

R.C.A. Victor Co., Inc.

Model: 61-8

Chassis:

Year: Pre 1950

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

Riders Volume 16 - RCA 16-31

Riders Volume 16 - RCA 16-32

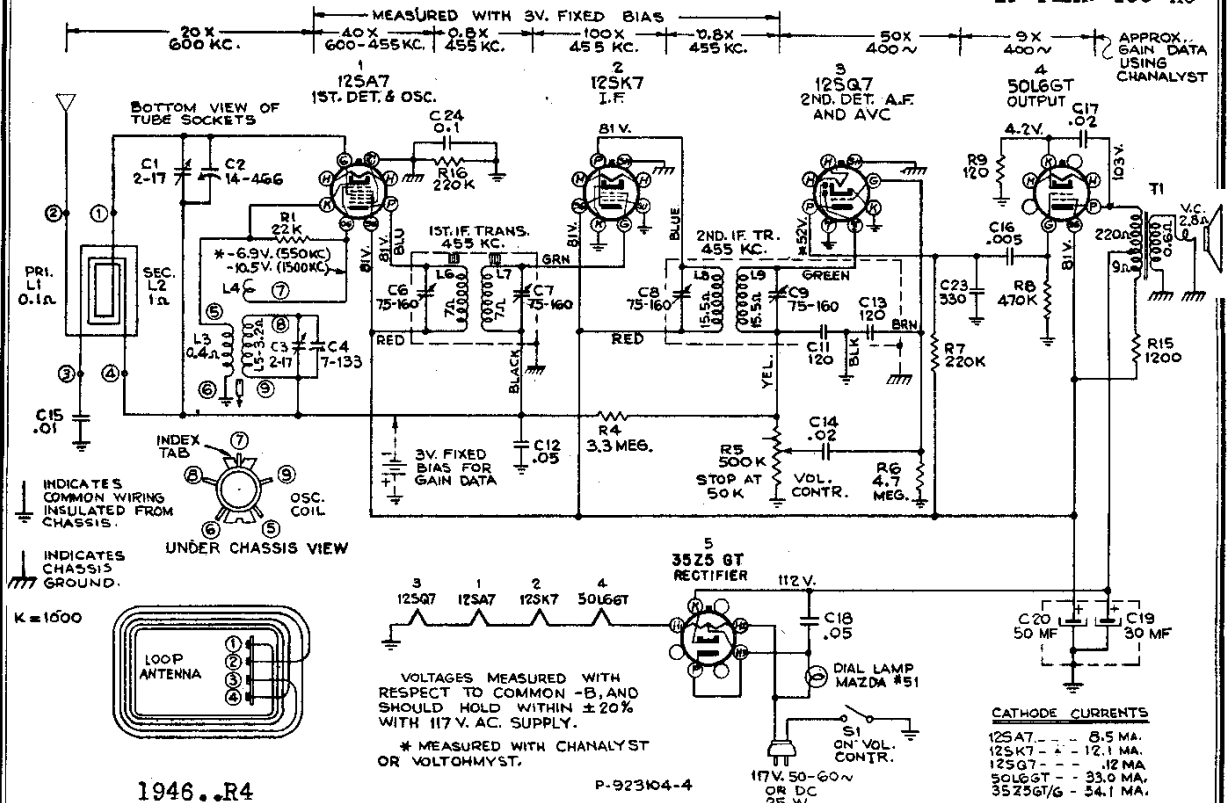
Riders Volume 18 - RCA 18-47

Riders Volume 18 - RCA 18-48

RCA MFG. CO.

MODELS 61-8, 61-9,
Chassis RC1034

IF PEAK 455 KC



Alignment Procedure

Output Meter Alignment.—If this method is used, connect the meter across the voice coil, and turn receiver the 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 oscillator output as low as possible to avoid a-v-c action.

