

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

Model: 25X

Chassis:

Year: Pre March 1942

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

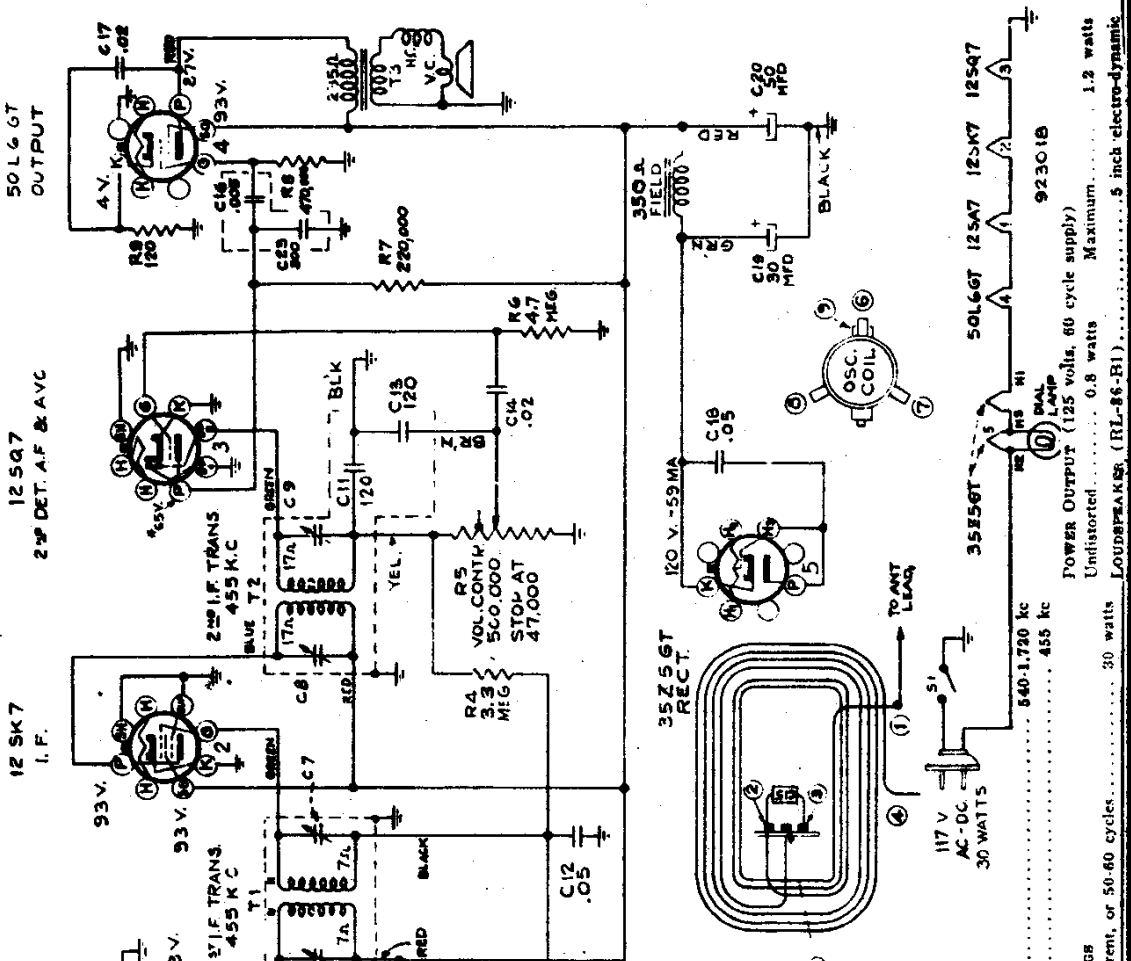
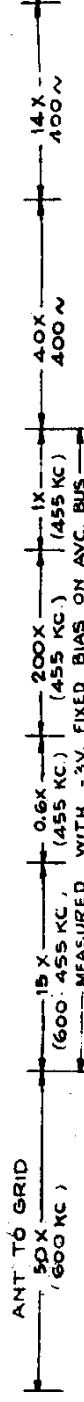
[Riders Volume 13 - RCA 13-21](#)

[Riders Volume 14 - RCA 14-64](#)

[Riders Volume 14 - RCA 14-65](#)

RCA MFG. CO., INC.

