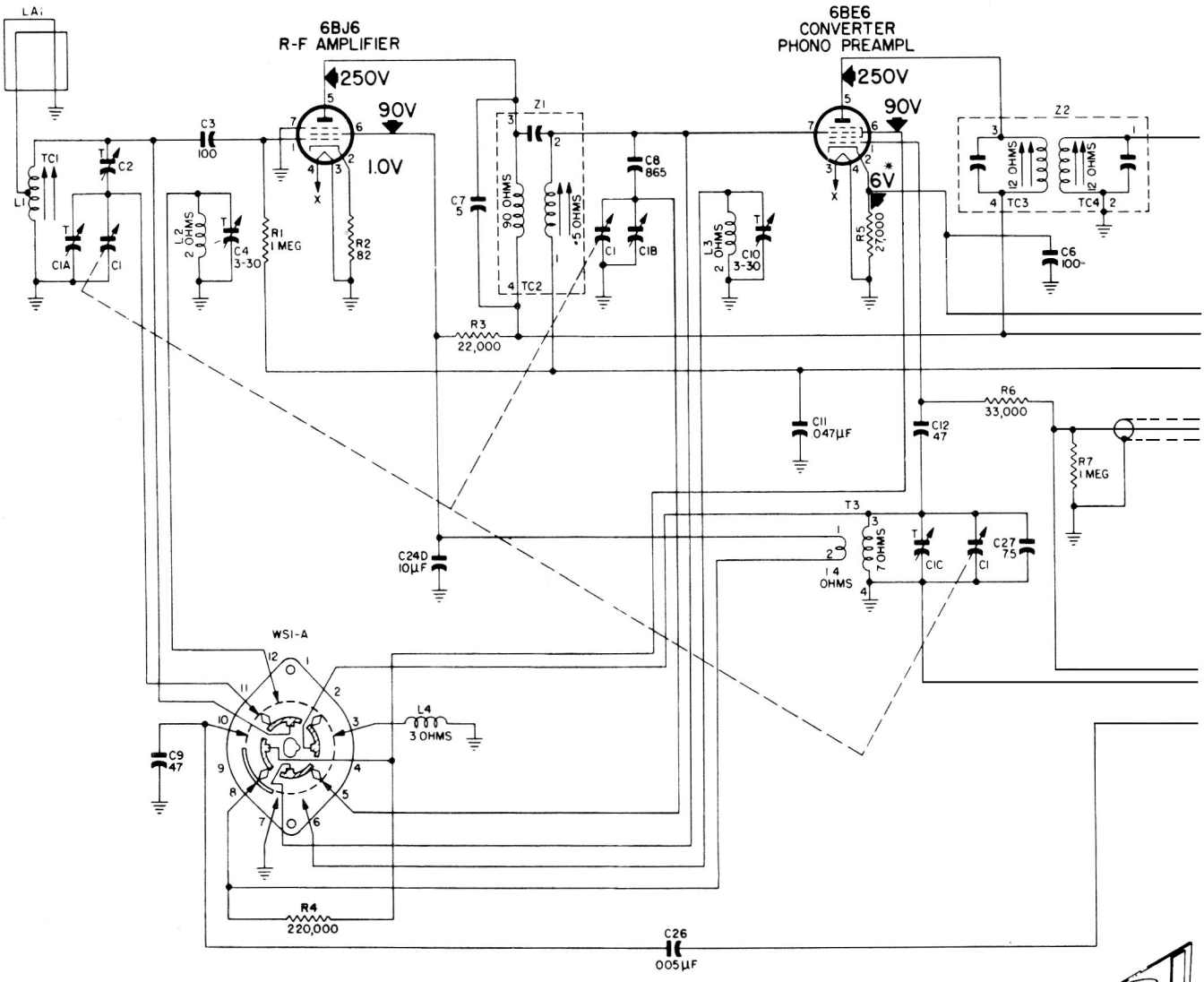
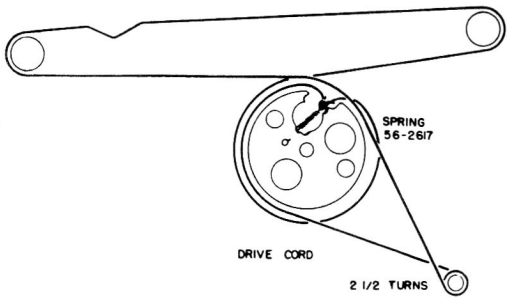
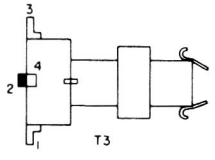






