

# MANUAL OF 1955 MOST-OFTEN-NEEDED RADIO DIAGRAMS



# RCA VICTOR

AM-FM Radio Receiver

## MODEL 6-XF-9

Chassis No. RC-1121B

### 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.

### 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. (gang open)	C1E-T (osc.)
4		1400 kc. (mod.)	1400 kc.	C37 (ant.) C1C-T (rf.)
5		600 kc. (mod.)	600 kc.	L6 (osc.) with (rocking gang)
6				L4 (RF)
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	C1-B Stator			T1 top core T1 bottom core	
5	FM Ant. terminals thru 270 ohm resistor	87 mc.	87 mc. (gang closed)	FM osc. L8	
6		106 mc.	106 mc.	FM R.F. C1B-T	
7		90 mc.	90 mc.	FM R.F. L2	
8		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 680 ohm resistor.  
†Connect VoltOhmyst to pin 1 of V5 through a 220K isolating resistor with 1/4 inch maximum exposed lead at grid terminal end. Output adjusted for 1 volt d.c. Dress VoltOhmyst lead away from input circuits.

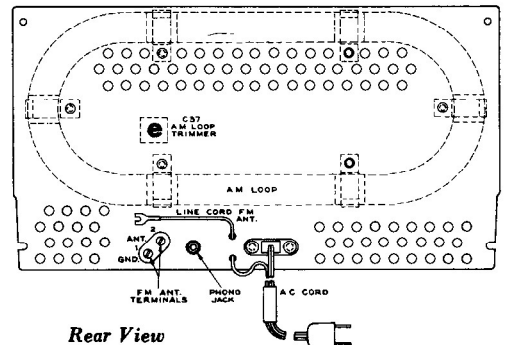
Oscillator frequency is above signal frequency on both AM and FM

(See next page at right for circuit diagram and additional material.)

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.

### TUNING RANGE

Standard Broadcast (AM)	540-1600 kc
Frequency Modulation (FM)	88-108 mc
Intermediate Frequency (AM)	455 kc
Intermediate Frequency (FM)	10.7 mc



