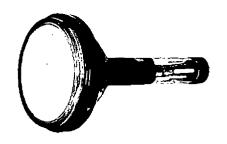
LITTON INDUSTRIES

ELECTRON TUBE DIVISION-ELECTRONIC DISPLAY LABORATORY 1476 66TH STREET • EMERYVILLE, CALIFORNIA • OLYMPIC 8-3831

5CGP29 CHROMATRON



SINGLE-GUN COLOR TUBE GLASS ENVELOPE TWO-COLOR PERSISTENT PHOSPHORS PHOSPHORS ON FLAT FACE ALUMINIZED SCREEN ACTIVE SCREEN AREA 41/4" DIAMETER SCREEN VOLTAGE UP TO 18,000 VOLTS

High resolution is afforded by phosphor strips of approximately 11 mils width on 121/2 mil centers, or 80 color strips per inch. Simple circuitry is adequate for power supplies and color switching. Post-acceleration, inherent in post-deflection focusing (PDF) produces high deflection sensitivity. Color convergence is inherent in the tube, independent of circuit adjustment.

APPLICATIONS

Suggested applications include: target identification, moving target identification (MTI), IFF, anti-jamming, navigational beacons, terrain clearance, plane elevation indicator, collision course indicator, etc.

DATA	
GENERAL	
Heater voltage (AC or DC) 6.3 vol Heater current 0.6 ampere	ts
Direct Interelectrode Capacitances:	-5
Grid #1 to all other electrodes 6 ut	uf
Cathode to all other electrodes4 ut	uf
Color selectors to each other880 ut	υť
Phosphors (long persistence) P-25 orang	zе
P-2 gree Focusing Method	ic
Color Selector Method Electrostat	1C
Deflection Method	ic
Deflection Angle (Approx.)	3°
Length	n.
Weight	b.
*MAXIMUM RATINGS	
Screen (ultor) voltage (Note 1)18,000 D	C
Grid #3 voltage	
Grid #2 voltage	
Color selector voltage	ιk
Color grid to phosphor plate 8.000 D	C

Seeker voltage (Note 2)......350 DC

Grid #1 voltage:
Negative bias value
Positive bias value0
Positive peak value
Peak heater — cathode voltage:
Heater neg. with respect to cathode
during equip, warm-up period not to
exceed 15 seconds410 DC
After equip. warm-up 180 DC
Heater pos. with respect to cathode 180 DC
*design-center values

TYPICAL OPERATION

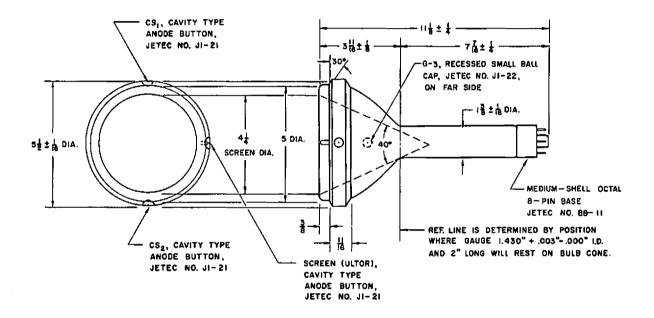
Screen (ultor) voltage16,000 DC
Grid #3 voltage (Note 3) 9,000 to 12,000 DC
Color selector voltage 300 peak
Seeker voltage
Grid #2 voltage
Grid 1 voltage (Note 4)50 to -105 DC
Focusing coil current (Note 5)60 to 80 ma DC
Circuit values:
Grid #1 circuit resistance1.5 megs. max.

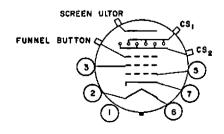
NOTES

- 1. Screen (ultor) voltage is defined as the total accelerating DC potential between the cathode and the phosphor plate. This anode voltage provides the high potential necessary for the function of post-deflection focusing.
- 2. Seeker voltage is defined as the DC potential between the color selectors and Grid #3. This voltage is such that the color selectors are negative with respect to Grid #3, and is adjusted for optimum color purity.
- 3. Color purity is determined by the optimum ratio of the screen voltage to the Grid #3 voltage, seeker voltage, and focus coil positioning.
- 4. For visual extinction of focused spot.
- 5. With the JETEC focus coil #109 located so that the center of the focus coil gap is located four inches behind the yoke reference line.

CHROMATRON® 5CGP29

DIMENSIONAL OUTLINE





BOTTOM VIEW

PIN 2 - HEATER

PIN 7 - CATHODE

PIN 3 - GRID NO. 2

PIN 8 - HEATER

PIN 5 - GRID NO. I

CS1. CSg. - COLOR SELECTORS