

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

Model: 29K

Chassis:

Year: Pre March 1942

Power:

Circuit:

IF:

Tubes:

Bands:

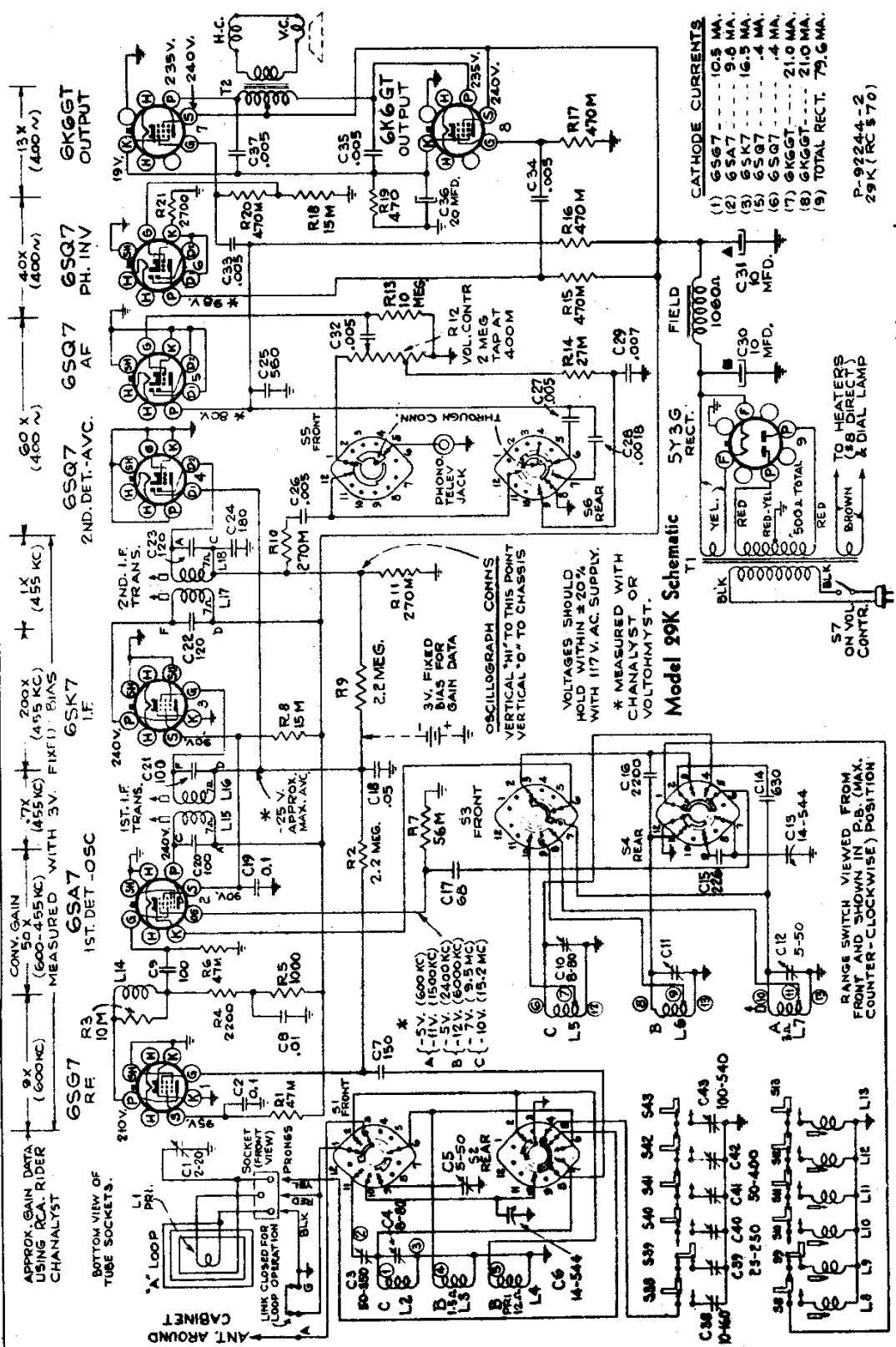
Resources

Riders Volume 13 - RCA 13-35

Riders Volume 13 - RCA 13-36

RCA MFG. CO., INC.

