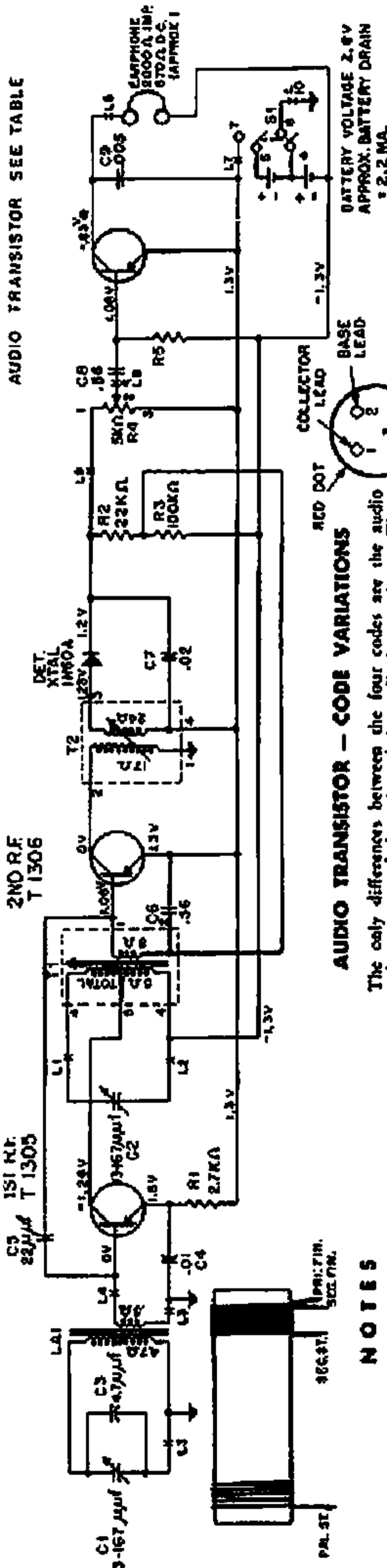


PHILCO

Ned. Ver. v. Histo



AUDIO TRANSISTOR SEE TABLE



AUDIO TRANSISTOR — CODE VARIATIONS

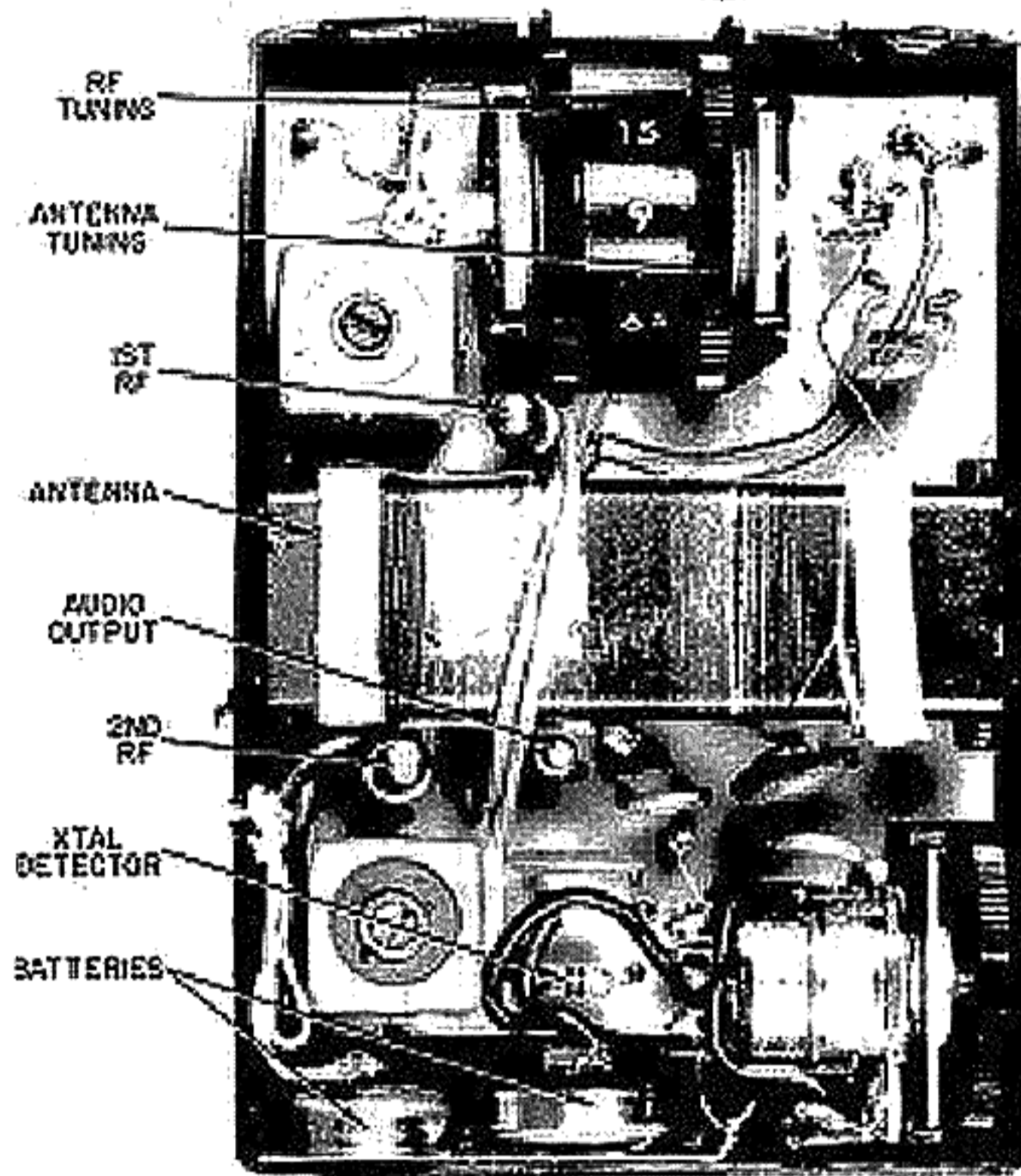
The only differences between the four codes are the audio transistor type and the value of the audio base resistor. These value differences are indicated in the chart below. Code 124, using transistor T-0038, omits the resistor, R5; for the other codes, the value of R5 is as stated.

