

HIGH DEFINITION TELEVISION RECEIVER

NINE INCH MIRROR LID CONSOLE

TYPE RR-359



DESCRIPTION

This receiver is designed to receive high definition television pictures and high fidelity sound in the ultra-short wave band between 40 and 50 mcps.

HIGH DEFINITION TELEVISION RECEIVER

It is a superhetro NINE INCH MIRROR LID CONSOLE frequency and double intermediate-frequency channels designed to simultaneously receive two carriers spaced 2000 kilocycles apart, one carrier modulated with video and the other with TYPE RR 359 audio signals. Tuning is accomplished by a single knob controlling the radio-frequency and oscillator circuits.

The picture is reproduced on the screen of a 9" diameter kinescope (ray tube) and is approximately 4-1/2 by 3-1/4 inches. Automatic brightness control is provided for maintaining the brightness of the reproduced image approximately proportional to that of the original. There is an automatic volume control.

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References designed for the LID Field Dept. To order, forms of this manual have been distributed. A copy of 100 provisions must be for the field Dept. We have information, introduction of color data and available.

DESCRIPTION

This receiver is designed to receive high definition television pictures and high fidelity sound in the ultra-short wave band between 42 and 80 megacycles.

It is a superheterodyne having a single radio-frequency and double intermediate-frequency channels designed to simultaneously receive two carriers spaced 2250 kilocycles apart, one carrier modulated with sound and the other with the video frequency signals. Tuning is accomplished by a single knob controlling the radio-frequency and oscillator circuits.

The picture is reproduced on the screen of a 9" diameter Kinescope (cathode ray tube) and is approximately 5-1/2 by 7-1/4 inches. Automatic brightness control is provided for maintaining the brightness of the reproduced image approximately proportional to that of the scene televised. There is an automatic volume control on each channel.

The Kinescope is mounted vertically in the cabinet with the screen at the top and the image is viewed through a mirror mounted on the inside of the adjustable cabinet lid. The cabinet is 40-7/8" high, 25-1/8" wide and 15-5/8" deep. The center of the image in the mirror when adjusted for average viewing is approximately 45" above the floor.

This receiver was designed for the RCA Field Test. To date, three samples of this design have been constructed. A group of 100 receivers will be built for the Field Test. No sales literature, instruction books or other data are available.

Number and Type of Radiotrons - -

4 - 6A6	2 - 2A3	6 - 6D6	2 - 6C6	2 - 42	
2 - 306A	2 - 6H6	1 - 85	1 - 305A	1 - 76	
1 - 6F7	1 - 79	1 - 6F5	1 - 6C5	1 - 1-v	
2 - 5Z3	1 - 878	1 - 879	1 - 0730		Total - 33

Number of AC Power Interlocks - 5

AC Power Rectifiers - -

- 2 - 5Z3 - Full Wave, +285V Rec. Chassis Tubes
- 1 - 879 - Half Wave, +1300V Kinescope 1st Anode
- 1 - 878 - Half Wave, +6000V Kinescope 2nd Anode

PHYSICAL SPECIFICATIONS

Height	40-7/8"
Width	25-1/8"
Depth	15-5/8"

Center of Picture above Floor with Mirror at 45° Angle - 45"

Net Weight	210 lbs.
Shipping Weight (Domestic)	283 lbs.

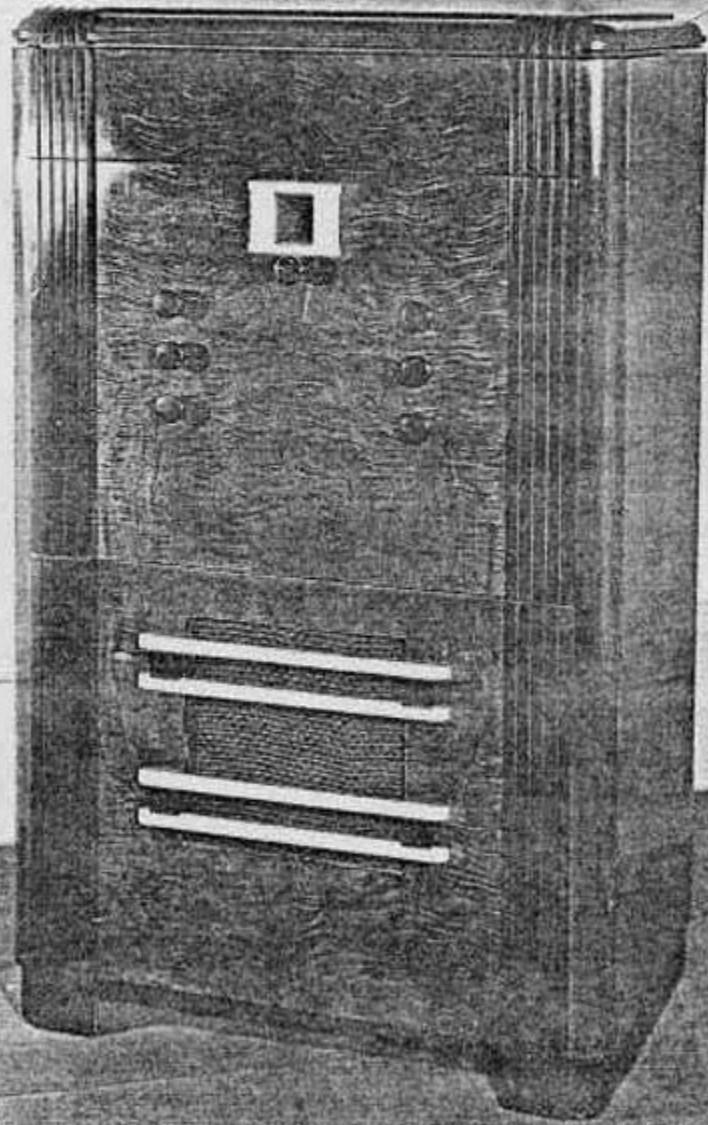
Packing Case (Domestic)	Height	44 1/4"
	Width	29 1/2"
	Depth	20-3/8"
	Space	15.5 cu. ft.

