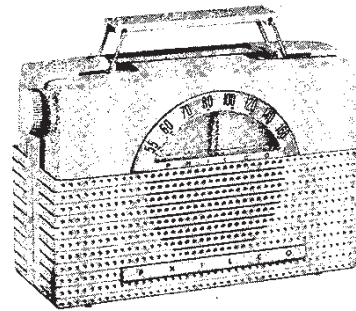


MODEL B652

**SPECIFICATIONS**

CABINET .....	Plastic portable
CIRCUIT .....	Four-tube superheterodyne (plus selenium rectifier)
<b>AUDIO OUTPUT</b>	
A-C or d-c operation .....	160 milliwatts
Battery operation .....	85 milliwatts
OPERATING VOLTAGE .....	117 volts, a.c. or d.c.
	1.5-volt "A" battery and 75-volt "B" battery
<b>POWER CONSUMPTION</b>	
A-C or d-c operation .....	11 watts
Battery operation .....	10 ma. from 75-volt "B" battery (7 ma.: battery-saver operation)
	260 ma. from 1.5-volt "A" battery
ANTENNA .....	Magnecor high-impedance loop with provision for external antenna
INTERMEDIATE FREQUENCY .....	455 kc.
PHILCO TUBES .....	1R5 converter, 1U4 i-f amplifier, 1U5 detector-a.v.c. 1st audio, 3V4 output
BATTERY TYPE .....	P144 "B" battery P77 "A" battery



MODEL B652

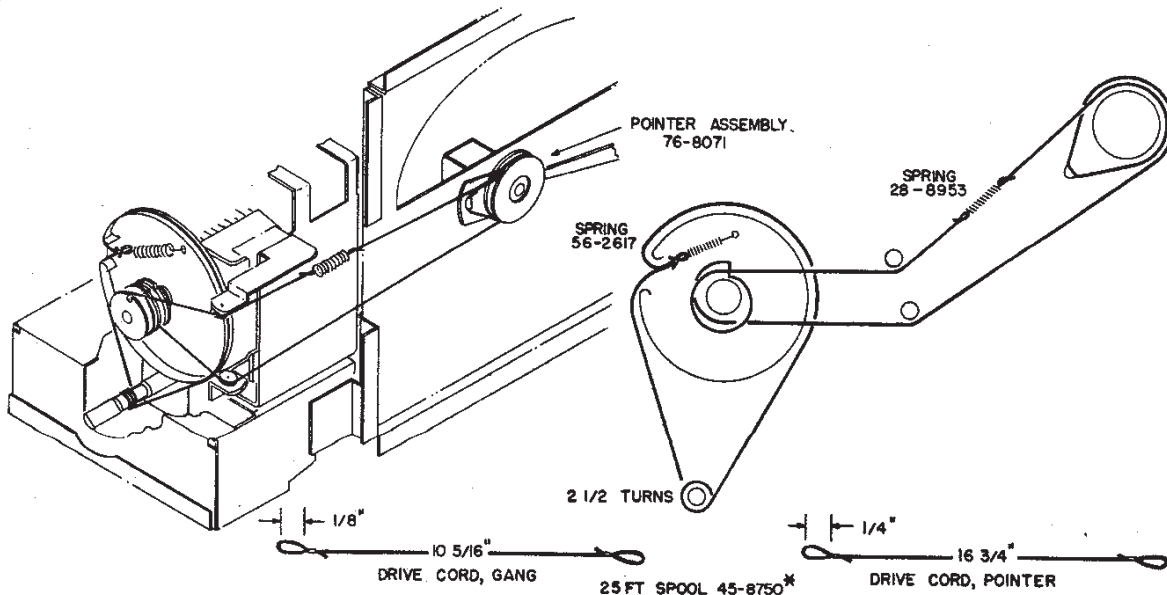
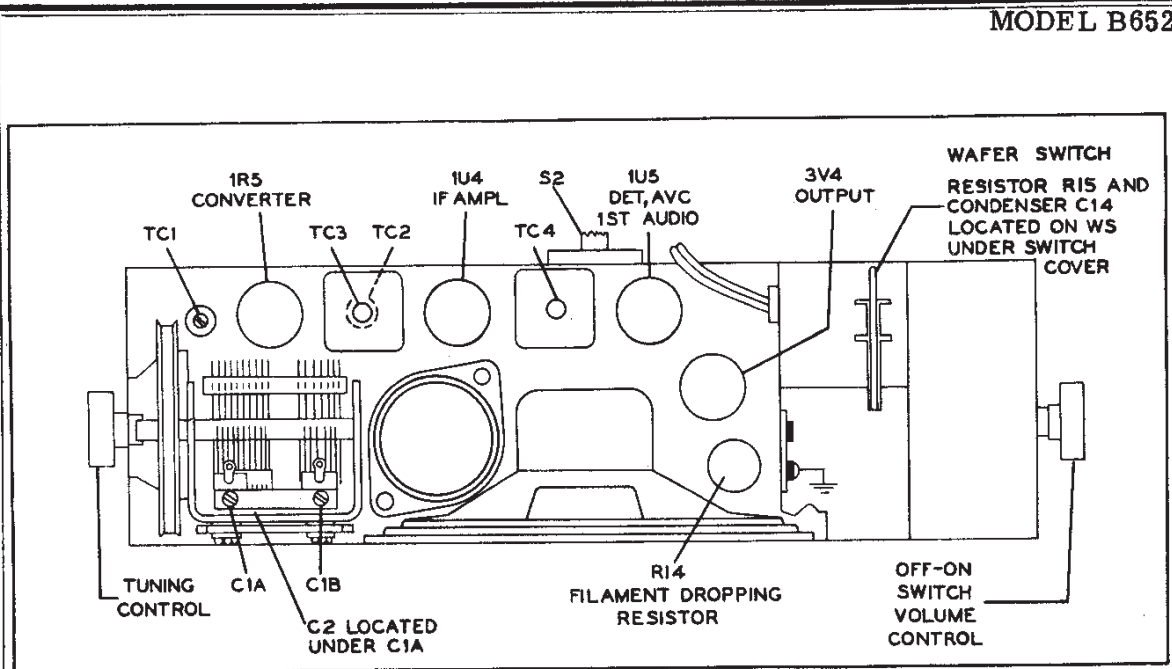