For audio transistor replacement purposes, only one type is used, the T-0041 of code 130, part number 34-6001-21. When this transistor is used as replacement in codes 124, 126 or 128, R5 must be changed in value as indicated in the chart.

There will be no difference in performance between the four audio transistors provided the base resistor, R5, is of the correct value.

CODE	AUDIO TRANSISTOR	BASE RESISTOR R5	NAME
124	T-0038	NONE	
126	T-0039	100K Ω	
128	T-0040	330K Ω	
130	T-0041	100K Ω	

MODEL T-3 — CODES 124, 126, 128 & 130



The T-3 Radio with Back Removed

ALIGNMENT PROCEDURE

GENERAL—Allow the test equipment to warm up for fifteen minutes before starting the alignment procedure.

OUTPUT INDICATOR—Connect the output indicator (a V.T.V.M. using the low voltage AC range or a calibrated oscilloscope) across the ear phone terminals.

SIGNAL GENERATOR—Use an AM r-f signal generator. Radiate the signal to the radio antenna. Use a 6 to 8 turn, 6-inch diameter loop made up of insulated wire. Connect to generator terminals and place about one foot from the radio antenna.

OUTPUT LEVEL—During alignment, attenuate the signal-generator output so as to maintain the output level at 0.63 volts.

RADIO CONTROLS—Set the volume control to maximum. Set the antenna tuning knob (the right-hand knob with the dial scale) to 600 KC. Without moving the antenna tuning, adjust the RF tuning knob to the mid-position of its fine-tuning range. **DO NOT DISTURB** the radio tuning once it is set.

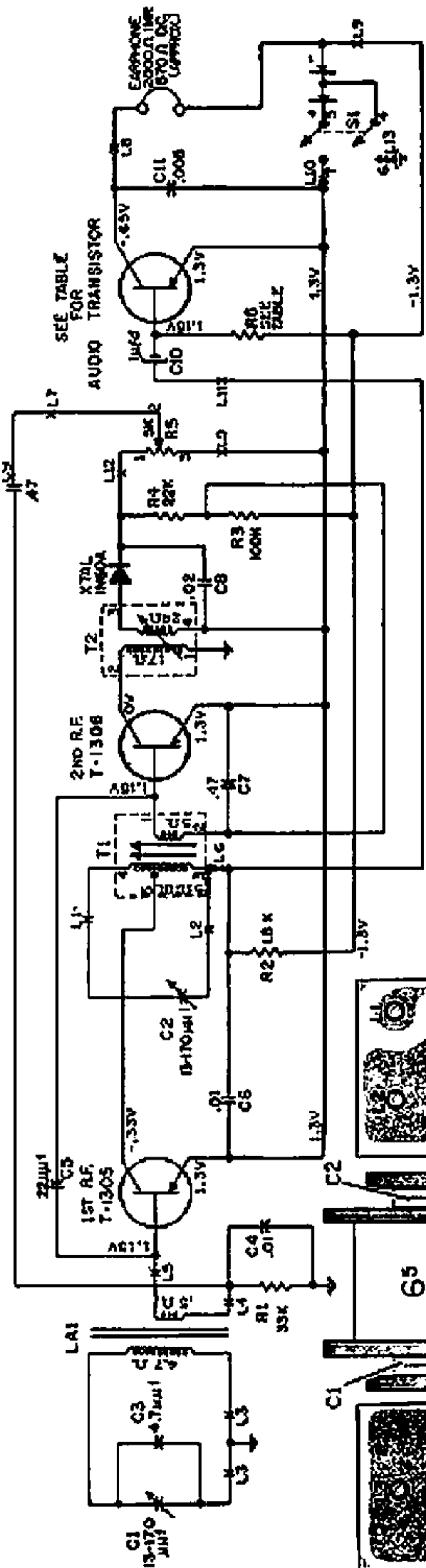
Step #1—Set generator to 600 KC. Adjust the core of T1 (the 1st RF transformer) for peak. Rock the generator — NOT the radio tuning — and adjust for maximum.