Electro Dynamic Loudspeaker - Double Voice Coil with 8" Cone

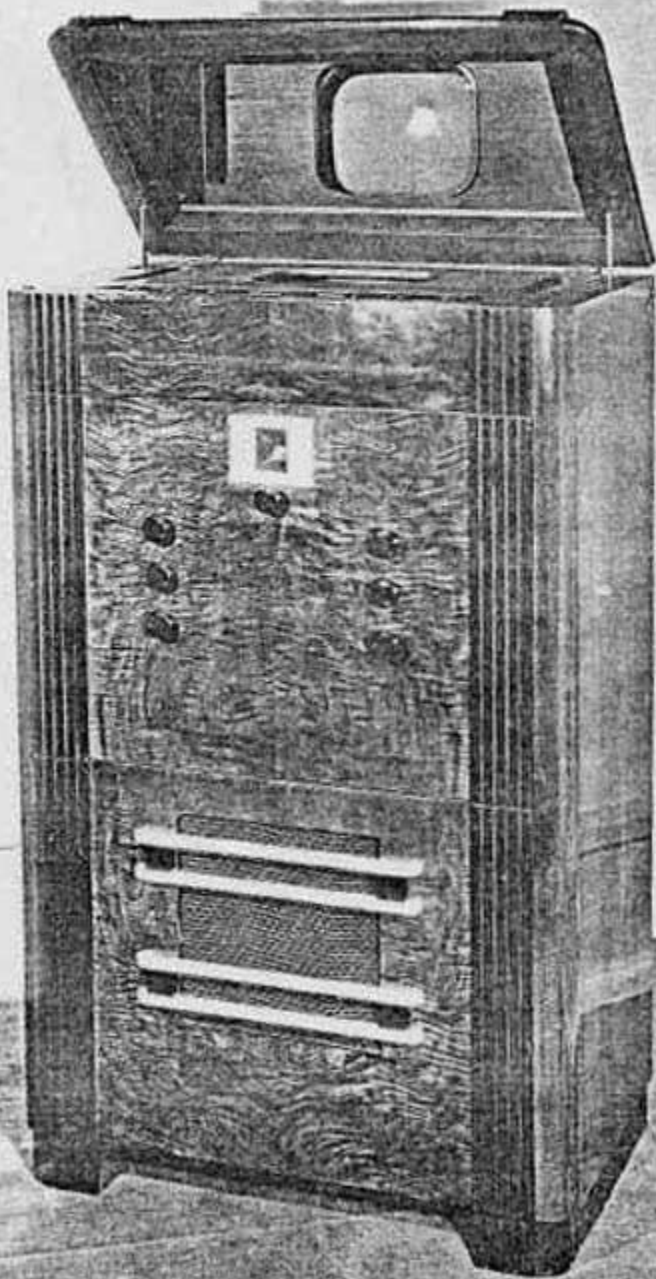
Controls - Normal Operating - Station Selector, Video Contrast, Video Detail, Video Background, Sound Volume, Sound Treble Tone, Sound Bass Tone, and Power Switch. Total - 7.

Controls - Auxiliary Operating - Horizontal Speed, Horizontal Centering, Horizontal Size, Focus, Vertical Size, Vertical Centering, Vertical Speed. Total - 7.

