

17EAP4

National Video Corporation

4300 W. 47TH STREET CHICAGO 32, ILLINOIS
CLIFFSIDE 4-5600

The 17EAP4 is a 7 1/2" neck length, electrostatic focus and magnetic deflection picture tube using a rectangular glass envelope with an aluminized screen providing a picture area of 150 square inches. The electron gun features a newly developed focus system which automatically focuses the tube. The G₁ focus electrode is tied to filament lead Pin 1. No external connection for focus is required as the tube maintains focus over its entire operating range. The electron gun is designed to be used with a single external magnetic field for the elimination of ion spot blemishes.

ELECTRICAL DATA

Focusing Method	Electrostatic
Deflection Angles, Approximate	
Horizontal	65 Degrees
Vertical	50 Degrees
Diagonal	70 Degrees
External Conductive Coating to Anode	1500 Max. uuf
	1000 Min. uuf
Heater Current at 6.3 Volts	0.6 ± 10% Ma

OPTICAL DATA

Phosphor Number	No. 4	Aluminized
Light Transmittance at Center, Approximate	74	Percent

MECHANICAL DATA

Overall Length	19 1/4 ± 3/8	Inches
Greatest Dimensions of Tube		
Diagonal	16 5/8 ± 1/8	Inches
Width	15 3/8 ± 1/8	Inches
Height	12 1/4 ± 1/8	Inches
Minimum Useful Screen Dimensions (Projected)		
Diagonal	15 9/16	Inches
Horizontal axis	14 5/16	Inches
Vertical axis	11 1/8	Inches
Area	150	Sq. Inches
Neck Length	7 1/2 ± 3/16	Inches
Bulb No.	J133B1/D1	
Bulb Contact	J1-21	
Base	B5-57	
Basing	12AT	

RATINGS (Design Maximum System)

Unless otherwise specified, voltage values are positive and measured with respect to cathode.

Maximum Anode Voltage	17,600	Volts
Maximum Grid #2 Voltage	550	Volts
Grid #1 Voltage		
Maximum Negative Value	155	Volts DC
Maximum Negative Peak Value	220	Volts
Maximum Positive Value	0	Volts DC
Maximum Positive Peak Value	2	Volts
Maximum Heater Voltage	7.0	Volts
Minimum Heater Voltage	5.6	Volts
Maximum Heater-Cathode Voltage		
Heater negative with respect to cathode		
During warm-up period not to exceed 15 seconds	410	Volts
After equipment warm-up period	180	Volts
Heater positive with respect to cathode	180	Volts

TYPICAL OPERATING CONDITIONS

GRID DRIVE SERVICE

Unless otherwise specified, all voltage values are positive with respect to cathode.

