

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

Model: 14X

Chassis:

Year: Pre April 1941

Power:

Circuit:

IF:

Tubes:

Bands:

Resources

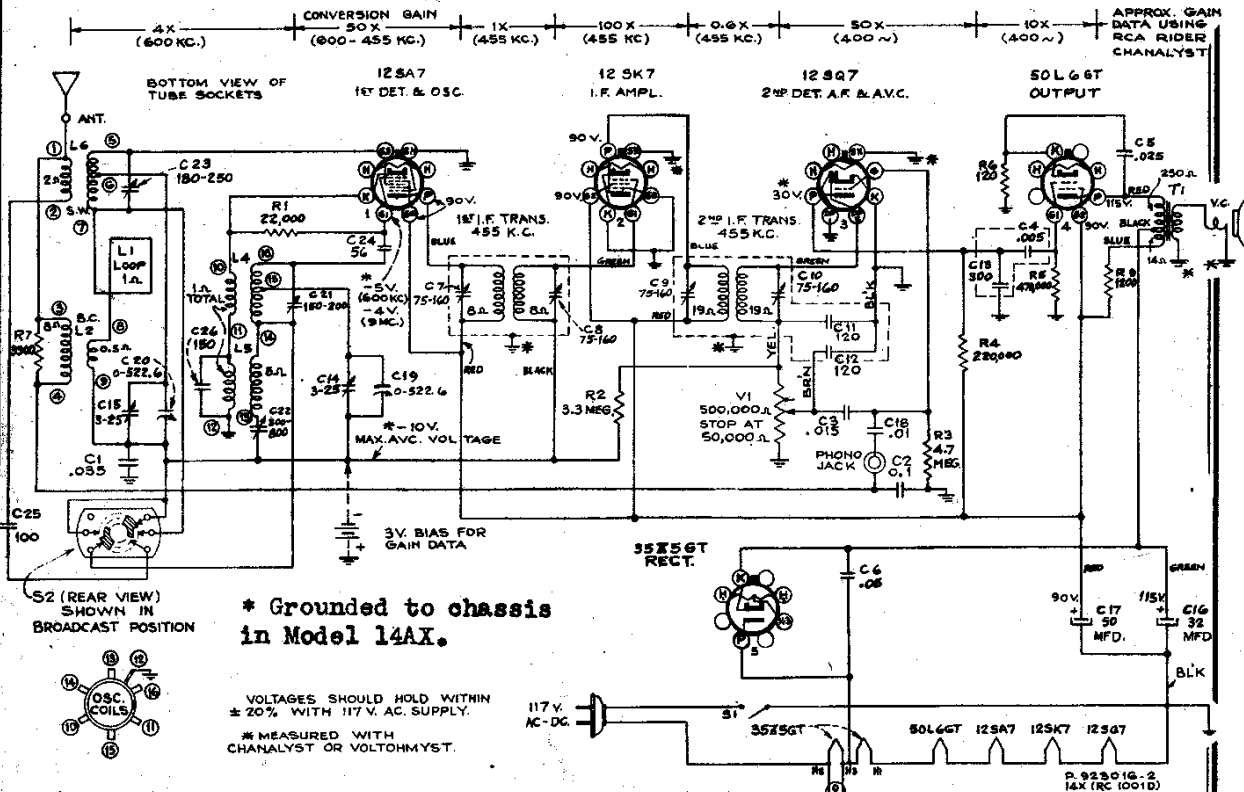
Riders Volume 12 - RCA 12-22

Riders Volume 14 - RCA 14-68

MODEL 14X, Ch. RC1001D
 MODEL 14AX, Ch. RC1001E

RCA MFG. CO., INC.

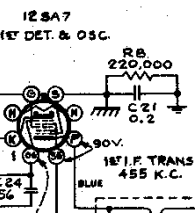
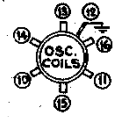
APPROX. GAIN DATA USING RCA RIDER CHANNELYST



* Grounded to chassis in Model 14AX.