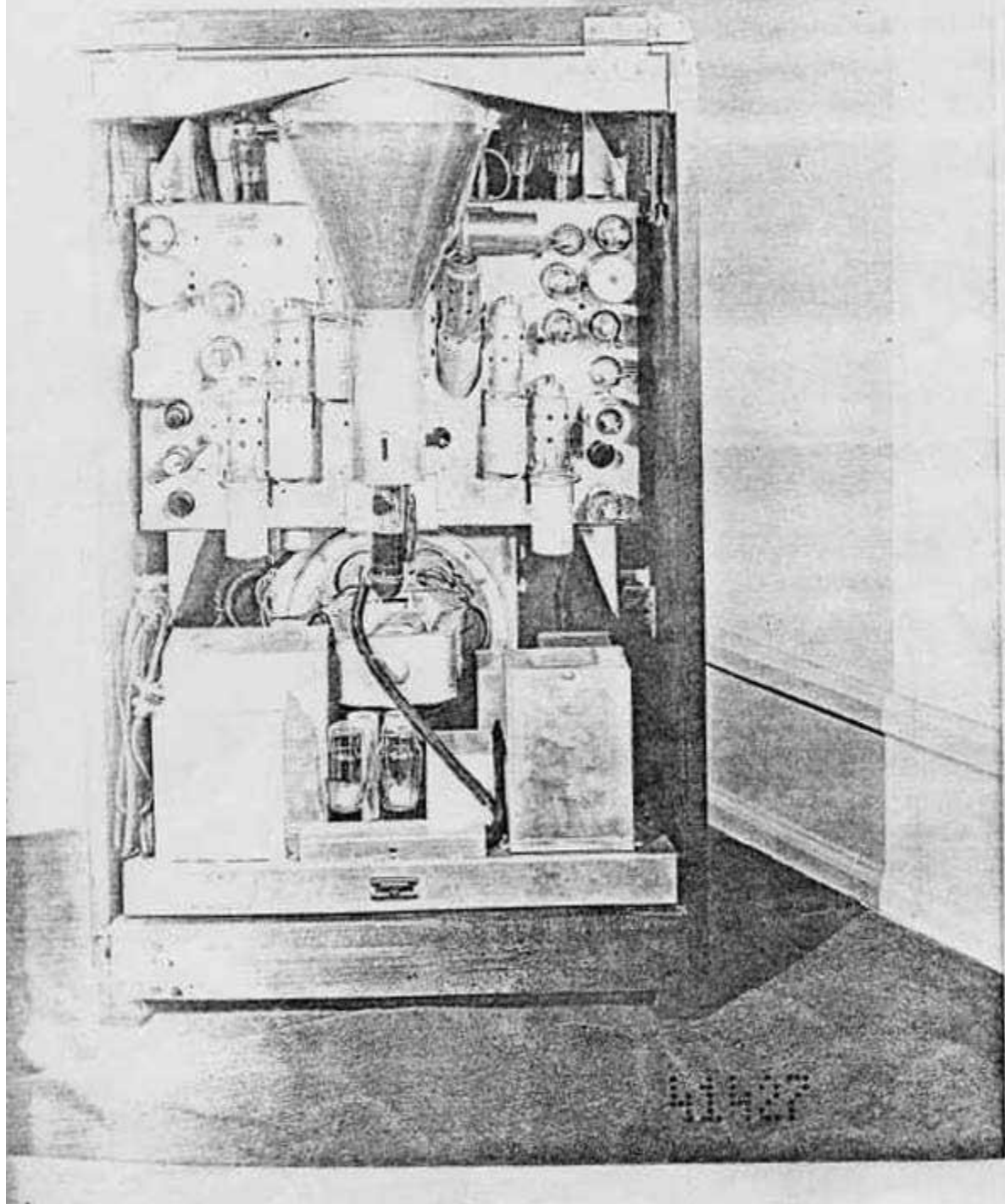
Controls - Screw Driver Adjustment - Coarse Horizontal Speed, Coarse Vertical Speed, Vertical Peaking, Vertical Distribution. Total - 4.