Figure 1. Dial-Cord Stringing Arrangement

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Figure 2. Top View, Showing Tuning Adjustments

**ALIGNMENT PROCEDURE**

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

**DIAL POINTER**—Before proceeding with the alignment, the dial pointer should be set to coincide with the index mark to the extreme left of the dial backplate when the tuning-condenser plates are fully meshed. See figure 4.

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

**SIGNAL GENERATOR**—Use an AM r-f signal gen-

erator. Connect the ground lead to B-, and connect the output lead as indicated in the alignment chart. **OUTPUT LEVEL**—Attenuate the signal-generator output throughout the alignment so as to maintain the output level below .5 volt.

**RADIO CONTROLS**—Set the volume control to maximum. Set the tuning control as indicated in the alignment chart. During alignment of the radio, the batteries should be in the same position with respect to the chassis and the loop antenna as they normally are in the cabinet. It is recommended that a-c power be used when aligning the radio.

**ALIGNMENT CHART**

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Connect signal generator through a .1- $\mu$ f. condenser to pin 6 (converter grid) of 1R5.	455 kc.	Tuning gang fully open.	Adjust for maximum output in order given.	TC4—2nd i-f sec. TC2—1st i-f pri. TC3—1st i-f sec.
2	Use radiating loop. (See NOTE 1 below.)	1620 kc.	1620 kc. (See NOTE 2 below.)	Adjust for maximum output.	C1B—osc. trimmer
3	Same as step 2.	1400 kc.	1400 kc. (See NOTE 2 below.)	Adjust for maximum output.	C1A—antenna trimmer
4	Same as step 2.	600 kc.	600 kc. (See NOTE 2 below.)	Adjust for maximum output. Rock tuning gang while making this adjustment.	TC1—osc. core
5	Repeat steps 2, 3, and 4 until no further improvement is obtained.				

**NOTE 1.** 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 radio loop.

**NOTE 2.** The tuning condenser can be set to the proper frequency by turning it until the dial pointer coincides with the respective marks on the dial backplate. See figure 2.

