

# VACUUM TUBE PRODUCTS

## VTP 5AJ



The VTP 5AJ cathode ray tube is an electro-static deflection and focus type tube for general oscillographic and other applications requiring relatively large screen size with a minimum overall length. The tube is designed with a high voltage post-deflection accelerator electrode making possible a high intensity spot with a minimum loss of deflection sensitivity. A special feature of the tube lies in the design of the intensifier together with the electrically conductive screen to provide an anode for the electron beam. This type of operation allows the use of a soft main beam to provide high deflection sensitivity while allowing the use of intensifier voltages up to ten times the beam voltage. The above operation provides excellent signal presentation with high deflection sensitivity and intensity with an excellent spot characteristic in a minimum overall length. Assurance of long life is had through the exclusive Vacuum Tube Products method of long and careful exhaust. The VTP 5AJ cathode ray tube is available with the following phosphors:  
P 1, 2, 3, 4, 5, 7, 11, 12, 14, 15, 16; 17; 18; 19; 20.

### MAXIMUM RATINGS — DESIGN CENTER VALUES

Heater Voltage .....	6.3 Volts
Heater Current .....	0.6 Amperes
Anode #3 Voltage (Accelerator Electrode) .....	10,000 Max. Volts D.C.
Anode #2 Voltage (High Voltage Electrode) .....	2500 Max. Volts D.C.
Anode #1 Voltage (Focusing Electrode) .....	1500 Max. Volts D.C.
Grid #1 Voltage (Control Electrode)	
Negative Bias Value .....	200 Max. Volts D.C.
Positive Bias Value .....	0 Max. Volts D.C.
Positive Peak Value .....	2 Max. Volts D.C.
Peak Voltage between Anode #2 and any deflecting Electrode	500 Max. Volts D.C.
Peak Heater to Cathode Voltage	
Heater Negative with respect to Cathode.....	125 Max. Volts D.C.
Heater Positive with respect to Cathode.....	125 Max. Volts D.C.
Basing.....	Small shell duodecal 12 pin
Pin No. 1 2 3 4 5 6 7 8 9 10 11 12	
Element H K NC D1 F D4 A#2 D2 D3 NC G#1 H	

### TYPICAL OPERATING CONDITIONS

Heater Voltage .....	6.3 Volts
Anode #3 Voltage .....	6000 Volts D.C.
Anode #2 Voltage .....	750 Volts D.C.
Anode #1 Voltage Range .....	400 to 900 Volts D.C.
Grid #1 Voltage Range .....	-30 to -60 Volts
Deflection Sensitivity .....	230 Volts D.C./Inch

### MAXIMUM CIRCUIT VALUES

Grid #1 Circuit Resistance .....	1.5 Max. Megohms
Resistance in any Deflecting Electrode Circuit .....	3.0 Max. Megohms

Note: Type VTP 5AJ tube operates from power supplies that are dangerous.  
The above circuit values are recommended as a safety measure.

VACUUM TUBE PRODUCTS, 506 SOUTH CLEVELAND STREET, OCEANSIDE, CALIFORNIA  
PHONE: OCEANSIDE 6567

