



Type	Description ^Δ
PROJECTION KINESCOPES[⊕]	
5AZP4	5" electrostatic-focus, magnetic-deflection type. Provides an 8' by 6' picture. Integral flexible ultor lead. Small-shell duodecal 7-pin base. ^{††}
7NP4	Similar to 7WP4 except provides a 20' by 15' picture at a projection-throw distance of about 60'. [⊗]
7WP4	7" electrostatic-focus, magnetic-deflection type. Intended for theater-television use. Provides a 20' by 15' picture at a projection-throw distance of about 80'. Medium cap. Small-shell diheptal 14-pin base. [⊗]
MONOSCOPES	
2F21	5" electrostatic-focus, magnetic-deflection type with Indian Head Pattern. For supplying signal to test video performance of television transmitters and receivers. Two recessed small ball caps. Long medium-shell small 6-pin base.
1699	Custom-built type like the 2F21 except that its pattern is individually styled to customer requirements.

^Δ Unless otherwise specified, all of these types have electrostatic focus and deflection and a heater rating of 6.3 volts and 0.6 amp.

^{††} Heater rating: 6.3 volts, 0.6 amp.

[⊕] For information on picture tubes used in television broadcast receivers, see RCA booklet 1275-H (RCA Receiving Tubes and Picture Tubes).

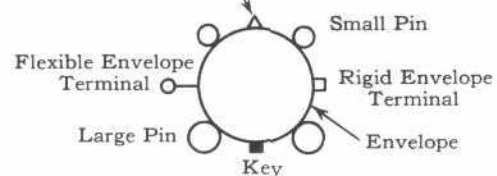
[⊗] Heater rating: 6.6 volts, 0.62 amp.

KEY TO BASE AND ENVELOPE CONNECTION DIAGRAMS

Diagrams show terminals viewed from the base end of the type

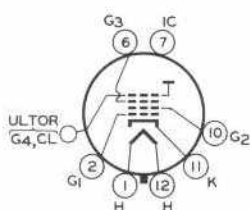
BE = Backing Electrode
 C = External Conductive Coating
 C_b = Balancing Capacitance
 CL = Collector
 DJ = Deflecting Electrode
 DY = Dynode
 G = Grid
 H = Heater
 IC = Internal Connection —Do Not Use
 K = Cathode
 NC = No Connection

Orientation Symbol
 Other Than Key

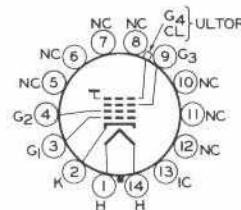


P = Anode
 PC = Photocathode
 PJ = Pattern Electrode
 SHJ = Shading Electrode
 SJ = Signal Electrode
 SS = Storage Surface
 U = Unit
 • = Gas-Type Tube

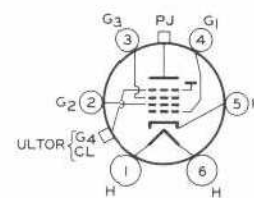
Lambda (λ) indicates that the primary characteristic of the element is designed to vary under the influence of light.



5AZP4



7NP4 7WP4



2F21 1699

Maximum Dimensions		Min. Useful Screen Diam. inches	Maximum Ratings♦♦						Operating Conditions					Deflection Factor volts dc/in.		 Type
			Final High-Voltage Electrode		Grid-No. 3 Volts	Grid-No. 2 Volts	Grid-No. 1 Bias Volts†	Final High-Voltage Electrode♦ Volts	Grid-No. 3 Voltage for Focus Approx.	Grid-No. 2 Volts	Maximum Grid-No. 1 Volts for Visual Cutoff‡					
Overall Length inches	Envelope Diam. inches		Post-Ultor Volts	Ultor Volts												
PROJECTION KINESCOPES⊕																
12 ³ / ₁₆	5 ¹ / ₈	4 ¹ / ₂	—	40000	9000	400	—150	36000	6650 to 8100	140 to 350	—93	Deflection Angle, 50° approx.	5AZP4			
20 ¹ / ₈	7 ³ / ₁₆ ▲	5 x 3 ³ / ₄ ⊙	—	80000‡	20000‡	600‡	—250‡	75000	15000 to 17000	400 to 600‡	—155‡	Deflection Angle, 35° approx.	7NP4			
20 ¹ / ₁₆	7 ³ / ₁₆ ▲	5 x 3 ³ / ₄ ⊙	—	80000‡	20000‡	600‡	—250‡	75000	15000 to 17000	400 to 600‡	—155‡	Deflection Angle, 35° approx.	7WP4			
MONOSCOPES																
12 ¹¹ / ₁₆	5 ¹ / ₁₆	2 ³ / ₁₆ x 3 ¹ / ₁₆ * 3 ¹ / ₁₆ *	—	1500	Resolution Capability (with full scanning), 500 TV lines. Pattern-Electrode Signal Current (peak-to-peak), 0.3 to 0.7 μamp.								2F21			
For additional data, refer to type 2F21.														1699		

♦♦ Design-center values.

■ The "ultor" is the electrode to which is applied the highest dc voltage for accelerating the electrons in the beam prior to its deflection.

† Positive bias value = 0 volts, positive peak value = 2 volts.

♦ Ultor volts.

‡ For visual cutoff of undeflected focused spot except as noted.

▲ Excluding side cap.

⊙ Quality rectangle. Max. faceplate temperature = 100° C. Tube requires 40 cfm air flow to faceplate.

* Pattern size, approximate.

‡ Absolute value.

‡ Vary to cut off raster.

‡ Recommended operating value.

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