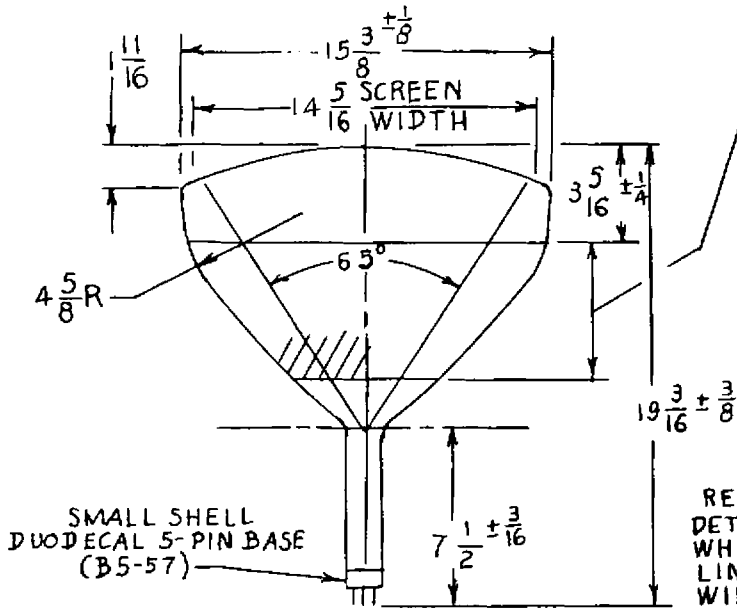
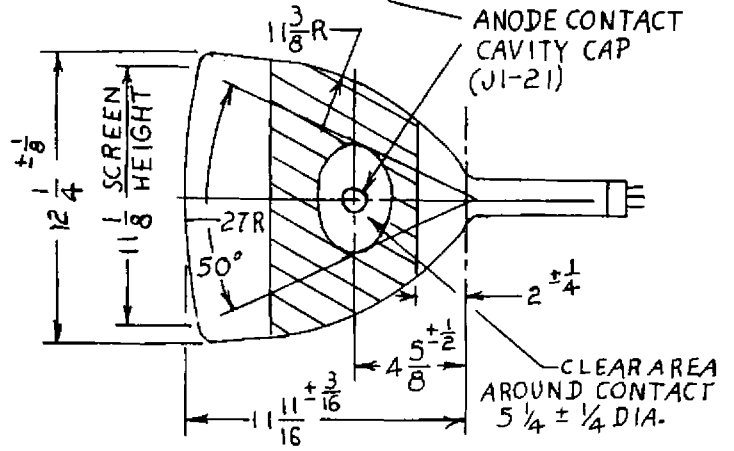
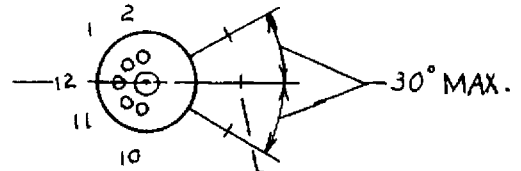
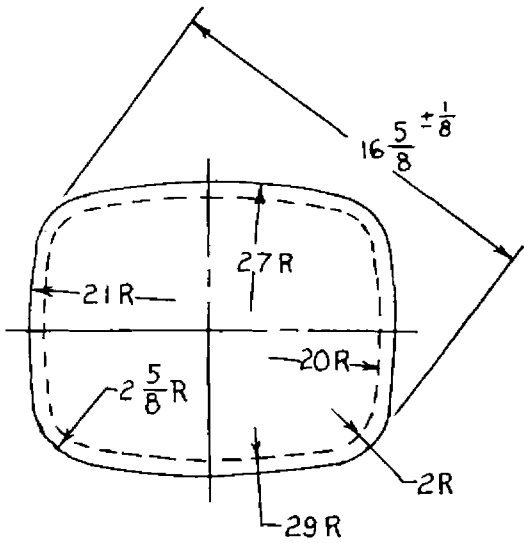
Anode Voltage	12,000	Volts DC
Grid #2 Voltage	300	Volts DC
Grid #1 Voltage (Note 1)	-28 to -72	Volts DC
Ion Trap Current JEDEC Coil #RM111 (Note 2)	40 ± 50%	Ma DC

Pin Connections

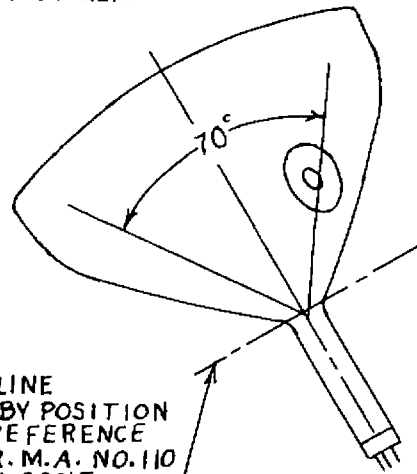
Pin 1	Heater, focus electrode	Pin 12	Heater
Pin 2	Grid No. 1	Bulb Contact	Ultor
Pin 10	Grid No. 2		
Pin 11	Cathode		

NOTES

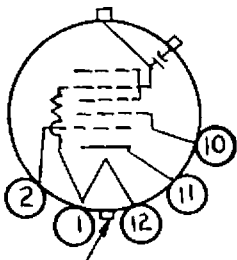
1. Visual extinction of focused raster.
2. Ion trap positioned with trailing edge of pole pieces over the G1-G2 gap and oriented to give maximum brightness.



EXTERNAL CONDUCTIVE COATING AREA



REFERENCE LINE DETERMINED BY POSITION WHERE YOKE REFERENCE LINE GAUGE R.M.A. NO. 110 WILL REST ON CONE



BOTTOM VIEW OF BASE 12 AT

- | | |
|---------|---------------------------|
| PIN NO. | ELEMENT |
| 1 | - HEATER, FOCUS ELECTRODE |
| 2 | - GRID NO. 1 |
| 10 | - GRID NO. 2 |
| 11 | - CATHODE, |
| 12 | - HEATER |
| CAP | - ANODE |

NATIONAL VIDEO CORP.
CHICAGO 32, ILL.

NOTE: EXTERNAL CONDUCTIVE COATING MUST BE GROUNDED

SUPERSEDES		DRAWING NO. 17EAP4
DRAWN BY	SCALE	EFFECTIVE DISTRIBUTION
STAROSTA	1/8"	12-3-59

MECHANICAL NOTES

1. The reference line is determined by reference line gauge JEDEC #110.
2. The area around the button is covered with an insulating coating.
3. Socket for this base should not be rigidly mounted; it should have flexible leads and allowed to move freely.

WARNING

X-ray radiation shielding may be necessary to protect against possible danger of personal injury from prolonged exposure at close range if this tube is operated at anode voltages higher than 16,000 volts.