MODEL 29K, Ch. RC-570;
29K2, Ch. RC-570C

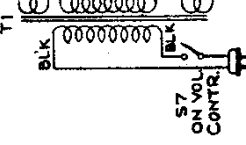


CATHODE CURRENTS

(1) 6SA7	10.5 MA.
(2) 6SA7	9.0 MA.
(3) 6SQ7	16.5 MA.
(4) 6SQ7	4 MA.
(5) 6SQ7	4 MA.
(6) 6SQ7	4 MA.
(7) 6K6GT	21.0 MA.
(8) 6K6GT	21.0 MA.
(9) TOTAL RECT.	79.5 MA.

P-92244-2
29K (RC-570)

Model 29K Schematic



Model 29K2 has two speakers,

FREQUENCY RANGES

Standard Broadcast "A"	540-1,600 kc
Medium Wave "B"	2.3-6.5 mc
Short Wave "C"	9.4-15.4 mc
INTERMEDIATE FREQUENCY	465 kc

- Speaker leads should be dressed close to chassis base and away from the phono plug.
- Primary transformer lead should be twisted around A.C. lead to switch and dressed over top of transformer.
- Dress C7 (150 mmfd. cap.) from range switch to R.F. socket away from all leads and metal parts.

- Precautionary Lead Dress.**
- Dress all filament wiring away from audio and output tube grids.
 - The 226 mmfd. (C15) should be dressed away from all parts and wiring.
 - Leads from 2nd I.F. to tone switch should be dressed under the trimmer bank.

MODELS 29K, Ch. RC-570;
29K2, Ch. RC-570C

RCA MFG. CO., INC.

POWER SUPPLY RATINGS

Rating A..... 105-125 volts, 50-60 cycles, 100 watts
Rating B..... 105-125 volts, 25-60 cycles, 100 watts

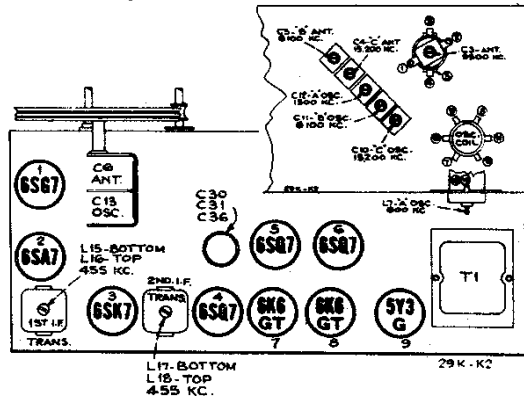
Calibration Scale on Indicator-Drive-Cord Drum.—The tuning dial is fastened in the cabinet and cannot be used for reference during alignment, therefore a calibration scale is attached to the indicator-drive-cord drum which is mounted on the shaft of the gang condenser. The setting of the gang condenser is read on this scale, which is calibrated in degrees. The correct setting of the gang in degrees, for each alignment frequency, is given in the alignment table.

As the first step in R.F. alignment, check the position of the drum. The 135° mark on the drum scale must be vertical, and directly over the center of the gang-condenser shaft when the plates are in minimum capacity position. The drum is held to the shaft by means of plastic cement which must be securely fastened when the drum is in the correct position.

To determine the corresponding frequency for any setting of the calibration scales, refer to the accompanying drawing which shows the dial with 0-180° calibration scales drawn at top and bottom.

Pointer for Calibration Scale.—Improvise a pointer for the calibration scale by fastening a piece of wire to the gang-condenser frame, and bend the wire so that it points to the "0" mark on the calibration scale when the plates are fully meshed.

Dial-Indicator Adjustment.—After fastening the chassis in the cabinet, attach the dial indicator to the drive cable with indicator at the 540 kc mark, and gang condenser fully meshed. The indicator has a spring clip for attachment to the cable.



