

RCA MFG. CO., INC.

MODELS 8Q2, 8QU5C, 8QU5M  
MODEL 8Q4  
MODEL 95T5LW  
Parts Lists

REPLACEMENT PARTS

Models 8Q2, 8QU5C, 8QU5M list on genuine factory-tested parts, which are readily identified and may be purchased from authorized dealers.

Table with columns: STOCK NO., DESCRIPTION, UNIT PRICE, STOCK NO., DESCRIPTION, UNIT PRICE. It is divided into two main sections: Model 8Q4 (left) and Model 95T5LW (right). The Model 8Q4 section includes sub-sections for Receiver Assemblies (RC37A), Pickup and Arm Assemblies, and Automatic Switch Assemblies. The Model 95T5LW section includes sub-sections for Chassis Assemblies (RC41F), Motor Assemblies, and Miscellaneous Assemblies. Each entry lists a part number, a brief description, and its unit price.

ALL PRICES ARE SUBJECT TO CHANGE OR WITHDRAWAL WITHOUT NOTICE.

MODEL 8Q4

Ch. RC-337A

Alignment, Trimmers

Socket

RCA MFG. CO., INC.

# Alignment Procedure

**Cathode-Ray Alignment** is the preferable method. Connections for the oscillograph are shown in the chassis drawing.

**Output Meter Alignment.**—If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.

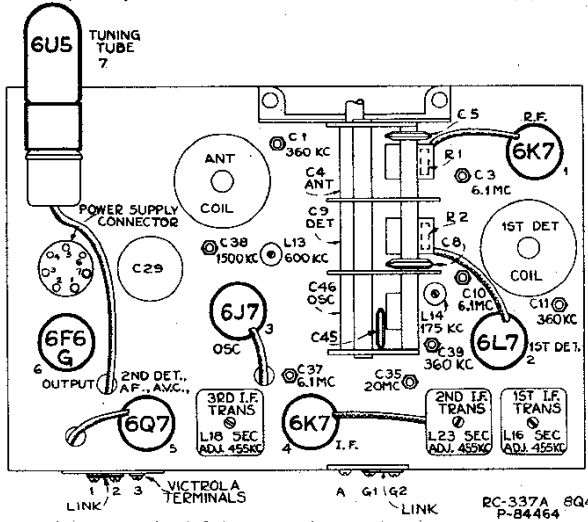
**Test-Oscillator.**—For all alignment operations, connect the low side of the test-oscillator to the receiver chassis, and keep the output as low as possible to avoid a-v-c action.

**Calibration Scale on Indicator-Drive-Cord Drum.**—The tuning dial is fastened in the cabinet and cannot be used for reference during alignment; therefore, a calibration scale is attached to the rear of the drum which is mounted on the front shaft of the gang condenser. The setting of the gang condenser is read on this scale, which is calibrated in degrees. The correct setting of the gang in degrees, for each alignment frequency, is given in the alignment table.

As the first step in r-f alignment, check the position of the drum. The 180° mark on the drum scale must be vertical, and directly over the center of the gang-condenser shaft when the plates are fully meshed. The surface of the drum must be flush with the end of the gang-condenser shaft. The drum is held to the shaft by means of two set screws, which must be tightened securely when the drum is in the correct position.

**Pointer for Calibration Scale.**—Improvise a pointer for the calibration scale by fastening a piece of wire to the gang-condenser frame, and bend the wire so that it points to the "180°" mark on the calibration scale when the plates are fully meshed.

**Dial-Indicator Adjustment.**—After fastening the chassis in the cabinet, attach the dial indicator to the drive cable with



indicator at the left-hand marks on the dial scale, and gang condenser fully meshed. The indicator has a spring clip for attachment to the cable.

