



TECHNICAL DATA

TEKTRONIX
T526P__

VOL I

T526P__ ISSUE 001

7/8/60

The Tektronix Type T526P__ is a 5-inch flat-faced cathode ray tube with electrostatic focus and deflection. The Type T526P__ was designed with equal vertical and horizontal sensitivity for use in the Tektronix Type 526 Vectorscope.

MECHANICAL SPECIFICATIONS:

Overall Length	16 15/16 ±3/16 inches
Greatest Diameter of Bulb	5 5/16 inches
Neck Pin Diameter	0.040 ±.002 inches
Base	JETEC NO. B14-38
Bulb and Base Alignment	See Outline Drawing

ELECTRICAL DATA:

Heater Voltage	6.3 Volts RMS
Heater Current	0.6 ±10% Amperes RMS

Capacitance, Interelectrode (Typical Values):

Grid No. 1 to all other electrodes	6.2 μμf
Cathode to all other electrodes	4.7 μμf
DJ ₁ to DJ ₂	2.7 μμf
DJ ₁ to all other electrodes except DJ ₂	2.5 μμf
DJ ₂ to all other electrodes except DJ ₁	2.4 μμf
DJ ₃ to DJ ₄	1.2 μμf
DJ ₃ to all other electrodes except DJ ₄	2.3 μμf
DJ ₄ to all other electrodes except DJ ₃	2.2 μμf

Deflection Polarity:

- Positive Voltage on DJ₁ deflects beam toward Pin No. 1
- Positive Voltage on DJ₃ deflects beam toward Pin No. 11

Geometry: (Measured under typical operating conditions)

Minimum useful scan DJ ₁ to DJ ₂	11 cm
Minimum useful scan DJ ₃ to DJ ₄	11 cm
Trace Orthogonality	90° ±1°
Centering of undeflected spot with respect to geometric center (Deflection Electrodes connected to Grid No. 4)	5mm Max.
Raster Distortion	1.5% Max.

MAXIMUM RATINGS: (All measurements taken with respect to the cathode)

Accelerator and Deflection System

(Screen, 1st anode, 2nd anode, deflection plates, deflection plate shields, isolation shield) 5000 Max. Volts

Focus Electrode

Voltage Range 0 to 5000 Volts
 Maximum Current to Focus Electrode $\pm 10\mu\text{a}$

Peak Voltage Between Electrodes

Plate to Plate 500 Max. Volts
 Plate to all other electrodes in the accelerator and deflection system 500 Max. Volts
 Between any two electrodes in the accelerator and deflection system 500 Max. Volts

Grid No. 1 Voltage

Negative Bias Value 150 Max. Volts
 Positive Bias Value 0 Max. Volts
 Positive Peak Value 2 Max. Volts

Peak Heater-Cathode Voltage

Heater Negative with respect to Cathode 125 Max. Volts
 Heater Positive with respect to Cathode 125 Max. Volts

Maximum Electrode Power Dissipation

1st Anode 6 Watts

TYPICAL OPERATING CONDITIONS: (All measurements taken with respect to the cathode)

Electrode Designation	Symbol	
Screen Voltage .....	.Esc	}
Isolation Shield Voltage and .....	.Eg5	
D ₃ -D ₄ Deflection Shield Voltage .....	.Es1	
(Note 1)		3800 to 4200 Volts DC
Average of Deflection Plates		4000 Volts DC
 Accelerator Voltage		
Grid No. 4 (Astigmatism) .....	.Eg4	3800 to 4200 Volts DC
Grid No. 2 (1st Anode) .....	.Eg2	4000 Volts DC
Grid No. 3 Voltage (Focus) .....	.Eg3	600 to 900 Volts DC
Grid No. 1 Voltage (Control) .....	.Eg1	-35 to -65 Volts (cutoff)

Deflection Factors (Nominal)

DJ₁-DJ₂ 21.5 Volts/cm

DJ₃-DJ₄ 21.5 Volts/cm

Useful Scan

DJ₁-DJ₂ 11 cm

DJ₃-DJ₄ 11 cm

RECOMMENDED DESIGN RANGES:

