



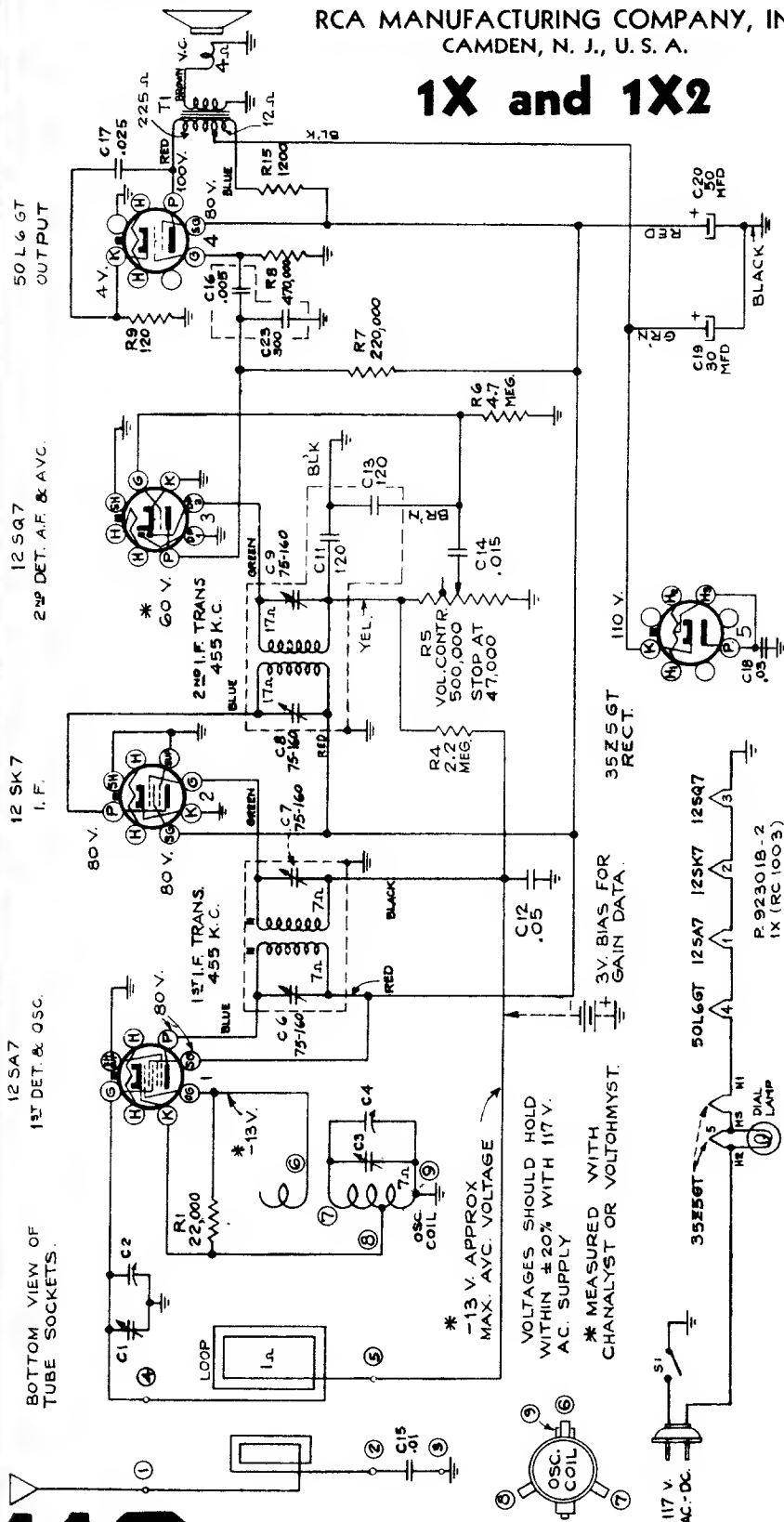
R.C.A. Victor Co., Inc.

