



5TP4

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PROJECTION KINESCOPE

ELECTROSTATIC FOCUS

MAGNETIC DEFLECTION

DATA

General:

Heater, for Unipotential Cathode:

Voltage	6.3	ac or dc volts
Current	0.6	amp

Direct Interelectrode Capacitances (Approx.):

Grid No.1 to All Other Electrodes	7.5	$\mu\mu\text{f}$
Cathode to All Other Electrodes	5.0	$\mu\mu\text{f}$
External Conductive Coating to Anode No.2	500 max.	$\mu\mu\text{f}$
	100 min.	$\mu\mu\text{f}$

Phosphor (For Curves, see front of this Section) No.4

Fluorescence and Phosphorescence White

Persistence of Phosphorescence Medium

Focusing Method Electrostatic

Deflection Method Magnetic

Deflection Angle (Approx.) 50°

Overall Length 11-3/4" ± 3/8"

Greatest Diameter of Bulb 5" ± 1/8"

Minimum Useful Screen Diameter 4-1/2"

Minimum Optical-Quality-Circle Diameter 4-1/4"

Mounting Position Any

Base Recessed Small Cavity

Base Small-Shell Duodecal 7-Pin

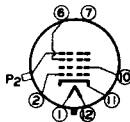
Basing Designation for BOTTOM VIEW 12C

Pin 1 - Heater

Pin 2 - Grid No.1

Pin 6 - Anode No.1

Pin 7 - Internal Con. - Do Not Use



Pin 10 - Grid No.2

Pin 11 - Cathode

Pin 12 - Heater

Cap - Anode No.2

Maximum Ratings, Design-Center Values:

ANODE-No.2 VOLTAGE 27000 max. volts

ANODE-No.1 VOLTAGE 6000 max. volts

GRID-No.2 VOLTAGE 350 max. volts

GRID-No.1 (CONTROL ELECTRODE) VOLTAGE:

Negative bias value 150 max. volts

Positive bias value 0 max. volts ←

Positive peak value 2 max. volts ←

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode:

During equipment warm-up period not exceeding 15 seconds	410 max.	volts ←
After equipment warm-up period	175 max.	volts ←

Heater positive with respect to cathode 10 max. volts

Typical Operation:

Anode-No.2 Voltage* 27000 . . volts

Anode-No.1 Voltage for Focus

when anode-No.2 current is 200 μa 4320 to 5400 volts ←

* See next page. ← Indicates a change.

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Grid-No.2 Voltage**	200	volts
→ Grid-No.1 Voltage for Visual Cutoff ⁰	-42 to -98	volts
Anode-No.2 Current	200	μa
→ Max. Anode-No.1 Current.	65	μa
Max. Grid-No.2 Current	±15	μa

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	1.5 max.megohms
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→ Minimum Circuit Values:

When the output capacitor of the power supply is capable of storing more than 250 microcoulombs, and when the inherent regulation of the power supply permits the instantaneous short-circuit current to exceed 1 ampere, the effective resistance in circuit between indicated electrode and the output capacitor should be as follows:

Grid-No.1-Circuit Resistance	180 min.	ohms
Grid-No.2-Circuit Resistance	390 min.	ohms
Anode-No.1-Circuit Resistance.	6800 min.	ohms
Anode-No.2-Circuit Resistance.	30000 min.	ohms

The resistors used should be capable of withstanding the voltages involved.

Components:

Deflection Yoke.	RCA Type No.201D2
Horizontal Output Transformer (for use with two 6BG6-G's).	RCA Type No.211T2
Vertical Output Transformer.	RCA Type No.204T2

* Brilliance and definition decrease with decreasing anode voltages. In general, anode No.2 voltage should not be less than 20000 volts.

** Subject to variation of ±40% if it is desired to operate any tube at a grid-No.1 cutoff bias of -70 volts.

0 Visual extinction of undeflected focused spot.

→ Indicates a change.

