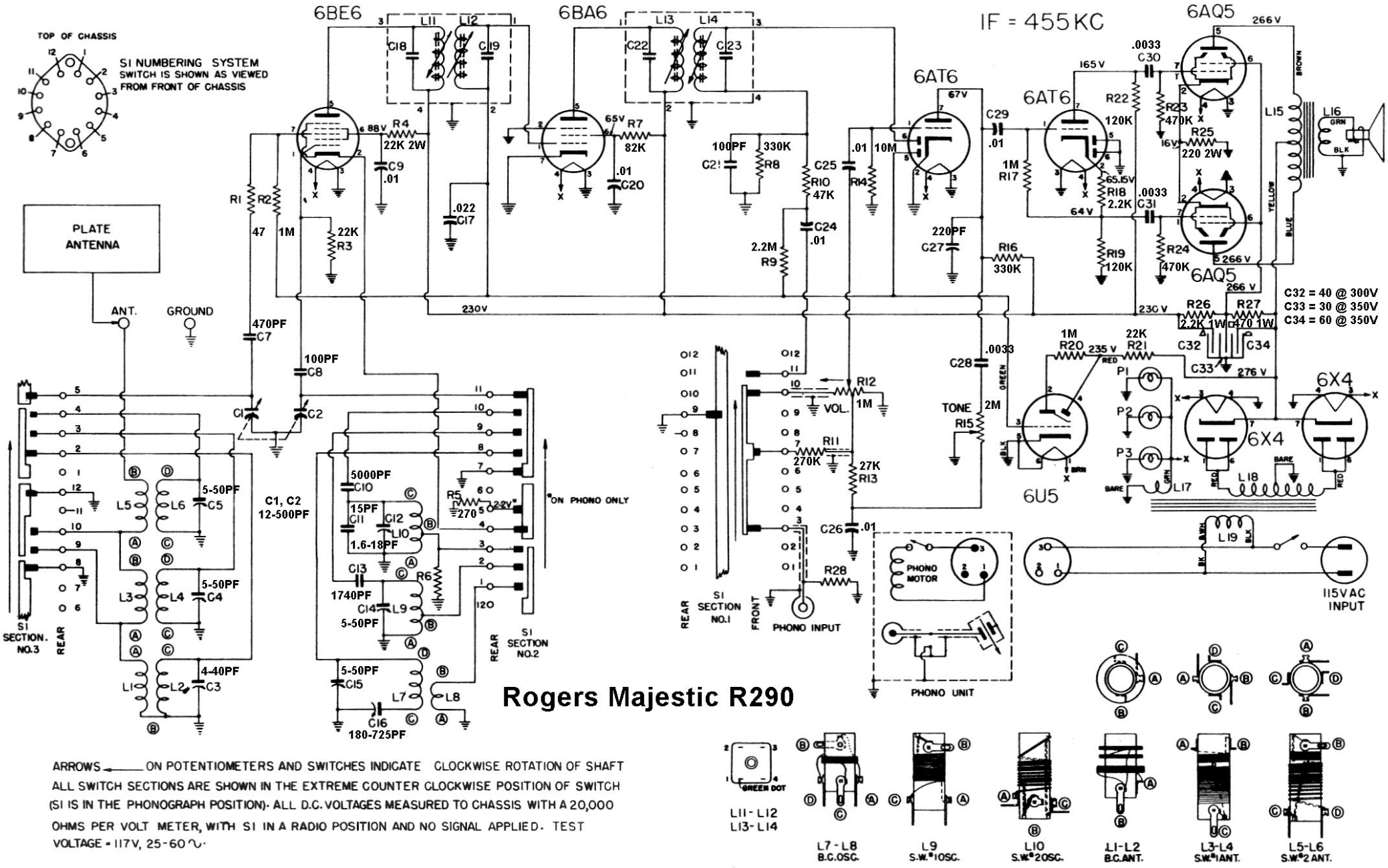
L	1,2,3,4,5,6	7,8,9,10,11,12,	13, 14			15,16,17,18,19
C	1,2,3,4,5, 7,8	9,10,11,12,13,14,15,16,17,18,19	20,21,22,23	24,25,26	27,28,29,	30,31,32,33,34
R	1, 2, 3,	4, 5, 6	7	8, 9, 10, 11, 12, 13, 14, 28	15,16,17	18, 19,20, 21,22,23,24,25,26,27



