

19AQP4

National Video Corporation

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

The 19AQP4 is a 4 1/8" neck length, electrostatic focus picture tube. The tube has a metal back screen, a straight gun which requires no ion trap and a 300 milliamper, 6.3 volt filament.

ELECTRICAL DATA

Focusing Method	Electrostatic
Deflection Angles, Approximate	
Horizontal	114 Degrees
Vertical	103 Degrees
Diagonal	86 Degrees
External Conductive Coating to Anode	1500 Max. uuf
	1000 Min. uuf
Heater Current at 6.3 Volts	0.30 $\pm$ 5% Ma

OPTICAL DATA

Phosphor Number	P4 Aluminized
Light Transmittance at Center, Approximate	78 Percent

MECHANICAL DATA

Overall Length	11 3/8 $\pm$ 1/4	Inches
Greatest Dimensions of Tube		
Diagonal	18 5/8 $\pm$ 1/8	Inches
Width	16 13/32 $\pm$ 1/8	Inches
Height	13 11/32 $\pm$ 1/8	Inches
Minimum Useful Screen Dimensions (Projected)		
Diagonal	17 9/16	Inches
Horizontal axis	15 1/8	Inches
Vertical axis	12	Inches
Area	172	Sq. Inches
Neck Length	4 1/8 $\pm$ 1/8	Inches
Bulb	J-149	
Bulb Contact	J1-21	
Base	B7-208	
Basing	8HR	

RATINGS

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

Maximum Anode Voltage	20,000	Volts
Maximum Grid (Focusing Electrode) Voltage	~~1000~~ -500	
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	5.7	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 CONDITIONSGRID DRIVE SERVICE

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

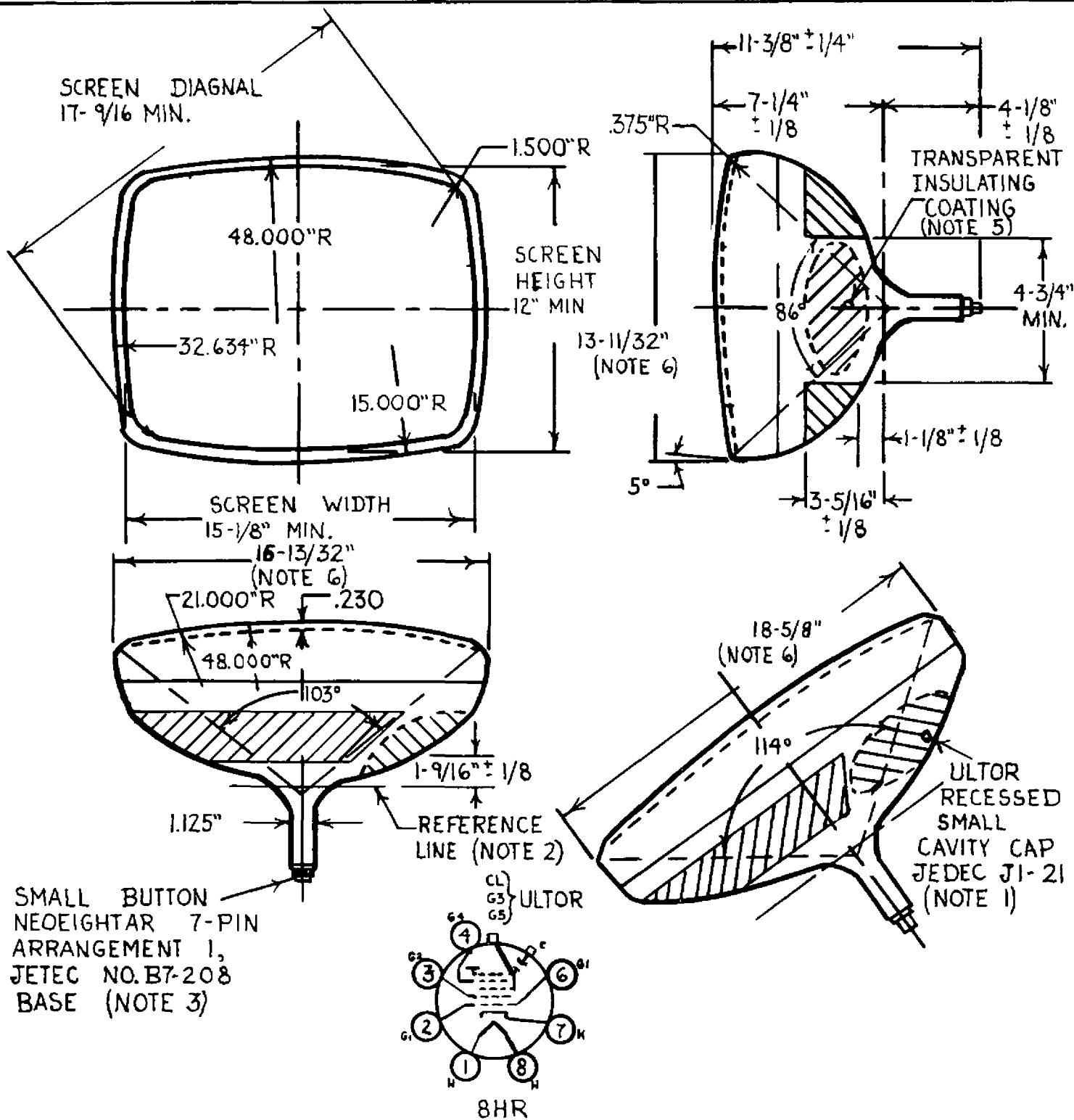
Anode Voltage	16,000	Volts DC
Grid #4 Voltage (Focusing Electrode) (Notes 2 and 3)	0 - 400	Volts DC
Grid #2 Voltage	300	Volts DC
Grid #1 Voltage (Note 1)	-38 to -72	Volts DC

Pin Connections

Pin 1	Heater	Pin 6	Grid #1
Pin 2	Grid #1	Pin 7	Cathode
Pin 3	Grid #2	Pin 8	Heater
Pin 4	Grid #4	Bulb Contact	Ultor

NOTES:

1. Visual extinction of focused raster.
2. With the combined grid #1 bias voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 12 x 15 1/8" pattern from RCA 2F21 Monoscope or equivalent.
3. Individual tubes will have satisfactory focus at some value between 0 and 400 volts.



NATIONAL VIDEO CORP.
CHICAGO 32, ILL

SUPERSEDES		DRAWING NO	19AQP4
DRAWN BY	SCALE	EFFECTIVE	DISTRIBUTION
A. L. PRIBYL			

MECHANICAL NOTES

1. The reference line is determined by reference line gauge JEDEC #126.
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 be allowed to move freely.
4. Bulge at splice line seal may increase the indicated maximum value for envelope width, diagonal and height by not more than 1/8"; however, the bulge will not protrude more than 1/16" beyond the mold match line at any point.
5. Undisturbed area between the mold match line and the panel side of the seal bulge will be a minimum of 3/4".

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.