



SWITCH NUMBERING SYSTEMS

Rogers Majestic R239 & R250

ALL VOLTAGES MEASURED TO GND WITH A 20,000 OHMS PER VOLT METER
 WITH S1 IN THE RADIO POSITION AND NO SIGNAL APPLIED.
 ARROW → INDICATES CLOCKWISE ROTATION OF POTENTIOMETER
 AND SWITCHES

ALIGNMENT OF RECEIVER

EQUIPMENT REQUIRED

Signal Generator: Capable of supplying modulated frequencies from 450 kc. to 1700 kc.

Output Indicator: A power output meter or a high resistance A.C. voltmeter.

ALIGNMENT PROCEDURE AND EQUIPMENT CONNECTIONS

Signal Generator: Allow a sufficient length of time after the generator has been turned on for it to become thermally stable before making any tests. Always be sure to use the specified capacitor in series with the signal generator output lead connections, as listed on the alignment procedure chart. Connect the return lead of the signal generator to the ground terminal of the receiver.

Output Indicator: If a power output meter is used adjust it for 4 ohms impedance and connect it across the secondary of the output transformer in place of the speaker voice coil. Do not exceed 500 milliwatts output during alignment. If an A.C. voltmeter is used connect it across the voice coil with the speaker connected and do not exceed 1.5 volts during alignment. As the reading of the test meter increases with alignment, regulate the signal generator attenuator to keep the output within the limits specified above.

Receiver: With the Radio-Phonograph switch in the radio position, turn the volume control to the full clockwise position, and set the tone switch to the second 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.

ALIGNMENT PROCEDURE

Operation Steps	SIGNAL GENERATOR		RECEIVER		
	Connections to Receiver	Frequency	Tuning Capacitor	See Notes	Adjust in Stated Order for Maximum Output
1	To 7A7 Control Grid (6) through .05 mf capacitor	455 kc.	Min.		2nd I.F. Trimmers C13-C12
2	To Stator of C2 through .05 mfd. capacitor	455 kc.	Min.		1st I.F. Trimmers C9-C8
3	To Antenna Contact "A" through 200 mmf capacitor*	1500 kc.	1500 kc.		Oscillator Trimmer C4
4	To loop contact "L" through 1 megohm resistor	1500 kc.	1500 kc.	A	Loop Trimmer C1

*Or a standard dummy antenna with a 200 mmf condenser in series.

NOTE A: Disconnect generator ground lead. Replace the chassis in the cabinet and adjust the trimmer which is mounted on the loop.

TUBE SOCKET VOLTAGES

Pin	7Q7	7A7	7B6	6V6GT	5Y3GT
1	6.3 AC	6.3 AC	6.3 AC	0	—
2	245	245	80	0	295
3	75	45	—	275	—
4	—	0	0	245	280 AC
5	0	0	—	—	—
6	—	—	—	210	280 AC
7	—	0	0	6.3 AC	—
8	0	0	0	11.4	295

All voltages measured to chassis (ground) with a 20,000 ohms per volt meter, with the Phono-Radio Switch in the radio position and no signal applied. All voltages are DC positive except where noted. Test voltage = 117 volts, 25 and 60 cycles. Due to line voltage fluctuations the readings may vary $\pm 10\%$.

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