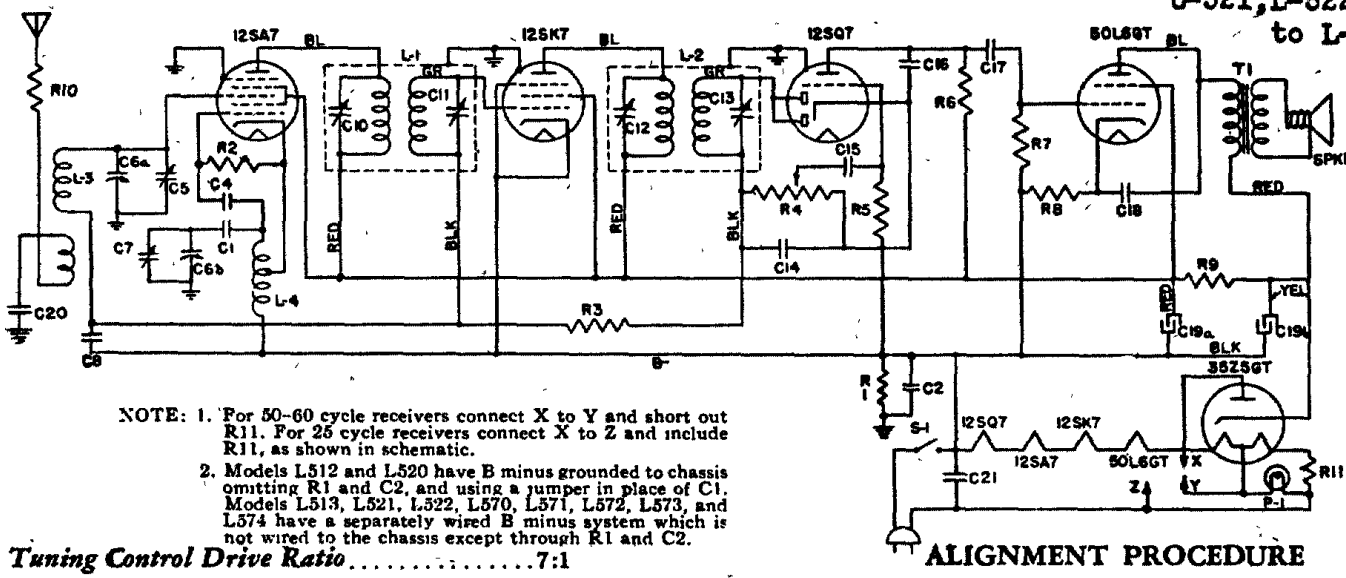

NOTE: 1. For 50-60 cycle receivers connect X to Y and short out R11. For 25 cycle receivers connect X to Z and include R11, as shown in schematic.

2. Models L512 and L520 have B minus grounded to chassis omitting R1 and C2, and using a jumper in place of C1. Models L513, L521, L522, L570, L571, L572, L573, and L574 have a separately wired B minus system which is not wired to the chassis except through R1 and C2.

Tuning Control Drive Ratio 7:1

Electrical Specifications

Rating A-6....105-117 volts, 50-60 cycles or 105-117 volts D-C; 30 watts

Rating C-2....105-117 volts, 25 cycles or 105-117 volts D-C; 30 watts

Tuning Frequency Range ..... 550–1720 KC

Intermediate Frequency ..... 455 KC

Maximum Power Output ..... 1.5 watts

Loud-speaker—PM Dynamic

Outside Cone Diameter ..... 4 inches
Voice Coil Impedance (400 Cycles) ..... 3.5 ohms

Tubes

Converter and Oscillator GE-12SA7
I.F. Amplifier GE-12SK7
Detector, AVC, Audio GE-12SQ7
Power Output GE-50L6GT
Rectifier GE-35Z5GT
Dial Lamp ..... MAZDA No.47

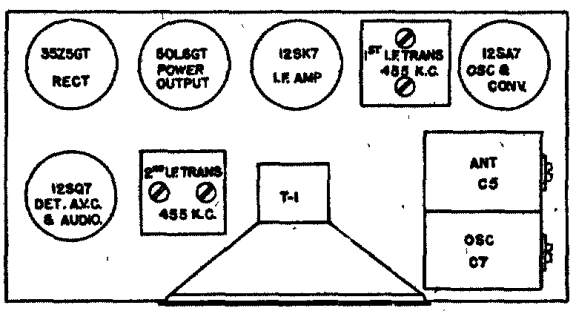

Fig. 1. Tube and Trimmer Location

ALIGNMENT PROCEDURE

Alignment Frequencies

I.F. ..... 455 KC
R.F. ..... 1500 KC

The location of all trimmers is shown in Fig. 1.

