

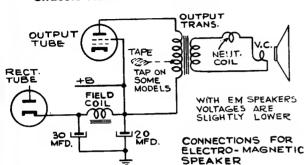
		R.C.A. Victor Co., Inc.		
	Model: 56X3	Chassis:	Year: Pre 1949	
	Power:	Circuit:	IF:	
	Tubes:			
	Bands:			
		Resources		
Beitmans 1946 98				
Riders 15 (XV) RCA 1	15-26			
Riders 15 (XV) RCA 1	15-31			
Riders 18 (XVIII) CHANGES 18-8				

MANUAL OF 1946 MOST POPULAR SERVICE DIAGRAMS

RCAVICTOR

56X, 56X2, 56X3

Chassis No. RC-1011—Mfr. No. 274

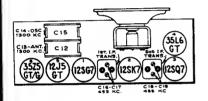


Test Oscillator. - Connect high side of test oscillator as shown in chart. Connect low side through a 01 mf capacitor to common "-B." Keep the output signal as low as possible to avoid AVC action.

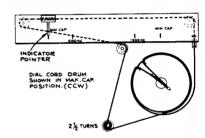
Output Meter.—Connect leads between speaker voice coil and chassis. Turn volume control to maximum clockwise, tone control to maximum highs (clockwise).

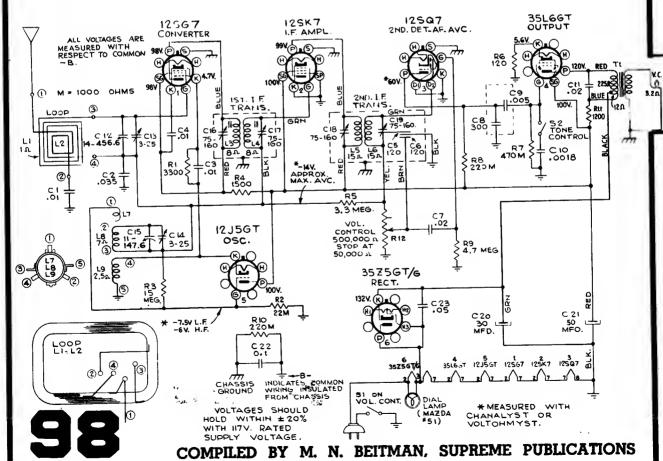
Dial Pointer Adjustment.—Rotate tuning condenser fully counterclockwise (plates closed). Adjust indicator pointer to left (max. Cap.) mark on dial back plate.

Steps	Connect the high side of test-oscillator to—	Tune test-osc. to	Turn radio dial to—	Adjust the fol- lowing for max. peak output	
ı	Stator of C-12 in series with .01 mfd.	455 kc	Quiet-point 1,800 kc end of dial	Ci8 and Ci9 2nd I-F transformer	
2				C18 and C17 1st I-F transformer	
3	Ant. lead in series with 200 mmfd.	1,300 kc	1,300 kc	C14 (osc.) C13 (ant.)	
4	Repeat step 3.				



Radiola Models 61-1, 61-2, 61-3 are similar to models illustrated.





RCA MFG. CO.

