MONOSCOPE
5-INCH MAGNETIC-DEFLECTION TYPE
Supersedes Type 1899

General:
Heater, for Unipotential Cathode:
Voltage: 6.3 ± 10% ac or dc volts
Current: 0.6 amp

Direct Inter-electrode Capacitances:
Grid No. 1 to All Other Electrodes: 7 μuf
Pattern Electrode to Grid No. 4: 5 μuf

Pattern:
Type: See illustration on next page
Dimensions (Approx.): 2-5/16" x 3-1/16"
Calibration: Up to 500 lines
Focusing Method: Electrostatic
Deflection Method: Magnetic
Maximum Solid Deflection Angle: 40°
Overall Length: 12-7/16" + 1/4" - 7/16"
Greatest Diameter of Bulb: 5-1/16" max.
Caps (Two): Recessed Small Ball
Mounting Position: Any
Base: Long-Shell Medium 6-Pin

Basing Designation for BOTTOM VIEW: 6BV
Pin 1-Heater
Pin 2-Grid No. 2
Pin 3-Grid No. 3
Pin 4-Grid No. 1
Pin 5-Cathode
Pin 6-Heater
End Cap-Pattern Electrode
Side Cap-Grid No. 4

Maximum Ratings, Design-Center Values:

PATTERN-ELECTRODE VOLTAGE: 1500 max. volts
GRID-No. 4 (COLLECTOR) VOLTAGE: 1500 max. volts
GRID-No. 3 (FOCUSING ELECTRODE) VOLTAGE: 600 max. volts
GRID-No. 2 (ACCELERATING ELECTRODE) VOLTAGE: 1600 max. volts
GRID-No. 1 (CONTROL ELECTRODE) VOLTAGE:
Negative Bias Value: 125 max. volts
Positive Bias Value: 0 max. volts

PEAK HEATER-CATHODE VOLTAGE:
Heater negative with respect to cathode: 125 max. volts
Heater positive with respect to cathode: 125 max. volts

Typical Operation:

Pattern-Electrode Voltage: 1000 volts
Grid-No. 4 Voltage: 1050 volts
Grid-No. 3 Voltage for Focus at 0.5 μamp Grid-No. 4 Current: 300 approx. volts
Grid-No. 2 Voltage: 1000 volts
Grid-No. 1 Voltage for Visual Cutoff on Monitor: -50 approx. volts

Internal Resistance between Grid No. 4 and Pattern Electrode: Greater than 1 meg.
Grid-No. 4 Current: 0.5 μamp

JUNE 20, 1946
TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
Pattern-Electrode Signal Current (Peak-to-Peak) 0.5 approx. µamp
Resolution Capability** 500 lines
Maximum Circuit Value:
Grid-No. 1-Circuit Resistance 1.5 max. megohms

* Individual tubes may require between +20% and -20% of these values.
† Deflection must be maintained at all times. When scanned area does not cover entire pattern, beam current should be reduced accordingly and time of operation limited to prevent damaging the pattern.
‡ Supply should be adjustable between +40% and -80% of this value.
** With full scanning.

PATTERN

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TENTATIVE DATA
NOTE 1: LINE AA' IS PERPENDICULAR TO THE AXIS OF THE TUBE AND INTERSECTS THE FACE CONTOUR 1/2" FROM THE AXIS OF THE TUBE.

NOTE 2: DEFORMATION ANGLE BETWEEN DIAGONALLY OPPOSITE CORNERS OF PATTERN.

NOTE 3: REFERENCE LINE IS DETERMINED BY POSITION WHERE GAUGE 1.438" ± .003 I.D. AND 2" LONG WILL REST ON BULB CONE.

NOTE 4: Ø OF BULB WILL NOT DEVIATE MORE THAN 2° IN ANY DIRECTION FROM THE PERPENDICULAR ERECTED AT THE CENTER OF THE BOTTOM OF THE BASE.

NOTE 5: MINOR AXIS OF PATTERN ELECTRODE MAY VARY FROM PLANE CC' THROUGH PIN 2 AND TUBE AXIS BY 10°. TOP EDGE OF PATTERN IS ON SAME SIDE OF TUBE AS PIN 5.

NOTE 6: BB' INDICATES PLANE THROUGH TUBE AXIS AND GRID-NO.4 TERMINAL.