

RF ALIGNMENT

Close the gang condenser by rotating the tuning control. Slide the pointer along the cord until it lines up with the first dial marking on the left. Now rotate the tuning control until the pointer is over the 1500 KC dial mark. Apply a 1500 KC signal to the receiver antenna post through a standard I.R.E. dummy antenna. Align the oscillator trimmer (C-7) to bring in the signal and peak the signal by adjusting the antenna trimmer (C-5).

PRECAUTION

If the signal generator is A-c operated, use an isolating transformer between the power supply and the radio receiver power input. The use of an isolating capacitor is not recommended as A-c current through the capacitor will introduce hum modulation and/or create the possibility of a burned-out signal generator attenuator.

SPECIAL SERVICE INFORMATION

The following information will be very useful in servicing receivers if a vacuum tube voltmeter or similar voltage measuring instrument is available.

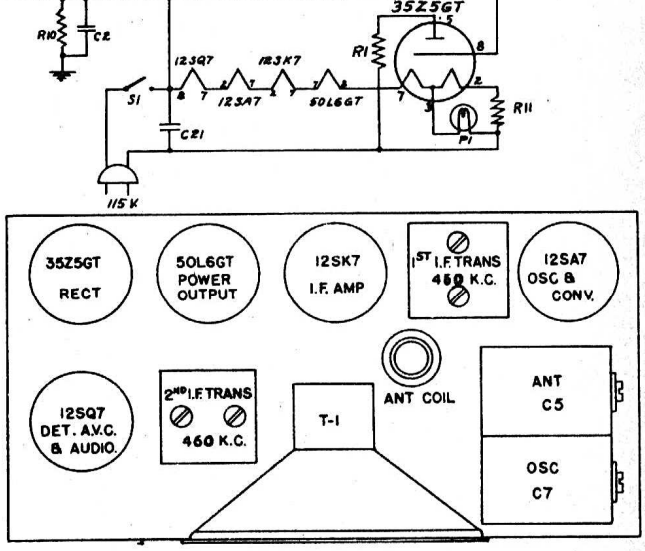
- (1) Stage Gains*
 Antenna post to converter grid, 4.0 at 1000 KC
 IF on converter grid to IF on IF Amplifier Grid 50 at 460 KC
 IF Amplifier Grid to Diode Plate.. 45 at 460 KC
- (2) 0.20-volt, 400-cycle signal across the volume control will give 1/2-watt speaker output*.
 (Volume control turned to maximum.)
- (3) Average D-c voltage developed across oscillator grid leak 6 volts

* Variations of ±20% permissible. All readings obtained with enough signal input to give 1/2-watt speaker output.

Symbol	Description
C-1	Capacitor - .05 mfd. 200-V paper
C-2	Capacitor - .2 mfd. 400-V paper
C-3	Capacitor - .01 mfd. 600-V paper
C-6A & C-6B	Gang Condenser (includes trimmers C-5 and C-7)
C-8	Capacitor - .05 mfd. 600-V paper
C-14	Capacitor - 330 mmfd. mica
C-15	" - .005 mfd. 600-V paper
C-16	Capacitor - 330 mmfd. mica
C-17	" - .01 mfd. 600-V paper
C-18	Capacitor - .02 mfd. 600-V paper
C-19A &	Capacitor - Filter 40/40

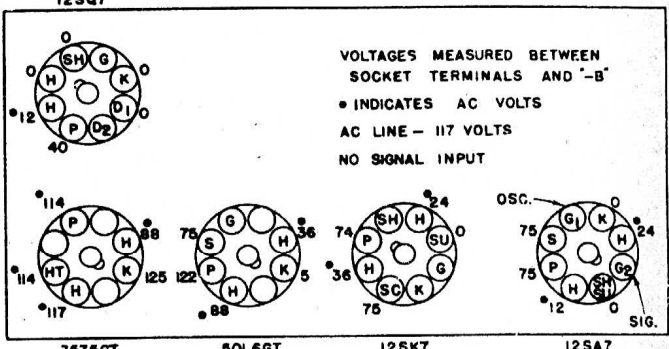
I.F. 460Kc.