MODELS 56X,56X2 56X3_Ch_RC=1011

No.	DESCRIPTION	STOCK No.	DESCRIPTION ·
	CHASSIS ASSEMBLIES RC 1004E		SPRAKER ASSEMBLIES Stamped 92515-1K
38675 39604	Arm—"On-Off" indicator arm Capacitor—Mica, 10 mmf. (C40)	70381 70991	Speaker—5" P.M. speaker less output transformer Transformer—Output transformer
38672 39640	Capacitor—Mica trimmer, I section 120 mmf. 1 section 45-80 mmf. (C21, C22) Capacitor—Mica, 330 mmf. (C6)		SPEAKER ASSEMBLIES Stamped 92515-1P
70627 70712 70615	Capacitor—Paper, .005 mfd., 1200 volta (C7, C8, C19) Capacitor—Paper, .0018 mfd., 700 volta (C5) Capacitor—Paper, .05 mfd., 200 volta (C2)	70381 70992	Speaker—3" P.M. speaker less output transformer Transformer—Output transformer
70617 36718 38705	Capacitor.—Paper, 0.1 mfd., 400 volts (C1) Capacitor.—Electrolytic, 10 mfd., 10 volts (C18, C23) Capacitor.—Electrolytic, 25 mfd., 90 volts (C20)		SPRAKER ASSEMBLIES Stamped 92515-1F
38344 38345 70378	Coil—Antenna coil (I.1, I.2) Coil—Oscillator coil (I.3, I.4) Coil—Wave trap (I.10, I.11)	70381 70993	Speaker—5" P.M. speaker less output transformer Transformer—Output transformer
38599 36080 34662 38821 35069 36090 38350	Condenser—Variable tuning condenser (Co, Clo, Cl1, Cl7) Control—Volume control and power switch (R6, S1, S2) Cord—Drive cord (approx. 50* overall length) Dial—Dial scale fastener for dial plate Indicator—Station selector indicator Lever—Indicator arm actuating lever		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.
38673	Plate—Dial back plate complete with drive cord pulleys and indicator arm		MISCELLANEOUS ASSEMBLIES
30550 32289 39930 30498 12262 30734 30787 14138	Pluce-Cave arm and plug for bettery cable Pulley—Drive cord pulley Pulley—Drive to pulley Resistor—22 ohms, I watt (R17) Resistor—300 ohms, ½ watt (R16, R11) Resistor—500 ohms, ½ watt (R12, R11) Resistor—500 ohms, ½ watt (R12, R12) Resistor—600 ohms, ½ watt (R12, R12, R12, R12, R12, R12, R12, R12,	X1606 36462 35915 36886 36722 71281 30900 38679	Board—Baffie board and grille cloth Clamp—Dial clamp Secutaboon—Dial escutabeon less dial Ratob—Power switch knob Kaob—Yuning knob Kaob—Yuning knob Spring—Retaining spring for knob Syring—Retaining spring for knob Window—
14583 30652			CV-42 ELECTRIFIER
30649 12928 30992 36897	Resistor—2.2 megohm, ¾ watt (R9) Resistor—3.3 megohm, ¼ watt (R1, R13) Resistor—10 megohm, ¼ watt (R4, R7) Shaft—Tuning knob shaft	38702 38701	Ballast—Ping-in ballast tube resistor Capacitor—Electrolytic, comprising 1 section of 30 mfd., 150 volts, 1 section of 30 mfd., 150 volts, and 1 section of 250 mfd., 10 volts
70377 31251 31418	Socket—Tube socket Socket—Tube socket Socket—Tube socket	30847 28451 35069	Capacitor—.05 mfd., 400 voits Cover—insulating cover for electrolytic capacitor Fastener—Push fastener for bottom cover
38349 38670 70379 70380	Spring—Indicator arm return spring Switch—"Battery-Electric" power switch (S3, S4) Transformer—First I.F. transformer (L5, L6, C12, C13)	28452 38702 30730	Plate—Bakelite mounting plate for electrolytic capacitor Resistor—Ballast tube resistor Resistor—2,700 ohms. 14 watt
33726	Transformer—Second I.F. transformer (L7, L8, C3, C4, C14, C15) Washer—"C" for tuning knob shaft	31027 31251 38702	Socket—Power output socket Socket—Tube or ballast resistor socket Tube—Ballast tube resistor

CIRCUIT DESCRIPTION.—Superheterodyne with one stage of radio frequency amplification, automatic volume control and class "A" beam power output. Battery operation, with optional AC-DC socket power attachment available. Model 55F can be operated on 105-125 volts AC, 50-60 cycles, or 105-125 DC, by means of an RCA CV-42 Electrifier.

