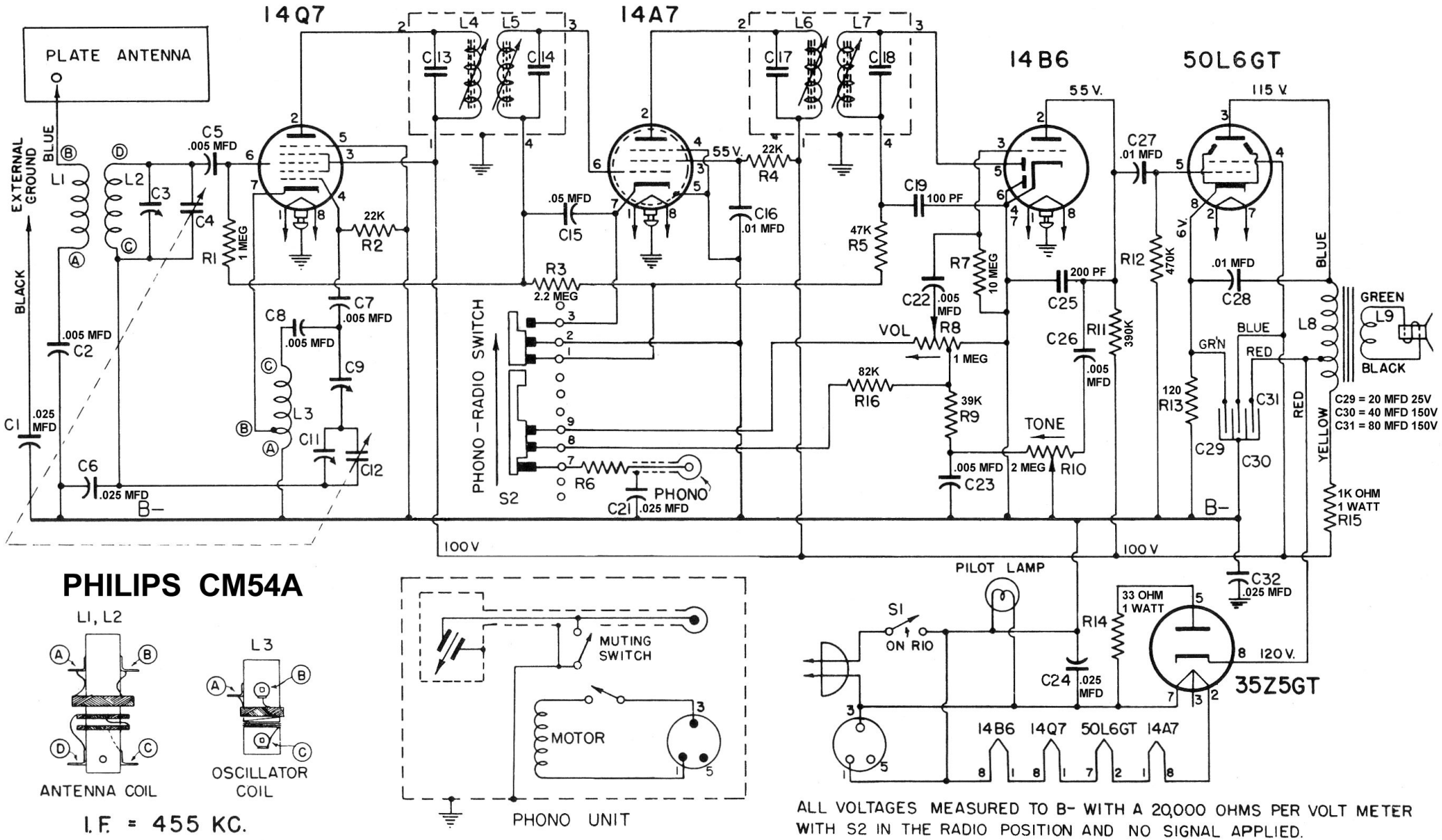

PHILIPS CM54A

I.F. = 455 KC.

