8134/V1

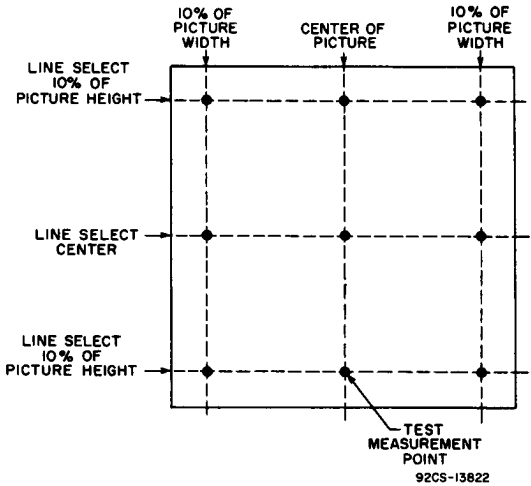
Vidicon

SEPARATE GRID-No.5 CONNECTION **LOW-POWER (0.6-WATT) DARK HEATER**
ELECTROSTATIC FOCUS **MAGNETIC DEFLECTION**

For Compact, Lightweight, Transistorized TV Cameras in Industrial and Other Closed-Circuit TV Systems. Designed to Provide High-Quality Service in Color TV Cameras.

The 8134/V1 is electrically and mechanically identical with the 8134 except for the primary difference that it is tested to meet extremely stringent criteria or signal uniformity or shading, and associated characteristics such as beam astigmatism and beat pattern.

SIGNAL UNIFORMITY TEST POINTS



5 cm x 5 cm Oscilloscope Display

SIGNAL-UNIFORMITY TEST

The 8134/V1 is tested for *Signal Uniformity* in an RCA Monochrome TK-27 Simulator as follows:

Heater Voltage	6.0	V
Grid-No.6 & Grid-No.3 Voltage	850	V
Grid-No.5 Voltage	365	V
Grid-No.2 Voltage	100 to 300	V
Grid-No.1 Voltage	-20	V

Beam current is adjusted to just discharge the target by varying the grid-No.2 voltage within the specified range. The camera is interconnected with appropriate camera controls, picture monitor, and oscilloscope. An opaque mask, having an 0.44 x 0.33-inch rectangular opening, is centered on the face of the 8134/V1. The tube face is illuminated with uniform light from a collimated point source.

After target voltage is adjusted to 10 volts (dc), the brightness of the light source is varied to obtain a peak signal current of 0.4 microampere. To assure full target signal is being discharged, the beam control is adjusted until peak signal amplitude is obtained on the display of the oscilloscope. The illumination is then reduced to obtain a peak signal current of 0.3 microampere without further adjustment of beam current. The signal amplitude is set to 100 per cent at the exact center of picture — 5 cm on the oscilloscope — with the blanking level equal to zero.

With horizontal and vertical scanning centered, the scan amplitudes are adjusted to just match the optical window provided by the 0.44 x 0.33-inch mask. The beam of the 8134/V1 is aligned for the most symmetrical and uniform signal with the horizontal line selector passing through the center of the picture. The line selector is then repositioned at a point 10 per cent down from the top of the picture and then 10 per cent up from the bottom of the picture. If required, additional adjustments in alignment are made to obtain minimum total deviation over the entire picture area from the 100 per cent signal amplitude.

Best possible electrical focus is maintained throughout these adjustments consistent with achieving the absolute minimum deviation in signal uniformity. Immediately prior to final measurement, the beam astigmatism of the 8134/V1 is such that at least 300 TV lines vertical resolution is visible at the center of the picture when the horizontal resolution is adjusted for 400 TV lines, or more. Under these conditions, no beat patterns shall be discernible in the picture.

The difference in signal between the 100 per-cent signal area and the other eight points shown under *Signal Uniformity Test Points* is noted. The permissible signal spread between the highest and lowest points does not exceed 15 per cent.

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