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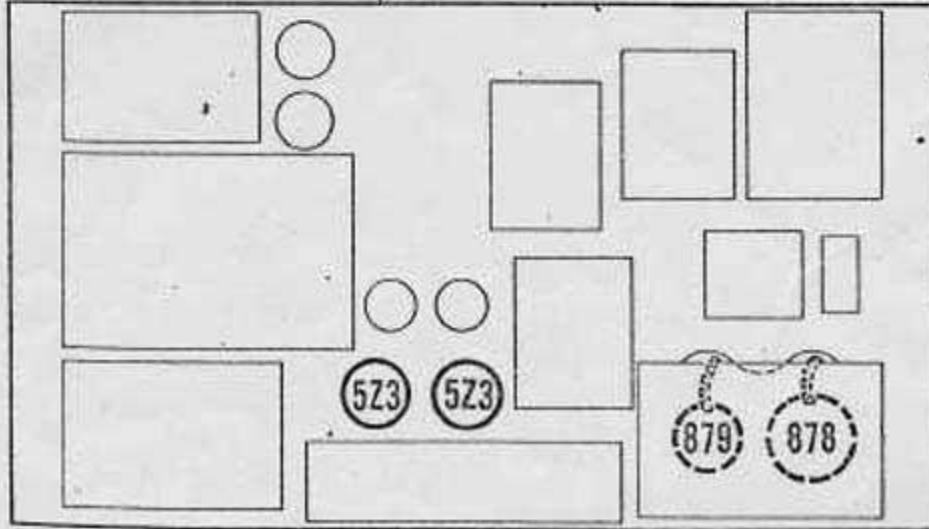
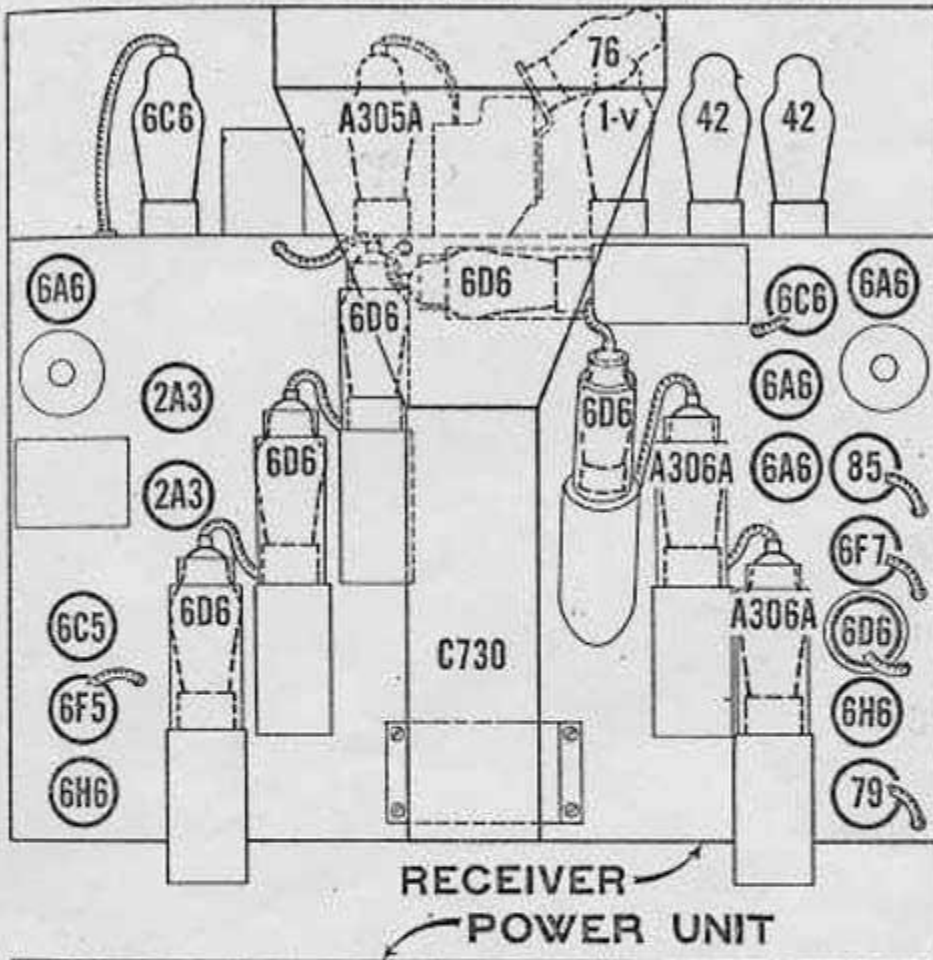


