

DUMONTCATHODE-RAY TUBETYPE K1989P-TENTATIVE

The Du Mont Type K1989P- is a 12-inch electrostatic focus, magnetic deflection cathode-ray tube suitable for radar applications. The tube is designed for miniaturized equipments, featuring short overall length, a small diameter neck, and a miniature base. This tube utilizes a low current heater and has low grid-drive characteristics. These features in conjunction with the small diameter neck afford considerable reduction in power requirements. An aluminized screen is utilized for greater light output and to minimize screen charging effects.

GENERAL CHARACTERISTICSElectrical Data

Focusing Method	Electrostatic
Deflecting Method	Magnetic
Deflecting Angle (Approximate)	70 Degrees

Direct Interelectrode Capacitances, Approximate
 Cathode to all other electrodes
 Grid No. 1 to all other electrodes

Optical Data

Phosphor Number	4	7	16	19	25
Fluorescence	White	Blue	Violet	Orange	Orange
Phosphorescence	-----	Yellow	-----	Orange	Orange
Persistence	Short-to-medium	Long	Extremely short	Long	Long

Faceplate	Clear, spherical
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Mechanical Data

Overall Length (seated height)	12 1/4 ± 3/16 Inches
Greatest Diameter of Bulb	12 7/16 ± 1/8 Inches
Minimum Useful Screen Diameter	11 Inches
Bulb Contact	J1-21
Base *	E9-37

* A socket with a center opening to clear the tubulation should be used. Care should be taken in handling the tube to avoid damaging the exposed tubulation and bending the base pins.

DUMONT

CATHODE-RAY TUBE

TYPE K1989P-

TENTATIVE

GENERAL CHARACTERISTICS (Mechanical Data) (Continued)

Basing	9HT	
Bulb Contact Alignment:		
Plane of J1-21 cap passes halfway between Pins No. 1 and 9	± 10	Degrees
J1-21 cap on same side as Pins No. 1 and 9		

MAXIMUM RATINGS (DESIGN MAXIMUM VALUES)

Heater Voltage	6.3	Volts
Heater Current at 6.3 Volts	0.3 ± 10%	Ampere
Accelerator Voltage	12,000	Max. Volts DC
Focusing Electrode Voltage	-550 to +1100	Max. Volts DC
Grid No. 2 Voltage	770	Max. Volts DC
Grid No. 1 Voltage:		
Negative Bias Value	180	Max. Volts DC
Positive Bias Value	0	Max. Volts DC
Positive Peak Value	0	Max. Volts
Peak Heater-Cathode Voltage		
Heater negative with respect to cathode	180	Max. Volts
Heater positive with respect to cathode	180	Max. Volts

TYPICAL OPERATING CONDITIONS

Accelerator Voltage ¹	10,000	Volts DC
Focusing Electrode Voltage ²	0 to +350	Volts DC
Grid No. 2 Voltage	300	Volts DC
Grid No. 1 Voltage ³	-12 to -20	Volts DC
Line Width "A" ⁴	.020	Inch Max.
Spot Position (Undelected) ⁵	5/8	Inch

MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Max. Megohms
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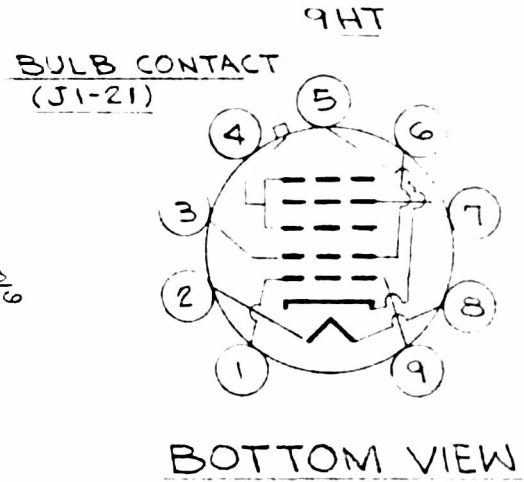
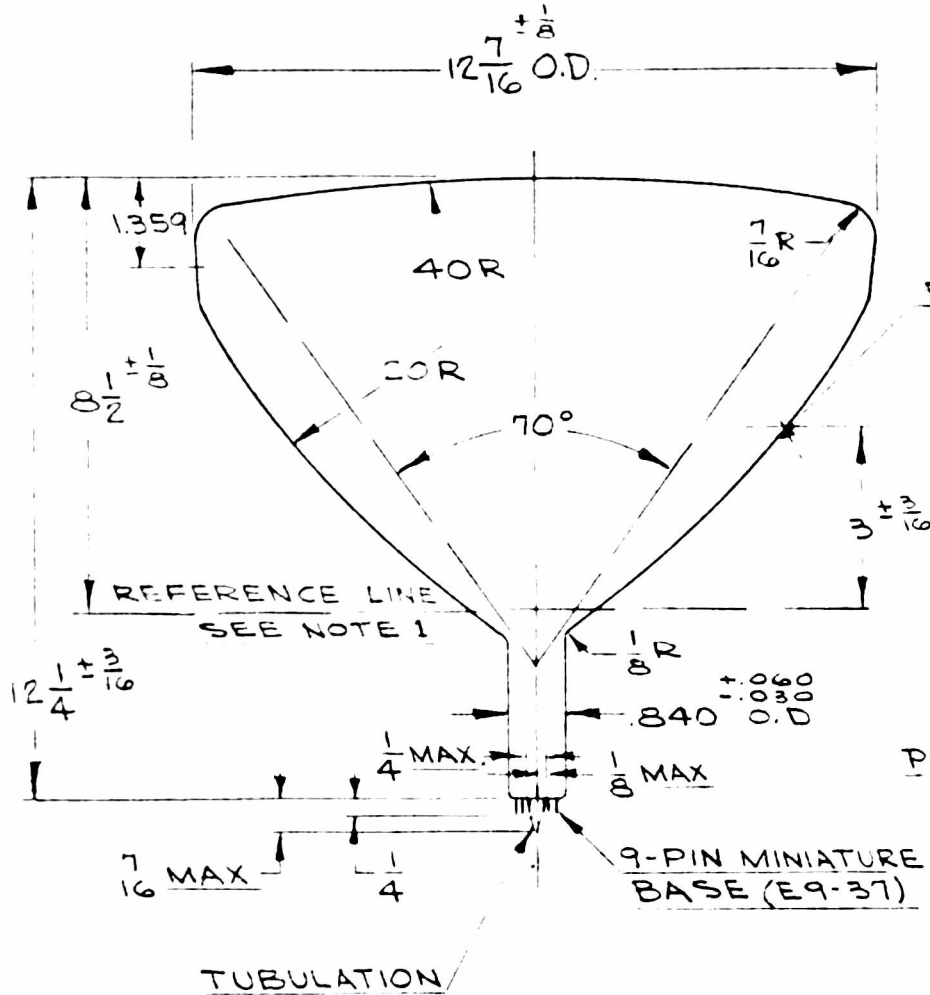
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K-1989P-

TENTATIVE



PIN No.	ELEMENT
1	GRID No. 1
2	HEATER
3	GRID No. 2
5	CATHODE
6	GRID No. 2
7	FOCUSING ELECTRODE
8	HEATER
9	GRID No. 1

CONTACT - ACCELERATOR

NOTE:

1. REFERENCE LINE IS DETERMINED BY THE POINT WHERE LEADING EDGE OF 1.640" REFERENCE LINE GAGE WILL STOP (JEDEC No. 128)