

Picture Tube

PAN-O-PLY—INTEGRAL IMPLOSION PROTECTION

(Provided by Formed Rim and Welded Tension Bands Around Periphery of Tube Panel—No Separate Safety-Glass or Integral Protective Window Required)

LOW-VOLTAGE ELECTROSTATIC FOCUS

114° MAGNETIC DEFLECTION

ELECTRICAL

Direct Interelectrode Capacitances

Cathode to all other electrodes.	5	pF
Grid No.1 to all other electrodes.	6	pF
External conductive coating to anode	1250 min—1750 max	pF ←
Heater Current at 6.3 volts.	450 ± 20	mA
Heater Warm-Up Time (Average).	11	s
Electron Gun	Type Requiring No Ion-Trap Magnet	

OPTICAL

Phosphor P4—Sulfide Type, Aluminized

For curves, see front of this section

Faceplate. Filterglass

Light Transmission (Approx.) 48%

MECHANICAL

Weight (Approx.) 15 lb

Overall Length 11.375 ± .250 in

Neck Length. 4.125 ± .125 in

Projected Area of Screen 172 sq in

External Conductive Coating^a

Type Regular-Band

Contact area for grounding. Near Reference Line

For Additional Information on Coatings and Dimensions

See *Picture-Tube Dimensional-Outlines* and *Bulb J149F* sheets
at front of this section

Cap. Recessed Small Cavity (JEDEC No.J1-21)

Base Small-Button Noveightar 7-Pin,
Arrangement 1, (JEDEC No.B7-208)

TERMINAL DIAGRAM (Bottom View)

Pin 1—Heater

Pin 2—Grid No.1

Pin 3—Grid No.2

Pin 4—Grid No.4

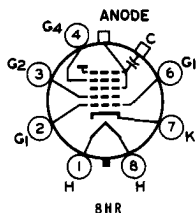
Pin 6—Grid No.1

Pin 7—Cathode

Pin 8—Heater

Cap—Anode (Grid No.3,
Grid No.5, Screen,
Collector)

C—External Conductive
Coating



← Indicates a change.



RADIO CORPORATION OF AMERICA
Electronic Components and Devices

Harrison, N. J.

DATA 1
12-66

MAXIMUM AND MINIMUM RATINGS, DESIGN-MAXIMUM VALUES

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

Anode Voltage.	11000 min—23000 max	V
Grid-No.4 (Focusing) Voltage		
Positive value	1100 max	V
Negative value	550 max	V
Grid-No.2 Voltage.	200 min—550 max	V
Grid-No.1 Voltage		
Negative peak value.	220 max	V
Negative bias value.	155 max	V
Positive bias value.	0 max	V
Positive peak value.	2 max	V
Heater Voltage	5.7 min—6.9 max	V
Peak Heater-Cathode Voltage		
Heater negative with respect to cathode:		
During equipment warm-up period		
not exceeding 15 seconds. . .	450 max	V
After equipment warm-up period	300 max	V
Heater positive with respect to cathode:		
Combined AC and DC voltage . .	200 max	V
DC component	100 max	V

TYPICAL OPERATING CONDITIONS FOR CATHODE-DRIVE SERVICE

*Unless otherwise specified, voltage values
are positive with respect to grid No.1*

Anode Voltage.	16000	V
Grid-No.4 Voltage ^b	200	V
Grid-No.2 Voltage.	300	V
Cathode Voltage.	28 to 62	V
For visual extinction of focused raster		
Field Strength of required adjustable centering magnet ^c	0 to 8	G

MAXIMUM CIRCUIT VALUE

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

^a External conductive coating and implosion protection hardware must be grounded.

^b The grid-No.4 voltage required for optimum focus of any individual tube will have a value anywhere between 0 and +400 volts with the combined grid-No.1 voltage and video-signal voltage adjusted to give an anode current of 100 microamperes on a 10-1/2-inch by 14-inch pattern from an RCA-2F21 monoscope, or equivalent.

For X-radiation shielding considerations, see sheet
X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES
at front of this section



- c Distance from Reference Line for suitable PM centering magnet should not exceed 2-1/4 inches. The specified centering magnet compensates only for the effect which mechanical tube tolerances may have on the location of the undeflected, focused spot with respect to the center of the tube face. Maximum field strength of adjustable centering magnet equals

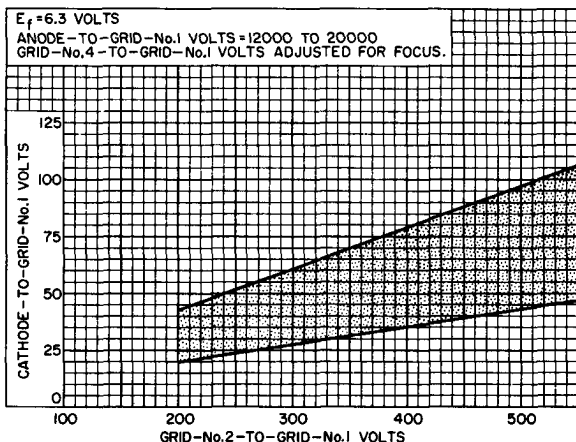
$$\sqrt{\frac{\text{Anode volts}}{16000 \text{ volts}}} \times 8 \text{ gauss}$$

The equipment manufacturer must determine and supply additional compensation for the effects of the earth's magnetic field and extraneous fields due to choice of circuitry and components. The additional compensation should preferably be applied as part of the magnetic field of the deflecting yoke.

For X-radiation shielding considerations, see sheet
X-RADIATION PRECAUTIONS FOR CATHODE-RAY TUBES
 at front of this Section

RASTER-CUTOFF-RANGE CHART

Cathode-Drive Service



92CS-12008