APPROX. GAIN
DATA USING
RCA RIDER
CHANNELYST

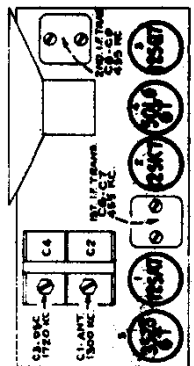


12SA7
1st DET & OSC

12SQ7
2nd DET. A.F. & AVC

50L6GT
OUTPUT

Steps	Connect the high side of test-osc. oscillator to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. peak output
1	I.F. grid in series with .01 mfd.	455 kc	Quiet point	C8, C9 2 nd I.F. Transformer
2	1 st Det. grid in series with .01 mfd.	1,780 kc	Gang at minimum	C6, C7 1 st I-F Transformer
3	Ant. terminal in series with 100 mfd.	1,780 kc	Signal Frequency	C8 (osc.)
4	Radiated signal 1300 kc	Repeat steps 3 and 4.		C1 (ant.)



FREQUENCY RANGE
Intermediate Frequency..... 455 kc
840-1,780 kc

POWER SUPPLY RATINGS
165-125 volts, direct current, or 50-60 cycles..... 30 watts
92301B
POWER OUTPUT (125 volts, 60 cycle supply)
Undistorted..... 0.8 watts Maximum..... 1.2 watts
LOUDSPEAKERS (RL-86-R1)..... 5 inch electro-dynamic

CHANGES, NOTES

RCA MFG. CO., INC.

25X, 34X, 35X

Speakers RL-86-B1, RL-86-B4, 92379-1:

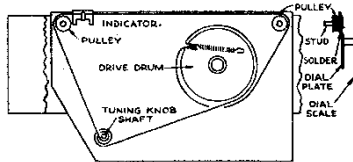
Three different speakers have been used on these models. The replacement parts are listed below:

Stock No.	Description
	(RL-86-B1, RL-86-B4)
32907	Cap—Dust cap
39448	Coil—Field coil—450 ohms.
39447	Cone—Cone complete with voice coil

Stock No.	Description
	(92379-1)
39995	Coil—Field coil—350 ohms.
39994	Cone—Cone complete with voice coil

NOTE: If number stamped on your speaker frame does not appear on above list, order part required by description giving number stamped on your speaker and receiver model.

Stock No.	Description	Unit List Price
38781	Dial assembly complete (New type, including Stock No. 38783 and 34124)	2.50
38783	Pulley (2 pulleys, 2 studs)	.25
34124	Shaft (Shaft and spring washer)	.35



Dial Drive, Model BT-42

QU52C, QU52M

Power Transformer:

Power transformer, Stock No. 32852, is incorrectly described in the Replacement Parts List of the QU52C, QU52M service note. The correct listing is as follows:

Stock No.	Description	Unit List Price
32852	Transformer—Power transformer, 105-125/200-240 volts, 50-60 cycle	4.50

55X

"PM" Speaker 92388-1:

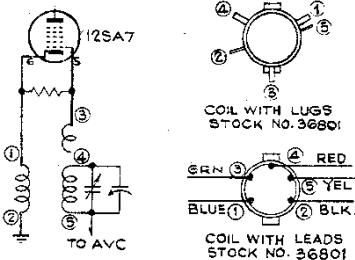
The cone and voice coil for this speaker is Stock No. 39572.

11X1, 35X

Oscillator Coil Connections:

The oscillator coil (Stock No. 36801) drawing, as shown in the service notes of Models 11X1 and 35X, is incorrect.

Two types of Stock No. 36801 coils are in use. One type has terminal lugs, the other has leads. Both types are shown in the accompanying sketch.