Steps	Connect the high side of test-osc. to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. peak output
1	6K7 I-F grid cap, with 300 ohm resistor from cap to chassis	455 kc	—	L17 and L18* (3rd I-F Trans.)
2	6L7 1st-Det. grid cap, with 300 ohm resistor from cap to chassis, regular grid lead removed from cap	455 kc	Fidelity control counter-clockwise (sharp)	L23 and L22 (2nd I-F Trans.) and L16 and L15** (1st I-F Trans.)
3	Antenna terminal (A), in series with 300 ohms	6.1 mc	6.1 mc (28.2°) "B" band	C37 (osc.)*** C10 (det.)† C3 (ant.)
4	Antenna terminal, in series with 300 ohms	20 mc	20 mc (22.5°) "C" band	C35 (osc.)††
5	Antenna terminal, in series with 200 mmf.	1,500 kc	1,500 kc (32°) "A" band	C38 (osc.)
6	Antenna terminal, in series with 200 mmf.	600 kc	600 kc (143.8°) "A" band	L13 (osc.)
7	Repeat steps 5 and 6.			
8	Adjust C39 so that it projects approximately 15/16-inch above top of chassis.			
9	Antenna terminal, in series with 200 mmf.	175 kc	175 kc (121.3°) "X" band	L14 (osc.)
10	Antenna terminal, in series with 200 mmf.	360 kc	360 kc (30.2°) "X" band	C39 (osc.) C11 (det.) C1 (ant.)
11	Repeat oscillator adjustments in steps 9 and 10.			

\* Adjust for coincident response curves when using oscillograph.

\*\* Readjust L23, L22, L16, and L15 several times to secure coincident curves. Turn fidelity control full clockwise (broad) and check response, which should be symmetrical, and with greater gain than on sharp.

\*\*\* Use minimum capacity peak if two peaks can be obtained with C37.

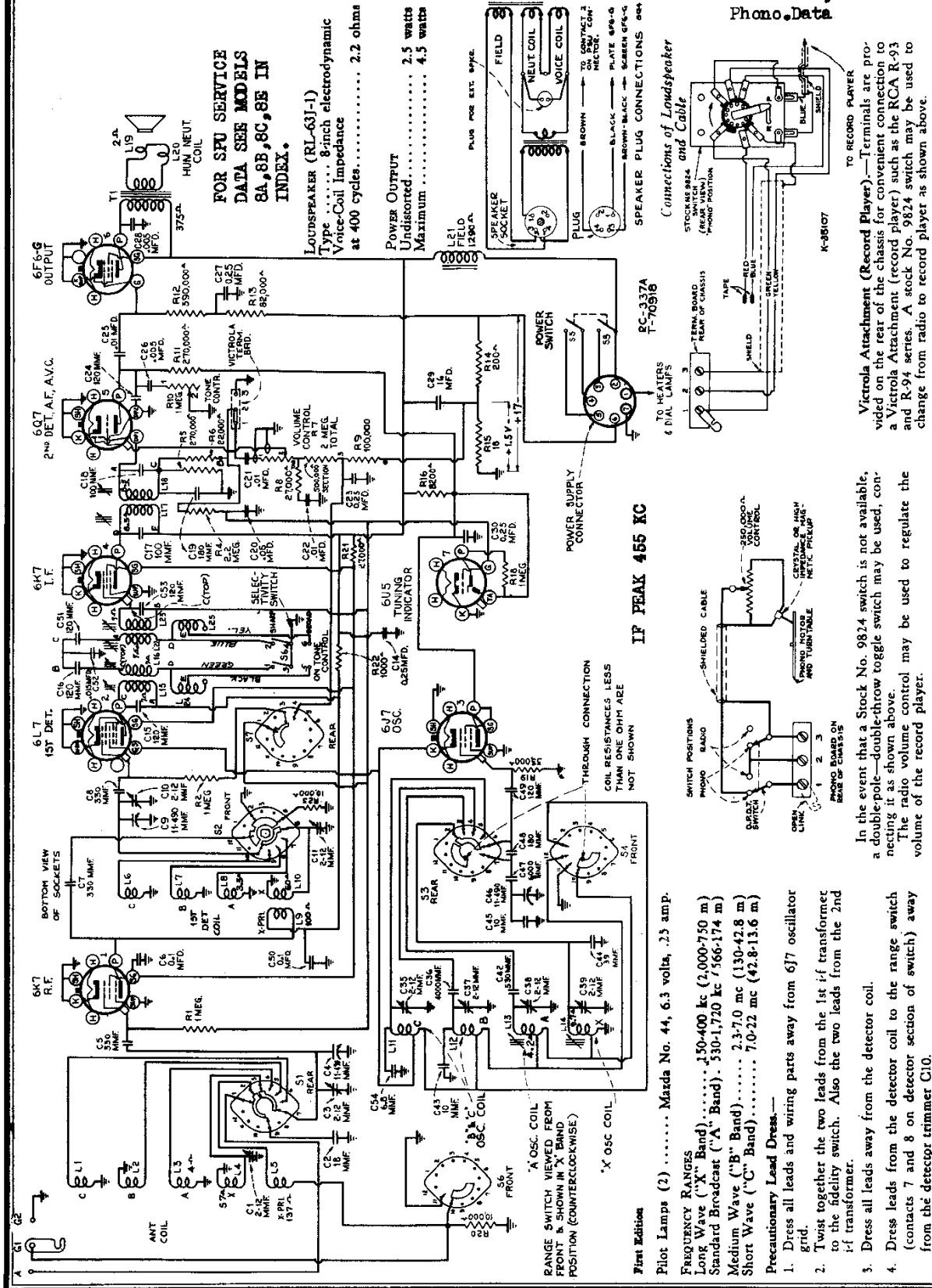
† Rock the gang condenser slightly and use maximum capacity peak if two peaks can be obtained with C10. Check to determine that C37 has been adjusted to the correct peak by turning receiver to 5.19 mc (50°) where a weaker signal should be received.