MODEL B652

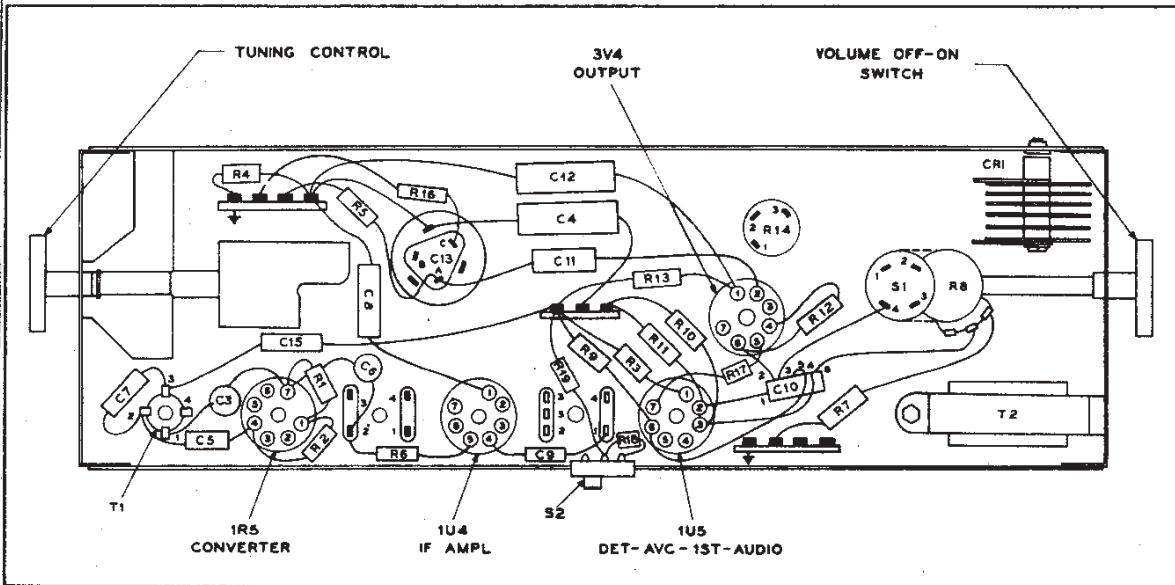


Figure 3. Base View, Showing Parts Placement

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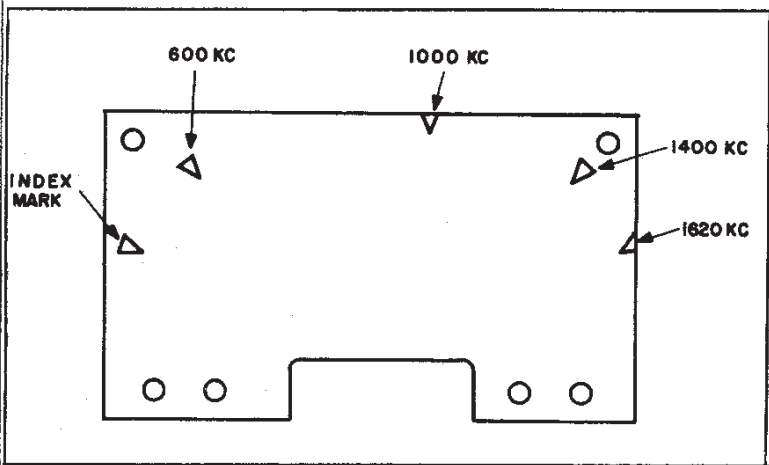
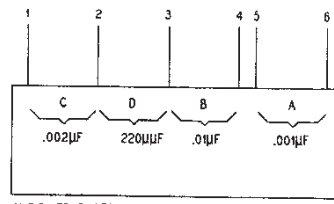
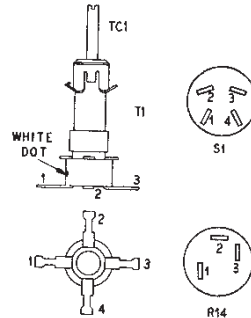


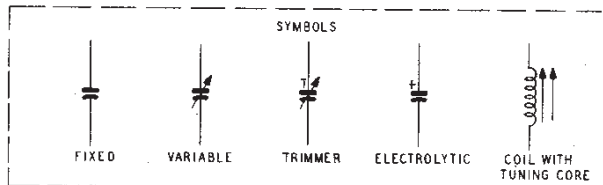
Figure 4. Dial Backplate, Showing Alignment Marks



\* C10 FOUR SECTION CONDENSER

TUBE SOCKET VOLTAGES

B SUPPLY	1R5		1U4		1U5		3V4	
	RF PLATE PIN 2	OSC PLATE PIN 3	PLATE PIN 2	SCREEN PLATE PIN 3	SCREEN PLATE PIN 2	SCREEN PLATE PIN 3	SCREEN PIN 2	SCREEN PIN 3
PWR LINE (AC OR DC)	90	55	90	90	16	15	86	90
BATTERY	70	41	70	70	17	16	57	70



