HIGH DEFINITION TELEVISION RECEIVER

5" TABLE MODEL

TYPE RR-366
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DESCRIPTION

This receiver is designed to receive high definition television pictures in the ultra short-wave band between 42 and 84 megacycles. Provision is made for reception of accompanying sound programs by connecting an all-wave sound radio receiver to it and tuning the sound receiver to the resulting frequency of 8750 kilocycles. The television chassis then acts as a converter for the sound channel.

The receiver 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 video frequency signals. Tuning is accomplished by a single control which tunes the radio-frequency and oscillator circuits.

The picture is reproduced on the screen of a 5" diameter Kinescope (cathode ray tube) and is approximately 3 x 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 the video channel.

The Kinescope is mounted horizontally in the cabinet with the screen flush with the front and the image is viewed directly thereon. The cabinet is 18-3/4" high, 16-1/4" wide and 18" deep. The center of the Kinescope screen is approximately 12" above the bottom of the cabinet.

This receiver was designed as a part of our television development program; three samples have been built and tested. In the course of the tests it was found that temperatures exceeding conservative limits occur for long periods of operation. This will be taken into account in future design considerations for this type of receiver. No sales literature, instruction books or other data are available.
LOCATION OF TUBES AND CONTROLS

Photograph #42430 shows the front of the cabinet and the main operating controls. The function of these controls is as follows:

1. The top control (above the Kinescope) is for Focusing the Electron Beam.

2. The left-hand control in the middle of the front panel (just below the Kinescope) controls the Horizontal Speed.

3. The right-hand control in the middle of the front panel is Vertical Speed.

4. The lower left-hand control is Brightness (Kinescope Bias). In its extreme counter clockwise position it turns the receiver "off".

5. The lower center control (on the dial escutcheon) is a double knob, one portion is fine tuning and the other coarse tuning.

6. The lower right-hand control is contrast.

The following list refers to the photograph showing the back of the chassis and identifies all the Radiotron tubes and shows their position. It also identifies the screw driver controls on the back apron of the chassis.

1. RCA 955 Radiotron Oscillator Tube
2. RCA 523 Radiotron Low Voltage Rectifier
3. RCA 6A6 Radiotron Horizontal Oscillator and Discharge Tube
4. RCA 6A6 Radiotron Vertical Oscillator and Output Tube
5. RCA A-305-A Radiotron First Detector Tube
6. RCA 6C6 Radiotron First IF Amplifier
7. RCA 6C6 Radiotron Second IF Amplifier
8. RCA 6D6 Radiotron Sound IF Amplifier
9. RCA A-306-A Radiotron Third IF Amplifier
10. RCA 42 Radiotron Horizontal Output Tube
11. RCA A-306-A Radiotron Fourth IF Amplifier
12. RCA 6C6 Radiotron Horizontal Synchronizing Output Tube
13. RCA 6B7 Radiotron Second Detector, AVC Amplifier and First Video Amplifier
14. RCA 85 Radiotron Second Video Amplifier
15. Vertical Centering Control
16. Horizontal Centering Control
17. Vertical Size Control
18. Horizontal Size Control
19. Vertical Peaking Control
20. Coarse Horizontal Speed Control
21. Vertical Horizontal Speed Control
22. Antenna Terminal Board
   A - High Impedance Antenna
   B and D - Transmission Line
   C - Ground

23. RCA 879  Radiotron  High Voltage Rectifier
24. RCA 79  Radiotron  Synchronizing Separator and
                Vertical Synchronizing
                Output Tube

The Kinescope used in this receiver is designated as
C-745.