MAZDA

30E7

CATHODE RAY TUBE—ALL ELECTROSTATIC 12" Dia.

Indirectly heated—for Radio D.F. Compass

RATING

Heater Voltage (volts)	Vh	4.0
Heater Current (amps)	Ih	0.72
Maximum 1st Anode Voltage (volts)	Va1(max)	500
Maximum 2nd Anode Voltage (volts)	Va2(max)	1,000
Maximum 3rd Anode Voltage (volts)	Va3(max)	4,000
Average Sensitivity of "X" Plates (mm/V)		†800/V
Average Sensitivity of "Y" Plates (mm/V)		†800/V

† Where "V" denotes the voltage on the 3rd Anode

INTER-ELECTRODE CAPACITANCES

XE Deflecting Plate/All other electrodes (μμF)	Cxe,all	15.2
XW Deflecting Plate/All other electrodes (μμF)	Cxw,all	15.6
YN Deflecting Plate/All other electrodes (μμF)	Cyn,all	14.9
YS Deflecting Plate/All other electrodes (μμF)	Cys,all	15.6
XE Deflecting Plate/XW Deflecting Plate (μμF)	Cxe,xw	5.1
YN Deflecting Plate/YS Deflecting Plate (μμF)	Cyn,ys	4.8
XE+XW Deflecting Plates/YN+YS Deflecting Plates (μμF)	C(xe+xw) -(yn+ys)	2.9
Control Grid (Wehnelt)/All other electrodes (μμF)	Cg,all	9.8

DIMENSIONS

Maximum Overall Length (mm)	640
Maximum Diameter (mm)	312
Nominal Screen Diameter (inches)	12
Approximate Nett Weight (lbs)	7¼
Approximate Packed Weight (lbs)	40 ←

NOTES

This is a Cathode Ray Tube with a compass scale affixed externally to the face of the screen. It is a precision contructed and calibrated instrument which provides bearings with an error not exceeding 1% at any point on the scale while the four cardinal bearings, N, S, E, W, are accurate to ±0.25°. The scale is graduated to correct for octantal error. ←

Normally the tube is supplied with a green phosphor (P1) having medium persistence characteristics. Other phosphors (see Introductory Page to this Section) and scale arrangements can be supplied by special arrangement. ←

All maximum ratings are absolute values not design centres. ←

Indicates a change ←

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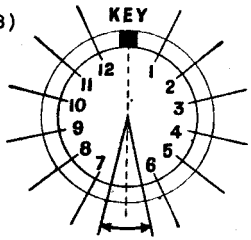
TYPICAL OPERATION

3rd Anode Voltage (volts)	Va3	2,200
2nd Anode Voltage-approximate, for focus (volts) †	Va2	450
1st Anode Voltage (volts)	Va1	450
Negative Bias on Control Grid for cut-off of Beam Current (volts)	Vg	30-90 ←

† The voltage required on the 2nd Anode for focus decreases with an increase of beam current and the above figure gives the voltage required at low currents.

BASE 12 Contact Key Base (BS.448)



VIEW OF FREE END

PERMISSIBLE ANGULAR VARIATIONS OF MOUNTS ±10°

CONNECTIONS

Pin 1	Control Grid	g
Pin 2	Cathode	k
Pin 3	Heater	h
Pin 4	Heater	h
Pin 5	Anode 1	a1
Pin 6	Anode 2	a2
Pin 7	Blank	-
Pin 8	Deflecting Plate YS	ys
Pin 9	Deflecting Plate YN	yn
Pin 10	Anode 3	a3
Pin 11	Deflecting Plate XE	xe
Pin 12	Deflecting Plate XW	xw

Indicates a change ←