Calibration Scale.—The glass tuning dial may be removed from the cabinet and mounted above the pointer for reference during alignment. The extreme left hand mark of the Standard Broadcast scale must be in line with the left hand mark on the dial backing plate.

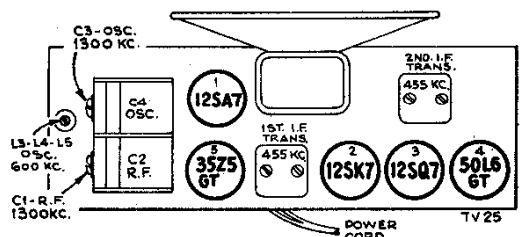
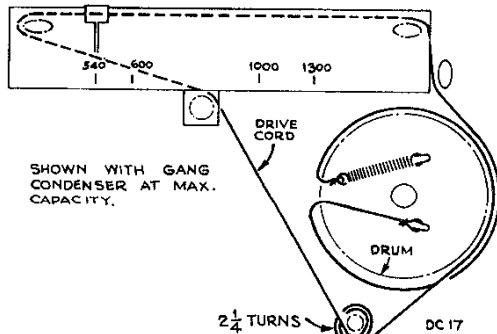
Dial Backing Plate.—In the event that only the chassis is returned for service, the marks on the dial backing plate may be used during alignment; refer to the Dial Indicator and Drive Mechanism drawing for corresponding frequencies.

Dial Pointer.—With the gang condenser in full mesh the dial pointer should be set to the left hand reference mark on the dial backing plate.

For additional information refer to booklet, "RCA Victor Receiver Alignment."

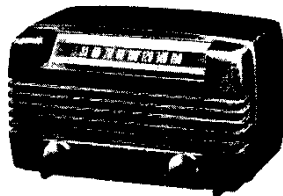
| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output |
|-------|--|--------------------|----------------------------------|---|
| 1 | 12SK7 I-F grid through 0.1 mfd. capacitor | 455 kc | Quiet-point 1,600 kc end of dial | C8 and C9 2nd I-F transformer |
| 2 | Stator of C2 through 0.1 mfd. | | | *C6 and C7 1st I-F transformer |
| 3 | Ant. lead in series with 200 mmfd. | 1,300 kc | 1,300 kc | C3 (osc.) C1 (ant.) |
| 4 | | 600 kc | 600 kc "A" Band | L5 (osc.) Rock gang |
| 5 | Repeat steps 3 and 4 | | | |

*Do not readjust C8 or C9 when test oscillator is connected to C2.

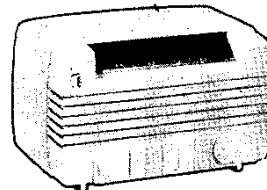


MODELS 61-8, 61-9

RCA MFG. CO.



61-8
(Brown Plastic)



61-9
(Ivory Plastic)

Specifications

Frequency Range..... 540-1600 kc
 Intermediate Frequency..... 455 kc
 Power Output
 Undistorted..... 1.0 watt
 Maximum..... 1.5 watts
Tube Complement
 (1) RCA Radiotron 12SA7..... Converter
 (2) RCA Radiotron 12SK7..... I-F Amplifier
 (3) RCA Radiotron 12SQ7..... 2nd Det., A.V.C., and A-F Amplifier
 (4) RCA Radiotron 50L6GT..... Power Output
 (5) RCA Radiotron 35Z5GT..... Rectifier
Pilot Lamp..... Mazda No. 51, 6-8 volts, 0.2 amp.
Loudspeaker (922258-1)
 Type..... 4" x 6" PM
 V. C. Impedance..... 3.4 ohms at 400 cycles
Cabinet Dimensions
 Cabinet (Outside)..... Height 7" Width 11 3/4" Depth 7 1/2"
 Shipping Weight..... 9 lbs.
 Tuning Drive Ratio..... 20:1
Power Supply Rating
 105-125 volts, AC, 50 or 60 cycles, or DC..... 30 watts

POWER SUPPLY POLARITY.—For operation on DC, the power plug must be inserted in the outlet for correct polarity. If the set does not function, reverse the plug. On AC, reversal of the plug may reduce hum.