C-19B	mfd. 150-V electrolytic
C-21	Capacitor - .02 mfd. 600-V paper
C-22	Capacitor - 100 mmfd. mica
L-3	Coil - antenna
L-4	" - oscillator
R-1	Resistor - 15 ohms, 1/2-W carbon
R-2	Resistor - 22000 ohms, 1/2-W carbon
R-3	Resistor - 2.2 meg. 1/2-W carbon
R-5	Resistor - 4.7 meg. 1/2-W carbon
R-6	Resistor - 270,000 ohms, 1/2-W carbon



1946-47 MODEL CL-500

FRONT OF CHASSIS



BOTTOM VIEW OF CHASSIS

Socket Voltages	
R-7	Resistor - 470,000 ohms, 1/2-W carbon
R-8	Resistor - 150 ohms, 1/2-W carbon
R-9	Resistor - 2700 ohms, 2-W carbon
R-10	Resistor - 330,000 ohms, 1/2-W carbon
R-11	Resistor - 15 ohms, 1/2-W carbon
R-4 & S-1	Volume Control, 0.5 meg. with power switch

C.G.E.

MODEL - C-321

VOLUME CONTROL

<u>Circuit Designation</u>	<u>Value</u>	<u>Mfrs. No.</u>	<u>IRC No.</u>
R17	2M	K63J149	13-139 Sw.No. 21

CAPACITORS

			<u>AEROVOX No.</u>
C1A,B,C	Tuning Gang	M29J230-3	
C3,C36,C37	100 mmfd. mica	C321-117	1468
C8	330 mmfd. mica	C321-119	1468
C9	150 mmfd. mica	C321-118	1468
C11,C12,C16	.025 600V pp.	C321-110	684
C13	47 mmfd. mica	C321-116	1468
C10,C14,C15			
C34	.01 400V pp.	C321-108	684
C17A,B,C	50-50-40 mfd. electrolytic		PRT150
	150-150-25V	K12J33-304	PRT25
C18,19,20,21	Trimmer Strip	K26J419-1	
C22,23,24,25	Trimmer Strip	K26J419-2	
C26,C31	.005 600V pp.	C321-110	684
C30	1.5 - 15 mmfd.		
	Ant. Trimmer	K58J254-3	
C32	0.1 200V pp.	C321-112	284
C35	.002 600V pp.	C321-113	684
C38	220 mmfd. mica	C321-120	1468

MISCELLANEOUS

L1	Beam-a-scope Ant.	K8531703-2	
T2	Osc. Coil	K26J872-3	
T3	1st. I.F. Trans.	K8531717-3	
T4	2nd. I.F. Trans.	K8531717-4	
	Output Trans.	K8531646-4	
	Speaker PM less Trans.	1R525C-2	

MODEL - CL-500

VOLUME CONTROL

<u>Circuit Designation</u>	<u>Value</u>	<u>Mfrs. No.</u>	<u>IRC No.</u>
R4	0.5M	K-26J621	13-133 Sw.No. 21

CAPACITORS

			<u>AEROVOX No.</u>
C1	.05 200V pp.	K-12J901-204	484
C2	.2 400V pp.	K-12J901-2004	484
C3	.01 600V pp.	K-54J758-6111	684
C6 A,B	Tuning Gang	V-8530045-1	
C8	.05 600V pp.	K-54J758-6117	684
C14	330 mmfd. mica	K-12J902-13	1468
C15	.005 600V pp.	K-54J758-6107	684
C16	330 mmfd. mica	K-12J902-13	1468
C17	.01 600V pp.	K-54J758-6111	684
C18	.02 600V pp.	K-54J758-6113	684
C19 A, B	40-40 mfd. electrolytic		
	150 V	K-8531607-1	PRT150
C21	.02 600V pp.	K-54J758-6113	684
C22	100 mmfd. mica	K-12J902-10	1468

