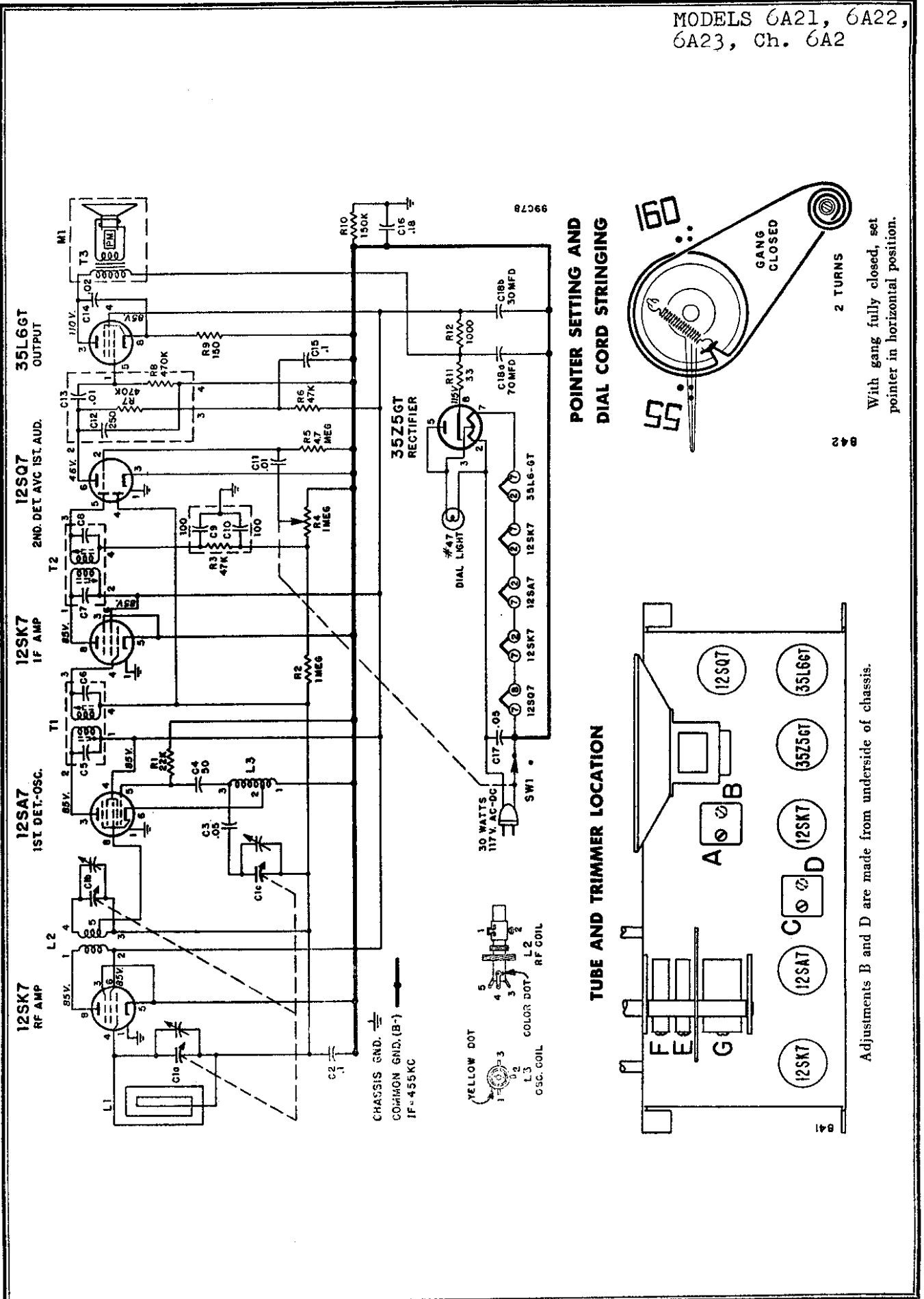


MODELS 6A21, 6A22,
6A23, Ch. 6A2



MODELS 6A21, 6A22,
6A23, Ch. 6A2

ALIGNMENT PROCEDURE

- 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 connect to B minus (terminal of On-Off switch).
Caution: Do not connect a ground wire directly to chassis.
- Connect output meter across speaker voice coil.
- 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.
- 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	Pin 8 of 12SA7 tube	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	"	Oscillator (on gang)	E	"
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	RF (on gang)	F	"
4	"	"	"	"	Antenna (on gang)	G	"

*Adjustments B and D are made from underside of chassis.

VOLTAGE DATA

- All voltages taken between tube socket terminals and B minus (terminal of On-Off switch).
- Dial turned to low frequency end; volume control at minimum.
- Voltages measured with Vacuum Tube Voltmeter from 117 Volts AC line.