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LOCATION OF RADIOTRONS



MEGACYCLES

9 10 12

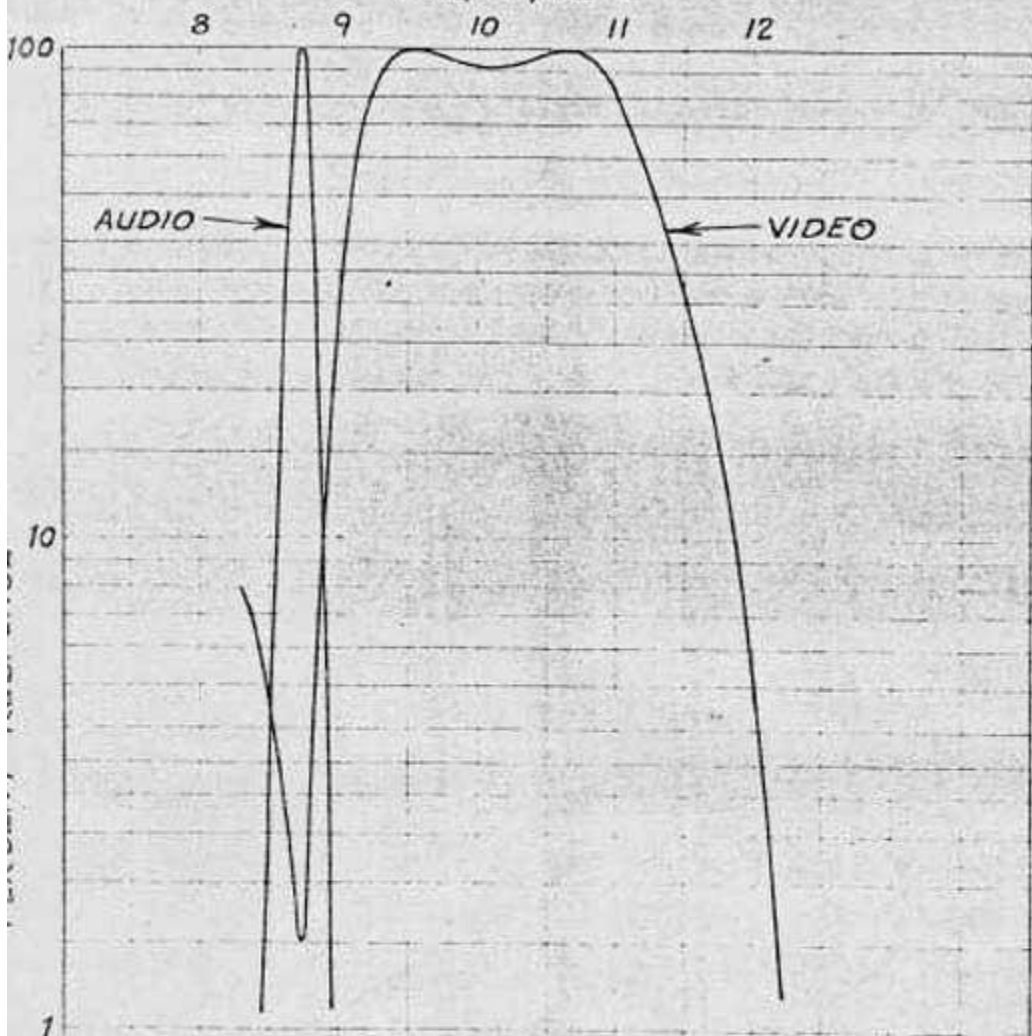
SPECIFICATIONS

Tuning Range	-	42-80 megacycles
Sensitivity	-	1 millivolt
Input Power	-	105/125 volts, 60 cycles, 350 watts
Audio Fidelity	-	60 to 7000 cycles
Video Fidelity	-	60 to 1,500,000 cycles
Frame Frequency	-	30 per second
Field Frequency	-	60 per second.
Lines per picture	-	343
Kinescope Second Anode	-	6000 volts
Number of tubes (including Kinescope)	-	33
Main Controls		Secondary Controls
Tuning		Horizontal Speed
Sound Volume		Horizontal Centering
Bass Tone		Horizontal Size
Treble Tone		Focus
Picture Contrast		Vertical Size
Picture Detail		Vertical Centering
Picture Brightness		Vertical Speed

INTERMEDIATE FREQUENCY SELECTIVITY

*FROM FIRST DETECTOR GRID TO
SECOND DETECTOR FOR EACH CHANNEL*

MEGACYCLES



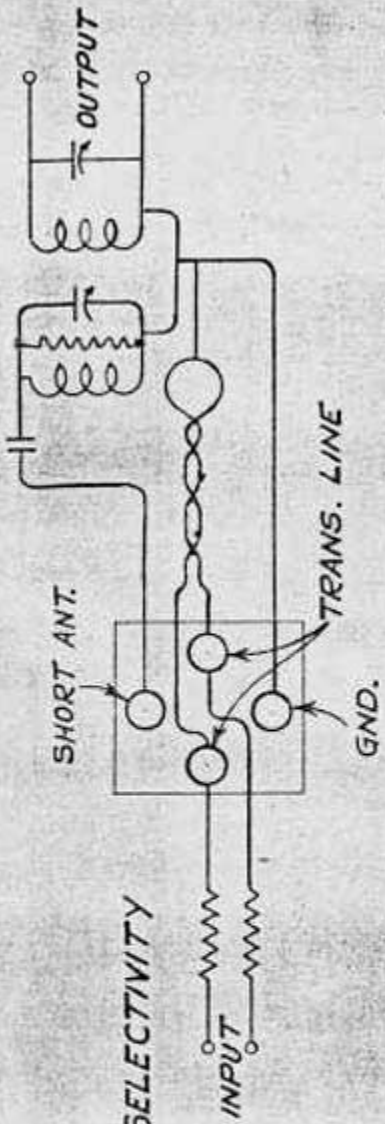
AUDIO

VIDEO

INTERMEDIATE FREQUENCY SELECTIVITY

FROM FIRST DETECTOR GRID TO
SECOND DETECTOR FOR EACH CHANNEL.

RADIO FREQUENCY SELECTIVITY



PERCENT OF CENTER RESPONSE.