Oscillator Coil—Stock No. 36801

36X

Speakers RL-86-B1, RL-86-B4:

Two different speakers have been used on these models. The replacement parts are listed below:

Stock No.	Description
	(RL-86-B1, RL-86-B4)
32907	Cap—Dust cap
39448	Coil—Field coil—450 ohms.
39447	Cone—Cone complete with voice coil

NOTE: If number stamped on your speaker frame does not appear on above list, order part required by description giving number stamped on your speaker and receiver model.

BT-42

Replacement Dial, Pulley, and Shaft:

A complete Dial Assembly (Stock No. 38781) consisting of dial plate, dial scale, pulleys, drive drum, drive cord and spring, shaft, lamp bracket, and terminal strip is available for replacement on the Model BT-42 receiver. However, the original assembly may be brought up to date by replacing the studs and shaft as follows:

File off the two old studs on the dial plate. Tin with solder, the surface (between dial and plate) around the stud holes, and insert the new pulley studs with the heads against the plate.

Solder the studs so their heads are flat against the plate and the shanks are at right angles to the plate.

The pulleys can now be slipped over the studs with the bearing surface toward the plate. Apply a drop of oil on each stud.

Thread the drive cord as shown in the drawing.

45X1, 45X2

Cabinet Replacement:

In order to use wooden cabinet Stock Number X912 as an alternate for plastic cabinets Y806 (Model 45X1) or Y807 (Model 45X2), the following is necessary:

- Remove the baffle and grille by removing three screws.
- Separate the grille from the baffle.
- Fasten the grille to the cabinet.
- Remove the two "L" shaped clamps from the wood blocks.
- Insert chassis and fasten by means of two wood screws screwed to blocks.

45X-1, 45X-2

Changes in 2nd Production:

The AVC filter resistor R4 is changed from 2.2 to 3.3 megs, Stock No. 12928. The output tube bias resistor, R8, is changed from 150 to 120 ohms, Stock No. 30189.

46X SERIES

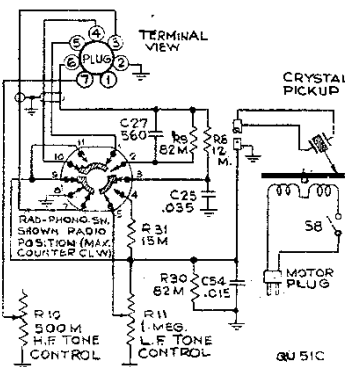
Dial Lamp Burnout:

In Models 46X-1, -2, -3, -11, -12, -13, -21, -23, -24, the dial lamp is Mazda No. 47 (1.5 amp.). In case of frequent burnout, Mazda No. 51 (2 amp.) can be used for replacement.

QU51C

Crystal Pickup Connections:

The schematic "Crystal Pickup Connections (QU51C)" in the QU51C service note is in error in the connections to switch terminals 7, 9, and 11. The correct schematic is shown in the accompanying sketch.



Crystal Pickup Connections, QU51C

U-123 (TWO BAND TYPE)

Knob Stock Numbers:

In the Service Note for U-123, No. 81855 knob should read "Range-switch or radio-record switch knob." No. 14559 knob should read "tuning knob."

V-100

Phono Compensation Change:

Capacitor C17 across the pickup is changed from .015 to .01 mfd., Stock No. 4937.

V-105

Phono Compensation Change:

C17 and R16, shunted across the pickup are changed from .015 to .01 mfd. (Stock No. 4937), and from 47,000 to 68,000 ohms (Stock No. 13716).

Speaker No. 92322-2:

In some production of V-105, the speaker is stamped 92322-2. The cone and voice coil for this speaker is Stock No. 39536.

V-175

Motorboard Mounting:

In the Replacement Parts, under "Miscellaneous Assemblies," change the Stock No. of mounting spring hardware from 81470 to 39563.

V-175

Low Output and/or Distortion:

- Check the following—
- Rectifier tube 25Z6GT (slow in coming up to full plate voltage).
 - Output tube 25L6GT (usually accompanied by high hum).
 - Bias cell reversed. The negative side should connect to the grid of the 6SQ7. See accompanying sketch of bias-cell polarity.