†† Use minimum capacity peak if two peaks can be obtained, and check to determine that C35 has been adjusted to the correct peak by turning the receiver to 19.09 mc (27½°) where a weaker signal should be received.

NOTE: The oscillator tracks 455 kc above the signal on all bands.

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MODEL 8Q4  
Ch. RC-337A  
Schematic, Lead Dress  
Phono. Data



FOR SPK SERVICE  
DATA SEE MODELS  
8A, 8B, 8C, 8E IN  
INDEX.

LOUDSPEAKER (RL-631-1)  
Type.....Switch electrodynamic  
Voice-Coil Impedance  
at 400 cycles.....2.2 ohms

POWER OUTPUT  
Undistorted.....2.5 watts  
Maximum.....4.5 watts

IF PEAK 455 KC

- First Edition
- Pilot Lamps (2)..... Mazda No. 44, 6.3 volts, .25 amp.
- FREQUENCY RANGES  
Long Wave ("X" Band).....150-400 kc (2,000-750 m)  
Standard Broadcast ("A" Band).....530-1,720 kc (566-174 m)  
Medium Wave ("B" Band).....2.3-7.0 mc (130-42.8 m)  
Short Wave ("C" Band).....7.0-22 mc (42.8-13.6 m)
- Precautionary Lead Dress—
1. Dress all leads and wiring parts away from 6J7 oscillator grid.
  2. Twist together the two leads from the 1st i-f transformer to the fidelity switch. Also the two leads from the 2nd i-f transformer.
  3. Dress all leads away from the detector coil.
  4. Dress leads from the detector coil to the range switch (contacts 7 and 8 on detector section of switch) away from the detector trimmer C10.

**MODEL 8Q4**  
**Chassis Wiring, Voltage**  
**SPU Notes, Dial Data**

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**Bottom View of Chassis, with R-F Wiring Diagram and Socket Voltages**

Measurements made to chassis unless otherwise indicated, with set tuned to quiet point and volume control at minimum. Values should hold within approximately  $\pm 20\%$  with 117-volt a-c supply.

\* NOTE: Values with star (\*) are operating voltages in circuits with high seriesresistance. The actual measured voltages will be lower, depending on the voltmeter loading.

**Miscellaneous Service Data**

**Plug for Extension Loudspeaker.**—A two-contact female socket, equipped with a male plug, is connected across the secondary of the output transformer on the loudspeaker to facilitate the connection of an extension loudspeaker if desired. A permanent-magnet dynamic speaker, with voice-coil impedance of not less than 2 ohms is recommended. The voice coil of the extension speaker should be connected by means of two-conductor cable (such as is used on electric appliances) to the male plug. This cable may be any desired length up to several hundred feet. With a long run, it is advisable to use heavier cable. An extension speaker with 2-ohm voice coil will receive approximately half the power output of the receiver. With a higher-impedance voice coil, the percentage of power delivered to the extension speaker will be decreased. (A high-impedance magnetic-type speaker may be used in conjunction with a suitable coupling transformer such as RCA Stock No. 7853.) The RCA MI-6248 Alnico 8-inch diameter permanent-magnet dynamic loudspeaker with 2-ohm voice coil, and 5-watt power-handling capacity is recommended. This speaker may be housed in the RCA MI-6292 sloping-front walnut-finished wood housing.

