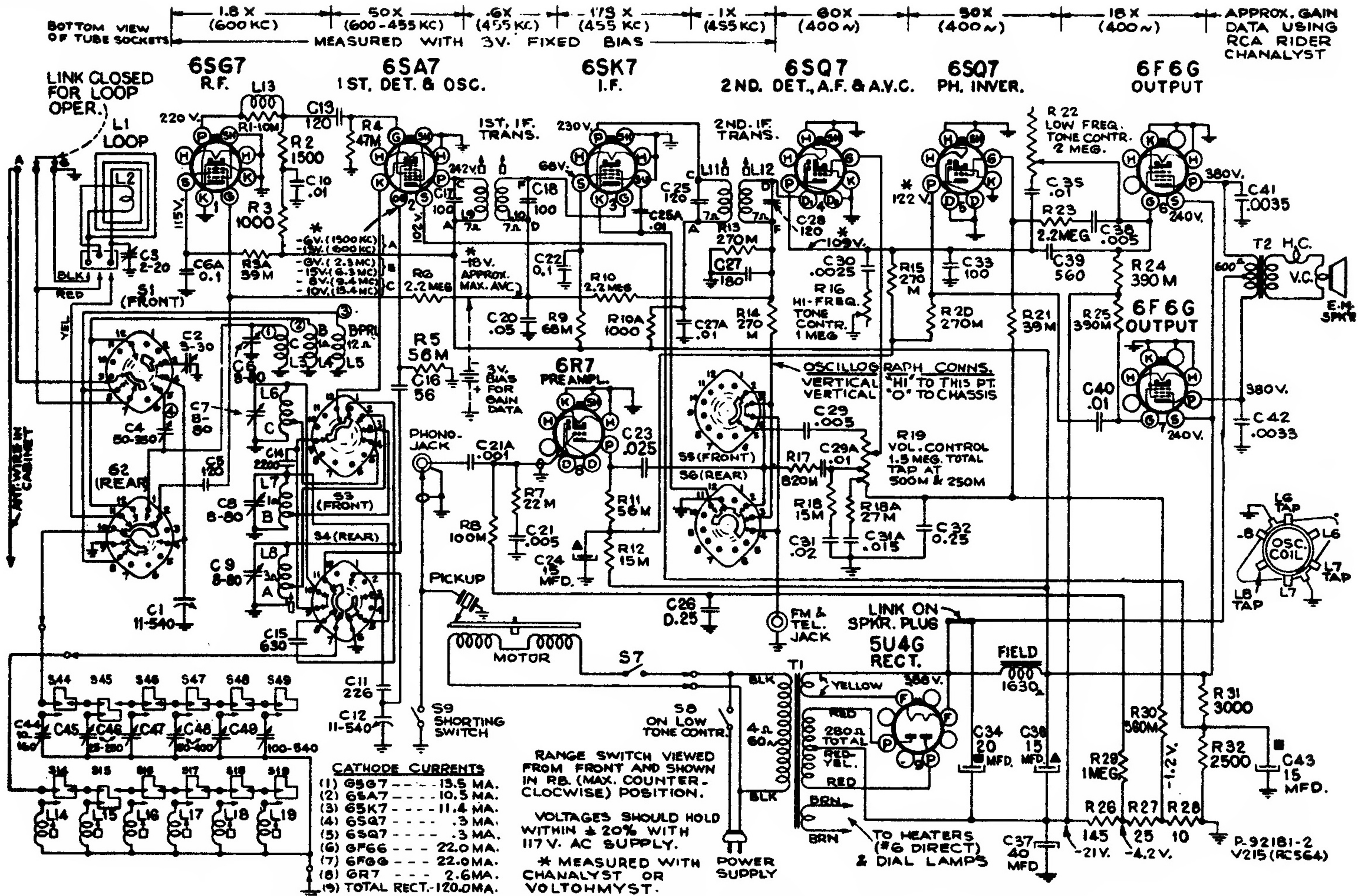
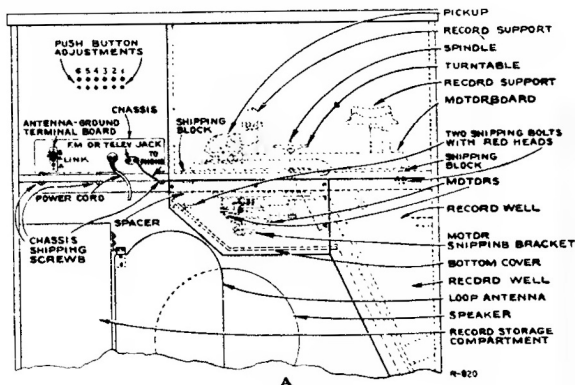
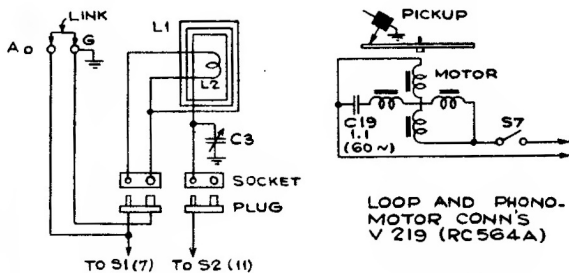