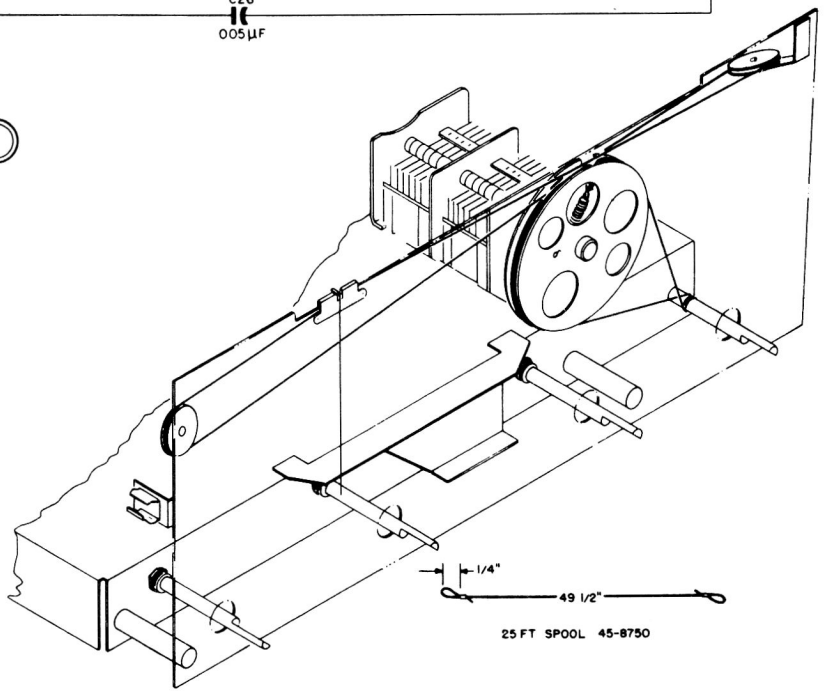
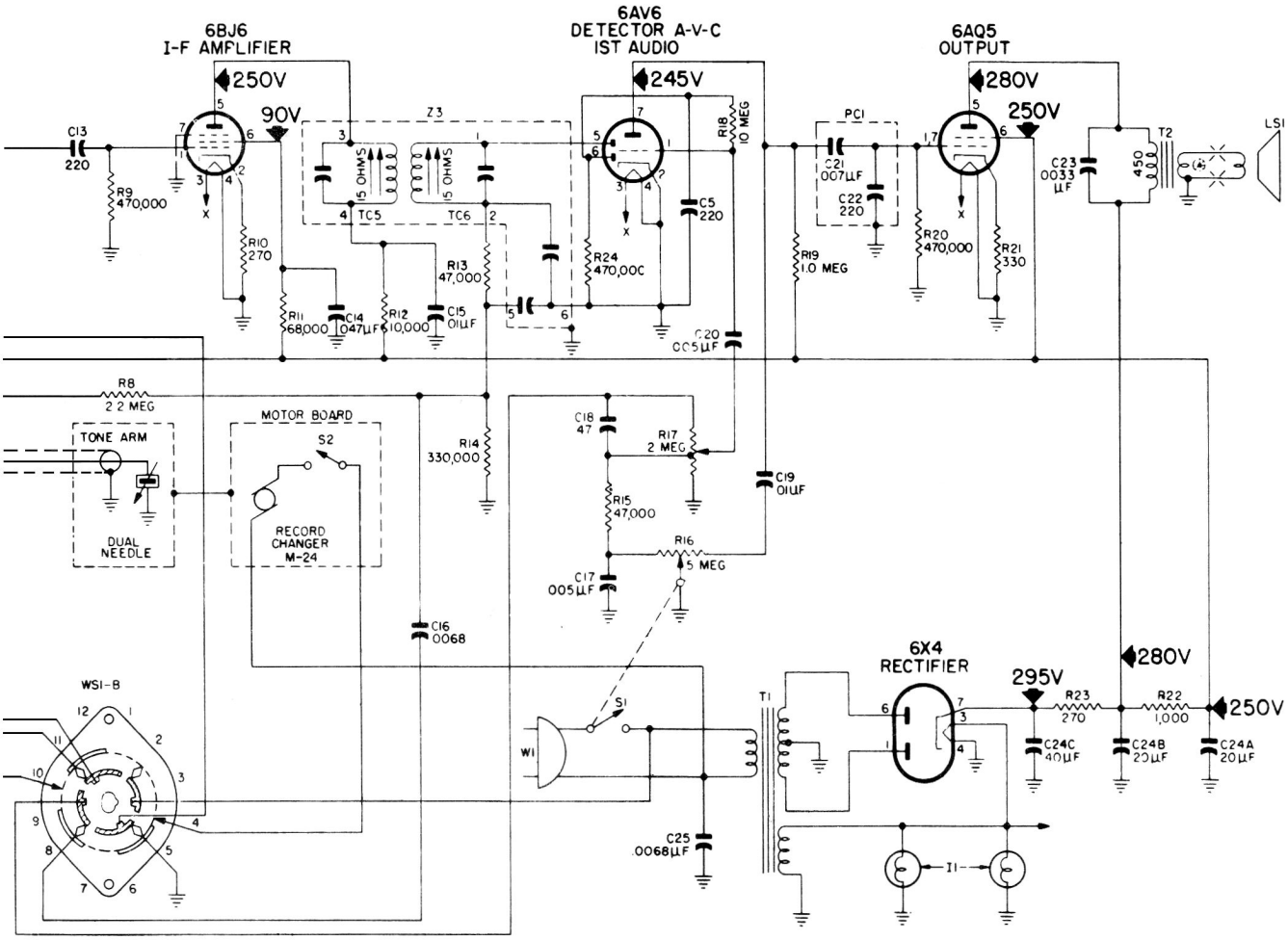
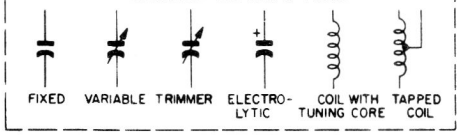