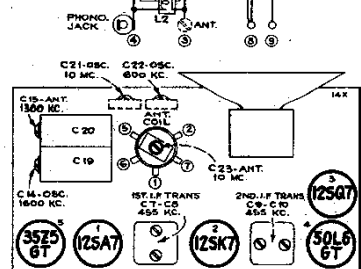
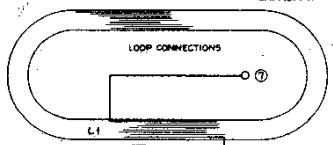
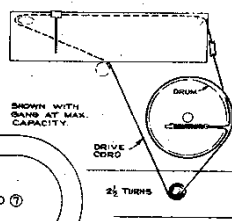
VOLTAGES SHOULD HOLD WITHIN ± 20% WITH 117 V. AC SUPPLY.
 * MEASURED WITH CHANNELYST OR VOLTOHMYST.

S2 (REAR VIEW) SHOWN IN BROADCAST POSITION



Power Output
 Undistorted..... .9 watts
 Maximum..... 1.3 watts

Model 14AX is the same as Model 14X with the exception of the circuit shown above.



Loudspeaker (92161-1)
 Type..... 5-inch permanent-magnet dynamic
 V.C. Impedance..... 3.3 ohms at 400 cycles

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 grid in series with 0.1 mfd.	455 kc	Quiet Point at 1,600 kc end of dial	C10, C9 2nd I-F Transformer
2	12SA7 grid in series with 0.1 mfd.			C8, C7 1st I-F Transformer
3	Antenna term. in series with 47 mmf.	10 mc*	10 mc	C21 (osc.)** C23 (ant.)
4	Antenna term. in series with 200 mmfd.	1,600 kc	1,600 kc	C14 (osc.)
5	Radiation Loop	1,300 kc	Resonance on Signal	C15 (ant.)
6	Radiation Loop	600 kc	600 kc	C22 Osc. Rock in

* It is recommended that this step be repeated using a received station of known frequency.
 ** Use minimum capacity if two peaks can be obtained.

Precautionary Lead Dress.—

1. Dress the power cable to switch on the volume control close to the chassis and away from all grid and diode leads and condensers.
2. Dress capacitors in the 12SQ7 grid circuit away from all wiring.
3. Green and black phono wires should be twisted and dressed away from other parts and leads.
4. 50L6-GT filament wires should be dressed to rear of chassis and away from the second I-F transformer leads.
5. Dress brown lead from second I-F transformer to 12SQ7 away from power cable.
6. Dress wire to No. 1 grid of the 12SA7 away from pilot lamp leads.
7. Dress wire from loop to variable condenser away from chassis.
8. Dress all capacitors, leads, etc. which come close to oscillator coil rigidly and as far as possible from it.

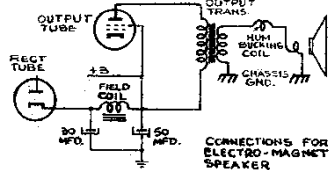
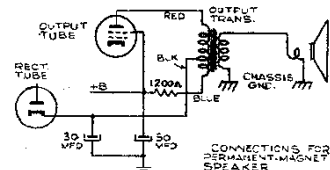
CHANGES, NOTES

RCA MFG. CO., INC.

1X, 12X, 14X SERIES

Speaker changed from "PM" to "EM":

First Production of the following models use RL-81-B2 "PM" (permanent-magnet) speaker. In 2nd Production, the speaker is changed to RL-86-A3 "EM" (electro-magnet) speaker. The circuit for each type of speaker is shown in the accompanying diagrams.



Circuit for "PM" and "EM" Speakers in 1X, 12X, and 14X Series.