NOTES:  
 ALL RESISTOR VALUES IN OHMS AND ALL CONDENSER VALUES IN µUF UNLESS OTHERWISE MARKED.  
 Ⓞ LESS THAN 1 OHM  
 ALL VOLTAGES SHOWN WERE MEASURED WITH A 20,000 OHMS-PER-VOLT METER FROM POINTS INDICATED TO B-

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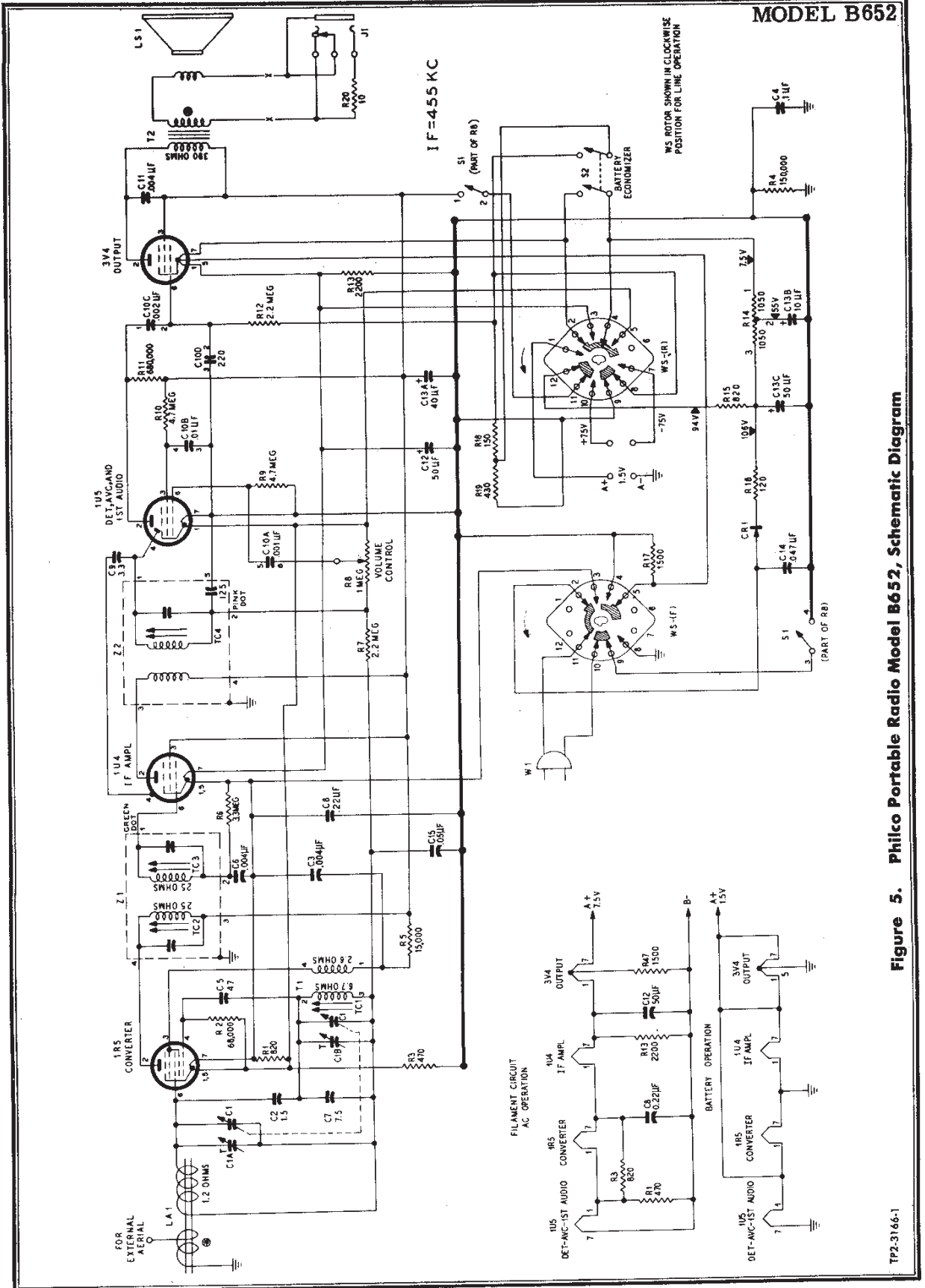


Figure 5. Philco Portable Radio Model B652, Schematic Diagram

TP2-3166-1

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Courtesy Nostalgia Air