Critical Lead Dress

1. Dress blue and green leads of both I-F transformers back in shield cans, leaving them as short as possible.
2. Dress all heater leads next to chassis.
3. Dress power cord toward output transformer away from volume control and audio circuits.
4. Dress capacitor (C14) toward switch and parallel to chassis length.
5. Dress capacitor (C16) back against rear chassis apron.
6. Dress capacitor (C17) over and towards 50L6 socket perpendicular to capacitor (C14) and (C16).
7. Dress pilot lamp leads over second I-F transformer and away from tubes.
8. Dress blue lead from output transformer against front apron and away from I-F leads.
9. Dress contact on oscillator section of gang condenser back away from oscillator coil (L3, 4, 5) adjustment.

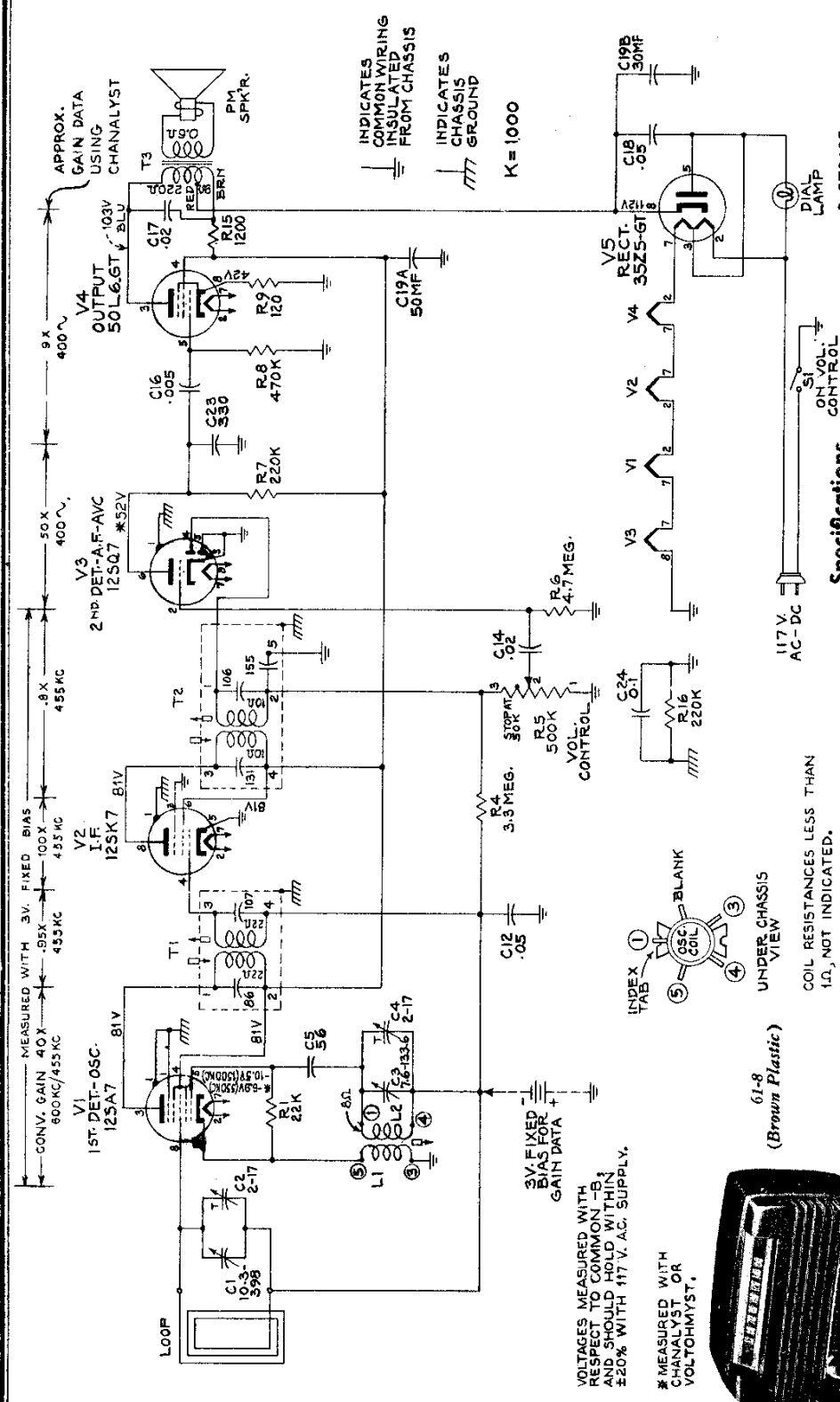
Replacement Parts

| STOCK No. | DESCRIPTION | STOCK No. | DESCRIPTION |
|--------------------------------------|---|---|--|
| CHASSIS ASSEMBLIES RC 1034 | | | |
| 70389 | Bearing—Tuning knob shaft bearing | 34449 | Socket—Lamp socket |
| 39640 | Capacitor—Mica, 330 mmf. (C23) | 37605 | Socket—Tube socket—moulded |
| 70606 | Capacitor—Tubular, .005 mfd., 400 volts (C16) | 70390 | Spring—Drive cord tension spring |
| 70610 | Capacitor—Tubular, .01 mfd., 200 volts (C15) | 70465 | Transformer—First I.F. transformer (L6, L7, C6, C7) |
| 70611 | Capacitor—Tubular, .02 mfd., 400 volts (C14, C17) | 70466 | Transformer—Second I.F. transformer (L8, L9, C8, C9, C11, C13) |
| 70615 | Capacitor—Tubular, .05 mfd., 400 volts (C12, C18) | 70385 | Transformer—Output transformer (T1) |
| 70617 | Capacitor—Tubular, 0.1 mfd., 400 volts (C24) | 33726 | Washer—"C" washer for tuning knob shaft |
