

ELECTRONIC TUBE REFERENCE

6E5

Tuning Indicator electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TUNING INDICATOR

Classic glass electron-ray tuning indicator combining a triode control section with a fluorescent variable-shadow display for accurate receiver tuning.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6R	BASE PINS	6
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

6R - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – H	–	H – Heater	CONNECTED
PIN2 – D	A	OTHER – Other Identified Element	CONNECTED
PIN3 – G1	A	G1 – Control Grid	CONNECTED
PIN4 – T	A	T – Target	CONNECTED
PIN5 – K	A	K – Cathode	CONNECTED
PIN7 – H	–	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.00025 S
AMPLIFICATION FACTOR	20
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	5 mA
<i>Internal control-amplifier triode section.</i>	

SECTION2 Tuning Indicator	
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	5 mA
<i>Circular fluorescent target indicator section.</i>	

Glass electron-ray tube used to indicate the effects of a changing control voltage, especially for accurate radio-receiver tuning.

SOURCE OPERATING CONDITIONS

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1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Supply Voltage	250 V	Published table
Maximum Target Voltage	250 V	Published table
Minimum Target Voltage	90 V	Published table
Plate Supply Voltage	100 V	ClassA; Column1
Plate Supply Voltage	200 V	ClassA; Column2
Plate Supply Voltage	250 V	ClassA; Column3
Target Voltage	100 V	ClassA; Column1
Target Voltage	200 V	ClassA; Column2
Target Voltage	250 V	ClassA; Column3
Plate Resistor	0.5 ohm	ClassA; Column1
Plate Resistor	1 ohm	ClassA; Column2
Plate Resistor	1 ohm	ClassA; Column3
Target Current (approx.)	4.5 mA	ClassA; Column1
Target Current (approx.)	4.5 mA	ClassA; Column2
Target Current (approx.)	4.5 mA	ClassA; Column3
Plate Current (zero bias)	0.19 mA	ClassA; Column1
Plate Current (zero bias)	0.19 mA	ClassA; Column2
Plate Current (zero bias)	0.24 mA	ClassA; Column3

1940 RCA

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

1940 RCA

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	200 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Cathode Current	0.24 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TriodePlateCurrent	0.24 mA	Zero triode-grid voltage



SOURCE DATA APPENDIX

1950 Sylvania

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1950 SYLVANIA

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	250 V	Triode unit
Plate Current	0.24 mA	250 V plate supply

1950 SYLVANIA

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Target Supply Voltage	250 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Target Current	4 mA	Approximate; 250 V target

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage for Zero-Degree Shadow	-8 V	Approximate


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1953 RFT Rundfunk Technik

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1953 RFT RUNDFUNK TECHNIK

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	300 mA	Nominal
Maximum Plate Voltage	250 V	—


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195X General Electric Essential Characteristics

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195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum target voltage	250 V	TuningIndicator

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum target voltage	125 V	TuningIndicator
Plate supply voltage	250 V	Through1Megohm
Target voltage	250 V	—
Control-grid voltage for 0-degree shadow	-8 V	ShadowAngle0Degrees
Control-grid voltage for 90-degree shadow	0 V	ShadowAngle90Degrees
Plate current	0.24 mA	Grid0V
Target current	4 mA	Grid0V



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1961 Tung Sol

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1961 TUNG SOL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Supply Voltage	250 V	—
Plate And Target Supply Voltage	200 V	—
SeriesTriodePlateResistor	1 Mohm	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TriodePlateCurrent	0.19 mA	GridVoltage=0V;Supply=200V

1961 TUNG SOL

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Target Voltage	250 V	—
Minimum Target Voltage	100 V	—



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate and target supply voltage	200 V	TuningIndicator
Triode plate current	0.19 mA	TuningIndicator
Grid bias for 0 degree shadow angle	-6.5 V	TuningIndicator

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum target voltage	250 V	IndicatorTarget
Minimum target voltage	125 V	IndicatorTarget
Target current	3 mA	PlateAndTargetSupply=200V



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	300 mA	—
Triode plate voltage	250 V	Triode
Triode grid voltage	-3.5 V	Triode
Triode plate current	0.5 mA	Triode
Target voltage	250 V	Indicator
Target current	4 mA	Indicator
Target current maximum	5 mA	Indicator
Plate voltage maximum	250 V	Triode
Target voltage maximum	250 V	Indicator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid voltage for shadow closure	-8 V	Indicator
Display color	Green	ElectronRay

1971 RCA HB3 BINDER 4 OF 7

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Target voltage	250 V	Indicator
Target current	4 mA	Indicator

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Display function	Electron-ray shadow indication	TuningIndicator



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1975 RCA RC30

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1975 RCA RC30

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-Supply Voltage Maximum	250 V	TuningIndicator
Target Voltage Maximum	250 V	TuningIndicator
Target Voltage Minimum	125 V	TuningIndicator
Plate and Target Supply Voltage	250 V	TuningIndicator
Series Triode-Plate Resistor	1 megohm	TuningIndicator
Target Current	4 mA	TuningIndicator
Triode-Plate Current	0.24 mA	TuningIndicator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode-Grid Voltage for 0 Degree Shadow	-8 V	TuningIndicator

TUBE TINKER

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