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RCA MFG. CO., INC.

Q27

Capacitor C33:

C33 is changed from 18 to 15 mmfd., Stock No. 12896.

28T

C13 Connections Changed:

In some production, C13, from the plate of the RF tube, is connected to the switch, side of C8 instead of to the grid side of C8.

C51 Deleted:

In 2nd production, C51 (22 mmfd.), Stock No. 14021, connected from antenna terminal to chassis, is omitted.

28X

Change in 2nd Production:

In 1st production, a capacitor C47 is connected from chassis to the junction of R1 and R27 in the RF plate circuit. In 2nd production, C47 is omitted, and terminal 11 on the oscillator coil is connected to the junction of R1 and R27 instead of to the "plus B" bus.

28X, 28X-5

C4 Changed to 47 mmfd:

The oscillator grid capacitor is changed from 28 to 47 mmfd., Stock No. 18141.

28X, 28X-5

Hum Modulation:

This form of hum becomes evident when a station's carrier is tuned in, and disappears when the set is tuned between stations. The hum may be present on only a few locals, or on many stations, depending, among other things, on the type and installation of the a-c supply line.

If hum modulation exists, check to see that there is an .05 mfd., 400-volt capacitor connected from the plate of the 25Z6GT rectifier to -B. Add this capacitor if necessary. The capacitor acts to by-pass RF signals around the rectifier tube.

29K2 (RC-570-D)

With 5-inch "EM" Speaker:

In 2nd production, the 5-inch speaker is changed from "PM" to "EM," as listed below:

**SPEAKER ASSEMBLIES
(RL-86B-5)**

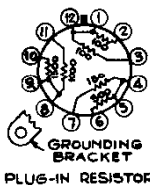
Stock No.	Description
39543	Coil—Field coil—450 ohms
39587	Cone—Cone complete with voice coil
30870	Plug—2-prong male plug for speaker
5118	Plug—3-prong male plug for speaker

Q31, 5Q66

Ballast Resistor Correction:

In the Service Data for Q31, the resistance between terminals 6 and 7 of the ballast resistor M-91462-8 should be 480 ohms instead of 580 ohms.

In the Service Data for 5Q66, the connections inside the ballast resistor M-91462-1 should be as shown in the accompanying drawing.



Ballast M-91462-1 in 5Q66.

25X, 34X, 35X

Electrolytic Capacitor:

Under "Chassis Assemblies," in the Replacement Parts Lists of the above models, delete Stock No. 36301 Capacitor and add:

Stock No.	Description	Unit List Price
35848	Capacitor—Electrolytic comprising 1 section of 30 mfd., 150 volts (C19-25X; C16-34X, 35X) and 1 section of 20 mfd., 150 volts (C20-25X; C-17-34X, 35X).....	.95

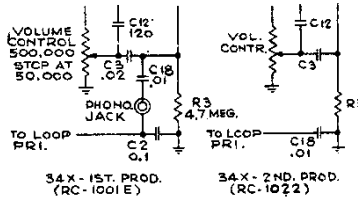
34X—2ND PROD. (RC-1022)

Service Data:

Model 34X—2nd Production (RC-1022) is similar to the 34X—1st Production (RC-1001-E) except as follows:

The phonograph jack has been omitted in 2nd production as shown in the accompanying sketches.

A different loop is used.



Circuit Changes, 2nd Production 34X

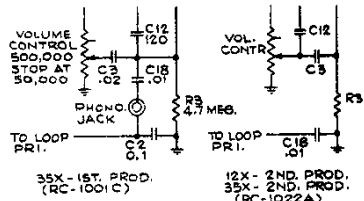
**35X—2ND PROD. (RC-1022-A)
12X—2ND PROD. (RC-1022-A)**

Service Data:

Models 12X—2nd Production and 35X—2nd Production are identical except for cabinet design. The RC-1022-A chassis used in both these receivers is similar to the RC-1001-C chassis used in Model 35X—1st Production, except that the phonograph jack of the 1st Production 35X has been omitted in the RC-1022-A chassis, as shown in the accompanying sketches.