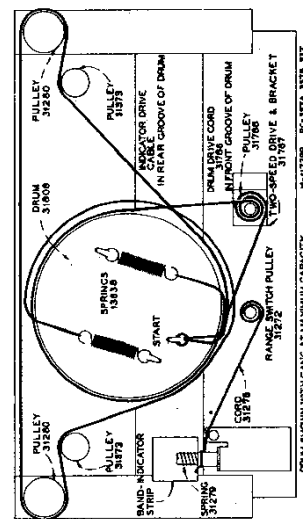
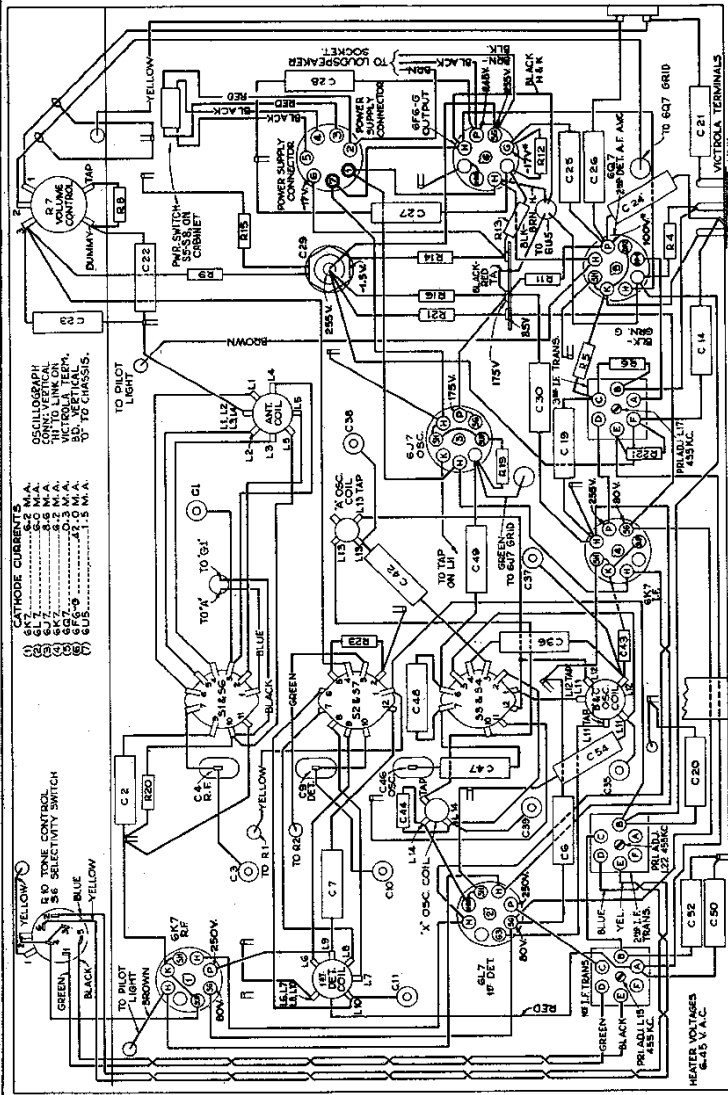
**Antenna Connections.**—Three terminals ("A," "G1," and "G2") are provided on the rear of chassis. Connect the antenna to "A." Connect "G1" to a nearby ground. A link connects "G1" and "G2." In case of electrical interference (especially on "X" band) open the link and connect "G2" separately to ground. This also applies when a D-C power supply is used.

**Arrangement of Drive Cords for Tuning Condenser and Dial Indicator**

**Power Supply Units**

Model 8Q4 has a seven-prong connector for connection to a separate power supply unit. Units are available in different ratings for a-c and d-c operation, as listed under "Power Supply Ratings" in the electrical specifications.

The d-c power supply unit (PSU 8E) is too large to be mounted inside the cabinet and may be placed on the table behind the receiver, or in any other convenient location that permits plugging into the connector on the receiver chassis. Service data, diagrams, and replacement parts lists for the power supply units are printed in separate service data sheets, which should be referred to for further information.



Volts	Cycles	D-C
105-125	50-60	
105-125	25-60	
105-130, 140-160, 200-225, 225-250	50-60	
105-125, 210-250		D-C

**RANGE INDICATOR** (MAGIC EYE)

**FIDELITY CONTROL** (FULL RANGE)

**RANGE SELECTOR** (A, B, C)

**TUNING** (SOFT, LOUD)

**VOLUME CONTROL** (SOFT, LOUD)

**Location of Controls**  
 A toggle-type power switch is mounted on the right-hand side of the cabinet

**POWER SUPPLY RATINGS**

**A-C Ratings**  
 With PSU 8A .....  
 With PSU 8B .....  
 With PSU 8C .....  
**D-C Rating**  
 With PSU 8E .....