

5" Radar Display CRT

- Electrostatic focus
- Magnetic deflection
- Less than ten inches overall length
- Offset neck facilitates positioning of display origin at screen edge
- For display of airborne weather radar data in airplane cockpits

Data

Electrical:

Heater for Unipotential Cathode:

| | | |
|---------------------------------------|-----|---|
| Voltage ^a (AC or DC) | 6.3 | V |
| Current at 6.3 V | 0.3 | A |

Focusing Method Electrostatic

Deflection Method Magnetic

Direct Interelectrode Capacitances:

| | | | |
|---|----|------|----|
| Grid No.1 to all other electrodes | 10 | max. | pF |
| Cathode to all other electrodes | 6 | max. | pF |

Optical:

Faceplate:

| | |
|-------------------------------|-------------|
| Material | Clear Glass |
| Shape | Spherical |
| Minimum useful diameter | 4.5 in |

Phosphor:

| | |
|-----------------------|-------------------------|
| Type | Aluminized, P7 |
| Fluorescence | White |
| Phosphorescence | Yellowish Green |
| Persistence | Long (100 ms to 1 sec.) |

Mechanical:

Tube Dimensions:

| | | |
|------------------------------|---------|----|
| Maximum overall length | 9-13/16 | in |
| Maximum bulb diameter | 5 | in |
| Neck diameter | 7/8 | in |

Base (9 Pin) JEDEC No.E9-37

Anode Connector Button J1-22

Operating Attitude Any

Weight 2 lb

Maximum Ratings, Absolute Maximum Values^b

| | | | |
|-----------------------------|-------|------|---|
| Anode Voltage | 12000 | max. | V |
| Grid No.4 Voltage | 450 | max. | V |
| Grid No.2 Voltage | 450 | max. | V |
| Grid No.1 Voltage: | | | |
| Negative bias value | 100 | max. | V |
| Positive bias value | 0 | max. | V |
| Positive peak value | 2 | max. | V |
| Peak Heater Cathode Voltage | 125 | max. | V |

Typical Operating Values

All values are specified with respect to cathode.

| | | |
|--------------------------------|------------|---------|
| Anode Voltage | 8500 | V |
| Grid No.4 Voltage ^c | 40 to 250 | V |
| Grid No.2 Voltage | 250 | V |
| Grid No.1 Voltage ^d | -25 to -50 | V |
| Anode Current | 100 | μ A |
| Grid No.3 Current | 10 | μ A |
| Grid No.2 Current | 1.0 | μ A |
| Grid No.1 Drive Voltage | 25 | V |
| Resolution ^e | 0.014 | in |

- a** For optimum life the heater voltage should be regulated at 6.3 volts.
- b** A description of the Absolute-Maximum Rating is given in the General Section, titled Rating Systems for Electron Tubes.
- c** Adjust for best focus.
- d** Adjust for visual cutoff of undeflected spot.
- e** At center of tube face. Shrinking raster measurement.

X-Ray Warning

Shielding of this cathode-ray tube for X-ray radiation may be needed to protect against possible danger of personal injury from prolonged exposure at close range.

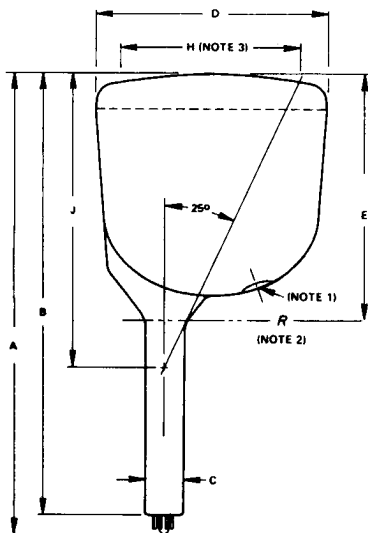
High Voltage

The high voltages at which tube type is operated may be very dangerous. Great care should be taken in the design of apparatus to prevent the operator from coming in contact with the high voltages. Precautions include the enclosing of high-potential terminals and the use of interlocking switches to break the primary circuit of the power supply when access to the equipment is required.

In the use of the - tube it should always be remembered that high voltages may appear at normally low-potential points in the circuit because of capacitor breakdown or incorrect circuit connections, and that the tube surface maintains a static charge for some time after the power has been turned off. Therefore, before any part of the circuit or the tube is touched, the power-supply switch should be turned off, both terminals of high-voltage capacitors should be grounded, and the terminals of the high-voltage power supply should be grounded.

After these steps have been taken and before touching the tube, discharge the anode terminals, the surface of the faceplate, and the coated surface of the cone by use of a suitable wand which is connected to ground. It is to be noted that the entire surface of the cone and of the faceplate will not be discharged by touching the wand to a single point on either surface, because the surfaces have high resistance. Therefore, to discharge each surface, it will be necessary to sweep over the entire surface with the wand.

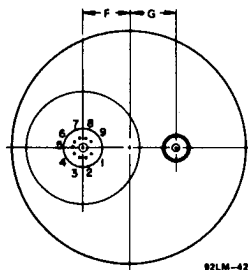
Dimensional Outline



Note 1: Anode button J1-22.

Note 2: Reference line; ring gauge (1.000" +.003" - .000" diameter x 1.500" long) will stop at this reference line.

Note 3: Quality circle.



92LM-4262

Pin No.1 - G1
 Pin No.2 - H
 Pin No.3 - H
 Pin No.4 - G1
 Pin No.5 - NC
 Pin No.6 - G4
 Pin No.7 - G2
 Pin No.8 - G1
 Pin No.9 - K
 Button - Anode, G3

Tabulated Dimensions

| | |
|---|--------------|
| A | 9.812 Max. |
| B | 9.060 ± .060 |
| C | 0.870 ± .030 |
| D | 4.950 ± .062 |
| E | 5.218 ± .125 |
| F | 1.000 Ref. |
| G | 1.000 Ref. |
| H | 4.500 Min. |
| J | 6.250 Ref. |