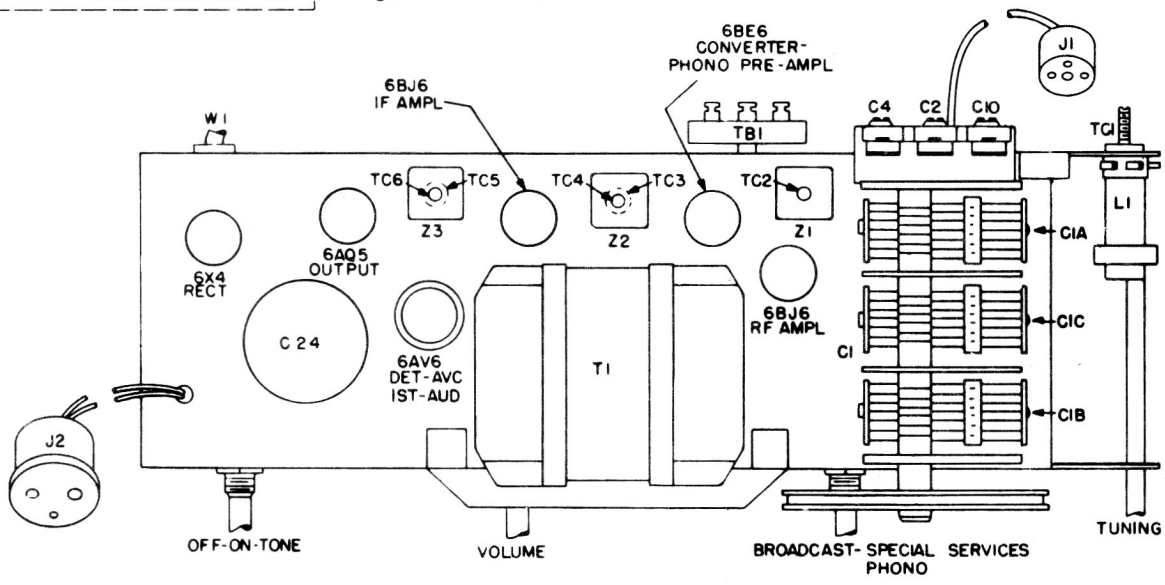
Figure 1. Drive-Cord Installation Details