Step #2—Set generator to 600 KC. Adjust the core of T2 (the 2nd RF transformer) for maximum. This transformer is very broad; there will be only a slight peak. The core may not extend above the top of the can.

NOTES

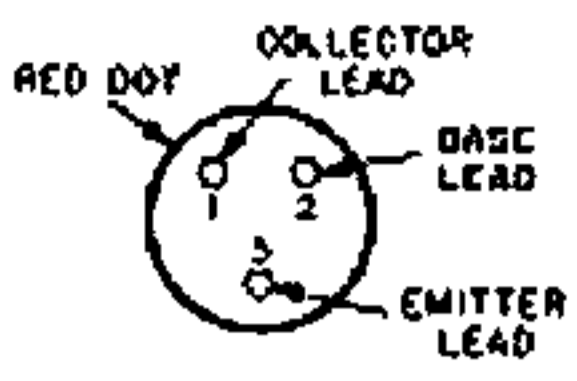
- All resistors ½ watt, carbon.
- All condenser values in μfd unless otherwise stated.
- Voltages measured with a V.T.V.M. from points indicated to ground, under "No Signal" condition, with volume control at minimum and 2.6 volts from the battery supply.
- Audio collector voltage may vary between —.6 and —1.0 volt depending upon the transistor.
- Coil resistances measured with coil in the circuit.

PHILCO RADIO MODEL T-3 - CODES 132, 134, 136 & 138



BATTERY VOLTAGE 2.6V
APPROX. BATTERY DRAIN 2.2 MA

138	T-0041	180K Ω
136	T-0040	820K
134	T-0039	470K
132	T-0038	1M
CODE	AUDIO TRANSISTOR	BASE RESISTOR R6



AUDIO TRANSISTOR - CODE VARIATIONS

The only differences between the four codes are the audio transistor type and the value of the audio base resistor. These value differences are indicated in the chart above.

