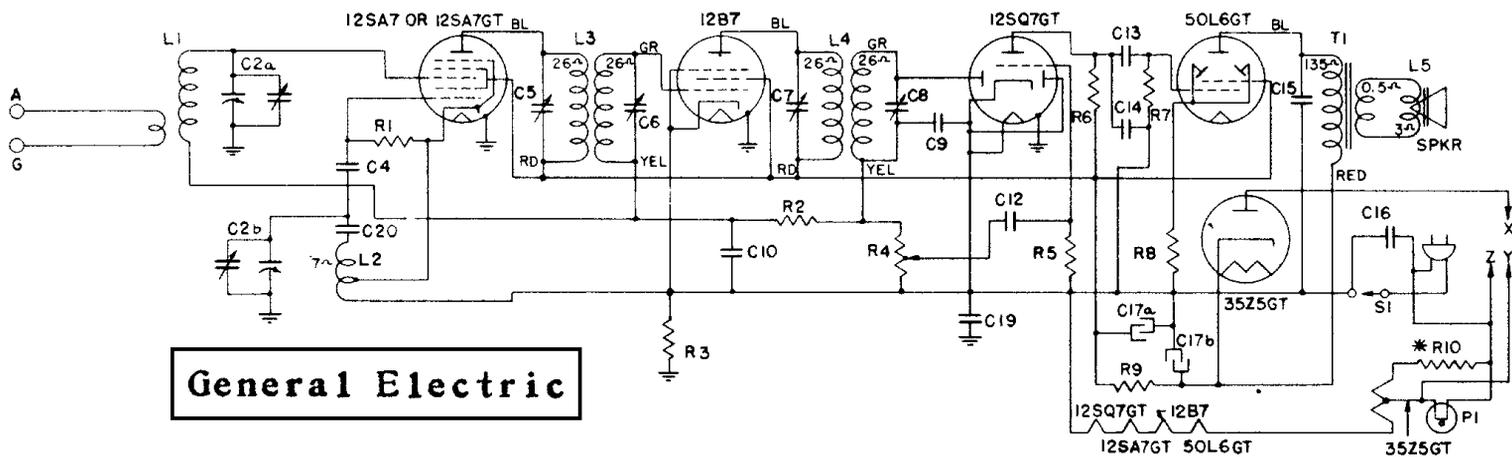


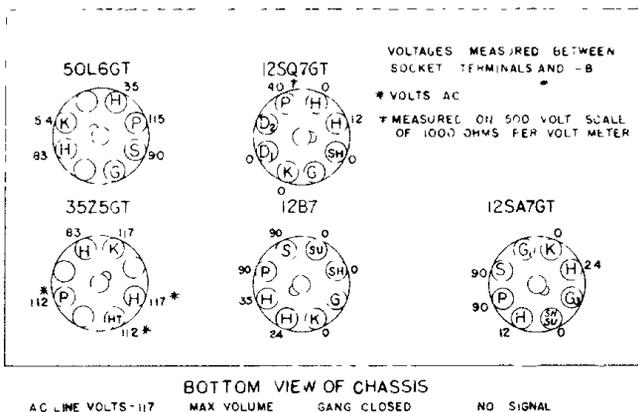
Models J-51, J-53, J-54, and J-54W



*"A" rated receivers have "X" connected to "Y" and R-10 is shorted. "C" rated receivers have "X" connected to "Z."

PARTS DESCRIPTION LIST

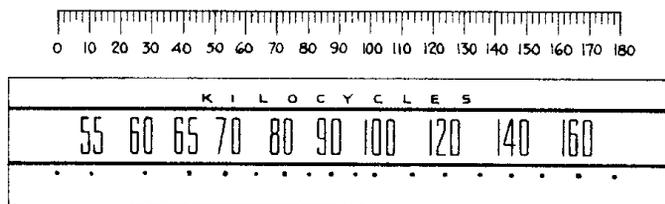
Symbol	Description	Symbol	Description	Symbol	Description
C2a	Antenna section of tuning condenser	C17b	40 mfd. 150 V. dry electrolytic	R4	0.5 megohms volume control
C2b	Oscillator section of tuning condenser	C19	0.2 mfd. paper capacitor	R5	4.7 megohms carbon resistor
C4	47 mmf. mica capacitor	C20	.01 mfd. paper capacitor	R6	470,000 ohms carbon resistor
C9	470 mmf. mica capacitor	L1	Beam-a-Scope	R7	470,000 ohms carbon resistor
C10	.05 mfd. paper capacitor	L2	Oscillator Coil	R8	150 ohms carbon resistor
C12	.005 mfd. paper capacitor	L3	1st. I.F. transformer	R9	1200 ohms 1 W. carbon resistor
C13	.005 mfd. paper capacitor	L4	2nd I.F. transformer	R10	13 ohms carbon resistor
C14	330 mmf. mica capacitor	P1	Dial lamp, MAZDA No. 47	S1	Power switch
C15	.01 mfd. paper capacitor	R1	33,000 ohms carbon resistor	T1	Output transformer
C16	.05 mfd. paper capacitor	R2	2.2 megohms carbon resistor		
C17a	30 mfd. 150 V. dry electrolytic	R3	470,000 ohms carbon resistor		



ALIGNMENT PROCEDURE

Alignment Frequencies

I.F. 455 KC



Frequency-degree Reference Chart

GENERAL INFORMATION

Models J-51, J-53, J-54 and J-54W are compact, five-tube superheterodyne receivers which can be operated from either an AC or DC source of power. Model J-51 and J-53 cabinets are in matched walnut veneers. Model J-54 and J-54W cabinets are plastic in oak and gray-white respectively. All models incorporate the following design features: Built-in Beam-a-Scope, 5-inch dynapower speaker, increased dial length, automatic volume control, and beam power output.

The glass tubes used in the converter and detector stages are interchangeable with metal tubes if the receiver is realigned following the change.

Precaution

If the signal generator is AC 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 AC 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.

- Stage Gains

Antenna Post to Converter Grid. 4.0 at 1000 KC

R.F. on Converter Grid to I.F. on I.F. Amplifier Grid. 40 at 1000 KC

I.F. on Converter Grid to I.F. on I.F. Amplifier Grid. 50 at 455 KC

I.F. Amplifier Grid to Detector Plate. . 50 at 455 KC
- 0.15-volt, 400-cycle signal across the volume control will give 1/2-watt speaker output.* (Volume control turned to maximum.)
- Average DC voltage developed across oscillator grid resistor (R-1) 15 volts

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