

MODELS 5A22, 5A23, Ch. 5A2

SPECIFICATIONS

CIRCUIT

5 tube AC-DC Superheterodyne covering two bands, 540 KC to 1730 KC and 5.8 MC to 18 MC (16 to 52 meters).

OPERATING VOLTAGE

110-120 Volts AC or 110-120 Volts DC. It can be operated on 220 Volts AC or DC only if a special line resistance cord is used. (See Parts List.)

ALIGNMENT PROCEDURE

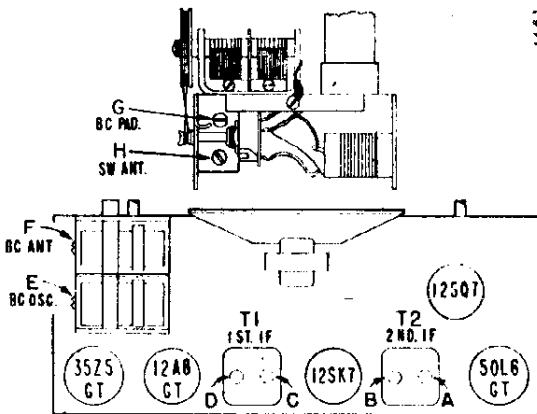
- Connect output meter across voice coil.
- Turn receiver volume control full on.
- Use an isolation transformer if available, otherwise connect a .1 mfd. condenser in series with low side of signal generator and attach to B minus of chassis.
- Use lowest output setting of signal generator capable of producing adequate output meter indication and then proceed as outlined in chart below.
- Repeat adjustments to insure good results.

Step	Dummy Antenna in Series with Signal Generator	Connection of Signal Generator (High Side)	Band Switch Position	Signal Generator Frequency	Receiver Gang Setting	Trimmer Description	Trimmer Designation	Type of Adjustment
1	250 mmfd. condenser	Grid Cap 12A8 Tube	BC	455 KC	Gang fully open	2nd IF 1st IF	*A, B *C, D	Maximum Output
2	250 mmfd. condenser	End of Ant. Wire	BC	1730 KC	Gang fully open	BC Oscillator (on gang)	E	Maximum Output
3	250 mmfd. condenser	End of Ant. Wire	BC	1400 KC	Tune in generator signal	BC Antenna (on gang)	F	Maximum Output
4	250 mmfd. condenser	End of Ant. Wire	BC	600 KC	Tune in generator signal	BC pad	G	Maximum Output. Rock gang while adjusting
Recheck alignment at 1400 KC (in step 3 above)								
5	400 ohm carbon resistor	End of Ant. Wire	SW	15 MC	Tune in generator signal	SW Antenna	†H	Maximum Output. Rock gang while adjusting

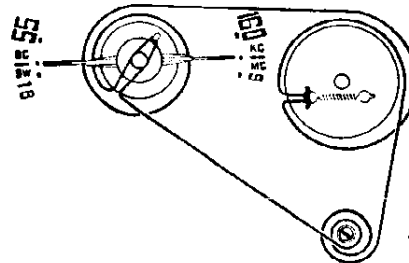
* Adjustments A and C are made from underside of chassis.

† Be sure that trimmer is aligned at correct frequency and not on image which should be approximately 910 KC lower than correct frequency, as indicated on the dial. Check to see that image appears 910 KC lower than alignment frequency.

