



I2DP7-A

# I2DP7-A OSCILLOGRAPH TUBE

MAGNETIC FOCUS

MAGNETIC DEFLECTION

## DATA

### General:

Heater, for Unipotential Cathode:

Voltage. . . . . 6.3 . . . . . ac or dc volts

Current. . . . .  $0.6 \pm 10\%$  . . . . . amp

Direct Interelectrode Capacitances (Approx.):

Grid No.1 to all other electrodes. . . . . 9  $\mu\text{f}$ Cathode to all other electrodes. . . . . 6  $\mu\text{f}$ 

Faceplate, Spherical . . . . . Filterglass

Light transmission (Approx.) . . . . . 76%

Phosphor (For Curves, see front of this Section) . . . . . P7

Fluorescence . . . . . Blue

Persistence. . . . . Short

Phosphorescence. . . . . Greenish-Yellow

Persistence. . . . . Long

Focusing Method. . . . . Magnetic

Deflection Method. . . . . Magnetic

Deflection Angle (Approx.) . . . . .  $50^\circ$ Overall Length . . . . .  $19-5/8" \pm 1/2"$ Greatest Diameter of Bulb. . . . .  $12" \pm 3/16"$ 

Minimum Useful Screen Diameter . . . . . 10"

Weight (Approx.) . . . . . 8 lbs

Mounting Position. . . . . Any

Cap. . . . . Medium (JETEC No.C1-5)

Bulb . . . . . J96

Base . . . . . Long Medium-Shell Octal 8-Pin (JETEC No.B8-65),  
or Long Medium-Shell Octal 5-Pin (JETEC No.B5-80)

Basing Designation for BOTTOM VIEW . . . . . 5AN

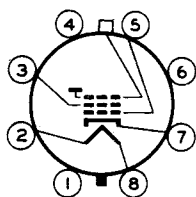
Pin 1 - No Connec-  
tion

Pin 2 - Heater

Pin 3 - Grid No.2

Pin 4 - No Connec-  
tion

Pin 5 - Grid No.1

Pin 6 - No Connec-  
tion

Pin 7 - Cathode

Pin 8 - Heater

Cap - Ultor  
(Grid No.3,  
Collector)

### Maximum Ratings, Design-Center Values:

ULTOR VOLTAGE. . . . . 10000 max. volts

GRID-No.2 VOLTAGE:

Positive value (DC or Peak AC) . . . . . 700 max. volts

Negative value (DC or Peak AC) . . . . . 180 max. volts

GRID-No.1 VOLTAGE:

Negative bias value. . . . . 180 max. volts

Positive bias value<sup>▲</sup> . . . . . 0 max. volts

Positive peak value. . . . . 2 max. volts

<sup>▲</sup> At or near this rating, the effective resistance of the ultor supply should be adequate to limit the ultor input power to 6 watts.

← Indicates a change.



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|                                            |                |
|--------------------------------------------|----------------|
| PEAK GRID-No.1 DRIVE FROM CUTOFF . . . . . | 65 max. volts  |
| PEAK HEATER-CATHODE VOLTAGE:               |                |
| Heater negative with respect to cathode .  | 125 max. volts |
| Heater positive with respect to cathode .  | 125 max. volts |

**Equipment Design Ranges:**

For any ultor voltage ( $E_{c3}$ ) between 4000\* and 10000 volts  
and grid-No.2 voltage ( $E_{c2}$ ) between 150 and 750 volts

Grid-No.1 Voltage for Visual  
Extinction of Undelected

Focused Spot . . . . . -10% to -28% of  $E_{c2}$  volts

Grid-No.2 Current . . . . . -15 to +15  $\mu$ amp

Focusing-Coil Current (DC)<sup>oo</sup> .  $\left[ \sqrt{\frac{E_{c3}}{4000}} \times 88.5 \right] \pm 15\%$  ma

Spot Position . . . . . ##

**Examples of Use of Design Ranges:**

|                          |      |      |       |
|--------------------------|------|------|-------|
| For ultor voltage of     | 4000 | 7000 | volts |
| and grid-No.2 voltage of | 250  | 250  | volts |

