**General:**

Heater, for Unipotential Cathode:
- Voltage: \(6.3 \pm 10\%\) ac or dc volts
- Current: \(0.6\) amp.

Direct Interelectode Capacitances (Approx.):
- Grid No.1 to All Other Electrodes: \(7.5\) \(\mu\)f
- DJ1 to All Other Electrodes: \(8.5\) \(\mu\)f
- DJ4 to All Other Electrodes: \(6.0\) \(\mu\)f

Phosphor (For Curves, see front of this Section): No.1
- Fluorescence: Green
- Persistence: Medium

Focusing Method: Electrostatic
Deflection Method: Electrostatic

Overall Length: \(7-7/16\)" \(\pm\) \(3/16\)"
Greatest Diameter of Bulb: \(2\)" \(\pm\) \(1/16\)"
Minimum Useful Screen Diameter: \(1-3/4\)"
Mounting Position: Any
Base: Medium Shell Octal 8-Pin

**Basing Designation for BOTTOM VIEW:**
- Pin 1 - Grid No.2
- Anode No.2
- Deflecting Electrode DJ2
- Pin 2 - Heater
- Cathode

**Pin 3 - Anode No.1**
- Pin 4 - Deflecting Electrode DJ1
- Pin 5 - Grid No.1
- Pin 6 - Deflecting Electrode DJ4
- Pin 7 - Heater
- Pin 8 - No Connection

**DJ1 and DJ2 are nearer the screen**
**DJ3 and DJ4 are nearer the base**

With DJ1 positive with respect to DJ2, the spot is deflected toward pin 3. With DJ3 positive with respect to DJ4, the spot is deflected toward pin 1.

The angle between the trace produced by DJ3 and DJ4 and its intersection with the plane through the tube axis and pin 1 does not exceed 100°.

The angle between the trace produced by DJ3 and DJ4 and the trace produced by DJ1 and DJ2 is 900° ± 40°.

**Maximum Ratings, Absolute Values:**

- ANODE-No.2 & GRID No.2 VOLTAGE: \(660\) max. volts
- ANODE-No.1 VOLTAGE: \(330\) max. volts
- GRID-No.1 (CONTROL ELECTRODE) VOLTAGE:
  - Negative Value: \(125\) max. volts
  - Positive Value: \(0\) max. volts
- PEAK VOLTAGE BETWEEN ANODE No.2 AND DEFLECTING ELECTRODE DJ1 OR DJ4: \(385\) max. volts

*JULY 1, 1945*
Typical Operation:
Anode No.2 & Grid No.2 Voltage* ... 400 600 ... volts
Anode No.1 Voltage for Focus
at 75% of Grid-No.1 Volt-
age for Cutoff ● ... 100 150 ... volts
Grid-No.1 Volt. for Visual Cutoff# ... -40 -60 ... volts
Max. Anode-No.1 Current
Range* Between -50 and +10 μamp.

Deflection Sensitivity:
DJ1 and DJ2 ........... .0273 0.183 ... mm/v dc
DJ3 and DJ4 ........... .0326 0.217 ... mm/v dc

Deflection Factor:**
DJ1 and DJ2 ........... 93 139 ... v dc/in.
DJ3 and DJ4 ........... 78 117 ... v dc/in.

* Brilliance and definition decrease with decreasing anode-No.2 voltage.
   In general, anode-No.2 voltage should not be less than 400 volts.
● Individual tubes may require between +20% and -35% of the values shown
   with grid-No.1 voltages between zero and cutoff.
# Visual extinction of stationary focused spot. Supply should be adjust-
   able to ± 50% of these values.
* See curve for average values.
** Individual tubes may vary from these values by ± 20%.

Spot Position:
The undeflected focused spot will fall within a 10-mm square
centered at the geometric center of the tube face and having
one side parallel to the trace produced by DJ1 and DJ2. Suitable
test conditions are: anode-No.2 voltage, 600 volts; anode-No.1 voltage, adjusted for focus; deflecting-electrode resistors, 1 megohm each for DJ1 and DJ4, connected to anode
No.2; the tube shielded from all extraneous fields. To avoid
damage to the tube, grid-No.1 voltage should be near cutoff
before application of anode voltages.