100
90
80
70
60
50
40
30
20
10
0

49

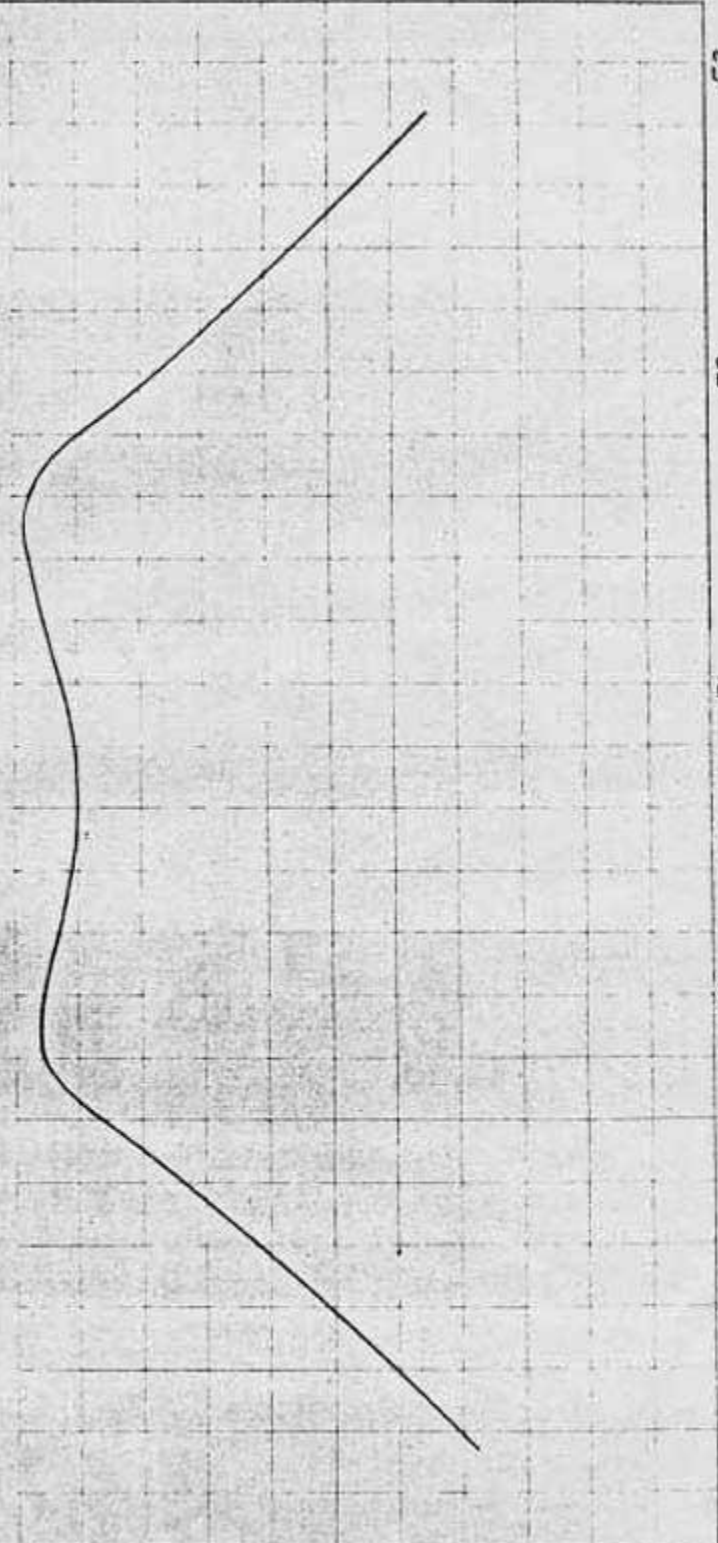
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