CONDENSER AND COIL SYMBOLS



NOTES
ALL RESISTOR VALUES IN OHMS AND ALL CONDENSER VALUES IN µµF UNLESS OTHERWISE MARKED.
ALL VOLTAGES MEASURED WITH A 20,000-OHMS-PER-VOLT VOLTMETER BETWEEN POINTS INDICATED AND CHASSIS GROUND, AT A LINE VOLTAGE OF 117 V AC.
* VOLTAGE MEASURED WITH WSI IN PHONO POSITION.
WSI SHOWN IN THE BROADCAST POSITION.
⊛LESS THAN ONE OHM.



FREQUENCY RANGE
- Broadcast ..... 540 kc. to 1620 kc.
- Special Services ..... 1700 kc. to 3400 kc.

AUDIO OUTPUT ..... 4.5 watts
OPERATING VOLTAGE ..... 105—120 volts, a.c.
POWER CONSUMPTION ..... 80 watts
ANTENNA ..... Built-in, low-impedance loop
INTERMEDIATE FREQUENCY ..... 455 kc.
PHILCO TUBES ..... 6BJ6 r-f ampl; 6BE6 converter, osc., phono preampl; 6BJ6 i-f ampl; 6AV6 detector, a.v.c., 1st audio; 6AQ5 output; 6X4 rectifier

MODEL 754

ALIGNMENT PROCEDURE

GENERAL

RADIO CONTROLS—Set volume control for maximum output, and set tuning control as indicated in the alignment chart. Set band switch to broadcast position for first 5 steps, then to special services position for steps 6 and 7.

OUTPUT INDICATOR—Connect output indicator (either an oscilloscope or a 1000-ohms-per-volt, a-c voltmeter) across voice-coil terminals.

SIGNAL GENERATOR—Use an AM r-f generator, connected as indicated in the alignment chart.

OUTPUT LEVEL—During alignment, attenuate signal-generator output to maintain output indication below 1 volt.

DIAL POINTER—Before the alignment is started, the dial pointer should be set to coincide with the dial scale mark to the left of "55" when the tuning gang is fully meshed.

ALIGNMENT CHART

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Ground lead to chassis. Output lead through a .01-μf. condenser to pin 7 (mixer grid) of 6BE6, converter.	460 kc.	Tuning gang fully open.	Adjust, in order given in next column, for maximum output.	TC6—2nd i-f sec. TC3—1st i-f pri. TC5—2nd i-f pri. TC4—1st i-f sec.
2	Radiating loop. See Note 1 below.	1620 kc.	1620 kc. See Note 2 below.	Adjust for maximum output.	C1C—osc. trimmer
3	Same as step 2.	1520 kc.	Tune radio to generator signal.	Adjust for maximum output. (High-frequency adjustment).	C1B—mixer-grid trimmer C1A—r-f trimmer
4	Same as step 2.	580 kc.	Same as step 3.	Adjust for maximum output. (Low-frequency adjustment).	TC-2—r-f transformer TC1—ant. transformer
5	Repeat steps 3 and 4 until no further improvement is obtained.				
6	Same as step 2.	3200 kc.	Same as step 3.	Adjust for maximum output.	C10—special services mixer-grid trimmer C4—special services r-f trimmer
7	Same as step 2.	1800 kc.	Same as step 3.	Adjust for maximum output.	C2—special services r-f padder

NOTE 1: Make up a 6-8 turn, 6-inch-diameter loop from insulated wire; connect to signal-generator leads and place about 1 foot from radio loop antenna. The position of the radio loop with respect to the chassis should be approximately the same as when both are mounted in the cabinet.

NOTE 2: To set the tuning gang to 1620 kc., place a piece of 6-mil flat shim stock beneath the heel of the rotor, and turn the rotor until it holds the shim firmly in place. Then remove the shim.