Grid-No.1 Voltage for Visual  
Extinction of Undelected

Focused Spot . . . . . -25 to -70 -25 to -70 volts

Focusing-Coil Current (DC) . 75 to 102 99 to 135 ma

**Maximum Circuit Values:**

Grid-No.1-Circuit Resistance . . . . . 1.5 max. megohms

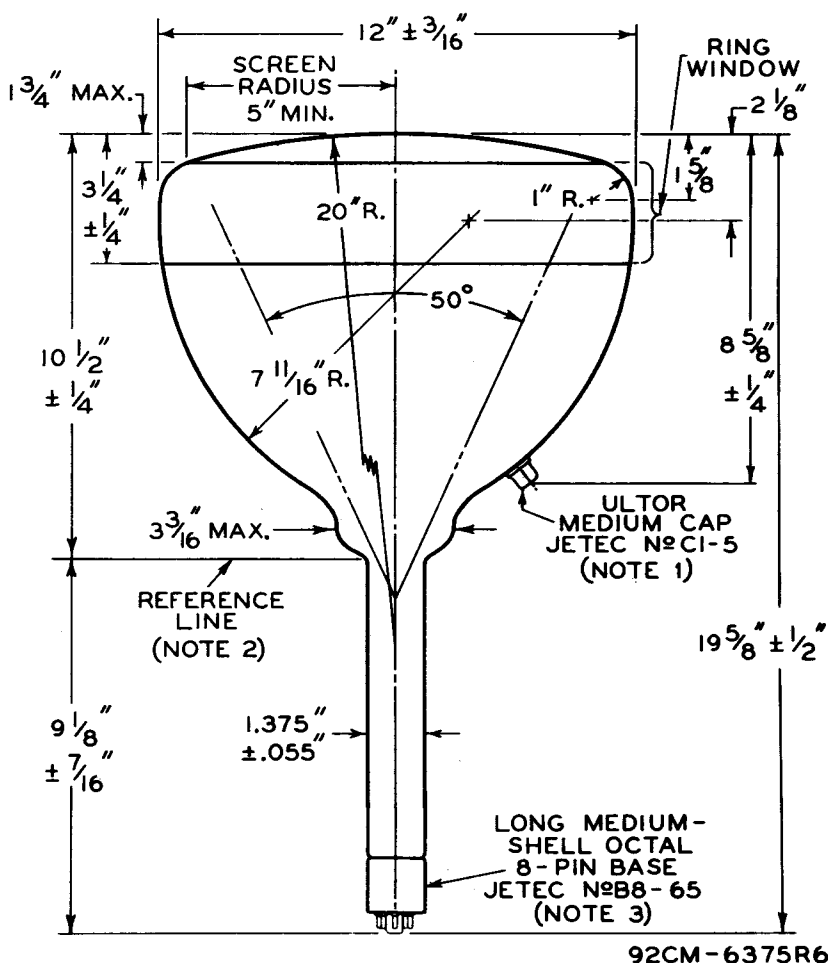
\* Brilliance and definition decrease with decreasing ultor voltage. In general, the ultor voltage should not be less than 4000 volts.

<sup>oo</sup> For specimen focusing coil similar to JETEC Focusing Coil No.106 positioned with air gap toward faceplate and center line of air gap 4-1/8" from Reference Line (See Dimensional Outline) and ultor current of 200 microamperes.

## The center of the undeflected, unfocused spot will fall within a circle having a 20-mm radius concentric with the center of the tube face.



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**NOTE 3:** C OF BULB WILL NOT DEVIATE MORE THAN  $2^{\circ}$  IN ANY DIRECTION FROM THE PERPENDICULAR ERECTED AT THE CENTER OF THE BOTTOM OF THE BASE.

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# AVERAGE GRID-DRIVE CHARACTERISTICS

$E_f = 6.3$  VOLTS

ULTOR VOLTS = 4000-10000

GRID N<sup>o</sup>1 BIASED TO CUTOFF  
OF UNDEFLECTED FOCUSED SPOT

