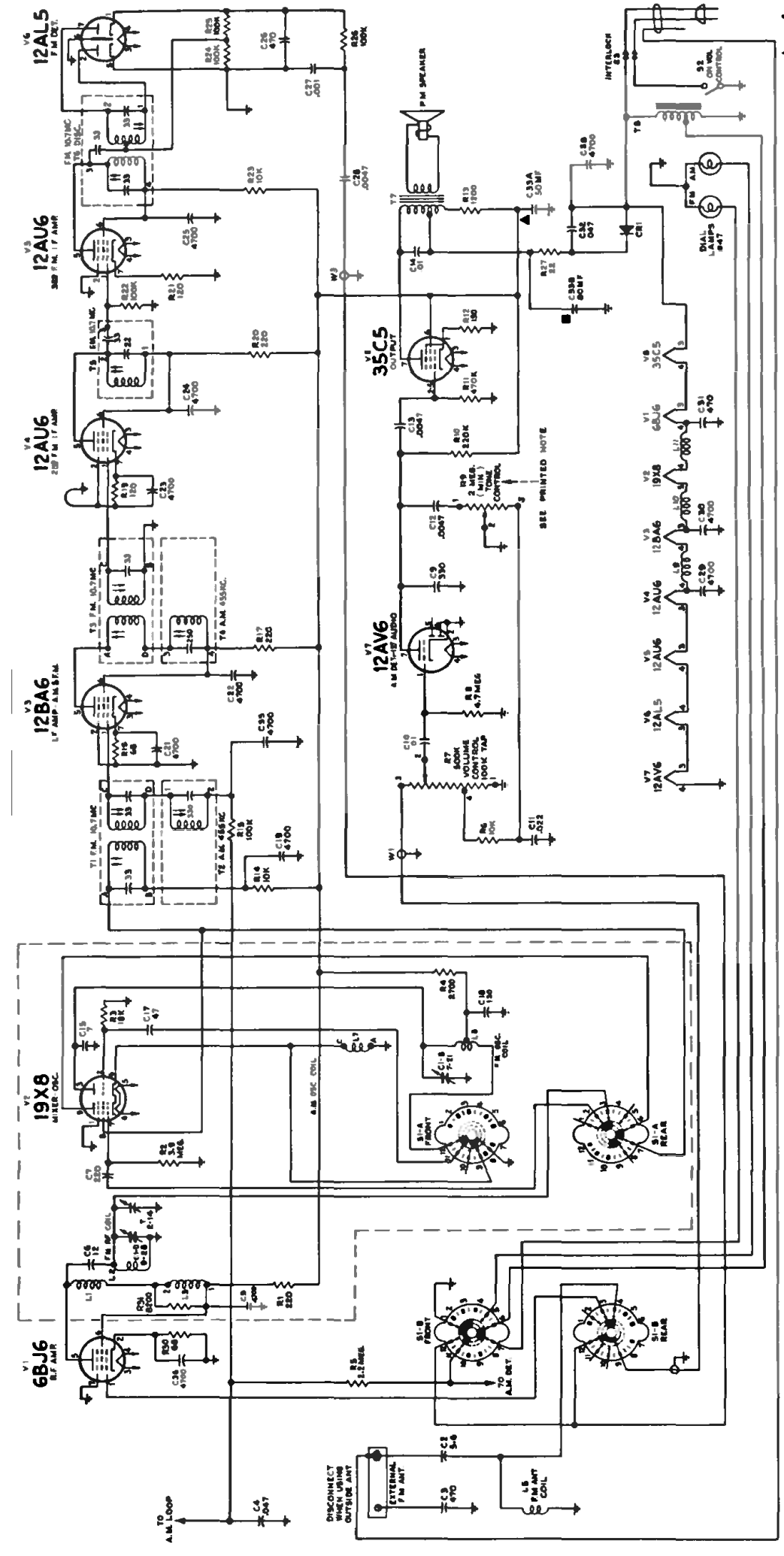
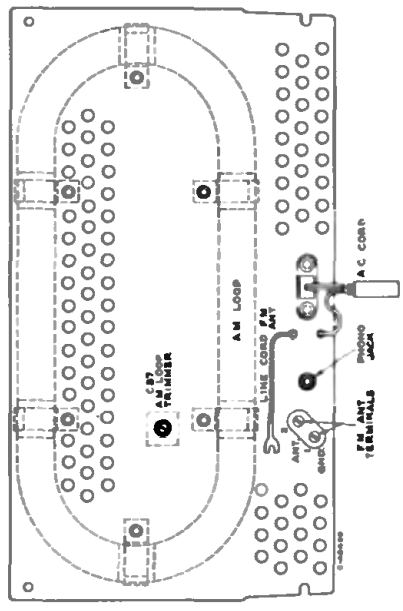
RCA VICTOR