| 70408 | Capacitor—Electrolytic, comprising 1 section of 50 mfd., 150 volts and 1 section of 30 mfd., 150 volts (C19, C20) | SPEAKER ASSEMBLY 922258-1 | |
| 70477 | Coil—Oscillator coil (L3, L4, L5) | 70470 | Speaker—4" x 6" P.M. elliptical speaker complete |
| 70463 | Condenser—Variable tuning condenser complete with drum (C1, C2, C3, C4) | NOTE: If stamping on speaker in instrument does not agree with above speaker number, order replacement parts by referring to model number of instrument, number stamped on speaker and full description of part required. | |
| 70322 | Control—Volume control and power switch (R5, S1) | MISCELLANEOUS | |
| 32634 | Cord—Drive cord (approximately 38") | *71794 | Back—Cabinet back for Radiola 61-8 |
| 70464 | Drum—Drive drum | *71795 | Back—Cabinet back for Radiola 61-9 |
| 70469 | Indicator—Station selector indicator | Y1365 | Cabinet—Brown plastic cabinet for Radiola 61-8 |
| 11765 | Lamp—Dial lamp—Mazda 51 | Y1366 | Cabinet—Ivory plastic cabinet for Radiola 61-9 |
| 70468 | Loop—Antenna loop (L1, L2) | 70475 | Clamp—Dial clamp (1 set) |
| 70462 | Plate—Dial back plate complete with drive cord pulleys less dial | *71796 | Dial—Glass dial scale |
| 36230 | Pulley—Drive cord pulley | 37831 | Fastener—Push fastener (1 set) for cabinet back |
| 30189 | Resistor—120 ohms, 1/4 watt (R9) | 70474 | Knob—Control knob—ivory—for Radiola 61-9 |
| 6134 | Resistor—1200 ohms, 1 watt (R15) | 70473 | Knob—Control knob—mottled walnut—for Radiola 61-8 |
| 30492 | Resistor—22,000 ohms, 1/4 watt (R1) | 30900 | Spring—Retaining spring for knob |
| 14583 | Resistor—220,000 ohms, 1/4 watt (R7, R16) | | |
| 30648 | Resistor—470,000 ohms, 1/4 watt (R8) | | |
| 31417 | Resistor—3.3 megohms, 1/4 watt (R4) | | |
| 30931 | Resistor—4.7 megohms, 1/4 watt (R6) | | |
| 70467 | Shaft—Tuning knob shaft | | |