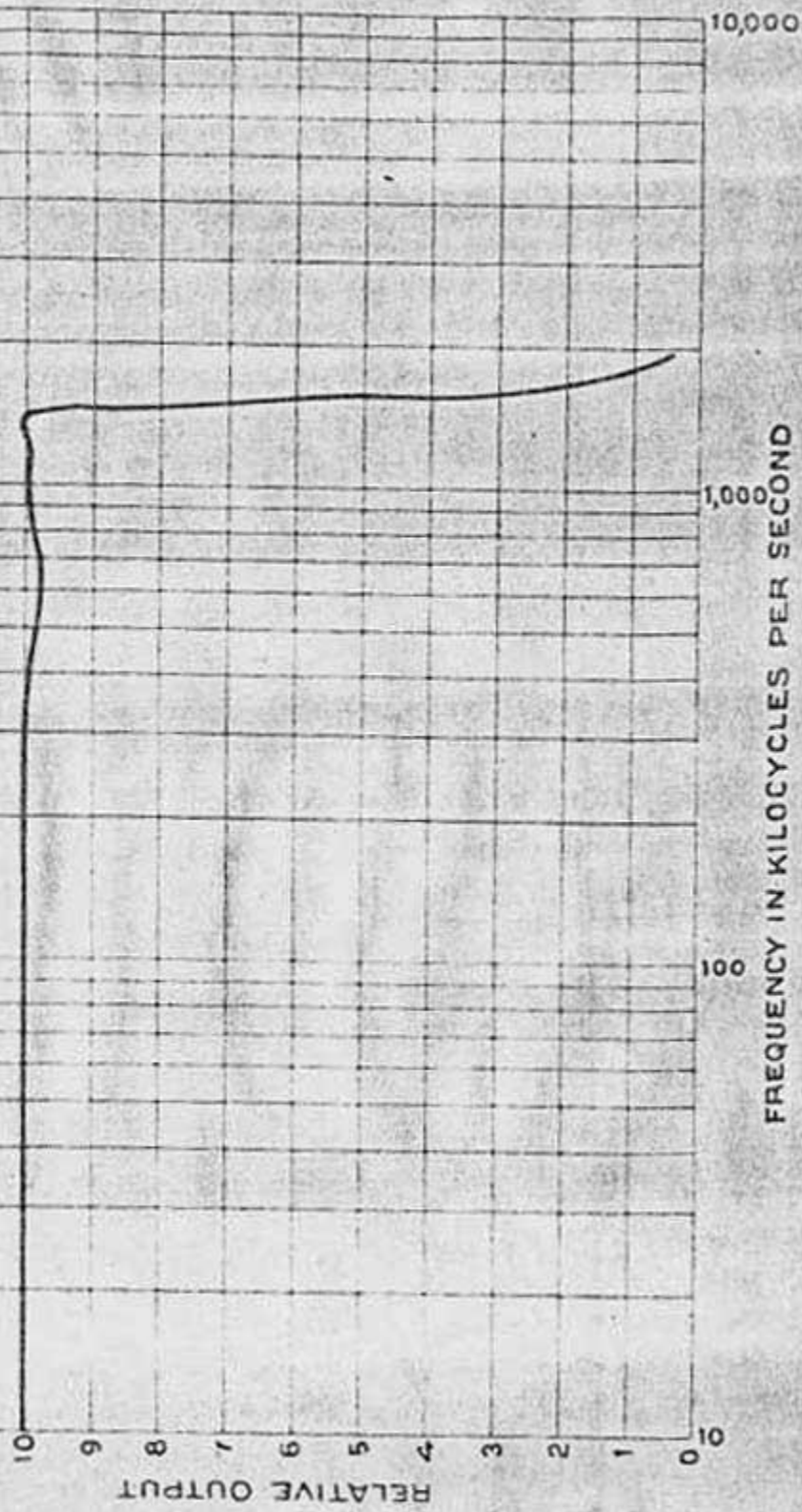
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FREQUENCY IN MEGACYCLES



