

NORTH AMERICAN PHILIPS CO., INC.

DOBBS FERRY, N. Y.

ELECTRONIC TUBE DIV. COMPLETE TUBE OUTLINE

*10CP4 TELEVISION TUBE

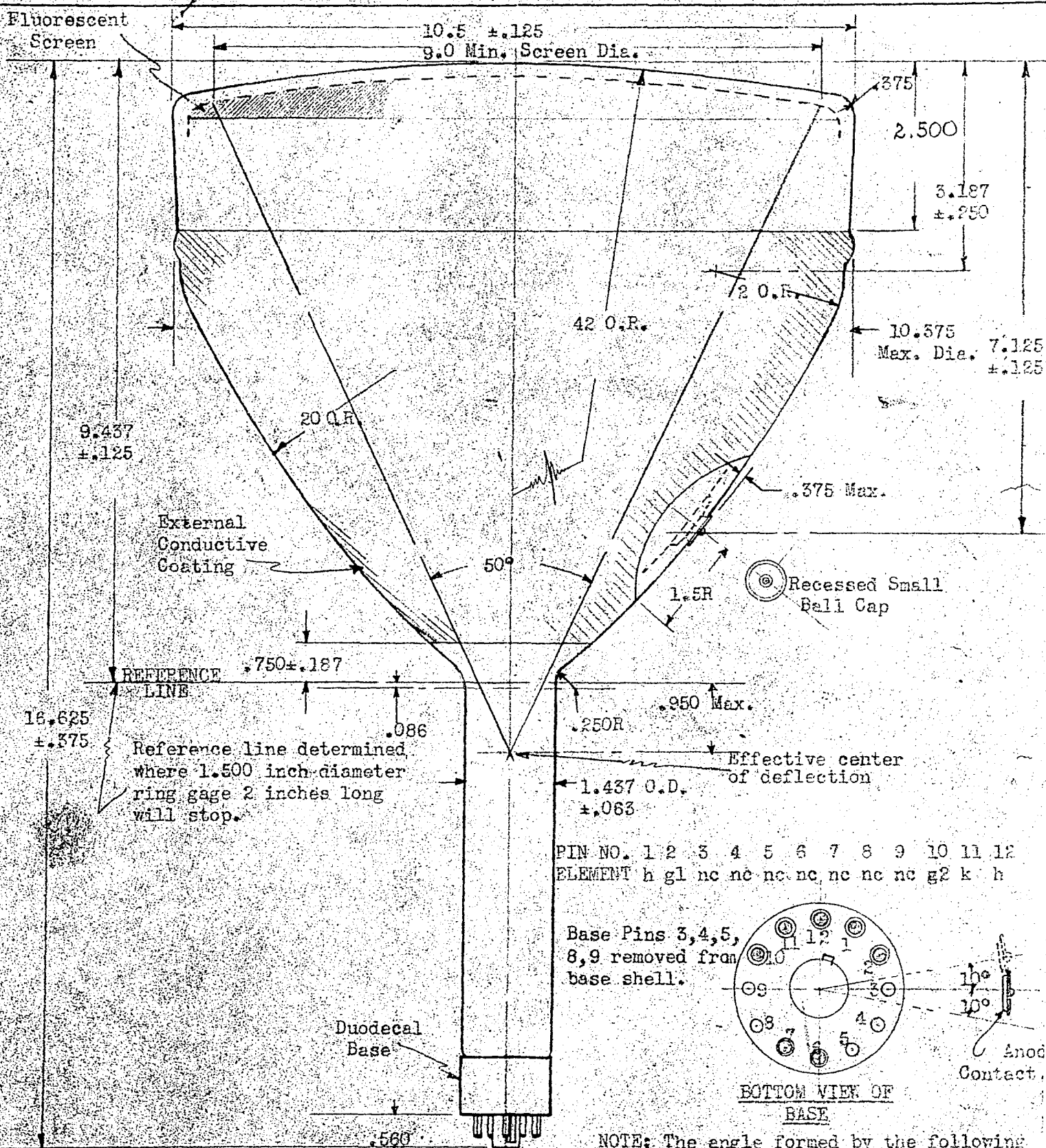
SUBJECT Electromagnetic Focus and Deflection

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DATE 2-28-46

SUPERSEDES 1-28-46

ISSUE 3



(*Formerly PHILIPS Dev. Type 10EA1P4)

*Change **Addition

NOTE: The angle formed by the following planes shall not exceed 10°; Base pin #3 with tube axis, and Anode contact with tube axis.