*THIS IS THE FIRST TIME THIS STOCK NUMBER HAS APPEARED IN PRINT.

RADIO CORP. OF AMERICA

MODELS 61-8, 61-9,
CHASSIS RC-1064



INDICATES COMMON WIRING INSULATED FROM CHASSIS

INDICATES CHASSIS GROUND

K = 1000

APPROX. GAIN DATA USING CHANNELYST

9 X 400 ~

50 X 400 ~

8 X 455 KC

MEASURED WITH 3V. FIXED BIAS

CONV. GAIN 40 X 455 KC

100 X 455 KC

800 KC / 455 KC

Specifications

POWER SUPPLY POLARITY.—For operation on DC, the power plug must be inserted in the outlet for correct polarity. If the set does not function, reverse the plug. On AC, reversal of the plug may reduce hum.

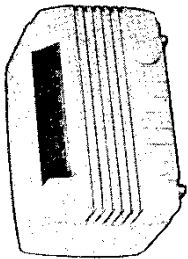
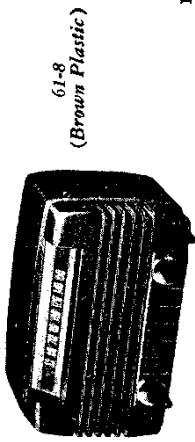
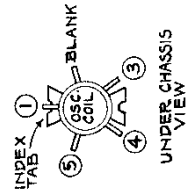
Loudspeaker (922258-1)
Type..... 47 x 67 PM
V. C. Impedance..... 3.4 ohms at 400 cycles

Cabinet Dimensions
Cabinet (Outside)..... 7" Depth
Shipping Weight..... 11 1/2" Width
Tuning Drive Ratio..... 9 lbs. Height
Power Supply Rating..... 20:1
105-125 volts, AC, 50 or 60 cycles, or DC..... 30 watts

Frequency Range..... 540-1600 kc
Intermediate Frequency..... 455 kc
Power Output
Undistorted..... 1.0 watt
Maximum..... 1.5 watts

Tube Complement
(1) RCA Radiotron 12SA7 Converter
(2) RCA Radiotron 12SK7 I.F. Amplifier
(3) RCA Radiotron 12SQ7 2nd Det., A.V.C. and A.F. Amplifier
(4) RCA Radiotron 50L6GT Power Output
(5) RCA Radiotron 55Z5GT Rectifier
Pilot Lamp..... Mazda No. 51, 6-8 volts, 0.2 amp.

COIL RESISTANCES LESS THAN 1Ω, NOT INDICATED.



3V. FIXED BIAS FOR GAIN DATA

VOLTAGES MEASURED WITH RESPECT TO COMMON BIAS AND SHOULD LOAD WITH ±20% WITH 117 V. AC. SUPPLY.

* MEASURED WITH CHANNELYST OR VOLTOHMYST.

MODELS 61-8, 61-9,
CHASSIS RC-1064

RADIO CORP. OF AMERICA

Alignment Procedure

Output Meter Alignment.—If this method is used, connect the meter across the voice coil, and turn receiver the 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 oscillator output as low as possible to avoid a-v-c action.