Maximum Circuit Values:
Grid-No.1-Circuit Resistance ........ 1.5 max. megohms
Impedance of Any Deflecting-Electrode
Circuit at Heater-Supply Frequency 1.0 max. megohm
Resistance in Any Deflecting-
Electrode Circuit�� 5.0 max. megohms

�� It is recommended that both deflecting-electrode-circuit resistances
be approximately equal.
HIGH-VACUUM CATHODE-RAY TUBE

**TYPICAL OSCILLOGRAPH CIRCUIT**

- **C1**: 0.1 μf
- **C2**: 1.0 μf
- **C3 C4 C5 C6**: 0.05-μf Blocking Capacitors *
- **R1 R2**: 1.0 Megohm
- **R3**: 1.3 Megohms
- **R4**: 1-Megohm Potentiometer
- **R5**: 0.3 Megohm
- **R6**: 0.5-Megohm Potentiometer
- **R7 R8**: Dual 2-Megohm Potentiometer
- **R9 R10**: 2 Megohms

*When cathode is grounded, capacitors should have high voltage rating; when anode No.2 is grounded, they may have low voltage rating. For dc amplifier service, deflecting electrodes should be connected direct to amplifier output. In this service, it is preferable usually to remove deflecting-electrode resistors to minimize loading effect on amplifier. In order to minimize spot defocusing, it is essential that anode No.2 be returned to a point in the amplifier system which will give the lowest possible potential difference between anode No.2 and the deflecting electrodes.*

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The license extended to the purchaser of tubes appears in the License Notice accompanying them. Information contained herein is furnished without assuming any obligations.

**JULY 1, 1945**

**RCA VICTOR DIVISION**

**RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY**
HIGH-VACUUM CATHODE-RAY TUBE

SCREEN RADIUS
\[ \frac{7}{8} \text{ IN.} \]

3 \( \frac{1}{16} \) IN.

2" \( \pm \frac{1}{16} " \)

\[ 0.188" \text{ R.} \]

12°37'

8" R.

6 \( \frac{7}{8} \)" \( \pm \frac{3}{16} " \)

\[ 1 \frac{3}{8} " \pm \frac{1}{16} " \]

7 \( \frac{7}{16} \)" \( \pm \frac{3}{16} " \)

MEDIUM SHELL
OCTAL
8-PIN BASE

92CH-4879R2

\( \Phi \) OF BULB WILL NOT DEVIATE MORE THAN 2°
IN ANY DIRECTION FROM PERPENDICULAR ERECTED AT CENTER OF BOTTOM OF BASE
**AVERAGE CHARACTERISTICS**

\[ E_f = 6.3 \text{ VOLTS} \]

**ANODE NO.1 VOLTS ADJUSTED TO GIVE FOCUS**

<table>
<thead>
<tr>
<th>CURVE</th>
<th>ELECTRODE CURRENT</th>
<th>ANODE NO.2 &amp; GRID NO.2 VOLTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ANODE NO.1</td>
<td>600</td>
</tr>
<tr>
<td>B</td>
<td>ANODE NO.1</td>
<td>400</td>
</tr>
<tr>
<td>C</td>
<td>ANODE NO.2 &amp; GRID NO.2</td>
<td>600</td>
</tr>
<tr>
<td>D</td>
<td>ANODE NO.2 &amp; GRID NO.2</td>
<td>400</td>
</tr>
</tbody>
</table>

**GRID NO.1 VOLTS**

-60, -40, -20, 0

**GRID NO.2 & GRID NO.2 MICROAMPERES**

400, 800, 1200, 1600, 2000

**ANODE NO.2 & GRID NO.2 MICROAMPERES**

-60, -40, -20, 0

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**APR. 13, 1945**

**92CM-4895RI**

**RCA VICTOR DIVISION**

**RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY**