 1—20 mf., 300 V.
32931	C-40	.5 mf. Capacitor

Coils, Transformers and Speakers

Piece No.	Circuit Designation	Part
32053	L-10, 11; C-11	Oscillator Coil (A Band)
32062	L-22, 23; C-24, 25, 26, 27; R-30	2nd I. F. Transformer
32239	L-15, 16, 17; C-13	R. F. Coil (A and B Band)
32241	L-18, 19; C-14	R. F. Coil (C Band)
32242	L-12	Oscillator Coil (B Band)
32476	L-13, 14; C-12	Oscillator Coil (C Band)
32477	L-20, 21; C-22, 23	1st I. F. Transformer
32747	L-30, 31	Antenna Coil
26170		Speaker (530-PL)
26250		Cone for P-26170 Speaker
32427		Speaker (535-PG, PL, PS, M)
		Speaker Cone for P-32427 Speaker

Controls and Knobs

29560	R-12	Volume Control
32064		Switch
32078		Dial Drive Shaft
32145		Knob for Range and Tone
32146		Knob for Volume
32147		Knob for Station Selector
32156		Push Button
32224		Knob for Loop and Bass
32243		Range Switch
32244		Phono-F. M. Switch (535-PG, PL, PS, M)
32259	R-14	Bass Control
32821	R-13	Off-On Switch and Tone Control

## Resistors

Piece No.	Circuit Designation	Part
26062	R-49	10,000 Ohm Resistor (3 Watt)
26333	R-26, 47	1,000 Ohm Resistor
26337	R-25	2,200 Ohm Resistor
26341	R-28	4,700 Ohm Resistor
26345	R-31	10,000 Ohm Resistor
26347	R-22	15,000 Ohm Resistor
26351	R-41, 54	33,000 Ohm Resistor
26357	R-27, 33	.1 Megohm Resistor
26359	R-42	.15 Megohm Resistor
26362	R-34 (R38—535-PG, PL)	.27 Megohm Resistor
26365	R-29, 530-PL; R-39, 520-PG, PL, PS, M	.47 Megohm Resistor
26369	R-24, 32, 45; R-38(535-PG, PL)	1 Megohm Resistor
26373	R-43, 44, 51; R-33 (530-PL)	2.2 Megohm Resistor
26375	R-33	3.3 Megohm Resistor (535-PG, PL, PS)
26378	R-35	5.6 Megohm Resistor
30616	R-48	22,000 Ohm Resistor (535-PG, PL, PS, M)
31479	R-40	5,000 Ohm Resistor (3 Watt)
32174	R-55, 56	2 Ohm Resistor

## Miscellaneous

Piece No.	Circuit Designation	Part
26122		Antenna and Ground Terminal Strips
27088		Spring Washer for Mounting Coils
27628		Felt Washer for Knobs
28694		Pilot Lamp Socket Assembly
29956		Pilot Lamp
30151		8-Prong Socket
30269		Rubber Corner Mountings
31539		Phono-Telev. Jack
32047		4-Prong Socket
32056	RC-1	Compensator
32075		Small Pulley
32077		Large Pulley
32090		Dial Pointer
32095		Tuning Indicator Cable
32128		Cord Assembly for Pointer Drive
33107		Cord and Spring Assembly Var. Cap. Drive
32130		Cord Assembly Var. Cap. Drive
32170		Station Call Letters
32172		Dial Lens
32173		Dial Escutcheon
32181		Loop Assembly
32197		Escutcheon Screw
32248		Dial Scale (530-PL)
32249		Dial Scale (535-PG, PL, PS, M)
32254		"B" Power Supply Cable
32443		Escutcheon Phono. Pilot Lamp (535-PG, PL, PS)

## REPLACEMENT PARTS (POWER AMPLIFIER)

### Capacitors

28568	C-3	100 mmf. Capacitor
30322	C-1, 2	.005 mf. Capacitor
32055	C-5	Electrolytic Capacitor, 20-25 mf.
32238	C-6, 7, 8, 9	Electrolytic Capacitor, 2—40 mf., 450 V; 1—15 mf., 300 V; 1—15 mf., 350 V.

### Coils and Transformers

32233	L-1, 2, 3, 4	Power Transformer, 50/60 Cycles (530)
32234	L-1, 2, 3, 4	Power Transformer, 25/60 Cycle (530)
32235	L-5, 6	Output Transformer (530)
32461	L-5, 6	Output Transformer (535)
32739	L-1, 2, 3, 4	Power Transformer, 50/60 Cycle (535)
32740	L-1, 2, 3, 4	Power Transformer, 25/60 Cycle (535)

### Resistors

26062	R-7	10,000 Ohm Resistor, 3 Watt
26335	R-10	1500 Ohm Resistor
26347	R-4	15,000 Ohm Resistor
26357	R-1, 11, 12	.1 Megohm Resistor
26365	R-2, 3	.47 Megohm Resistor
26371	R-5, 6	1.5 Megohm Resistor
28955	R-8	120 Ohm I. R. C.
28956	R-9	200 Ohm I. R. C.

### Miscellaneous

28652		Power Supply Cord
30151		8-Prong Socket
30152		7-Prong Socket
32046		A. C. Outlet Socket
32260		Phono-Telev. Jack

## REPLACEMENT PARTS (FREQUENCY MODULATION)

### Capacitors

24405	C-39	.04 mf. Capacitor
27305	C-12, 30, 35	50 mmf. Capacitor
27999	C-37, 38	2—50 mmf. Capacitor
28568	C-24, 44	100 mmf. Capacitor
29284	C-11	1000 mmf. Capacitor
29371	C-36	500 mmf. Capacitor
30311	C-6	Aligning Capacitor (Air Trimmer)
31480	C-8, 9, 14, 15, 19, 20, 25, 26, 39	.014 mf. Capacitor
31481	C-18, 23, 29, 31, 32, 41, 42, 43	.01 mf. Capacitor
32363	C-1, 2, 3	Variable Capacitor
32368	C-4	Aligning Capacitor
32369	C-5	Aligning Capacitor
32806	C-45	10 mmf. Capacitor

### Coils and Transformers

30332	L-15	R. F. Choke Coil
32370	L-1, 2	Antenna Coil
32371	L-3; C-19; R-3	R. F. Coil
32372	L-4, 5	Oscillator Coil
32374	L-6, 7; C-16, 17	1st I. F. Transformer
32375	L-8, 9; C-21, 22	2nd I. F. Transformer
32376	L-10, 11; C-27, 28	3rd I. F. Transformer
32377	L-12, 13, 14; C-33, 34	Discriminator I. F. Transformer
32800	L-16	Coil Assembly

### Resistors

26323	R-2, 9, 14	150 Ohm Resistor
26333	R-7, 10, 12, 15, 16	1000 Ohm Resistor
26341	R-17, 19	4700 Ohm Resistor
26343	R-6	6800 Ohm Resistor
26349	R-5, 18	22,000 Ohm Resistor
26353	R-4	47,000 Ohm Resistor
26357	R-1, 8, 22, 23, 24, 25, 26	.1 Megohm Resistor
26365	R-13	.47 Megohm Resistor
30417	R-20	10,000 Ohm Resistor
30612	R-11	6500 Ohm Resistor, 3 Watt

### Miscellaneous

26122		Antenna and Ground Terminal Strip
29025		Pulley Assembly
30151		8-Prong Socket
30224		Plug
31434		Plug
32386		Conductor
32450		Cable
32727	R-61	Compensator