Replacement Parts for the RL-86-A3 "EM" speaker are as follows:

Model Number	Chassis Number	Cone and Voice Coil No.	Output Transformer No.
1X, 1X2	RC-1003	35570	35056
1AX, 1AX2	RC-1003A	35570	35056
12X, 12X2	RC-1001B	35570	38994
12AX, 12AX2	RC-1001C	35570	38994
14X, 14X2	RC-1001D	35570	38994
14AX, 14AX2	RC-1001E	35570	38994

Unit List Price: No. 35570, \$1.20
No. 35056, 1.30
No. 38994, 1.30

The Field Coil for RL-86-A3 Speaker is Stock No. 39543.

1X, 1X2, 1AX, 1AX2, 45X5

Line Bypass Capacitor:

In some production, the .005 mfd. line bypass is connected from plate to cathode of the rectifier tube, instead of from plate to chassis.

1X, 1X2, 1AX, 1AX2

2nd Production:

The tuning knob shaft and its "C" washer are changed as follows:

1st Prod.	No.	Shaft	"C" Washer
1st Prod.	No. 35343	(1 1/2-in.)	No. 34373
2nd Prod.	No. 38846	(1 1/2-in.)	No. 38726

Capacitor Changes:

C14 changed from .015 to .02 mfd., No. 36248
C17 changed from .085 to .02 mfd., No. 36248
C24 (1AX, 1AX2) changed from .2 to .1 mfd., No. 43763
R4 changed from 2.2 to 3.3 megs., No. 12928

QB2, QB6

I-F or A-F Transformer Breakdown:

In 2nd production, a 10-megohm, 1-watt resistor is connected across the 4-B circuit electrolytic capacitor to discharge the capacitor when the set is tuned "off." This eliminates any voltage difference (retained by capacitor) between the chassis and I-F and A-F transformer primaries while the set is "off" and therefore reduces transformer breakdown due to electrolysis in humid climates.

CV-112X CONVERTER

AC Power Unit for QB2, QB5, QB6:

The CV-112X is designed to convert Models QB2, QB5, and QB6 from battery to a-c operation. It differs from the CV-112 in that it has a tapped filament winding to provide correct filament voltage with 4- and 5-tube, or 6-tube receivers. A plug, which fits in a socket on the side of the unit, is used to select the correct tap, as shown in accompanying diagram.

QB3 (RC-539)

C15, 66 mfd., Stock No. 36072:

In 2nd Production of QB3, C15 is changed to 66 mfd., (Stock No. 36072, List Price \$.30) to improve tracking.

QB6 (RC-529D)

Service Data:

Model QB6 is essentially the same as Model QB2, except for the following parts which are used in the QB6:

Stock No.	Description	Unit List Price
37976	Bracket—Tone control support bracket	.25
37999	Dial—Glass dial	.75
36103	Decal—Power-volume decal.	.05
37839	Decal—Range switch decal.	.15
85892	Decal—Trade mark decal.	.05
35391	Decal—Tuning decal.	.05
87838	Frame—Dial frame complete, less dial and pointer.	1.25
35650	Knob—Tone control knob.	.25
34861	Knob—Tuning knob.	.35
34862	Knob—Vol. control or range switch knob.	.35

10X, 2ND PRODUCTION

Chassis No. RC-1001-B:

The 1st production of Model 10X has chassis No. RC-1001, with an "EM" speaker.

In 2nd production, the chassis is No. RC-1001-B, with RL-81B2 "PM" speaker.

The circuit in 2nd production is the same as shown in the Service Note for Model 12X.