Rogers Majestic R290

ARROWS ⟵ ON POTENTIOMETERS AND SWITCHES INDICATE CLOCKWISE ROTATION OF SHAFT
ALL SWITCH SECTIONS ARE SHOWN IN THE EXTREME COUNTER CLOCKWISE POSITION OF SWITCH (S1 IS IN THE PHONOGRAPH POSITION)- ALL D.C. VOLTAGES MEASURED TO CHASSIS WITH A 20,000 OHMS PER VOLT METER, WITH S1 IN A RADIO POSITION AND NO SIGNAL APPLIED. TEST VOLTAGE = 117V, 25-60 ∿.

ALIGNMENT OF RECEIVER

Equipment Required:

Signal Generator: Capable of supplying modulated frequencies from 450 kc to 18.5 Mc.

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 AC voltmeter is used connect it across the voice coil with the speaker connected and do not exceed 1.5 volts during aligment. As the reading of the test meter increases with alignment, regulate the signal generator attenuator to keep the output below the above limits.

Receiver

Turn the volume control to the fullor (clockwise) position and the tone control to the treble (full counterclockwise) position. With the gang tuning condenser fully open adjust the dial pointer to the alignment mark on high frequency end of the alignment scale on the dial background.

	SIGNAL GENERATOR			RECEIVER		
OPERATION STEPS	OUTPUT CONNECTIONS TO RECEIVER	FREQUENCY	RANGE SWITCH	TUNING CAPACITOR	SEE NOTES	ADJUST IN STATED ORDER FOR MAXIMUM OUTPUT
1	To 6BA6 Control Grid (1) through .05 uF capacitor	455 kc	Pos. 2	Min.		2nd I.F. Transformer L14 Bottom, L13 Top
2	To lug 5 of SW1, Section 3 through .05 uF capacitor	455 kc	Pos. 2	Min.	A	1st I.F. Transformer L12 Top, L11 Bottom
3	To Antenna Contact through 100 uuF capacitor *	1600 kc	Pos. 2	1600 kc		B.C. Osc. Trimmer C15 B.C. Ant. Trimmer C3
4	To Antenna Contact through 100 uuF capacitor *	600 kc	Pos. 2	600 kc	B	B.C. Osc. Padder C16
5	To Antenna Contact through 400 ohms resistor *	5 Mc	Pos. 3	5 Mc	C	S.W. Osc. Trimmer C14 S.W. Ant. Trimmer C4
6	To Antenna Contact through 400 ohms resistor *	16 Mc	Pos. 4	16 Mc	C	S.W. Osc. Trimmer C12 S.W. Ant. Trimmer C5

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

Note A: After operation 2 has been completed, do not make any further adjustments to L14 and L13.

Note B: The metal base plate of the chassis must be in position for operations 3, 4, 5 and 6.

Note C: After operation 4 has been completed, return to 1600 kc and repeat operation 3, then repeat operation 4.

Note D: Unscrew oscillator trimmers approximately 3 turns from tight. Then turn adjustment clockwise until first output peak is obtained. Make adjustments using this peak. Rock the tuning capacitor slowly back and forth while adjusting antenna trimmer.

GENERAL

Model R290 is a nine tube superheterodyne receiver (including tuning indicator) combined with an automatic record changer phonograph designed for use on AC power only. Three tuning ranges cover from 540 kc to 18.1 Mc.

Antenna and Ground

A sheet of metal foil on the inside of the back cover provides a built in antenna. For optimum results, an outside antenna is necessary.