TUBE AND TRIMMER LOCATION



POINTER SETTING AND DIAL CORD STRINGING



RESISTORS			Symbol	Description	Part No.
R1	47,000 ohms, ½ watt	60B 8-473	T2	Transformer, 2nd IF	72B 51
R2	330 ohms, ½ watt	60B 8-331	T3	Transformer, Output	98A 4
R3	39,000 ohms, ½ watt	60B 8-393	S1	Switch, Band	77A 32-3
R4	3,300 ohms, ½ watt	60B 8-332	S2	Switch, On-Off	Part of R7
R5	150,000 ohms, ½ watt	60B 8-154	M1	Speaker (5" PM) and Output Transformer	78B 62-1
R6	2.2 megohms, ½ watt	60B 8-225		Couplate	63A 5-1
R7	1 megohm, Volume Control	75B 1-40	MISCELLANEOUS		
R8	4.7 megohms, ½ watt	60B 8-475	Description	Part No.	
*R9	500,000 ohms, ½ watt		Antenna Hank (20' length)	89A 4-2	
*R10	500,000 ohms, ½ watt		Back, Cabinet	43B 170	
R11	150 ohms, ½ watt	60B 8-151	Baffle Ring, Speaker	43A 154	
R12	33 ohms, 1 watt	60B 28-3	Bracket, Band Switch Mounting	15A 393	
R13	150 ohms, 1 watt	60B 28-1	Cabinet		
R14	1,000 ohms, 1 watt	60B 28-2	Mahogany (5A22)	34D 39-5	
			Ivory (5A23)	34D 39-6	
			Carton and Fillers	44B 191	
			Dial Cord (32" length needed)	50A 1-3	
			Drum, Dial Pointer	17A 32	
			Escutcheon, Dial Scale	23C 77-2	
			Felt Washer (Knob)	5A 4-11	
			Grille, Speaker (Metal)	16A 30-2	
			Grommet, Rubber (for mtg. gang)	12A 1-2	
			Knob, Band Switch (Inner Knob)		
			Maroon (for 5A22)	33B 39-27	
			Ivory (for 5A23)	33B 39-30	
			Knob, Off-On Volume		
			Maroon (for 5A22)	33B 39-29	
			Ivory (for 5A23)	33B 39-32	
			Knob, Tuning (Outer Knob)		
			Maroon (for 5A22)	33B 39-28	
			Ivory (for 5A23)	33B 39-31	
			Pointer, Dial	25A 51-1	
			Resistance Cord, for 220 V. operation		
			with American Male Plug	89A 14	
			with Continental Male Plug	89A 14-1	
			Shaft, Pointer	28A 42-1	
			Sleeve, Metal		
			for mtg. dial pointer	27A 162-1	
			for mtg. gang condenser	29A 2-1-71	
			Sleeve, Tuning Shaft	27A 156	
			Socket, Tube	87A 5-1	
			Spacer, Tuning Shaft	29A 2-1-71	
			Speed Nut (for mtg. escutcheon)	2B 10-35-68	
			Spring, Dial Cord Tension	19B 1-2	
			Washer, "C" (Tuning Shaft)	4A 4-6	

CONDENSERS		
C1	.001 mfd, min, ceramic disc	65C 10-6
C2	50 mfd, mica	65B 5-11
C3A	3 to 30 mmfd. } Dual	66A 23-4
C3B	450 to 510 mmfd. } Trimmer	
C4A	420 mmfd, max, Ant.	Gang 68B 45-1
C4B	420 mmfd, max, Osc. (Dial drum spotwelded to gang)	
C5	.003 mfd, 3%, silver mica	65B 1-6
C6	10 mfd, Zero temp. coeff, ceramic	65C 6-44
C7	100 mfd, -.00075 temp coeff, ceramic	65C 6-19
C8	.005 mfd, min, ceramic disc	65C 10-1
C9	.047 mfd, 400 volts, paper	64B 5-22
C10	.047 mfd, 400 volts, paper	64B 5-22
C11	.047 mfd, 400 volts, paper	64B 5-22
C12	.2 mfd, 400 volts, paper	64B 5-19
C13	250 mmfd, ceramic	65C 6-5
C14	.01 mfd, min, ceramic disc	65C 10-3
C15	.047 mfd, 400 volts, paper	64B 5-22
*C16	250 mmfd, 500 volts	
*C17	.01 mfd, 400 volts	
C18	.01 mfd, min, ceramic disc	65C 10-3
C19	.047 mfd, 400 volts, paper	64B 5-22
C20A	30 mfd, 150 volts	Elect 67B 23-1
C20B	30 mfd, 150 volts	
C20C	20 mfd, 150 volts	

COILS, TRANSFORMERS, ETC.		
L1	Coil, Antenna BC	69A 74
L2	Coil, Antenna SW	69B 75-1
L3	Coil, Oscillator BC and SW	69B 76-1
T1	Transformer, 1st IF	72B 50

* Part of couplate (part number 63A5-1). Replace with exact duplicate or individual components. Note that numbers 1, 2, 3, 4, on schematic correspond to lead numbers printed on face of couplate.

VOLTAGE DATA

- Voltages shown on schematic diagram.
- 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.
- Band switch set in "BC" position.
- Measured on 117 volts AC line.
- Voltages measured with Vacuum Tube Voltmeter.

MODELS 5A22,
5A23, Ch. 5A2