LOUDSPEAKERS

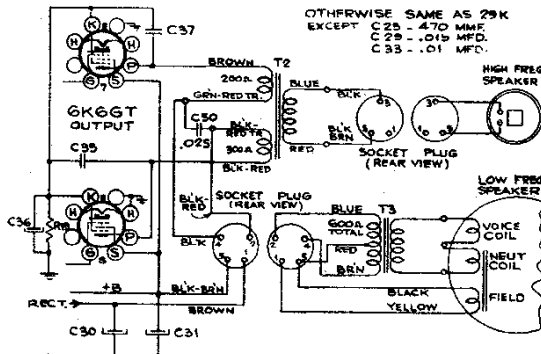
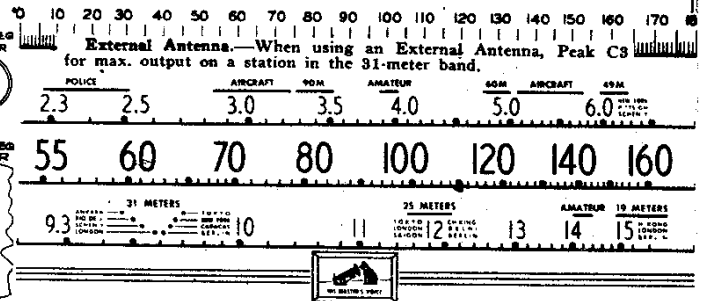
(RL 70J-1)

(RL 81B-6)

Models..... 29K and 29K2 29K2
Type..... 12-inch electrodynamic .. 5-inch Perm. Magnet
V.C. Impedance... 2.2 ohms at 400 cycles .. 3 ohms at 400 cycles

Steps	Connect the high side of test-osc. to—	Tune test-osc. to—	Range Switch	Turn radio dial to—	Adjust the following for max. peak output
1	6SK7 I-F grid in series with .01 mfd.	455 kc	"A"	Quiet Point near 180°	L17 and L18 (2nd I-F Trans.)
2	6SA7 Det. grid in series with .01 mfd.				L-15 and L-16 (1st I-F Trans.)
3	Ant. section of Gang Condenser	1,500 kc	"A"	160°	C-12 (osc.)
4		600 kc		30.5°	L-7 (osc.)
5		6,100 kc	"B"	181°	C-11 (osc.)* C-5 (ant.)
6	Ant. terminal "A" in series with 47 mmf. link open	15,200 kc	"C"	187°	C-10 (osc.)* C-4 (ant.)
7		9,500 kc		32°	C-3 (ant.) (Rock Gang)
8	Repeat steps 6 and 7.				
9	Fasten chassis in cabinet, see that link is closed on antenna terminal board, indicator at left end of dial scales with gang at maximum capacity.				
10	A radiation loop consisting of two turns of wire 18 inches in diameter located 4 to 6 feet from receiver	1,500 kc	"A"	1,500 kc signal	C-1 (ant.) on loop
11		600 kc		600 kc	L-7 (osc.) (Rock Gang)
12	Repeat steps 10 and 11.				

*Use minimum capacity peak if two peaks can be obtained.
Note: Oscillator tracks above signal on all bands.



Model 29K2 Speaker Connections

Phasing Speakers in 29K2

For correct tone, it is ESSENTIAL that the two speakers operate "in phase," so that the two cones move in and out together.

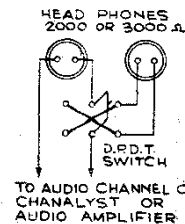
It is necessary to check the phasing whenever a new speaker, cone, field coil, or output transformer is installed, or whenever the speaker connections are altered in any way.

The recommended procedure is as follows:

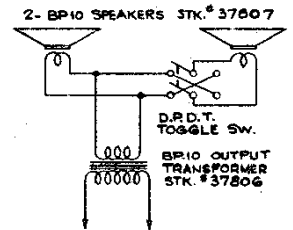
1. Hook up a "phase checker," using headphones or PM speaker units as shown. Connect the checker to an audio amplifier that has an output meter. (The audio channel in the Chanalyst is excellent for this purpose.)

2. Feed a 400-cycle modulated signal into the receiver. Turn volume up to medium. Hold both units of the checker in front of the large speaker in set. Throw the toggle switch to each position and note which position gives maximum output on meter. Mark this position of the switch "in phase." Mark the other position "out of phase."

3. Place one unit of the phase checker in front of each speaker in the set. Throw the toggle switch to each position and leave it at the position that gives greatest output on the meter. Note the switch marking for this position. If it says "in phase," the set speakers are correctly phased. If it says "out of phase," reverse the leads to the voice-coil terminals of the small speaker in the receiver.



"Phase Checker," using Headphones.



TO INPUT OF AN AUDIO AMPLIFIER, OR TO AUDIO CHANNEL OF CHANALYST, OR TO 200 MICROAMP A.C. METER.

"Phase Checker," using small PM speakers.