VIDEO AMPLIFIER CHARACTERISTIC

FROM 2ND DETECTOR TO GRID
OF KINESCOPE



PURCHASED PARTS

QTY

DESCRIPTION

REMARKS

DRAWING LIST

- 1 747-3000-0000
- 2 747-3000-0000
- 3 747-3000-0000

The master drawing list for this receiver is DL-800696. drawings and drawing lists on the receiver are specified this master list. Cabinet drawings are listed on the serial list (ML) for drawing R-42385.

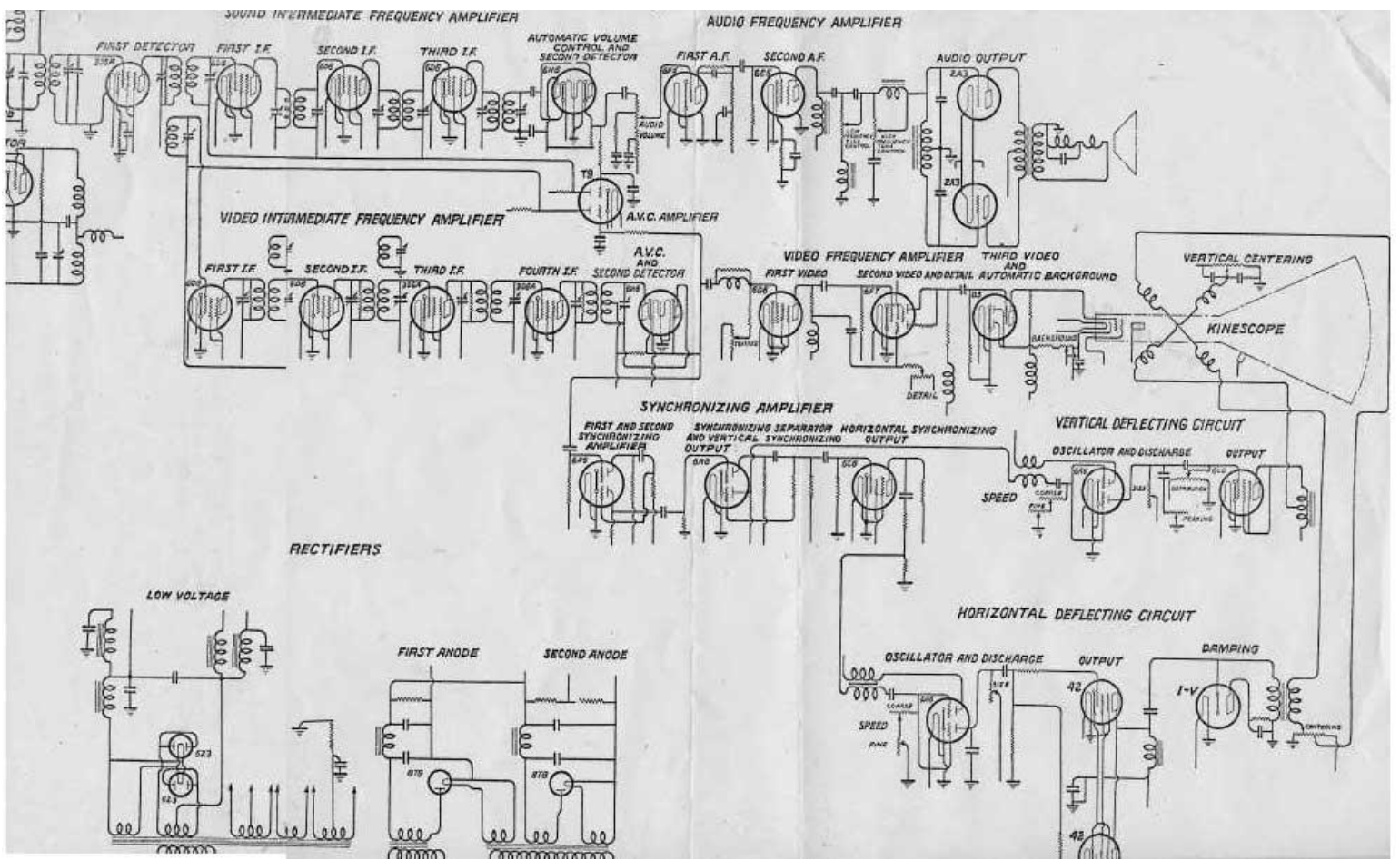
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PURCHASED PARTS

<u>Dwg. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Unit Quantity</u>
K-75897	1	Mirror	1
P-76347	1	Upper tube shield	1
T-70384	501	Var. Capac. Assem.	1
P-76391	26	Horiz. Speed Control	1
P-76391	28	Horiz. Cent. Control	1
P-76391	27	Horiz. Size Control	1
P-76391	30	Focus Control	1
P-76391	31	Vert. Size Control	1
P-76391	29	Vert. Cent. Control	1
P-76391	22	Vert. Speed Control	1
P-76391	24	Background Control	1
P-76391	35	Video Detail Control	2
P-76391	23	Horiz. Coarse Spd. Control	1
P-76391	18	Low Freq. Tone Control	1
P-76391	19	High Freq. Tone Control	1
P-76391	17	Volume Control	1
B-76391	25	Vert. Dist. Control	1
P-76391	20	Vert. Peaking Control	1
P-76391	21	Vert. Coarse Speed Control	1
K-79077	1	Plug Assembly	2
M-80735	1	Escutcheon	1
M-80328	2	Dry Electrolytic	1
M-80328	1	Dry Electrolytic	1
M-80327	2	Electrolytic	1
M-80327	1	Capacitor	1
M-68597	3	Wet Electrolytic	3
M-68597	5	Wet Electrolytic	1
M-80741	1	Cable Assembly	1
K-78318	1	Shield	1
K-78318	1	Glass	1
K-78319	1	Retaining Ring	1
T-76526	5	Jumper	1
T-76526	6	Jumper	1
T-76526	7	Jumper, G.E. 346 Ign. Cable	1
K-78317	1	Ring	1
K-78379	1	Cushion ring	1
K-78378	1	Mask	1
K-78210	1	Shield (1 on all Gr.)	1
K-77054	1	Capacitor (1 on each Gr.)	1
K-78210	1	Shield (1 on ea. Gr.)	1
K-77054	6	Capacitor (1 on each Gr.)	1
K-79022	1	Spool (G-501)	1
K-79023	1	Spacer (G-501)	1
K-79023	2	Spacer (G-501)	1
K-79024	1	Pin (4-G501; 4-G502)	4
K-79022	2	Spool	1
K-79023	3	Spacer	1
K-79023	4	Spacer	1
K-79030	1	Case	1
K-79072	1	Screen	1
P-72613	1	Cable	1
M-80721	1	Cable	1

Purchased Parts - continued

<u>Dwg. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Unit Quantity</u>
P-72831	1	Cable	1
P-72816	1	Cable	1
M-80718	1	Cable	1
M-80813	1	Lower Tube Shield	1
M-80720	1	Cable	1
M-80723	1	Cable	1
K-79034	2	Shield	1
P-72626	1	Cable	1
K-79272	1	Plug	1
P-72629	1	Cable	1
M-80709	1	Socket	1
M-80709	3	Cover	1
K-73170	29	Capacitor (G-501)	1



Courtesy of Darryl Hock