Receivers 2-XF-931, 2-XF-932, 2-XF-933, 2-XF-934, 2-XF-935, Chassis RC-1121A. Model 2-XF-91, using Chassis RC-1121, is similar to RC-1121A.

Alignment continued on the next page.





RCA Victor

Receivers 2-XF-931, 2-XF-932, 2-XF-933, 2-XF-934, 2-XF-935, using Chassis RC-1121A. Model 2-XF-91, Chassis RC-1121, is similar.

ALIGNMENT PROCEDURE

ALIGNMENT INDICATORS:

An RCA VoltOhmyst or equivalent meter is necessary for measuring developed d-c voltage during FM alignment. Connections are specified in the alignment tabulation. An output meter is also necessary to indicate maximum audio output during AM alignment. Connect the output meter across the speaker voice coil. The RCA VoltOhmyst can also be used as an AM alignment indicator, either to measure audio output or to measure AVC voltage. When audio output is being measured, the volume control should be turned to maximum. Adjust tone control to mid-position.

SIGNAL GENERATOR:

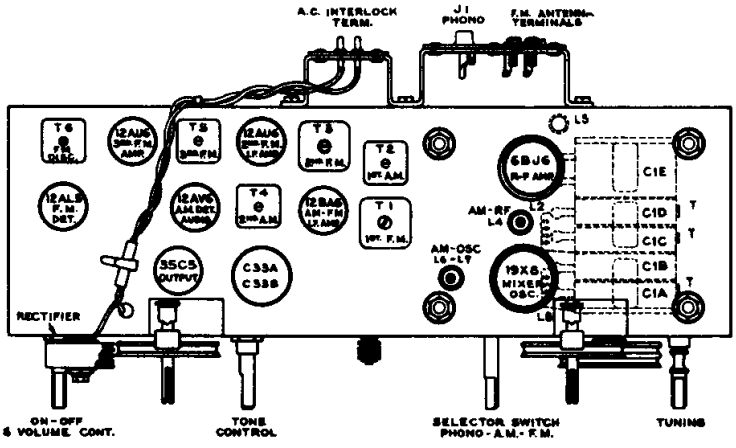
For all alignment operations, connect the low side of the signal generator to the receiver chassis. If output measurement is used for AM alignment, the output of the signal generator should be kept as low as possible to avoid AVC action.

If an FM sweep generator is used for FM alignment, adjust for 10.7 mc, 0.4 mc sweep. Connect oscilloscope across C26, adjusting discriminator T6 top core for 10.7 mc crossover, and T6 bottom core for balanced peaks. Peak separation should be approximately 330 kc. When aligning the other FM tuned circuits, connect oscilloscope lead through a 220K resistor to pin 1 of V5. Follow alignment table sequence, adjusting for maximum gain and symmetrical curves.