MAR. 15, 1948

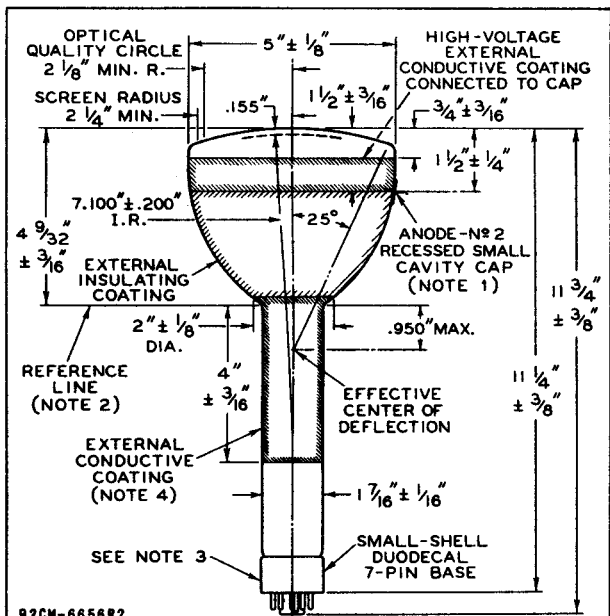
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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NOTE 1: THE PLANE THROUGH THE TUBE AXIS AND VACANT PIN POSITION NO. 3 MAY VARY FROM THE PLANE THROUGH THE TUBE AXIS AND ANODE-NO. 2 TERMINAL BY AN ANGULAR TOLERANCE (MEASURED ABOUT THE TUBE AXIS) OF 10°. ANODE-NO. 2 TERMINAL IS ON SAME SIDE AS VACANT PIN POSITION NO. 3.

NOTE 2: REFERENCE LINE IS DETERMINED BY POSITION WHERE HINGED GAUGE 1.500" + .003" - .000" I.D. AND 2" LONG WILL REST ON BULB CONE.

NOTE 3: SOCKET FOR THIS BASE SHOULD NOT BE RIGIDLY MOUNTED; IT SHOULD HAVE FLEXIBLE LEADS AND BE ALLOWED TO MOVE FREELY.

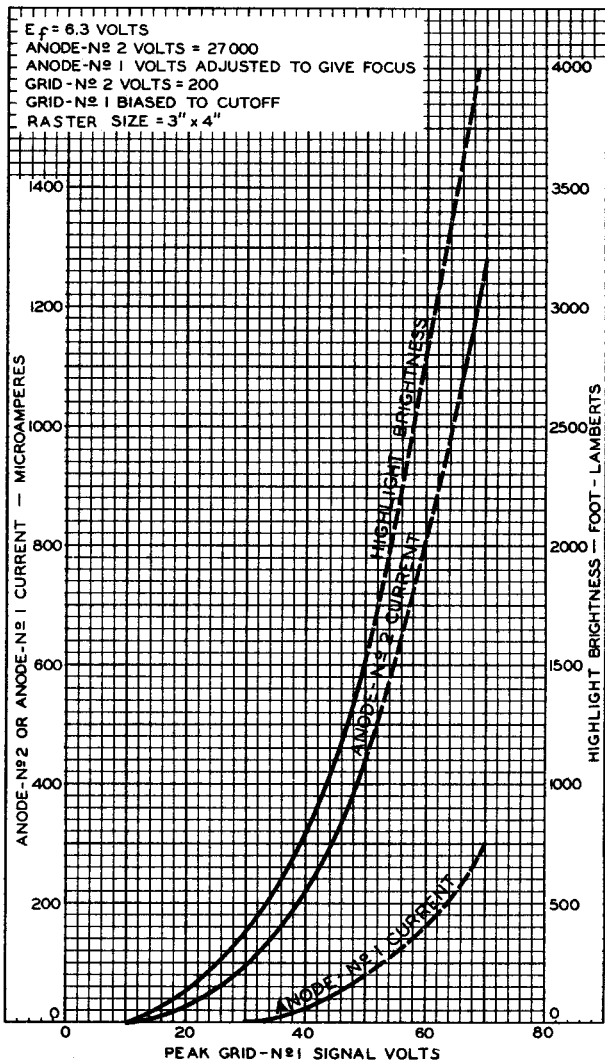
NOTE 4: EXTERNAL CONDUCTIVE COATING MUST BE GROUNDED.

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AVERAGE CHARACTERISTICS



FEB. 7, 1946

 TUBE DEPARTMENT
 RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6670