

National Video Corporation

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

The type 17CW₄ is an electrostatic focus and magnetic deflection direct view picture tube. It has an all glass, rectangular bulb designed for 110° deflection and the spherical faceplate is made of filter glass. It has an external conductive coating. A 1/2" neck is made possible by a short electrostatic gun of the straight type which does not require an ion trap.

GENERAL CHARACTERISTICS

Focusing Method	Electrostatic	
Deflection Method	Magnetic	
Deflection Angle (Approx.)	Horizontal	105 Degrees
	Vertical	87 Degrees
	Diagonal	110 Degrees
Face Plate Light Transmission (Neutral Density Filter)		77% Approx.
Phosphor	P ₄	
Fluorescence	White	
Persistence	Short - Medium	
Direct Interelectrode Capacitances (Approx.)		
Cathode to all other electrodes	5	uuf
Grid No. 1 to all other electrodes	6	uuf
External conductive coating to anode	1500	Max. uuf
	1000	Min. uuf

MECHANICAL DATA

Overall Length	11 5/8 ± 5/16	Inches
Greatest Dimensions of Bulb:		
Diagonal	16 9/16 ± 1/8	Inches
Width	15 5/8 ± 1/8	Inches
Height	12 3/4 ± 1/8	Inches
Minimum Useful Screen Dimensions (Max. Assured)		
Screen Area	155	Sq. Inches
Diagonal	15 3/4	Inches
Width	14 3/4	Inches
Height	11 11/16	Inches
Bulb Contact	J1-21	
Ease	B7-183	
Basing	8HR	
Bulb No.	J132 1/2 A1	
Bulb Contact Alignment		
Bulb contact J1-21 aligns with pin position #4	± 30	Degrees
Weight	10	Lbs.

MAXIMUM RATINGS Design Center Values

Heater Voltage	6.3	Volts
Heater Current	0.6	Amperes
Anode Voltage	16,000	Volts
Grid No. 4 Voltage ¹	-500 to +1,000	Volts
Grid No. 2 Voltage	500	Volts
Grid No. 1 Voltage		
Negative Peak Value	200	Max. Volts
Negative Bias Value	140	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 warm-up period not to exceed 15 seconds	410	Volts
After equipment warm-up	180	Volts
Heater positive with respect to cathode	180	Volts

TYPICAL OPERATING CONDITIONS

Anode Voltage	14,000	Volts
Grid No. 4 Voltage ²	-50 to +350	Volts
Grid No. 2 Voltage	400	Volts
Grid No. 1 Voltage ³	-36 to -92	Volts

MAXIMUM CIRCUIT VALUES

Grid No. 1 Circuit Resistance	1.5	Max. Megohms
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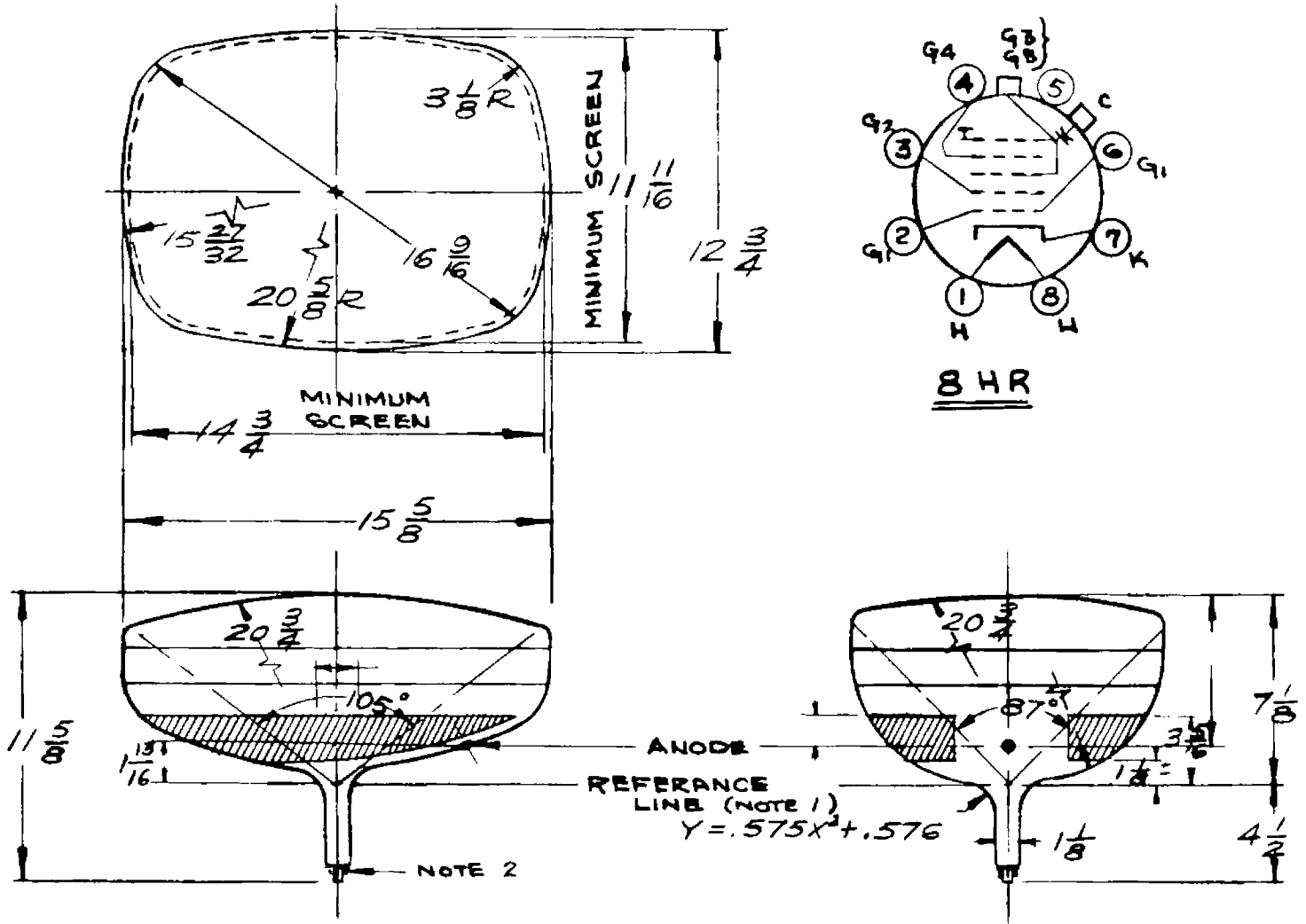
NOTES

¹Grid number four in this tube is the focus electrode.

²With the combined grid No. 1 bias voltage and video signal adjusted to produce an anode current of 100 ua on a 11 11/16 x 14 3/4 inch picture adjusted for best overall focus. For other anode voltages, the focus voltage will be from -0.4% to +2.5%.

³Visual extinction of focused raster.

17CWP4



NATIONAL VIDEO CORP.
CHICAGO 32. ILL.

SUPERSEDES	ORIGINAL	DRAWING N ^o
DRAWN BY	SCALE	EFFECTIVE
DISTRIBUTION		
R. LARSON	1" - 8"	1-24-58

NOTES

NOTE 1: Reference line is determined by plane C-C' of JETEC No. 126 Reference line gauge when the gauge is seated against the bulb.

NOTE 2: Pin No. 4 aligns with anode contact (J1-21) within $\pm 30^\circ$.