12KP4-A
KINESCOPE

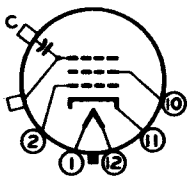
METAL-BACKED FLUORESCENT SCREEN
MAGNETIC FOCUS MAGNETIC DEFLECTION

DATA

General:

Heater, for Unipotential Cathode:		
Voltage	6.3	ac or dc volts
Current	0.6	amp
Direct Interelectrode Capacitances:		
Grid No.1 to All Other Electrodes	6	μμf
Cathode to All Other Electrodes	5	μμf
External Conductive Coating to Anode	2500 max. 500 min.	μμf μμf
Face Plate (With about 66% light transmission)		Filterglass
Phosphor (For Curves, see front of this Section)		P4—Sulfide Type
Fluorescence and Phosphorescence		White
Persistence of Phosphorescence		Short
Focusing Method		Magnetic
Deflection Method		Magnetic
Deflection Angle (Approx.)		54°
Overall Length		17-5/8" ± 3/8"
Greatest Diameter of Bulb		12-7/16" ± 1/8"
Minimum Useful Screen Diameter		11-1/8"
Mounting Position		Any
Cap		Recessed Small Cavity (JETEC No.J1-21)
Base		Small-Shell Duodecal 5-Pin (JETEC No.B5-57)

BOTTOM VIEW



Pin 1 – Heater
Pin 2 – Grid No.1
Pin 10 – Grid No.2
Pin 11 – Cathode
Pin 12 – Heater
Cap – Anode
C – External Conductive Coating

Maximum Ratings, ***Design-Center Values:***

ANODE VOLTAGE	12000 max.	volts
GRID-No.2 VOLTAGE	410 max.	volts
GRID-No.1 VOLTAGE:		
Negative bias value	125 max.	volts
Positive bias value	0 max.	volts
Positive peak value	2 max.	volts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode:		
During equipment warm-up period not exceeding 15 seconds	410 max.	volts
After equipment warm-up period	140 max.	volts
Heater positive with respect to cathode	140 max.	volts

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Typical Operation:

Anode Voltage*	11000	volts
Grid-No.2 Voltage	250	volts
Grid-No.1 Voltage for Visual Extinction of Undeflected Focused Spot	-27 to -63	volts
Focusing-Coil Current (DC, approx.)●	135	ma
Spot Position	#	

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	1.5 max.	megohms

* Brilliance and definition decrease with decreasing anode voltage. In general, the anode voltage should not be less than 9000 volts.

● For specimen focusing coil similar to JETEC Focusing Coil No.106 positioned with air gap toward kinescope screen and center line of air gap 3-1/4 inches from Reference Line (see Outline Drawing). The indicated current is for condition with combined grid-No.1 bias voltage and video-signal voltage adjusted to produce a highlight brightness of 35 foot-lamberts on a 10" x 7-1/2" picture area sharply focused at center of screen.

\# The center of the undeflected, unfocused spot will fall within a circle having 20-mm radius concentric with the center of the tube face.

OPERATING NOTES

X-Ray Warning. When operated at or below the maximum ratings shown in the tabulated data, the 12KP4-A does not produce any harmful x-ray radiation. All types of picture tubes may be operated at voltages (if ratings permit) up to 16 kilovolts (absolute value) without personal injury on prolonged exposure at close range. Above 16 kilovolts, special shielding precautions for x-ray radiation may be necessary.

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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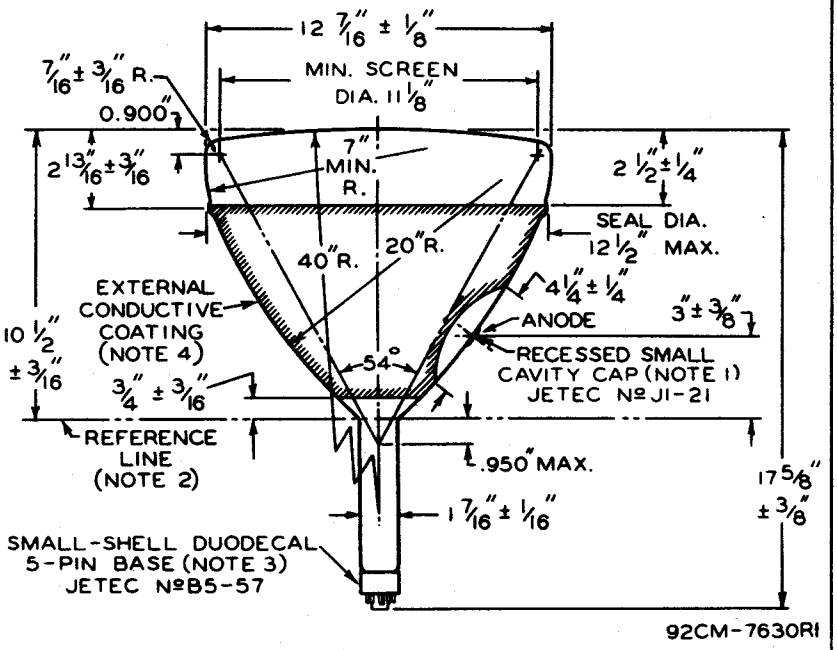

92CM-7630RI

NOTE 1: THE PLANE THROUGH THE TUBE AXIS AND VACANT PIN POSITION No.3 MAY VARY FROM THE PLANE THROUGH THE TUBE AXIS AND ANODE TERMINAL BY AN ANGULAR TOLERANCE (MEASURED ABOUT THE TUBE AXIS) OF ± 10°. ANODE TERMINAL IS ON SAME SIDE AS VACANT PIN POSITION No.3.

NOTE 2: REFERENCE LINE IS DETERMINED BY POSITION WHERE JETEC REFERENCE-LINE GAUGE No. 112 (1.500" + .003" − .000" I.D. AND 2" LONG) WILL REST ON BULB CONE.

NOTE 3: SOCKET FOR THIS BASE SHOULD NOT BE RIGIDLY MOUNTED; IT SHOULD HAVE FLEXIBLE LEADS AND BE ALLOWED TO MOVE FREELY.

NOTE 4: EXTERNAL CONDUCTIVE COATING MUST BE GROUNDED.

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AVERAGE GRID-DRIVE CHARACTERISTICS