Minimum Scan

DJ₁-DJ₂ 11 cm

DJ₃-DJ₄ 11 cm

Deflection Factors

DJ₁-DJ₂ 5.0 to 5.8V/cm/KV Vgun

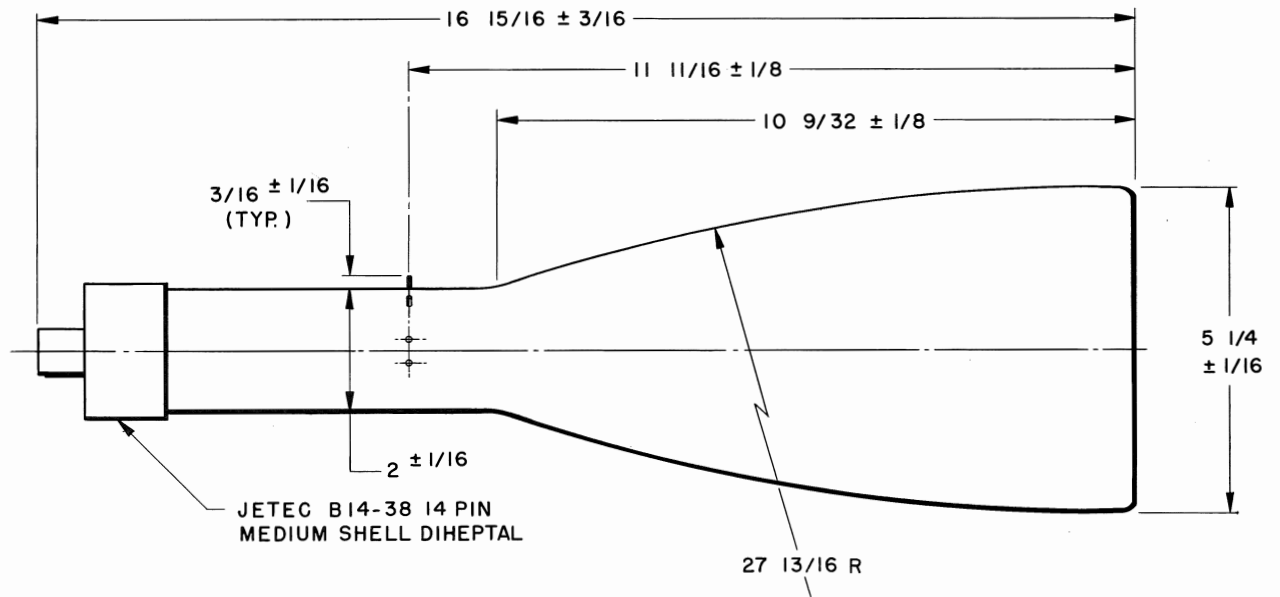
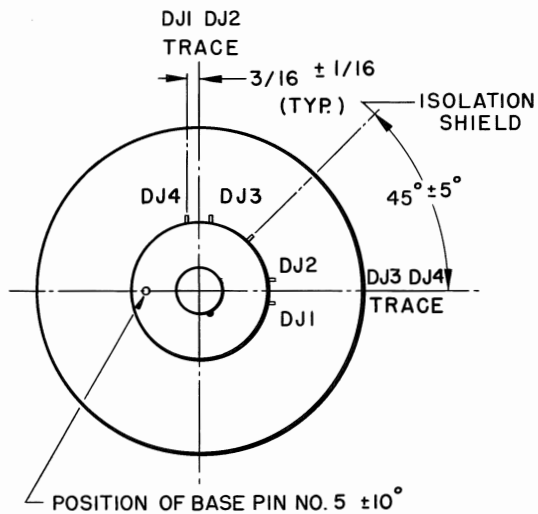
DJ₃-DJ₄ 5.0 to 5.8V/cm/KV Vgun

Grid No. 1 Voltage for extinction of undeflected focused spot 2% of Vgun

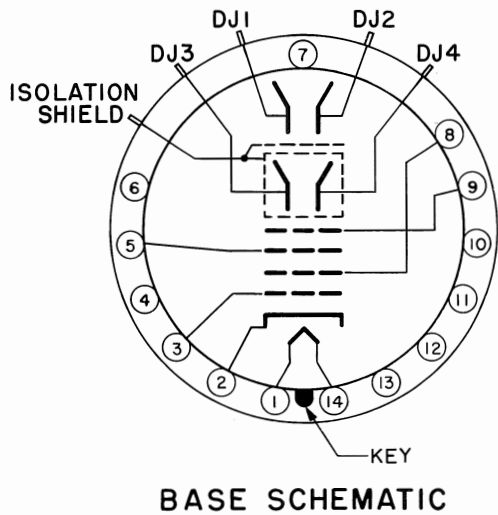
Focus Electrode Voltage (recommended range) 13% to 22% of Vgun

NOTES:

1. The Isolation Shield, Deflection Plate Shield and Aquadag Wall Coating are tied together internally. Pattern distortion is minimal with the proper potential.



BASE CONNECTIONS



- 1 HEATER
- 2 CATHODE
- 3 GRID NO. 1
- 4 N.C.
- 5 GRID NO. 3 (FOCUS)
- 6 N.C.
- 7 N.C.
- 8 GRID NO. 2 (1ST ANODE)
- 9 GRID NO. 4 (ASTIGMATISM)
- 10 N.C.
- 11 N.C.
- 12 N.C.
- 13 N.C.
- 14 HEATER

MARK	DATE	DESCRIPTION	BY	APPR
		CATHODE-RAY TUBE DIVISION TEKTRONIX, INC. PORTLAND, OREGON, U.S.A.		
		TUBE TYPE: T 526	DATE: 4-14-60	
			MOD.	