R.C.A. Victor Co., Inc.			
	Model: 1X	Chassis:	Year: Pre April 1941
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		
Resources			
Beitmans 1941 118			
Riders 12 (XII) RCA 12-7			
Riders 14 (XIV) RCA 14-68			

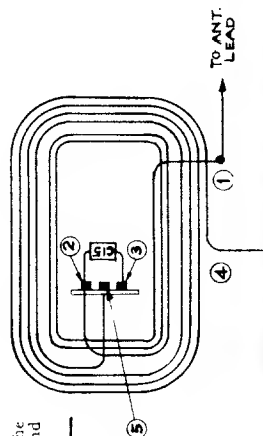
MANUAL OF 1941 MOST POPULAR SERVICE DIAGRAMS

RCA MANUFACTURING COMPANY, INC.
CAMDEN, N. J., U. S. A.

1X and 1X2



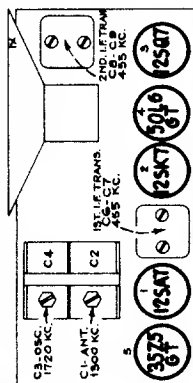
Steps	Connect the high side of test-oscillator to—	Tune test-osc. to—	Turn radio dial to—	Adjust the following for max. peak output
1	I-F grid, in series with .01 mfd.	455 kc	Quiet point 1,600 kc end of dial	C8, C9 2nd I-F Transformer
2	1st Det. grid in series with .01 mfd.			C6, C7 1st I-F Transformer
3	Ant. terminal in series with 100 mmfd.	1,720 kc	Gang at minimum	C3 (osc.)
4	Radiated signal 1300 kc	Signal Frequency		C1 (ant.)
5	Repeat steps 3 and 4.			



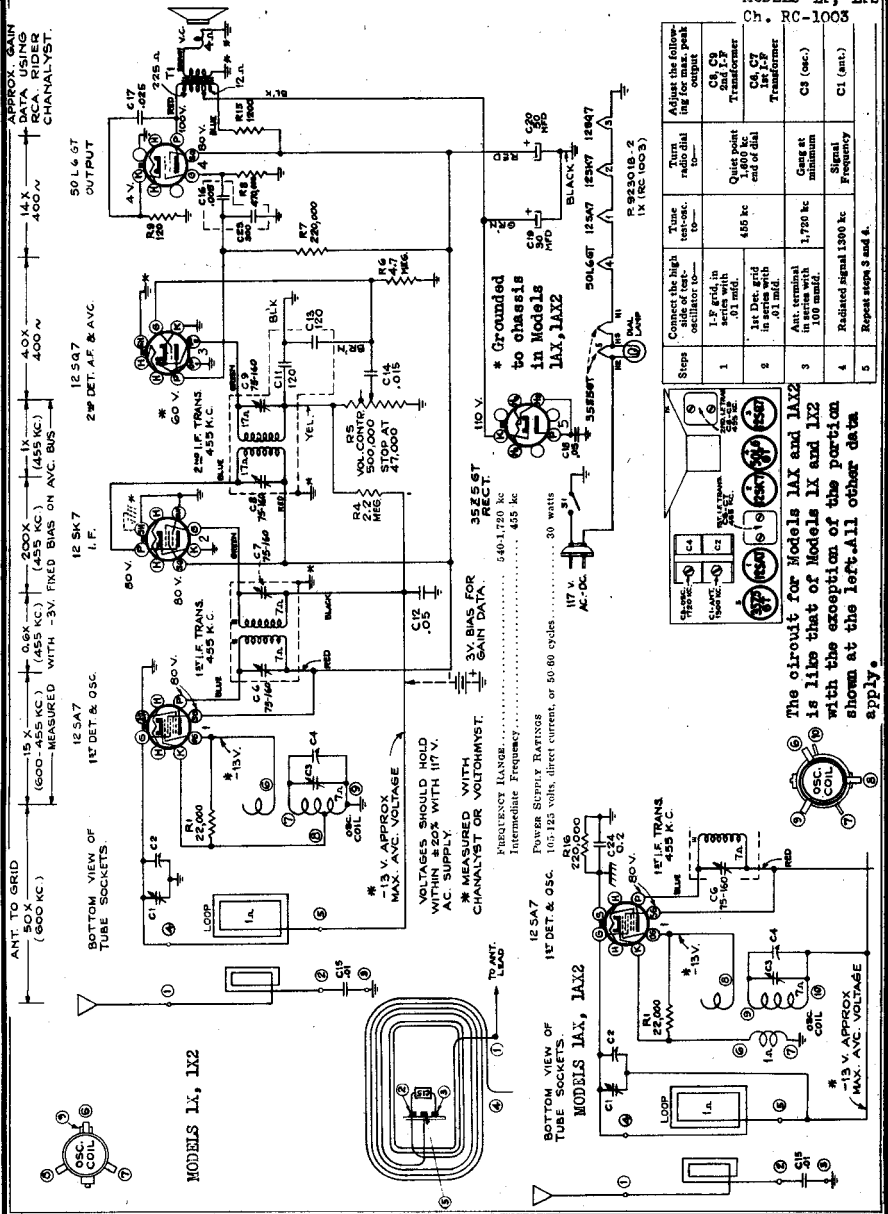
Output Meter Alignment—Connect the meter across the voice coil and turn the receiver volume control to maximum.