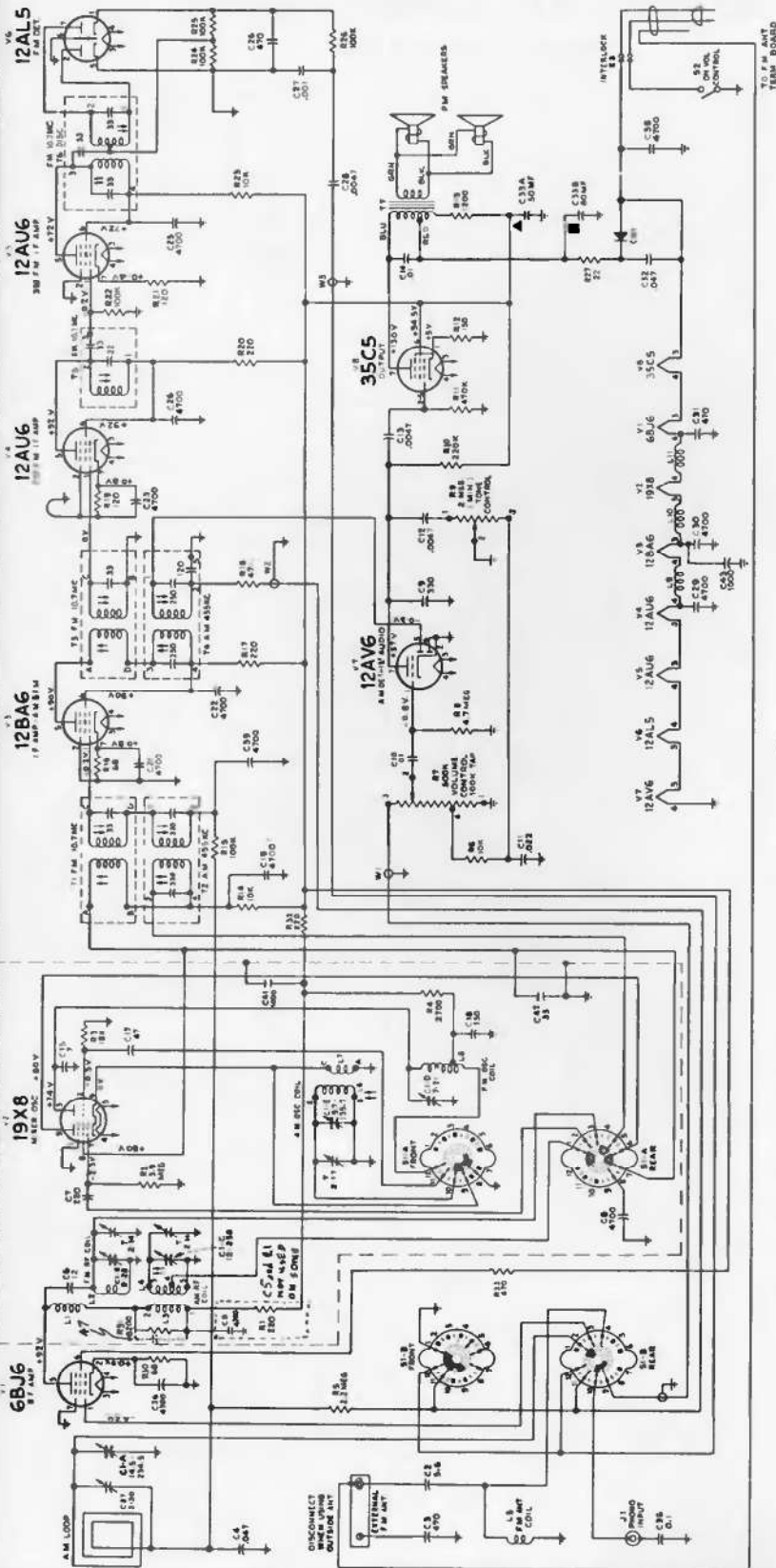
Rear View

### CRITICAL LEAD DRESS

- All FM IF Transformer grid and plate leads should be short and direct as possible and kept low, near chassis.
- C26 leads should be kept as short as possible.
- C32 leads should be kept as short as possible.
- R24 and R25 leads should be kept as short as possible on T6 terminal 6 side.
- C27 should ground in hole near terminal 5 of V6 with short leads.
- AM oscillator coil should not be tilted over toward function switch when wrapping short bus leads to switch.
- Keep leads V5 pin 5, to T6 term 1, as short as possible and low near chassis.
- Dress C28 down on chassis and against terminal board. Run filament lead between V5 and V6 on side of V6 socket opposite C28.
- All ceramic button 4700 uuf condensers should have leads as short as possible.
- Green lead from AM oscillator stator gang terminal to AM oscillator coil should be dressed against front of shield box and up above filament choke.
- RF plate choke L1, should be dressed at least 1/8" away from AM R.F. coil L4 and at least 1/8" from shield.
- Mixer grid condenser C7 should be dressed away from FM oscillator gang stator terminal and away from leads connecting to terminals 8 and 9 of V2 socket.
- Filament chokes L10 and L11 should be raised a minimum of 1/16" above chassis.
- Use varnished tubing only on choke and coupling cond. leads coming through shield partition slot.
- Condenser C2 should have lead on antenna terminal end not more than 3/16" long to prevent possible contact of lead or body to "Hot" chassis.
- Condensers C3 and C35 should use varnished tubing, not vinyl, to prevent breakthrough crossing chassis edge.
- Oscillator grid condenser C17 should have short leads and be dressed away from filament choke L10.
- Leads from loop terminal to chassis terminal board should have a minimum of three twists (otherwise loop increases oscillator radiation).

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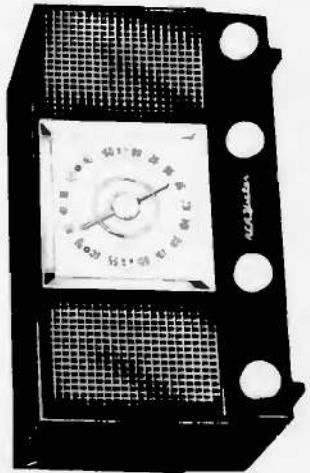
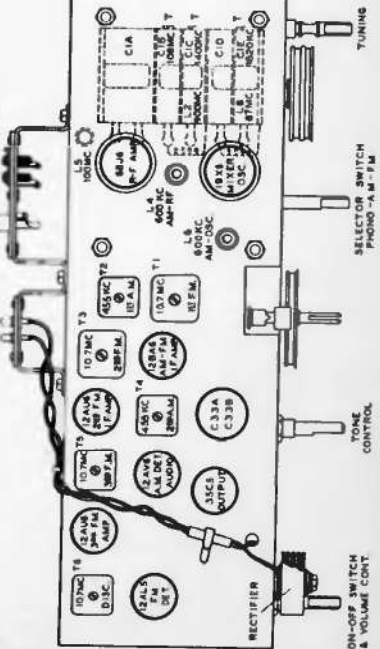
RCA Victor Model 6-XF-9, Chassis RC-1121B (Continued)



ALL RESISTANCE VALUES IN OHMS AND ALL CAPACITANCE VALUES LESS THAN 1.0 IN MF AND ABOVE 1.0 IN MUF UNLESS OTHERWISE NOTED.



NOTES:  
FRONT AND REAR SECTIONS OF FUNCTION SWITCH S1-A AND S1-B ARE VIEWED FROM FRONT WITH THE SWITCH SHAFT IN EXTREME COUNTER-CLOCKWISE POSITION (1 POSITION).  
PHONO POSITION  
P.M.  
P.M.



Model 6-XF-9  
The "Lindsay"

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