A secure ground connection should be made to a cold water pipe or to a grounding plate buried in damp ground.

Record Changer

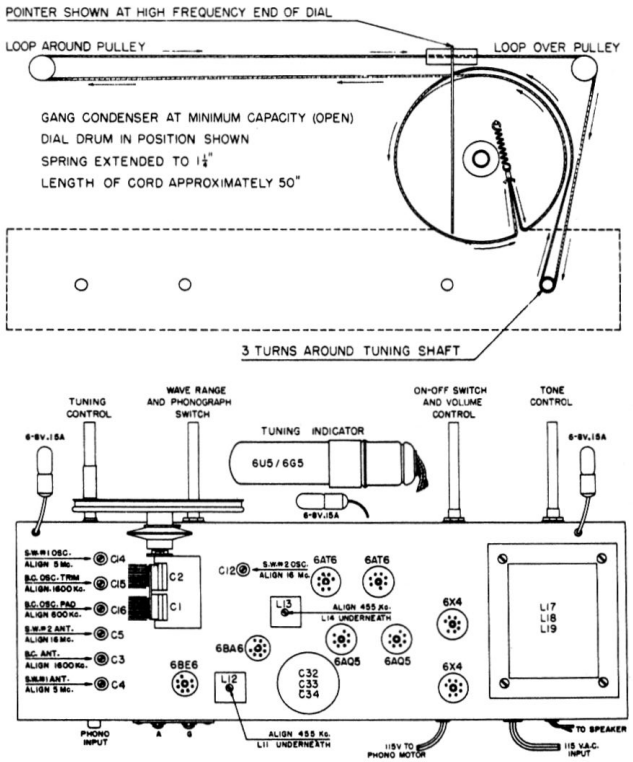
The record changer is a Webster, Model 100, three speed automatic unit with a special Astatic LQDIM turnover crystal cartridge. For service data on the record changer refer to the Webster, Model 100 Record Changer Service Manual.

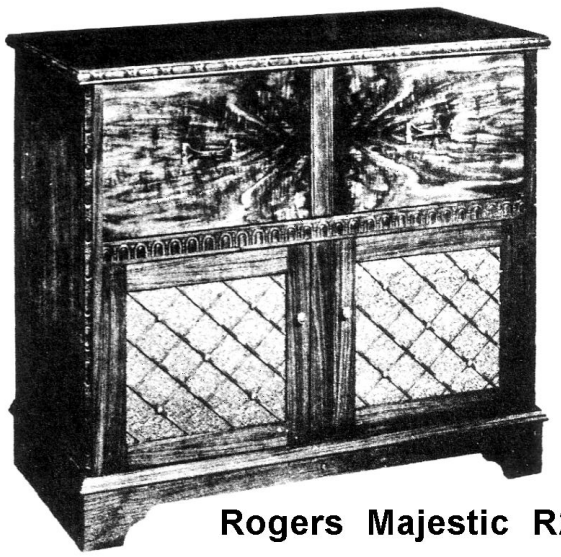
Wave Range Switch

The schematic diagram shows each section of 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. All sections are shown in the extreme counterclockwise (phonograph) position of the switch. As the switch rotates clockwise the rotor contacts move upwards through the second, third and fourth wave range switch positions as indicated above. The exact location of each stator is shown on a front view drawing of a switch wafer on the schematic diagram.

TO REMOVE CHASSIS

1. Disconnect plug from AC line socket.
2. Remove Antenna and Ground connections.
3. Remove control knobs (push-on type).
4. Remove back cover and disconnect leads from chassis A and G terminal panel.
5. Disconnect phonograph pickup and power cables.
6. Disconnect speaker leads.
7. See that the receiver chassis shipping screws have been removed from bottom of shelf.
8. Remove two wood screws holding chassis mounting plates to shelf.
9. Slide out chassis complete with mounting plates.





Rogers Majestic R290