RCA Models V-215, V-219, V-221, V-225



In Model V-219, the loop and phono motor connections are different, as shown in separate diagram on a following page. In Model V-225, R-8 is 220,000 ohms, R-17 is 1.8 Meg., and C-21 is .0035 mfd.

RCA Models V-215, V-219, V-221, V-225



Model V-225

Cathode-Ray Alignment is the preferable method. Connections for the oscillograph are shown in the schematic diagram.

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.

Electronic Voltmeter.—The electronic voltmeter in the Chanalyst or VoltOhmyst provides an unexcelled output indicator. It should be connected to the AVC bus, and the test-oscillator output adjusted to produce several volts of AVC.

Calibration Scale.—The glass tuning dial may be easily removed from the cabinet and temporarily attached to the chassis for quick reference during alignment. In the event that only the chassis is returned for service, and the cabinet with its tuning dial is left in the customer's home, the full size calibration scale printed in this service note can be used as an accurate and convenient substitute for the regular dial.

Using Tuning Dial.—

1. Remove the dial glass from the cabinet.
2. With gang at full mesh move the pointer to a point (1/16) inch to the left of the reference mark at the left hand end of the dial backing plate.
3. Place the glass dial under the pointer so that the extreme left scale graduations coincide with the pointer. Use scotch tape to hold the glass dial in place.

Using Dial Scale Printed In This Service Note.—

Follow the procedure above, substituting the dial scale printed in this service note for the glass dial in the cabinet.

Steps	Connect high side of test osc. to—	Tune test osc. to—	Turn radio dial to—	Adjust the following for maximum peak output—
1	I-F grid in series with .01 mfd.	455 kc	"A" Band 540 kc	L12, L11 (2nd I-F Trans.)
2	1st Det. grid in series with .01 mfd.			L10, L9 (1st I-F Trans.)
3	Yellow loop lead in series with 200 mmf. (link closed)	1,500 kc	"A" Band 1,500 kc	C9 (osc.)
4		600 kc	"A" Band 600 kc	L8 (osc.)
5	Repeat steps 3 and 4			
6	Ant. terminal in series with 47 mmf. (link closed)	6.1 mc	"B" Band 6.1 mc	C8 (osc.)* C2 (ant.)
7		15.2 mc	"C" Band 15.2 mc	C7 (osc.)* C6 (ant.)
8		9.5 mc	"C" Band 9.5 mc	C4 (ant.)
9	Repeat steps 7 and 8			
10	Install and connect chassis in cabinet, with link closed. Tune in a radiated oscillator signal at 1,500 kc and peak the "A" hand ant. trimmer C3 (on loop). Rock in L8 for peak output at 600 kc.			

* Use minimum capacity peak if two peaks can be obtained. Oscillator tracks 455 kc above signal on all bands.

Critical Lead Dress

1. Push button, R.F. and oscillator leads should be separated as much as possible to reduce degeneration on push button reception.
2. R.F. choke in plate circuit of 6SG7 should be dressed towards the back apron.
3. Dress green push button lead under clamp and away from "C" band series capacitor.
4. Dress heater leads away from grids and diodes.
5. Dress phono. cables up and away from all wiring.
6. Dress all excess leads from transformer towards back towards transformer.
7. Keep output plate leads short and dressed close to chassis.
8. Dress green lead from 6SA7 screen to electrolytic down close to chassis.
9. Dress "C" band coil lead from oscillator coil to range switch down towards green lead.
10. Keep yellow loop lead clear of all wiring.
11. Dress ground bus of large electrolytic away from mounting lug.
12. Remove all excess slack from pilot light assembly and dress it close to chassis base away from volume control.
13. Dress oscillator grid capacitor (56 mmfd.) up and away from the screen and plate of 6SA7 socket.
14. A-C leads to "off-on" switch should be kept away from tone control cable to reduce hum.
15. Peaking coil should be dressed away from R-F grid resistor to reduce degeneration in R-F stage.
16. Dress oscillator push button lead in weld clamp on front apron away from 220 mmf. series condenser.
17. Keep all leads away from Phono-FM jack to prevent audio oscillation and hum. Dress underneath the shield provided.

