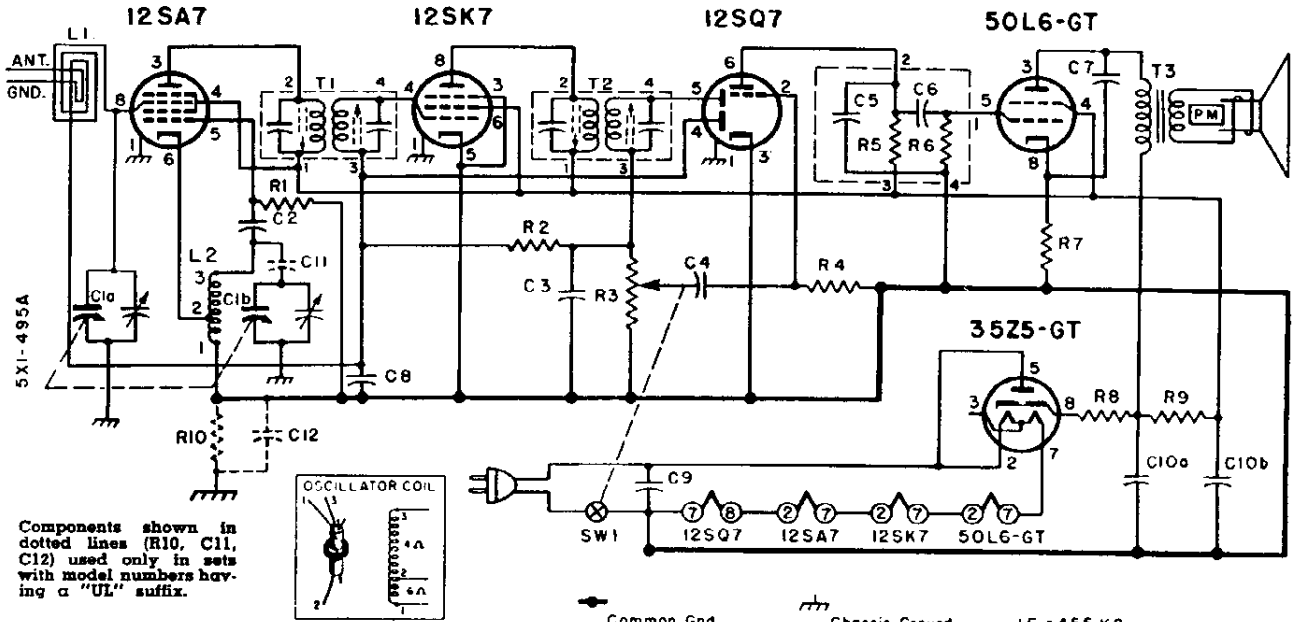


MODELS 5X11, 5X12, 5X13, 5X14; Ch. 5X1

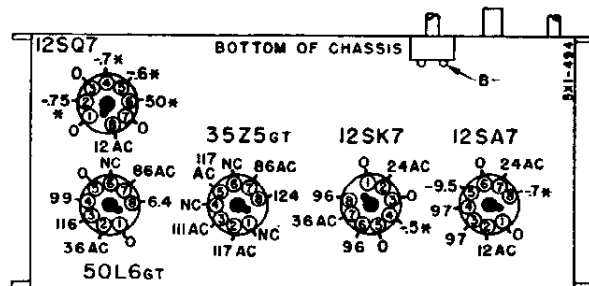
If external antenna and ground is required, connect to wire leads on loop antenna. Caution: Do not connect ground wire directly to chassis.



Common Gnd. Chassis Ground I.F. = 455 KC
 NOTE: Common Gnd. becomes chassis ground in sets with model numbers ending in "N".

VOLTAGE DATA

- All readings made between tube socket terminals and B minus (terminal of On-Off switch).
- Dial turned to low frequency end; volume control at minimum.
- Measured on 117 Volts AC line. When measured from DC line, voltages may be slightly lower.
- Voltages measured with Vacuum Tube Voltmeter. Readings taken with a 1,000 ohm per volt meter will be approximately the same except for those marked with an asterisk * in the voltage chart; these readings will either be lower or practically zero.



* If taken with a 1000 ohm-per-volt meter, readings will be either lower or practically zero.