RESISTORS

Symbol	Description	Part No.
R1	22,000 Ohms, 1/2 Watt	60B 8-223
R2	1 Megohm, 1/2 Watt	60B 8-105
†R3	47,000 Ohms, 1/2 Watt	
R4	1 Megohm Volume Control and On-Off switch SW1	75B 1-36
R5	4.7 Megohms, 1/2 Watt	60B 8-475
R6	47,000 Ohms, 1/2 Watt	60B 8-473
†R7	470,000 Ohms, 1/2 Watt	
†R8	470,000 Ohms, 1/2 Watt	
R9	150 Ohms, 1/2 Watt	60B 8-151
R10	150,000 Ohms, 1/2 Watt	60B 8-154
R11	33 Ohms, 1 Watt	60B 28-3
R12	1,000 Ohms, 1 Watt	60B 28-2

CONDENSERS

Symbol	Description	Part No.
C1a	420 mmfd. (max) Ant.	Gang, 60B 33-2
C1b	193.8 mmfd. (max) RF	
C1c	90 mmfd. (max) Osc.	
	(Dial drum spot welded to gang)	
C2	.1 mfd., 200 Volts, Paper	64B 1-30
C3	.05 mfd., 400 Volts, Paper	64B 1-22
C4	50 mmfd., Mica	65B 6-4
C5	86 mmfd., part of T1	
C6	107 mmfd., part of T1	
C7	86 mmfd., part of T2	
C8	107 mmfd., part of T2	
††C9	100 mmfd., Ceramic	
††C10	100 mmfd., Ceramic	

Symbol	Description	Part No.	Description	Part No.
C11	.01 mfd., 400 Volts, Paper	64B 1-25	Cabinet, Plastic	
†C12	250 mmfd., Ceramic		Ebony (6A21)	34D 25-1
†C13	.01 mfd., Ceramic		Mahogany (6A22)	34D 25-2
C14	.02 mfd., 400 Volts, Paper	64B 1-24	Ivory (6A23)	34D 25-3
C15	.1 mfd., 200 Volts, Paper	64B 1-30	Clip, Tinnerman (for mtg. escutcheon)	2B 10-6-69
C16	.18 mfd., 200 Volts, Paper	64A 2-2	Escutcheon, Dial, (Plastic)	23D 46-3
C17	.05 mfd., 400 Volts, Paper	64B 1-22	Knob, Tuning	
C18a	70 mfd., 150 Volts	Elect. 67A 17	Ebony (6A21)	33A 21-11
C18b	30 mfd., 150 Volts		Mahogany (6A22)	33A 21-12
			Ivory (6A23)	33A 21-13
			Shield, Fibre (for pilot light)	32A 138
			Washer, Felt (for tuning knobs)	5A 4-4

COILS, TRANSFORMERS, Etc.

Symbol	Description	Part No.
L1	Antenna, Loop (mounted on cardboard back)	69C 19-1
L2	Coil, RF	69A 115-1
L3	Coil, Oscillator	69A 52-2
T1	Transformer, 1st I.F.	72B 28-7
T2	Transformer, 2nd I.F.	72B 28-7
T3	Transformer, Output	98A 4
M1	Speaker (5" PM) and Output Transformer	78B 57-2
SW1	Switch, On-Off (Part of R4)	
†	Couplate (Includes R7, R8, C12, C13)	63A 5-1
††	Diode Filter (Includes R3, C9, C10)	63A 3-1

MISCELLANEOUS

Description	Part No.
Baffle, Speaker	43B 74
Carton and Fillers	44B 150
Clip, IF Transformer Mounting	72B 28-10
Dial Background	22B 24
Dial Cord	50A 1-3
Fastener (for mtg. speaker baffle)	8A 8-4
Grommet, Rubber (for mtg. gang)	12A 1-2
Pilot Light #47	81A 1-8
Pointer, Dial	25A 39
Ring, Pointer Compression	19A 31-1
Service Manual	S920
Shaft, Tuning	28A 11-3
Snap Button, Dial Background Mtg.	13A 1-3-47
Socket, Pilot Light	82A 3-4
Socket, Tube	87A 10-2
Spacer, Metal "T" (for mtg. gang)	29A 2-1-71
Spacer, Speaker Mounting	29A 1-17
Sponge Rubber, (for dial background)	12A 5-17
Spring, Dial Cord Tension	19B 1-2
Washer, "C" (tuning shaft)	4A 4-5
Washer, Spring (tuning shaft)	4A 6-3-0

CABINET PARTS

Back Assembly (includes L1 loop antenna)	69C 19-1
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†Part of couplate (part 63A 5-1). Replace with exact duplicate or individual components. Note that numbers 1, 2, 3, 4, on schematic correspond to couplate lead numbers printed on face of couplate 63A 5-1.

††Part of diode filter (part 63A 3-1). Replace with exact duplicate or individual components.