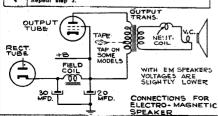
LOUDSPEAKER (5 inch) 92515-1 POWER SUPPLY

FOWER SOLUTION OF THE PROPERTY OF THE PROPERTY

POWER CONSUMPTION

Models 56X, 56X2, 56X3

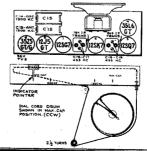
Steps	Connect the high side of test-oscillator to—	Tune test-osc. to—	Turn radio dial to—	Adjust the fol- lowing for max. peak output
1	Stator of C-12 in series with .01 mfd.	Quiet-point 1,800 kc end of dial	Quiet-point	C18 and C19 2nd I-F transformer
2			C16 and C17 ist I-F transformer	
3	Ant. lead in series with 200 mmfd.	1.300 kc	1,300 kc	C14 (osc.) C13 (ant.)
4	Repeat step 3.			



Test Oscillator. Connect high side of test oscillator as shown in hart. Connect low side through a .01 mf capacitor to common -B." Keep the output signal as low as possible to avoid AVC

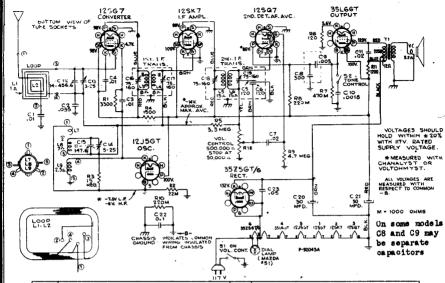
Output Meter. - Connect leads between speaker voice coil and chassis. Turn volume control to maximum clockwise, tone control to maximum highs (clockwise).

Died Pointer Adjustment. Rotate tuning condenser fully counter-clockwise (plates closed). Adjust indicator pointer to left (max. Cap.) mark on dial back plate.









STOCK No.	DESCRIPTION	STOCK No.	DESCRIPTION
	CHASSIS ASSEMBLIES		
	RC 1011		Socket—Tube socket, moulded
		31418	Spring—Drive cord tension spring
37359	Capacitor—Comprising I section of .0003 mid. and I section		Switch-Tone switch (5-2)
	of .005 mfd. (C-8, C-8)	70411	Transformer—First I.F. transformer (L-3, L-4, C-16, C-17) Transformer—Second I.F. transformer (L-5, L-6, C-5, C-6)
70712	Capacitor—Paper .0018 mid., 800 volts (C-10)	70412	C-18, C-19)
70652		36800	
70711	Capacitor—Paper .02 mid., 700 volts (C-7, C-11)	33726	Washer—"C" washer for tuning knob shaft
70635 70615	Capacitor—Paper .035 mfd., 500 volts (C-2)	33/20	washer C washer for landing know shall
	Capacitor—Paper .05 mid., 400 volts (C-23)	i i	
70817		I.	SPEAKER ASSEMBLY
39152	Capacitor—Electrolytic, comprising 1 section of 30 mfd., 150		92510-1
39824	volts, and I section of 50 mtd., 150 volts (C-20, C-21)		72310-1
36226	Coil—Oscillator coil (L-7, L-8, L-9) Condenser—Variable tuning condenser (C-12, C-13, C-14,	70413	Speaker-S-inch PM speaker, complete
38336	Condenser—Variable funing condenser (C-12, C-13, C-14, C-15)	,,,,,	NOTE: If stamping on speaker in instrument does a
36242	Control-Volume control and power switch (R-12, S-1)		garee with above speaker number, order replace
30242	Control—Volume control and power switch (R-12, 5-1) Cord—Drive cord (approx. 49" long)		ment parts by referring to model number of it
70392	Cord—Power cord		strument, number stamped on speaker and full d
36227	Drum-Drive drum		scription of part required.
38236	Indicator—Station selector indicator for 56% and 56%2	1	
	Indicator—Station selector indicator for 56X3	1	MISCELLANEOUS ASSEMBLIES
	Loop—Antenna loop (L-1)		MIDCELLAREOUS ASSEMBLIES
11765	Lamp-Dial lamp	39953	Back-Cabinet back for 56X
36229	Plate-Digi back plate complete with pulleys less digi	70409	
	Pulley-Drive cord pulley	78415	Back—Cabinet back for SSX3
30189	Resistor-120 ohms, 1/4 watt (R-6)	X1604	
6134	Resistor-1200 ohms, 1 watt (R-11)	36890	Clamp-Dial clamp, left hand, for 56X and 56X2
30654	Resister-1500 ohms, 1/4 wett (R-4)	36891	Clamp—Dial clamp, right hand, for 56X and 56X2
30733	Registor-3300 ohms. 1/4 watt (R-1)	39954	Digi-Glass digi scale for 56X and 56X2
30492	Resistor-22,000 ohms, 1/4 watt (R-2)	70410	Digl-Glass digl scale for 58X3
14583	Resistor-220,000 ohms, 1/4 watt (R-S, R-10)	37833	Fastener-Push fastener (1 set) for cabinet backs on 56
3084#	Resistor-470,000 ohms, 1/4 watt (R-7)		and 36X2
38785	Resistor—15 megohms, 1/4 watt (R-3)	33606	Feet—Rubber leet for cubinet (4 required)
	Resistor—3.3 megohms, 1/4 watt (R-5)	70414	Knob-Control knob (ivery) for 58K2
30931	Resistor—4.7 megohme, 1/4 watt (R-9)	38722	Knob-Control knob (wainut) for SSX and SSX3
36687	Shaft—Tuning knob shaft	30900	Spring—Retaining spring for knob
ntical L	ead Dress	Frequen	cv Range 540-1600 k
Dress	output plate bypass capacitor (C-11 .02 mf) against		ligite Frequency 455 kg
Dress	35L6GT plate lead (red) against chassis and away from	Power C	Dutput
wolum	e control. leads and terminals.		ted
		Oliginator.	10 was