RESISTORS			Symbol Description Part No.			MISCELLANEOUS	
Symbol	Description	Part No.	Symbol	Description	Part No.	Description	Part No.
R1	22,000 Ohms, 1/2 Watt	60B 8-223	*C5	250 mmd., 500 Volts		Cabinet	
R2	1 Megohm, 1/2 Watt	60B 8-105	*C6	.01 mfd., 400 Volts		Ebony (5X11)	34D 26-5
R3	1 Megohm Volume Control and On-Off switch SW1	75B 1-25	C7	.02 mfd., 400 Volts, Paper	64B 1-24	Mahogany (5X12)	34D 26-6
R4	4.7 Megohms, 1/2 Watt	60B 8-475	C8	.1 mfd., 200 Volts, Paper	64B 1-30	Ivory (5X13)	34D 26-7
*R5	470,000 Ohms, 1/2 Watt		C9	.05 mfd., 400 Volts, Paper	64B 1-22	Mahogany and Gold (5X14)	34D 26-8
*R6	470,000 Ohms, 1/2 Watt		C10a	50 mfd., 150 Volts		Cartons and fillers	44B 134
R7	150 Ohms, 1/2 Watt	60B 8-151	C10b	30 mfd., 150 Volts	67A 10	Clip, Elect. Mtg.	18A 10-6
R8	33 Ohms, 1 Watt	60B 28-3	C11	.05 mfd., 400 Volts, Paper	64B 1-22	Dial Cord	50A 1-3
R9	1,000 Ohms, 1 Watt	60B 28-2	C12	.18 mfd., 200 Volts, Paper	64A 2-2	Escutcheon, Dial Scale	23B 47
R10	150,000 Ohms, 1/2 Watt	60B 8-154	(C11, C12 used only in sets with model numbers ending in "UL".)			Knob, Tuning	
R10 used only in sets with model numbers ending in "UL".			COILS, TRANSFORMERS, Etc.			Ebony (5X11)	33A 39-7
			L1	Antenna, Loop (mounted on cardboard back)	69C 108	Ivory (5X13)	33A 39-9
			L2	Coil, Oscillator	69A 20-2	Mahogany (5X12, 5X14)	33A 39-8
			T1	Transformer, 1st I.F.	72B 50	Pointer, Dial (Disc)	25B 34
			T2	Transformer, 2nd I.F.	72B 51	Shaft, Tuning	28A 26-1
			T3	Transformer, Output	98A 4	Snap Button, Escutcheon Mtg.	13A 1-2-59
			Speaker (5" PM) and Output Transformer			Spacer, Tuning Shaft	29A 2-7-71
			SW1 Switch, On-Off (Includes R5, R6, C5, C6)			Spring, Dial Cord Tension	19B1-2
						Speed Nut (for tuning shaft spacer)	2B10-19
						Socket, Tube	87A10-2
						Washer, "C" (tuning shaft)	4A4-6-0
						Washer, Felt (Knob)	5A 4-3
						Washer, Spring (tuning shaft)	4A6-3-0
CONDENSERS							
C1a	Ant., 0 to 420 mmd. (Dial drum spot welded to gang)	68B 28					
C1b	Osc., 0 to 108 mmd.	68B 28					
C2	50 mmd., Ceramic	65B 6-4					
C3	250 mmd., Ceramic	65B 6-5					
C4	.01 mfd., 400 Volts, Paper	64B 1-25					
* C5, C6, R5, and R6 are contained in a multiple-unit component called a couplate (part number 63A5-1). Although a defective section of the couplate can sometimes be replaced by individual components, we strongly recommend replacing the entire couplate.							
Note that numerals 1, 2, 3, 4, shown at schematic connections correspond to couplate lead numbers printed on face of couplate.							

MODELS 5X11, 5X12,
5X13, 5X14; Ch. 5X1

ALIGNMENT PROCEDURE

- Connect output meter across voice coil.
- Turn receiver volume control full on.
- Use an isolation transformer if available, otherwise connect a .1 mfd. condenser in series with low side of signal generator and attach to B minus (terminal of On-Off switch).

- Use lowest output setting of signal generator capable of producing adequate output meter indication and then proceed as outlined in chart below.
- Repeat adjustments to insure good results.

NOTE

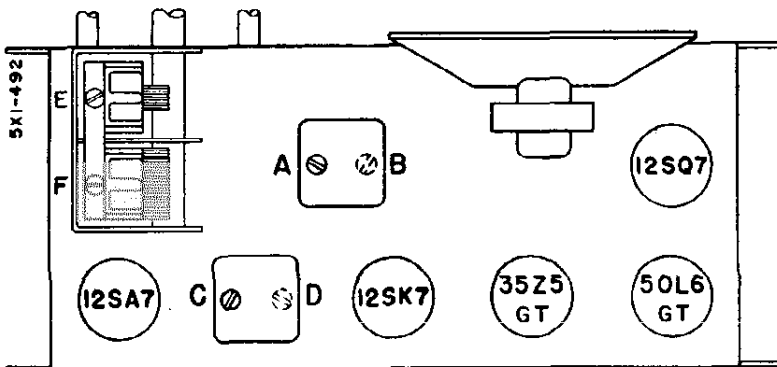
Caution: Do not connect a ground wire directly to chassis.

- Use a non-metallic alignment tool for IF transformers.

Step	Dummy Antenna in Series with Signal Generator	Connection of Signal Generator (High Side)	Signal Generator Frequency	Receiver Gang Setting	Trimmer Description	Trimmer Designation	Type of Adjustment
1	250 mmfd. condenser	Tuning condenser Antenna stator	455 KC	Gang fully open	2nd IF 1st IF	A, B C, D	Maximum Output
2	250 mmfd. condenser	Tuning condenser Antenna stator	1620 KC	Gang fully open	Oscillator (on gang)	E	Maximum Output
3	Loop of several turns of wire (or place generator lead close to receiver loop for adequate signal)	No physical connection (signal by radiation)	1400 KC	Tune in generator signal	Antenna (on gang)	F	Maximum Output
4	Mount and set dial pointer as shown in Pointer Setting and Dial Cord Stringing Diagram.						

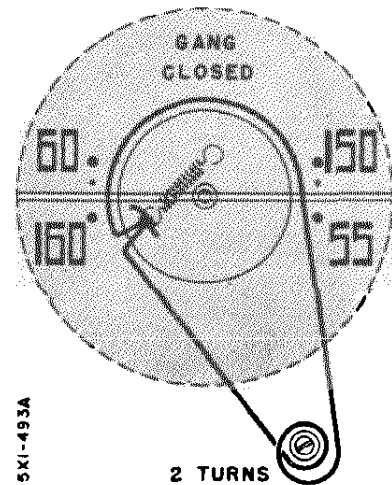
NOTE: Adjustments B and D are made from underside of chassis.

TUBE AND TRIMMER LOCATION



Adjustments B and D are made from underside of chassis.

POINTER SETTING AND DIAL CORD STRINGING



With gang fully closed, set pointer in horizontal position.