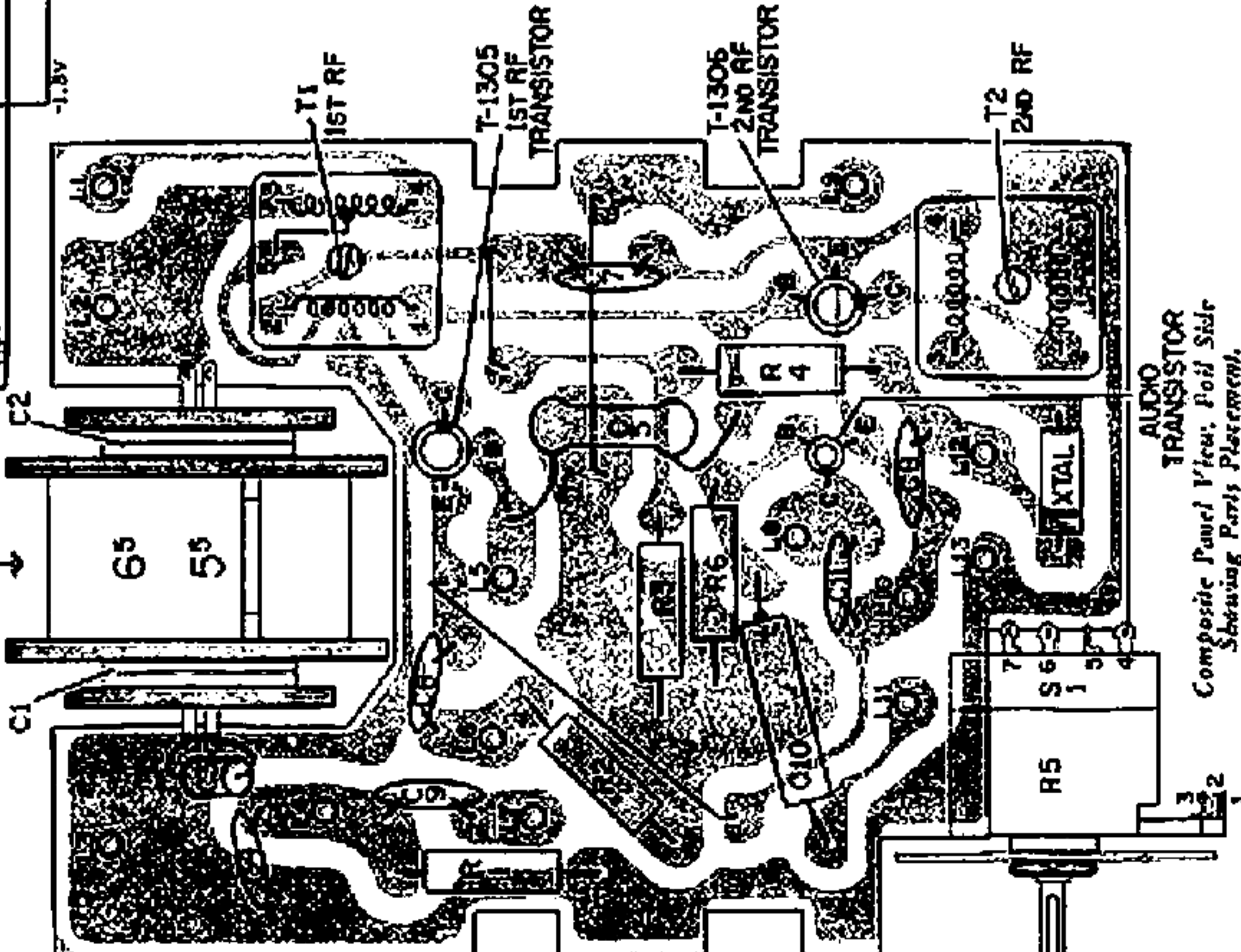
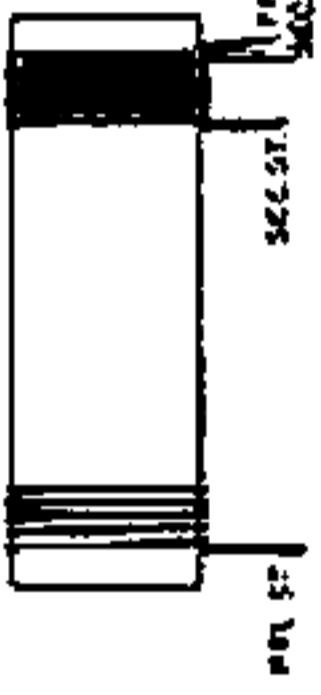
PANEL-WIRE TERMINAL IDENTIFICATION

- L1 Orange lead from r-f tuning, C2, to T1 lug 4.
- L2 Black lead from r-f tuning, C2, to T1 lug 5 and red jumper to terminal 6.
- L3 Orange lead from ant. tuning, C1, and plain lead from bottom of ant. pri. (L.A1) to panel ground.
- L4 Red lead from bottom of ant. sec. (L.A1) to junction of R1, C4 and C5.
- L5 Red lead from top of ant. sec. (L.A1) to 1st r-f base.
- L6 Red jumper from terminal 2, black jumper to terminal 11 and junction of C6 and R2.
- L7 Yellow lead to arm of volume control (R5).
- L8 Earphone lead to audio collector.
- L9 Black lead from battery, -1.3 volts.
- L10 Red lead from switch S1 lug 7, +1.3 volts.
- L11 Black jumper from terminal 6 to C10, the audio coupling.
- L12 Orange lead to top of volume control, R5 lug 1.
- L13 Black lead from switch, S1, lug 6 to panel ground.

VOLTAGES MEASURED WITH A 20,000 Ω/VOLT METER TO GROUND, NO SIGNAL, VOL. CONTROL MAX.
RESISTANCES MEASURED WITH COILS IN CIRCUIT.

SHIELDING

To suppress possible regeneration, the leads of T1 are shielded by wrapping a small piece of aluminum tape around the can so as to cover the cut-outs. When replacing be careful not to cause shorts.



Composite Panel View, Front Side
Showing Parts Placement.