Electronic Voltmeter—The electronic voltmeter in the Chanalyst or VoltOhmyst provides an unexcelled output indicator. It should be connected to the AVC bus.

Test-Oscillator—For I-F alignment, connect the low side of the test-oscillator to the receiver chassis through a .01 mfd. capacitor, and keep the output as low as possible.



MODELS 1AX, 1AX2
Ch. RC1003A
MODELS IX, IX2
Ch. RC-1003

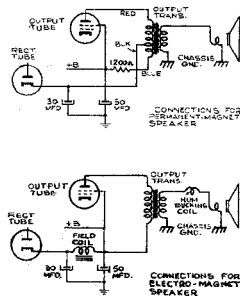


CHANGES, NOTES

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" (electromagnet) 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	Cone and Voice Coil	Output Transformer
1X, 12X	RC-1003	35570	35056
14X, 14AX	RC-1003A	35570	35056
12X, 12AX	RC-1001B	35570	38094
12AX, 12AX2	RC-1001C	35570	38094
14X, 14X2	RC-1001D	35570	38094
14AX, 14AX2	RC-1001E	35570	38094

Unit List Price: No. 35570, \$1.20
No. 35056, 1.30
No. 38094, 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 on 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:

	Shaft	"C" Washer
1st Prod.	No. 35343 (11-in.)	No. 34373
2nd Prod.	No. 38094 (11-in.)	No. 35726

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 meg. 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 tapered 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.

RCA MFG. CO., INC.

QB3 (RC-539)

C15, 66 mfd., Stock No. 36072:

In 2nd Production of QB3, C15 is changed to 80 mfd. (Stock No. 36072, List Price \$.30) to improve tracking.

QB6 (RC-529D)

Service Data:

Model QB6 is essential the same as Model QB3, except for the following parts which are used in the QB6:

Stock No.	Unit List Price
37976 Bracket—Tone control support bracket	.25
37999 Dial—Glass dial scale	.75
36103 Decal—Power-volume decal	.05
37839 Decal—Range switch decal	.10
35392 Decal—Trade mark decal	.05
35391 Decal—Tuning decal	.05
35391 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 test 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, .01 mfd., 150 volts, and 1 section of 30 mfd., 150 volts		1.25
11815 Capacitor—.015 mfd.		.20
30189 Resistor—120 ohms, 1 watt		.20
30492 Resistor—22,000 ohms, 1 watt		.22
14583 Resistor—250,000 ohms, 1 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

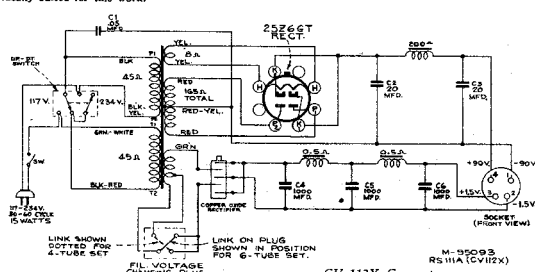
LOCATING INTERFERENCE

With a Model BP-10:

The Model BP-10 "Personal" radio receiver has been used successfully in tracing down the source of electrical interference, and the location of local rectification in subborn 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 +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. 37358 to 37502, 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. 4359.

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.	Unit List Price
36901 Coil—Oscillator coil	.65
37353 Condenser—Variable tuning condenser	2.75
38816 Back—Cabinet back	.25
Y140 Cabinet	4.50
35071 Knob—Control knob	.15

The RL-86-A3 "EM" speaker is used in some production of 14AX2, as specified elsewhere in this supplement.