Tube Socket Voltages

Tube Type and Function	Tube Element	Pin No.	AM	FM	Phono
V1 6BJ6	Plate	5	94	92	92
	Screen	6	94	92	92
R.F. Amp.	Cathode	2	0.7	0.9	0.5
	Grid	1	–0.5	0	–0.6
V2 19X8	Plate	9	75	80	80
	Screen	1	75	80	80
Mixer	Cathode	6	0	0	0
	Grid	7	–1.6	–2.3	–2.3
	Plate	3	65	85.6	74
Osc.	Grid	2	–3.3	–3	–0.3
	Cathode	6	—	—	—
V3 12BA6	Plate	5	94	92	90
	Screen	6	94	92.3	90
I.F. Amp.	Cathode	7	0.8	0.9	0.8
	Grid	1	–0.4	–0.2	–0.2
V4 12AU6	Plate	5	95	93.5	92
	Screen	6	95	94.1	92
2nd I.F.	Cathode	7	0.8	0.8	0.9
Amp. (F.M.)	Grid	1	0	0	0
V5 12AU6	Plate	5	74	73	72
	Screen	6	74	73	72
3rd I.F.	Cathode	7	0.3	0.3	0.4
Amp. (F.M.)	Grid	1	–0.2	–0.4	–0.2
V6 12AL5	Plate	2	—	—	—
	Cathode	5	—	—	—
F.M. Det.	Plate	7	—	—	—
	Cathode	1	—	—	—
V7 12AV6	Plate	7	58	57	57
A.M. Det.	Grid	1	–0.9	–0.8	–0.8
Audio Amp.	Plate	5	–0.5	–0.3	–0.3
	(Diode)				
V8 35C5	Plate	7	130	130	130
Audio	Screen	6	96	94.5	94.5
Output	Cathode	1	5.1	5.0	5.0
	Grid	2-5	—	—	—

Rectifier output should be approximately 139 volts, 70 ma.



Tube and Trimmer Locations

AM Alignment

FUNCTION SWITCH IN AM POSITION

Steps	Connect high side of sig. gen. to—	Sig. gen. output	Turn radio dial to—	Adjust for peak output
1	Pin No. 1 of V3 in series with .01 mfd.	455 kc. (mod.)	Quiet point at high freq. end	T4 bottom core (sec.) T4 top core (pri.)
2	Tap lug 4 on AM RF coil			T2 bottom core (sec.) T2 top core (pri.)
3	Short wire placed near loop for radiated signal	1620 kc. (mod.)	1620 kc.	C1A-T (osc.)
4		1400 kc. (mod.)	1400 kc.	C37 (ant.) C1C-T (rf.)
5		600 kc. (mod.)	600 kc.	L6 (osc.) with 10,000 ohm resistor from C1C RF stator to gnd. (rocking gang)
6				L4 (RF) with the 10,000 ohms removed
7	Repeat steps 4, 5 and 6 until maximum gain is obtained			

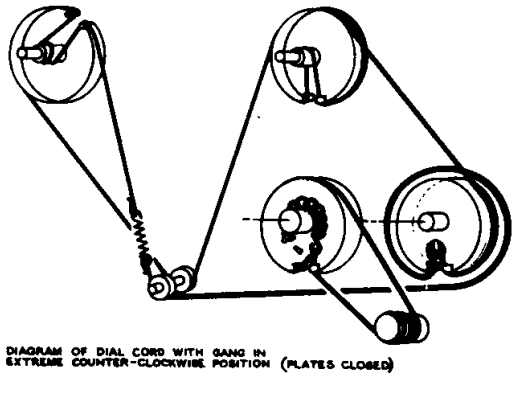
FM Alignment

FUNCTION SWITCH IN FM POSITION—VOLUME CONTROL MINIMUM—TONE CONTROL CENTER

Steps	Connect high side of sig. gen. to—	Sig. gen. output	Turn radio dial to—	Adjust for max. output
1	Pin No. 1 of V5-12AU6	10.7 mc.	Quiet point at low frequency end	T6 top core for zero d.c. (across C26) T6 bottom core for maximum d.c. (junction of R24 and R25)
2	Pin No. 1 of V4-12AU6			†T5 top core
3	Pin No. 1 of V3-12BA6			T3 top core †*T3 bottom core
4	C1D Stator			T1 top core †*T1 bottom core
5	FM Ant. terminals thru 270 ohm resistor	90 mc.	90 mc.	†FM osc. L8
6		106 mc.	106 mc.	†FM R.F. C1D-T
7		90 mc.	90 mc.	†FM R.F. L2
9		Repeat steps 6 and 7 until maximum gain is obtained		
9		100 mc.	100 mc.	†FM Ant. coil L5

*If necessary for accurate peaking, the winding in the same transformer not being peaked should be loaded with a 660 ohm resistor.
†Connect VoltOhmyst to pin 1 of V5 through a 220K isolating resistor with ¼ inch maximum exposed lead at grid terminal end. Output adjusted for 1 volt d.c. Dress VoltOhmyst lead away from input circuits.

Oscillator frequency is above signal frequency on both AM and FM



Dial and Drive Cord Drive