I.F. Alignment

Connect an output meter across the voice coil. Turn the volume control to maximum. Set test oscillator to 455 KC and keep the oscillator output as low as a readable meter reading will permit.

Apply signal to the converter grid through a .05 mfd. capacitor and align progressively the trimmers in the 2nd and 1st I.F. transformer cans.

R.F. 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 by means of a standard loop antenna. Align the oscillator trimmer (C-7) to bring in the signal and peak the signal by adjusting the antenna trimmer (C-5). (See Fig. 1 for trimmer locations.)

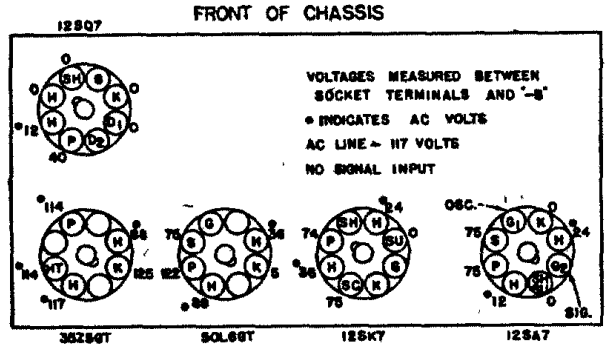

Fig. 2. Socket Voltages

REPLACEMENT PARTS LIST

Stock No.	Symbol	Description	List Price
*RC-072	C-1	CAPACITOR—.05 mfd. 200-V paper	$0.25
*RC-130	C-2	CAPACITOR—0.2 mfd. 400-V paper	.30
*RC-235	C-4	CAPACITOR—100 mmf. mica	.25
*RC-7039	C-6a, b	CONDENSER—Tuning condenser (includes trimmers C-5, C-7)	1.70
*RC-072	C-8	CAPACITOR—.05 mfd., 200-V. paper	.25
*RC-274	C-14	CAPACITOR—330 mmf. mica	.30
*RC-023	C-15	CAPACITOR—.005 mfd. 600 V. paper	.25
*RC-274	C-16	CAPACITOR—330 mmf. mica	.30
*RC-039	C-17	CAPACITOR—.01 mfd., 600 V. paper	.25
*RC-048	C-18	CAPACITOR—.02 mfd., 600 V. paper	.30
*RC-5174	C-19a, C19-b	CAPACITOR—20 mfd., 150 V. dry electrolytic; CAPACITOR—30 mfd. 150 V. dry electrolytic	.60
*RC-039	C-20	CAPACITOR—.01 mfd., 600 V. paper	.25
*RC-092	C-21	CAPACITOR—.05 mfd., 600 V. paper	.30
*RQ-1319	R-1	RESISTOR—330,000 ohms, ½ W. carbon	.70-5
*RQ-1291	R-2	RESISTOR—22,000 ohms, ½ W. carbon	.70-5
*RQ-1339	R-3	RESISTOR—2.2 megohms, ½ W. carbon	.70-5
*RV-108	R-4, S-1	VOL. CONTROL—0.5 megohm volume control and power switch	.95
*RQ-1347	R-5	RESISTOR—4.7 megohms, ½ W. carbon	.70-5
*RQ-1317	R-6	RESISTOR—270,000 ohms, ½ W. carbon	.70-5
*RQ-1323	R-7	RESISTOR—470,000 ohms, ½ W. carbon	.70-5
*RQ-1239	R-8	RESISTOR—150 ohms, ½ W. carbon	.70-5
*RQ-1469	R-9	RESISTOR—2700 ohms, 1 W. carbon	.20
*RQ-1255	R-10	RESISTOR—680 ohm, ½ W. carbon	.70-5
*RQ-1214	R-11	RESISTOR—13 ohms, ¼ W. carbon	.70-5

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.

(1) Stage Gains*
Antenna Post to Converter Grid.... 3.0 at 1000 KC
I.F. on Converter Grid to I.F. on I.F. Amplifier Grid ..... 60 at 455 KC
I.F. Amplifier Grid to Diode Plate... 45 at 455 KC

(2) 0.20-volt, 400-cycle signal across the volume control will give ½-watt speaker output.* (Volume control turned to maximum.)

(3) Average DC voltage developed across oscillator grid leak ..... 6 volts

* Variations of ±20% permissible. All readings obtained with enough signal input to give ½-watt speaker output.