For replacement parts, refer to the 10X Service Note, and the following parts which are used in the 2nd production:

Stock No.	Description	Unit List Price
36301	Capacitor—Electrolytic, comprising 1 section of 50 mfd., 150 volts, and 1 section of 30 mfd., 150 volts	1.25
11315	Capacitor—.015 mfd.	.20
30189	Resistor—120 ohms, 1/2 watt	.20
6134	Resistor—1,200 ohms, 1/2 watt	.22
30492	Resistor—22,000 ohms, 1/2 watt	.20
14583	Resistor—220,000 ohms, 1/2 watt	.20
36800	Transformer—Output transformer	1.30
SPEAKER ASSEMBLIES (RL-81B-2)		
35570	Cone—Cone complete with voice coil	1.20
36153	Fastener—Push-on fastener for back	.10
35078	Knob—Volume control or tuning knob	.15

LOCATING INTERFERENCE

With a Model BP-10:

The Model BP-10 "Personal" loop receiver has been used successfully in tracking down the source of electrical interference, and the location of local rectification in stubborn cases of local cross-modulation and hum-modulation.

The directional pattern of the BP-10 is essentially a figure "8," with a sharp minimum at right angles to the plane of the loop. The small size, light weight, and high sensitivity of this battery-operated receiver makes it ideally suited for this work.

BP-10 AND 15BP

Oscillator Coil Color Code:

The correct color code for the oscillator coil in these models is as follows:
Lead to oscillator plate..... Blue
Lead to 4-B..... Red
Lead to oscillator grid..... Green
Lead to chassis..... White

SPEAKER GAUGE No. 39598

For BP-10 Elliptical Speaker:

A special gauge, No. 39598, is now available for centering the voice coil in Model BP-10 with elliptical speaker.

CONE CENTERING GAUGE

For BP-10 Round Speakers:

A cone centering gauge for the BP-10 round speaker (Stock No. 36504, Part No. 84991-501) is now available. The gauge is carried as Stock No. 70003.

The cone centering gauge for the BP-10 elliptical speaker is Stock No. 39598 (see Supplementary Information 6 and 7).



Stock No. 70003—Cone Centering Gauge

12X, 12X2, 12AX, 12AX2

Antenna Coupling Coil:

In 2nd production, the shunt resistor R7 across the primary of the antenna coupling coil is omitted, and the antenna coupling coil is changed from Stock No. 37356 to 37962, list price \$.75.

14AX, 14AX-2

Changes in 2nd Production:

C3, in grid circuit of 12SQ7, is changed from .015 to .02 mfd., Stock No. 36248.

C5, in 50L6GT plate circuit, is changed from .025 to .02 mfd., Stock No. 36248.

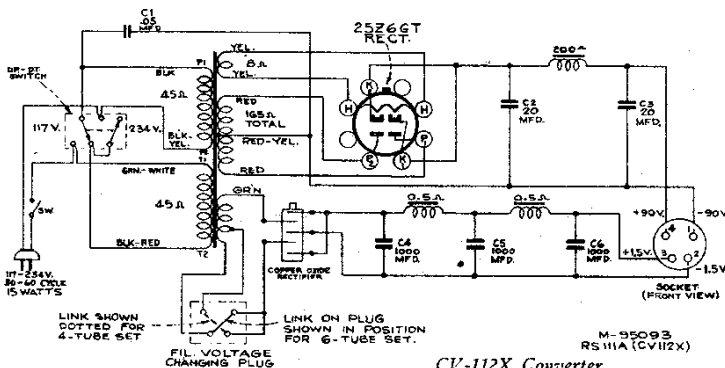
C21, chassis ground to power ground, is changed from .2 to .1 mfd., Stock No. 4899.

14AX2 (RC-1001E)

Service Data:

The Service Data for Model 14AX applies to Model 14AX2, except for the following parts used in 14AX2:

Stock No.	Description	Unit List Price
36801	Coil—Oscillator coil	.65
37353	Condenser—Variable tuning condenser	2.75
38916	Back—Cabinet back	.25
Y1140	Cabinet	4.50
35071	Knob—Control knob	.15
RL-86-A3 "EM" speaker is used in some production of 14AX2, as specified elsewhere in this supplement.		



CV-112X Converter.