For replacement parts list for both receivers, refer to the Service Notes for 35X (RC-1001-C) with the exception of the following parts used in the 12X—2nd Production and 35X—2nd Production:

Stock No.	Description	Unit List Price
35348	Capacitor — Electrolytic, comprising 1 section of 20 mfd., 150 volts (C17), and 1 section of 30 mfd., 150 volts (C16).....	.95
36248	Capacitor—.02 mfd.....	.20
34298	Capacitor—.01 mfd.....	.30
34662	Cord—Drive cord (approx. 33-in. overall length).....	.25
39823	Loop—Antenna loop.....	1.43
31251	Socket—Tube socket—wafer.....	.95
37605	Socket—Tube socket—moulded.....	.25
37364	Transformer—Second I. F. transformer.....	1.35



Circuit Changes, 2nd Production 12X and 35X

For replacement parts list, refer to the Service Notes for 34X (RC-1001-E) with the exception of the following parts used in the 34X—2nd Production (RC-1022):

Stock No.	Description	Unit List Price
35348	Capacitor—Electrolytic, comprising 1 section of 20 mfd., 150 volts (C17), and 1 section of 30 mfd., 150 volts (C16).....	.95
12723	Capacitor—.56 mmf.....	.35
39628	Capacitor—.100 mmf.....	.35
36248	Capacitor—.02 mfd.....	.20
34298	Capacitor—.01 mfd.....	.30
34662	Cord—Drive cord (approx. 33-in. overall length).....	.25
35078	Knob—Range switch knob.....	.15
39822	Loop—Antenna loop.....	1.70
31251	Socket—Tube socket—wafer.....	.25
37605	Socket—Tube socket—moulded.....	.25
37364	Transformer—Second I. F. transformer.....	1.35

**SPEAKER ASSEMBLIES
(RL-86B-1)**

32907	Cap—Dust cap.....	.02
39448	Coil—Field coil—350 ohms.....	1.30
39447	Cone—Cone complete with voice coil.....	1.20
(RL-86B-4)		
32907	Cap—Dust cap.....	.02
39448	Coil—Field coil—350 ohms.....	1.30
39447	Cone—Cone complete with voice coil.....	1.20
(92379-1)		
39995	Coil—Field coil—350 ohms.....	1.50
39994	Cone—Cone complete with voice coil.....	1.20

NOTE: If the 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.

**SPEAKER ASSEMBLIES
(RL-86B-3)**

32907	Cap—Dust cap.....	.02
39448	Coil—Field coil—350 ohms.....	1.30
39447	Cone—Cone complete with voice coil.....	1.30
(RL-86B-4)		
32907	Cap—Dust cap.....	.02
39448	Coil—Field coil—350 ohms.....	1.30
39447	Cone—Cone complete with voice coil.....	1.30
(92379-1)		
39995	Coil—Field coil—350 ohms.....	1.50
39994	Cone—Cone complete with voice coil.....	1.30

NOTE: If the 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 parts required.

MISCELLANEOUS ASSEMBLIES

37906	Back—Cabinet back (12X—2nd Prod.).....	.35
39775	Back—Cabinet back (35X—2nd Prod.).....	.30
37362	Clamp—Dial clamp (12X—2nd Prod.).....	.20
37363	Dial—Glass dial scale (12X—2nd Prod.).....	.75
39780	Dial—Glass dial scale (35X—2nd Prod.).....	1.50
37831	Fastener—Push fastener (12X—2nd Prod.).....	.10
37907	Handle—Carrying handle (12X—2nd Prod.).....	.30
35078	Knob—Volume or tuning knob (12X—2nd Prod.).....	.15
36722	Knob—Volume or tuning knob (35X—2nd Prod.).....	.20
37909	Mounting—Carrying handle mounting hardware (12X—2nd Prod.).....	.10