Undistorted ... Maximum

Tuning Drive Ratio ...

Loudspeaker (92510-1)

Type V. C. Impedance

Power Supply Rating 105-125 volts, AC, 50 or 60 cycles, or DC

3. Dress audio coupling capacitor (C-7 .02 mi) away from 35L6GT heater leads.

Dress lead to speaker voice coil away from tuning shaft "C" washer.

Dress tone control capacitor (C-10, .0018 mf.) away from oscillator coil.

oscillator coil.

5. Dress all uninsulated leads away from each other and away from chassis to prevent short circuits.

5. Dress blue and green leads of both IF transformers back in shields leaving exposed lengths no short as possible.

Dress tone control lead against front apron Dress 2nd 1-F yellow and brown leads away from output plate bypass capacitor (C11, .02 mf.) and away from all heater leads.

.... Mazda No. 51, 6-8 volts, 0.2 amp.

5-inch PM 3.4 ohms at 400 cycles

RCA OB55, Chassis RC-563A

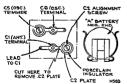
The following changes pertain to RCA QB55, chassis RC-563A appearing on pages 15-27 to 15-28 of Rider's Volume XV. In some chassis the 12-µµf section (C20) of the electrolytic capacitor has been changed to 20-µµf and the 20-µµf section (C22) has been changed to 0.03µf and C18 to 0.03µf and C18 to 0.03-µf.

RCA 54B Series

These receivers have been produced with loops of two types of construction: "taped," in which the coil is fastened to the loop cover with Scotch tape; and "cemented," wherein the coil is fastened to the loop cover with coil cement. Receivers using "cemented" loop have been produced with and without the antenna trimmer capacitor, C2. Receivers using the "taped" loop have only been produced with antenna trimmer C2, and they are to be aligned according to the instructions on page 15-22 of Rider's Volume XV. In the case of those receivers using the "cemented" loop which has the trimmer C2, this capacitor is removed before alignment. Trimmer C2 is removed by removing the C2 alignment screw and cutting off the C2 capacitor plate as shown in the accompanying illustration.

Removal of the trimmer necessitates changes in the alignment for sets using the "cemented" loop. Refer to the alignment instructions on page 15-22. Steps 1 and 2; connect the high side of the test oscillator to the connection lug of C1 located on rear of gang in series with 0.01-#f capacitor. Step 3: test oscillator tuned to 1500 ke; the gang capacitor is rocked instead of being set to 1600 kc. Step 4: omitted. Step 5: the gang capacitor is rocked instead of being set to 600 kc. All other instructions are the same with the foregoing exceptions.

