



ELECTRONIC TUBE REFERENCE

EM80

Tuning Indicator electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TUNING INDICATOR

Electron-beam tuning indicator for FM and AM receivers, combining an integral control triode with a distinctive three-petal green fluorescent display.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B9A	BASE PINS	9
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION 1 Triode

No fixed ratings recorded.

Published section ratings and characteristics promoted where applicable.

SECTION 2 Tuning Indicator

MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	0.2 W
MAXIMUM CATHODE CURRENT	3 mA

Published section ratings and characteristics promoted where applicable.

Electron-beam tuning indicator for FM or AM radio receivers with three curved green fluorescent display petals.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Mullard Receiving Tubes

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

1958 MULLARD RECEIVING TUBES

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply voltage	250 V	—
Target voltage	250 V	—
Anode resistor	500 kOhm	—
Control-grid voltage	-1 V	ShadowAngle=5deg
Control-grid voltage	-14 V	ShadowAngle=50deg
Target voltage maximum	300 V	—
Target voltage minimum	165 V	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X Tesla

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

195X TESLA

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	300 mA	Published nominal value



1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 2 · Tuning Indicator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	300 mA	—
Display	Three curved green fluorescent petals	FMOOrAMTuningIndicator



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1963 Philips Electron Tubes Handbook V1a

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 2 · Tuning Indicator

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Supply voltage	250 V	Indicator
Indicator voltage	250 V	Indicator
Anode resistor	0.5 MOhm	Indicator
Grid resistor	3 MOhm	Indicator
Grid voltage	-1 V	MaximumShadow
Grid voltage	-14 V	MinimumShadow
Plate current	0.37 mA	GridVoltage=-1V
Plate current	0.01 mA	GridVoltage=-14V
Indicator current	2 mA	GridVoltage=-1V
Indicator current	2.3 mA	GridVoltage=-14V

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 2 · Tuning Indicator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical datum	6.3 V	Chauffage: indirect par C.A. ou C.C,- Ve = 6,3V
Published electrical datum	250 v	Vg = 250 v
Published electrical datum	250 v	Ve = 250 v
Published electrical datum	3 MQ	Rg = 3 MQ
Published electrical datum	—	-14'V
Published electrical datum	0.01 mA	I, = 0,37 0,01 mA
Published electrical datum	2.3 mA	I = 2 2,3 mA
Published electrical datum	165 V	VJ = min. 165 V
Published electrical datum	—	~15 Vgr(v) —10 —5 0

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published electrical datum	550 V	Va, = max. 550 V
Published electrical datum	300 V	Va = max. 300 V
Published electrical datum	0.2 W	Wa = max., 0,2 W
Published electrical datum	550 V	Vi, = max. 550 V
Published electrical datum	300 V	Ve = max. 300 V
Published electrical datum	3 µA	-Vg(Ig=+0,3uA)= max. 1,3 V
Published electrical datum	3 mA	Iy = max. 3 mA
Published electrical datum	100 V	Vxf = max. 100 V
Heater voltage	6.3 V	Nominal heater rating
Heater current	300 mA	Nominal heater rating

TUBE TINKER

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and their source documents.

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