ALL VOLTAGES MEASURED TO B- WITH A 20,000 OHMS PER VOLT METER WITH S2 IN THE RADIO POSITION AND NO SIGNAL APPLIED.

ARROW ← INDICATES CLOCKWISE ROTATION OF POTENTIOMETERS AND SWITCHES WHEN VIEWED FROM SHAFT END. S2 IS SHOWN IN THE PHONOGRAPH POSITION

RADIO-PHONOGRAPH SWITCH:

The schematic diagram shows this switch in a straight line form. The short stator contacts are represented as solid squares; the long contacts as solid rectangles; and the rotor contacts as bars. It is shown in the counterclockwise position of the switch knob which is the phonograph position. The exact location of each stator contact on the wafer is shown on a front view diagram on the schematic diagram.

TO REMOVE CHASSIS

1. Disconnect plug from line socket.
2. Remove antenna and ground connections.
3. Remove back cover and control knobs.
4. Unsolder the speaker leads.
5. Disconnect the phonograph motor and phonograph pickup cables.
6. Remove the 3 chassis mounting screws through the bottom of the cabinet.
7. Slide the chassis over to clear the control shafts, and remove the chassis through the rear of the cabinet.

ALIGNMENT OF RECEIVER

See that the Radio-Phonograph switch is in the radio (right hand) position. Turn the volume control to the maximum (full clockwise) position and set the tone control to the treble (full clockwise) position. With the gang tuning condenser fully closed, adjust the dial pointer to the "alignment mark" at the low frequency end of the dial scale. The "alignment mark" is the upper edge of the clear area of the dial scale opening.

EQUIPMENT REQUIRED

OUTPUT INDICATOR: A high resistance A.C. voltmeter and an output transformer.

SIGNAL GENERATOR: A generator capable of supplying modulated signals between 450 and 1800 kc.

Equipment Connections and Alignment Procedure

OUTPUT INDICATOR:

Connect the A.C. voltmeter across the voice coil of the speaker. During alignment, keep the output below 1.25 A.C. volts across the voice coil. If the meter is not sensitive enough to indicate 1.25 volts, connect the secondary of an output transformer across the speaker voice coil and connect the A.C. voltmeter across the primary. When using the latter method, the maximum output reading should be kept below 30 A.C. volts. When the output indicator increases during alignment, regulate the signal generator attenuator to restore the original indication.

SIGNAL GENERATOR

Connect the output lead of the signal generator to the points indicated in the chart below, in series with the specified resistor or capacitor. Connect the return lead of the signal generator to the B- lead of the receiver through a .05 uF condenser. The B- connection to the receiver is to be made to the end lug (nearest the 1st I.F. Transformer) of the 6 terminal strip. Do not connect a grounded lead to B- unless a line isolating transformer is used.

SIGNAL GENERATOR			RECEIVER		
Operation Steps	Output connections to Receiver	Frequency	Tuning Capacitor	See Notes	Adjust in stated order for Maximum Output
1	To 14A7 Control grid (6) through .05 µfd capacitor	455 kc	Min.		2nd I.F. Transformer L7 - L6
2	To Stator of C4 through .05 µfd capacitor	455 kc	Min.	A	1st I.F. Transformer L5 - L4
3	To Antenna Contact through 100 µµf capacitor*	1600 kc	1600 kc		Oscillator Trimmer C11 Antenna Trimmer C3
4	To Antenna Contact through 100 µµf capacitor*	600 kc	600 kc	B	Oscillator Padder C9

* or a standard dummy antenna with a 200 µµF condenser in series.

ALIGNMENT NOTES

NOTE A: After completing operation No. 2, do not realign the 2nd I.F. Transformer L7 - L6.

NOTE B: After completing operation No. 4, return to 1600 kc and repeat operation 3, then repeat operation 4.