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SUBJECT 10CP4 TELEVISION TUBE OF JETIC Data Sheet
 MAGNETIC DEFLECTION AND FOCUS

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PHYSICAL DETAILS

Bulb Diameter	10 1/2" $\pm$ 1/8"
Picture Size	6" x 8" approximately
Deflection Angle	50°
Overall Length	16 5/8" $\pm$ 3/8"
Bulb Anode Terminal	Recessed Small Ball Cap
Base	Small Shell Duodecal, 7 Pin
Screen Phosphor	No. 4 (White)
Operation Features:	
Deflection Method	Magnetic
Focussing Method	Magnetic
External Coating	Conductive

Capacitances:

Grid #1 to all other Electrodes	9 uuf Max., 3 uuf Min.
Cathode to all other Electrodes	8 uuf Max., 2 uuf Min.
External Conductive Coating to Anode	500 uuf Max.

ELECTRICAL RATINGS (Design Maximum Values)

Anode (Beam Collecting Electrode) Note 1	11,000 volts DC Max.
Grid #2 (Accelerating Electrode)	450 volts DC Max.
Grid #1 (Control Electrode)	+2 volts DC Max.
	-100 volts DC Max.
Heater Cathode Bias	$\pm$ 125 volts Max.
Grid #1 Circuit Resistance	1.5 Megohms Max.

TYPICAL OPERATIONS

Heater Voltage	6.3 $\pm$ 10% volts
Heater Current	.6 amps.
Anode Voltage	8000 volts
Grid #2 Note 2	250 volts
Grid #1 Voltage for Visual Cutoff	-55 $\pm$ 40% volts
Light Output	See Curve A
Anode Current	See Curve B
Capacitances:	
Grid #1 to all Other Electrodes	7 uuf
Cathode to all Other Electrodes	5 uuf

Note 1 Brilliance and definition of the picture decreases with decreasing Anode potentials and it is suggested that the value be not less than 7000 volts.

Note 2 If it is desired to operate all tubes at a fixed cutoff value of -55 volts, Eg2 should be adjusted to 250V $\pm$ 40%.

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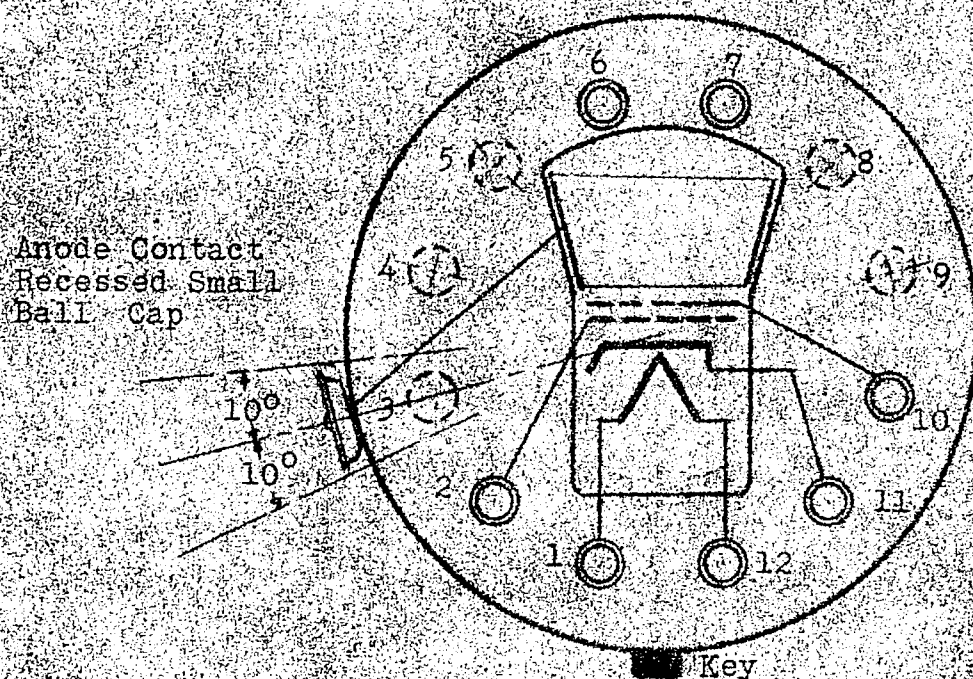
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SUBJECT 10CP4 TELEVISION TUBE
MAGNETIC FOCUS & DEFLECTION

Note Pins 3, 4, 5, 8, 9 are removed from base shell



Bottom View of Base

<u>Pin No.</u>	<u>Description</u>	<u>Max. Voltage Ratings</u>
1	Heater	6.3 Volts $\pm$ 10%
2	Grid #1	-100 to +2 volts
6,7	Not Connected	
10	Grid #2	450 Volts Max.
11	Cathode	All element voltages with respect to cathode
12	Heater	6.3 Volts $\pm$ 10%
Side Seal, Ball Cap	High Voltage Electrode	11,000 Volts

TYPICAL OPERATING CONDITIONS

Anode Voltage	8000 Volts
Grid #2 Voltage	250 Volts
Grid #1 Voltage	-55 Volts $\pm$ 10%
Grid #2 Current	$\pm$ 15 μ a DC
Anode Current for highlight Brightness	150 μ a