If there is distortion and low volume in the RCA 54B series, check



Before aligning the RCA model 54B with a "cemented" loop, C2 is removed, as indicated

the coupling capacitor C19 (0.002 #f) for leakage. This capacitor couples the audio signal from the 185 tube to the 384 output tube. This capacitor has only a 150-volt rating and it

should be replaced with one that has a 200-volt rating.

The following is a list of changes for the parts lists for these models:

- Delete Stock No. 70454—Capacitor-Tubular, 0.002 μf, 150 volts (C14, C19)
- 2. Add Stock No. 72315—Capacitor-Tubular 0.002 #f, 200 volts (C14, C19).
- Delete Stock No. 70453—Capacitor-Tubular, 0.02 μf, 100 volts (C10, C15)
- 4. Add Stock No. 71928—Capacitor-Tubular, 0.02 \(\mu f \), 200 volts (C10, C15).

NOTE: C15 (Stock No. 71928) should be located adjacent to the output transformer instead of under the socket subpanel, since its physical size is slightly larger than C15 (Stock No. 70453).

RCA 54B1, 54B2, 54B3

These models appear on pages 16-28 to 16-24 of Rider's Volume XV. The position of the green and black leads of the second if transformer (stamped (9229462) have been transposed to facilitate assembly. This change affects only the wiring, not the schematic.

RCA 56X, 56X2, 56X3, Chassis RC-1011, A. B

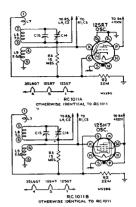
These models are the same as Model 56X on pages 16-31 and 16-80 of Rider's Volume XV, except for the following changes. Some: sets have a 220,000-ohm resistor in shunc with the primary of the first id transformers may not need this resistor if the if amplifier seems stable.

Some sets have a 22-ohm, 1-watt resistor as a fuse in series with the electrolytic capacitor.

Some sets have a 56-\(\mu\mu\) capacitor from terminal 1 of the oscillator coil to terminal 2. This is not necessary on replacement coils as they have a built-in capacity winding.

On some models the 500,000-0 hm volume control is not fu nished with a stop 50,000 ohms from the high end of the control. Controls having no stop can be identified by a dot of red lacquer on the left side of the control, viewing the shaft end with terminals up. In models using this completely covered with spaghetit tubing, is connected between the high end of the control and the yellow lead on the second if transformer.

Replacement controls equipped with a stop do not need this external 56,000-hm resistor, so when replacing a volume control, check the resistance between the arm and the high end of the replacement control with the arm turned fully clockwise. A reading of 50,000 ohms will indicate that the control is equipped with a stop and that the 56,000-ohm resistor should be removed before installing the new control.

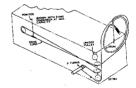


Changes in the oscillator circuit of RCA Chassis RC1011A, above, and Chassis RC1011B, below.

In chassis RC 1011A and chassis RC 1011B, the 1245GT oscillator tube has been replaced with a 128R7 in the former and a 128H7 in the latter. The wiring changes in respect to these tube changes are shown in the accompanying partial schematics. Otherwise chassis RC 1011A and RC 1011B are identical to chassis RC 1011B

RCA 68R1, 68R2, 68R3, 68R4, Chossis RC-608

These models are the same as those illustrated on pager 16-39 to 16-43 of Rider's Volume XVI, except that the dial cord assembly has been redesigned. The revised design uses a simpler method, and the length of the dial cord has been reduced to approximately 67 inches



Revised method for dial cord stringing in RCA models 68R series.

rather than the original 80 inches. See accompanying illustration for method of restringing.

Radio Wire Television M72 and M73

These models are the same as Model M70A which appears on pages 17-6 to 17. 10 of Rider's Volume XVII, with the following exceptions. The 22K resistor (R51) in the grid circuit of the first audio stage has been removed. The 0.02-4 capacitor (C19) which was connected from the top of R51 to one side of the tone control (R14) now is connected from the bottom of R13 to ground.