Calibration Scale.—The glass tuning dial may be removed from the cabinet and mounted above the pointer for reference during alignment. The extreme left hand mark of the Standard Broadcast scale must be in line with the left hand mark on the dial backing plate.

Dial Backing Plate.—In the event that only the chassis is returned for service, the marks on the dial backing plate may be used during alignment; refer to the Dial Indicator and Drive Mechanism drawing for corresponding frequencies.

Dial Pointer.—With the gang condenser in full mesh the dial pointer should be set to the left hand reference mark on the dial backing plate.

For additional information refer to booklet, "RCA Victor Receiver Alignment."

ALIGNMENT TABULATION RC-1064

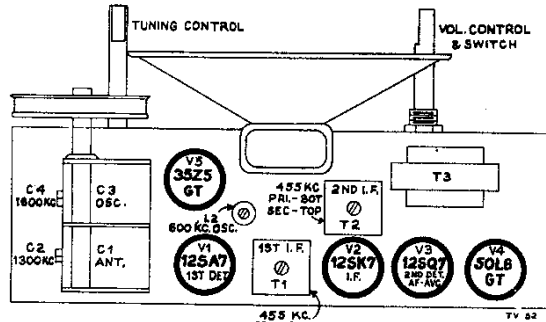
| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output |
|-------|--|--------------------|----------------------------------|---|
| 1 | 12SK7 I-F grid through 0.1 mfd. capacitor | 455 kc | Quiet-point 1,600 kc end of dial | T2 Top & bottom 2nd. I-F trans. |
| 2 | Stator of C1 through 0.1 mfd. | | | *T1 Top & bottom 1st. I-F trans. |
| 3 | Short wire placed near loop antenna | 1,300 kc | 1,300 kc | C4 (osc.) C2 (ant.) |
| 4 | | 600 kc | 600 kc "A" Band | L2 (osc.) Rock gang |
| 5 | Repeat steps 3 and 4 | | | |

* Do not readjust T2 when test oscillator is connected to C2.

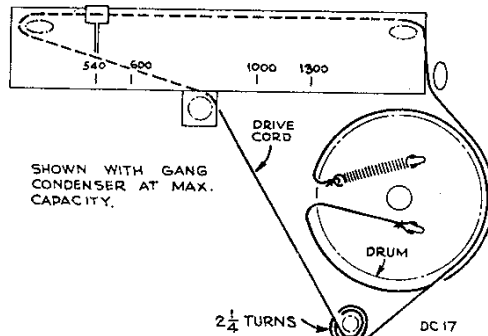
Critical Lead Dress

1. Dress blue and green leads of both I-F transformers back in shield cans, leaving them as short as possible.
2. Dress all heater leads next to chassis.
3. Dress power cord toward output transformer away from volume control and audio circuits.
4. Dress capacitor (C14) toward switch and parallel to chassis length.

5. Dress capacitor (C16) back against rear chassis apron.
6. Dress capacitor (C17) over and towards 50L6 socket perpendicular to capacitor (C14) and (C16).
7. Dress pilot lamp leads over second I-F transformer and away from tubes.
8. Dress blue leads from output transformer against front apron and away from I-F leads.
9. Dress contact on oscillator section of gang condenser back away from oscillator coil adjustment.