MISCELLANEOUS

L1	1st. I.F. Trans.	K-26J675-9	
L2	2nd. I.F. Trans.	K-26J171-9	
L3	Ant. Coil	V-8530029	
L4	Osc. Coil	V-8530038	
T1	Output Trans.	K-8531617	
SPKR	Speaker PM less Trans.	M-8533513	

MODELS - C-326 - C327

VOLUME CONTROL

<u>Circuit Designation</u>	<u>Value</u>	<u>Mfrs. No.</u>	<u>IRC No.</u>
R7	2M Tapped at 1M	K63J111-2	18-139X Sw.No. 21
R4	22K 1/2W	C326-149	<u>AEROVOX No.</u>

CAPACITORS

C1A,B	Tuning Gang	P17J188-1	
C2,22,23	Trimmer Assy.	K8531665-1	
C3,21	100 mmfd. mica	C326-137	1468
C8	200 mmfd. mica		1468
C9	470 mmfd. mica	C326-138	1468
C10,104	.02 600V pp.	C326-128	684
C11,101,102	.05 600V pp.	C326-34	684
C12,25	.001 600V pp.	C326-134	684
C13	47 mmfd. mica	C326-139	1468
C14	.005 600V pp.	C326-128	684
C15	.003 600V pp.	C326-129	684
C17,A,B,C,D	15,30,10,20 mmfd. electrolytic		
	350-350-225V	V8530057	PRT450
C18	3900 mmfd. mica	C326-140	1467
C19,26,27			
C28,30,103	.01 600V pp.	C326-130	684
C24	Trimmer	K26J472-3	
C29	.007 600V pp.	C326-131	684
C105 A,B	15-15 mfd. 350V electrolytic	K12J33-211	PRT450

MISCELLANEOUS

T1	Broadcast Loop	M73J482-1	
T2	Bc. Osc. Coil	K8531662	
T3	1st. I.F. Trans.	K26J980-1	
T4	2nd. I.F. Trans.	K26J980-2	
T5	Output Trans.	K8531646-2	
T6	SW Loop	M73J481-1	
T7	Power Trans. 60 Cycle	V8530051	
	25 Cycle	V8530050	
T8	SW Osc. Coil	K33J501-1	
L5	Speaker PM	12C1330	

MODELS - CL-541 - CL-543

VOLUME CONTROL

<u>Circuit Designation</u>	<u>Value</u>	<u>Mfrs. No.</u>	<u>IRC No.</u>
R4	0.5M	K-26J621	13-133 Sw.No. 21

CAPACITORS

			<u>AEROVOX No.</u>
C1	.05 200V pp.	K-12J901-204	484
C2	0.2 400V pp.	K-12J901-2004	484
C4	100 mmfd. mica	K-12J902-10	1468
C6 A,B	Tuning Gang	M-29J107-4	
C8	.05 200V pp.	K-12J901-204	484
C14	330 mmfd. mica	K-12J902-13	1468
C15	.005 400V pp.	K-12J901-400	684
C16	330 mmfd. mica	K-12J902-13	1468
C17	.01 400V pp.	K-12J901-403	684
C18	.02 400V pp.	K-12J901-404	684
C19 A,B	40-40 mfd. 150V electrolytic		
		K-85310607-1	PRT150
C20	.01 400V pp.	K-12J901-404	684
C21	.02 400V pp.	K-12J901-404	684

MISCELLANEOUS

L1	1st. I.F. Trans.	K-26J675-9	
L2	2nd. I.F. Trans.	K-26J171-9	
L3	CL-541 Loop	M-8533516-1	
L3	CL-543 Loop	M-8533516-2	
L4	Osc. Coil	V-8530028	
T1	Output Trans.	K-8531617	
SPKR	Speaker PM	M-8533513	
	Speaker Cone	CL-500-119	