

Fourteen-inch rectangular television picture tube with electrostatic focus, magnetic deflection, 90-degree geometry, neutral-gray face glass, and an aluminized screen. Its cathode-drive electron gun and low grid-2 voltage were designed to improve highlight contrast and picture brightness.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray
No fixed ratings recorded.
Source-derived physical section; applicable promoted ratings are populated from the printed sheet.

Vestinghouse RELIATRON® usss 14AEP4 TELEVISION PICTURE TUBE TYPE 14AEP4 February 20, 1957 90° Deflection Low G2 Voltage External Conductive Coating Rectongular Glass Cathode Drive Design Spherical Face Plate Magnetic Deflection Aluminized 12 1/16" x 9 1/2" Picture No fon Trap The 14AEP4 is an electrostatic-focus picture tube of rectangular glass construction with a spherical face plate of neutral gray glass. Its features include an electron gun designed specifically for cathode drive oper- ation. Fuller advantage is taken of the potentialities of cathode drive, with the result that this tube gives in- creased highlight contrast, as compared with conventional tubes, with equal or slightly less drive required. It operates at a low G2 voltage. The allowable cutoff range has been reduced to assure greater uniformity of product. The 14AEP4 has an external conductive coating, and it has a metalbacked screen for increased picture brightness. A new design no-ion-trap gun allows a reduction in

SOURCE OPERATING CONDITIONS

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1947 Westinghouse

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1947 WESTINGHOUSE

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
90° Deflection Low G2 Voltage External Conductive Coating	90 V	90° Deflection Low G2 Voltage External Conductive Coating
Heater: Anode Voltage* VO	14000 V	Heater: Anode Voltage* vo. 14,000 max. Vahs
Yoltage . . . v oo i e	1 V	Yoltage . . . v oo i e 6.3 ac or dc Yolts Grid 4 1o Grid Voltag
Curront . . . o vt e N 'K Ampere Positive Value e	1000 A	Curront . . . o vt e N 'K Ampere Positive Yalue e 1000 max. Volrs
Grid	200 pF	Grid 1 to all other electrodes 6 uuf Grid 2 ta Grid Yoltege , , , , , ... 200 max. Yolts
Cathode to all other alectrodes	1 pF	Cathode to all other alectrodes 5 uuf Cathodse to Grid 1 Volrage
External Conductive Cooting to Anode Peositive Bias Valve	125 V	External Conductive Cooting to Anode Peositive Bias Valve. 125 max, Volts
Fluorescence oouvvvnnnnn White During worm-up period of	410 V	Fluorescence oouvvvnnnnn White During worm-up period of 15 sec, max. . 410 max, Volts
Focusing Method ++. Low-Voltoge Electrostatic Heater Positive with sespect to Cathode	180 V	Focusing Method ++. Low-Voltoge Electrostatic Heater Positive with sespect to Cathode. 180 max. Yalis
to	350 V	to +350 +350 Volts
Faceplate Ve Spherical Grid Circuit Reslstance . , ... v+	1.5 Mohm	Faceplate Ve Spherical Grid Circuit Reslstance . , ... v+ 1.5 max. Megohms

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Glags v, crreas Neutral Fifter Grid	0.1 Mohm	Glags v, crreas Neutral Fifter Grid 2 Circuit Rosistance® 0.1 min. Megohm
Anode Terminol o v vs i w e n e Rocessed Small Cavity Cap V° ''°	9 V	Anode Terminol o v vs i w e n e Rocessed Small Cavity Cap V° ''°— In general, anode voltage should not ba less than
QETEC J1	9000 V	QETEC J1-21) 9000 volts..
CATHODE DRIVE YOLTS FROM RASTER CUTORF GRID	2 V	CATHODE DRIVE YOLTS FROM RASTER CUTORF GRID 2 TG GRID VOLTS

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transmission {Approx.) y	0.1 Mohm	Transmission {Approx.) y 78 per cont Focus Electrade Circuit Resistance @, .. 0.1 min. Megohm

TUBE TINKER

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and their source documents.

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