TUBE AND TRIMMER LOCATIONS RC-1064



Dial-Indicator and Drive Mechanism

Replacement Parts

| STOCK No. | DESCRIPTION | STOCK No. | DESCRIPTION |
|--|---|-------------------------------------|--|
| CHASSIS ASSEMBLIES RC 1034—RC 1064 | | | |
| 39622 | Capacitor—Mica, 56 mmf. (for RC-1064 & some RC-1034) (C5) | 70467 | Resistor—Fixed composition, 3.3 megohms ± 20%, ½ watt (R4) |
| 72571 | Capacitor—Mica, 330 mmf. (C23) | 34449 | Resistor—Fixed composition, 4.7 megohms ± 20%, ½ watt (R6) |
| 70606 | Capacitor—Tubular, .005 mfd., 400 volts (C16) | 37605 | Shaft—Tuning knob shaft |
| 70611 | Capacitor—Tubular, .02 mfd., 400 volts (C14, C17) | 37605 | Socket—Lamp socket |
| 70615 | Capacitor—Tubular, .05 mfd., 400 volts (C12, C18) | 70390 | Socket—Tube socket, molded |
| 70617 | Capacitor—Tubular, 0.1 mfd., 400 volts (C24) | 70465 | Spring—Drive cord tension spring |
| 70408 | Capacitor—Electrolytic, comprising 1 section of 30 mfd., 150 volts and 1 section of 50 mfd., 150 volts (C19A, C19B or C19, C20) | 70465 | Transformer—First I.F. transformer (for RC-1034) (L6, L7, C6, C7) |
| 70477 | Coil—Oscillator coil (for some RC-1034) (L3, L4, L5) | 73036 | Transformer—First I.F. transformer (for RC-1064) (T1) |
| 71406 | Coil—Oscillator coil (for some RC-1034) (L3, L4) | 70466 | Transformer—Second I.F. transformer (for RC-1034) (L8, L9, C8, C9) |
| 73048 | Coil—Oscillator coil (for RC-1064) (L1, L2) | 73037 | Transformer—Second I.F. transformer (for RC-1064) (T2) |
| 70643 | Condenser—Variable tuning condenser complete with drive drum (for RC-1034) (C1, C2, C3, C4) | 70385 | Transformer—Output transformer (for RC-1034) (T1) |
| 73047 | Condenser—Variable tuning condenser complete with drive drum (for RC-1064) (C1, C2, C3, C4) | 72256 | Transformer—Output transformer (for RC-1064) (T3) |
| 70322 | Control—Volume control and power switch (R-5, S-1) | 33726 | Washer—"C" washer for tuning knob shaft |
| 72913 | Cord—Drive cord (approx. 40" overall length) | SPEAKER ASSEMBLY 922258-1 | |
| 72283 | Grommet—Rubber grommet to mount tuning condenser (3 required) | 70470 | Speaker—4" x 6" elliptical speaker complete with cone and voice coil |
| 70469 | Indicator—Station selector indicator | MISCELLANEOUS | |
| 11765 | Lamp—Dial lamp—Mazda #51 | 71794 | Back—Cabinet back for Radiola 61-8 |
| 70468 | Loop—Antenna loop (for RC-1034) (L1, L2) | 71795 | Back—Cabinet back for Radiola 61-9 |
| 73049 | Loop—Antenna loop complete (for RC-1064) | X1365 | Cabinet—Brown plastic cabinet for Radiola 61-8 |
| 70462 | Plate—Dial back plate complete with drive cord pulleys less dial | Y1366 | Cabinet—Ivory plastic cabinet for Radiola 61-9 |
| 36230 | Pulley—Drive cord pulley | 70475 | Clamp—Dial clamp (1 set) |
| | Resistor—Fixed composition, 120 ohms ± 10%, ½ watt (R9) | 71796 | Dial—Glass dial scale |
| | Resistor—Fixed composition, 1200 ohms ± 10%, 1 watt (R15) | 37831 | Fastener—Push fasteners (1 set) for cabinet back |
| | Resistor—Fixed composition, 22,000 ohms ± 20%, ½ watt (R1) | 70473 | Knob—Control knob—red-brown—for Radiola 61-8 |
| | Resistor—Fixed composition, 220,000 ohms ± 20%, ½ watt (R7, R16) | 70474 | Knob—Control knob—ivory—for Radiola 61-9 |
| | Resistor—Fixed composition, 470,000 ohms ± 20%, ½ watt (R8) | 30900 | Spring—Retaining spring for knob |