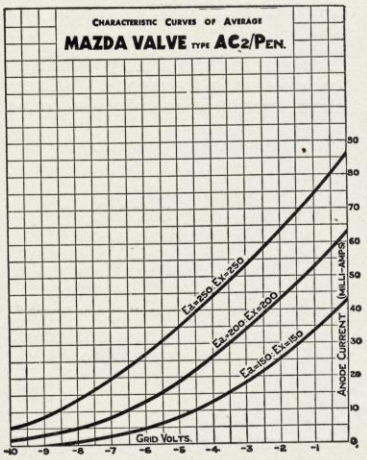
MAZDA

AC.2/PEN

A.C. Mains Pentode Valve



RATING.

Heater Voltage	4.0
Heater Current	1.5
Maximum Anode Voltage	250
Maximum Screen Voltage	250
*Mutual Conductance (mA/V)	8.0
Maximum Anode Current	40
Maximum Anode Dissipation (Watts) ...	8.0

* *at* $Ea = 100$; $Eg = 0$.

DIMENSIONS.

Maximum Overall Length	130 m.m.
Maximum Diameter	54 m.m.

PRICE **18/6**

GENERAL.

The Mazda AC.2/Pen. is an indirectly heated Pentode of very high sensitivity for use in the output stage of mains receivers. It is fitted with a seven-pin base, the connections to which are shown overleaf.

APPLICATION.

This valve has been designed for use in the output stage where the utmost sensitivity is desired, or where it is required to couple the detector to the output stage by R.C. coupling without risk of detector overload.

In receivers employing diode A.V.C. it is possible to obtain ample power output without an intermediate L.F. stage by feeding the AC.2/Pen. direct from the diode.

THE EDISON SWAN ELECTRIC CO. LTD.
Radio Division Showrooms :
155 Charing Cross Road, London, W.C.2
Showrooms in all the Principal Towns
Mazda Valves are manufactured in Great Britain for
The British Thomson-Houston Co., Ltd.,
London and Rugby

EDISWAN

R723-53

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Owing to the low anode-grid capacity of the AC.2/Pen., transformer or resistance-capacity coupling can be used without appreciable high note loss. It is essential to decouple the grid circuit in order to avoid loss in the lower register, and this may be done by connecting a 50 mfd. electrolytic condenser across the self-bias resistance or by the usual resistance condenser combination in the grid circuit. The total resistance of the grid circuit must not, however, exceed 1 megohm.

It is also recommended that a condenser-resistance filter be connected across the primary winding of the output transformer in order to prevent the increase of impedance with frequency. Values of 7,000 ohms and .01 mfd. are suitable for an R.K. speaker and slight modifications of these components may be required with other types of loudspeaker.

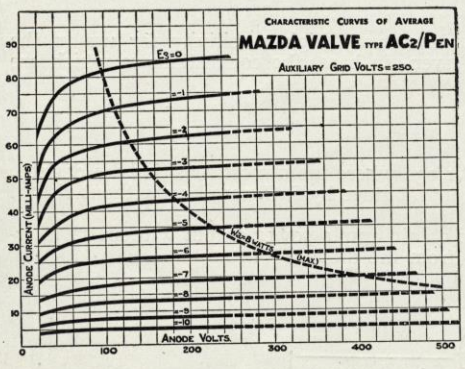
The correct operating conditions for the valve are:—

Anode Volts.	Screen Volts.	Anode Current.	Optimum Load.	Self-bias Resistance.
250	250	32 mA.	6,500	140

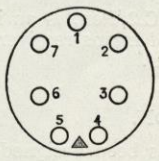
The Anode load should not be less than 6,500 ohms., and this must therefore be the " transferred speaker load " at the audio frequency giving the lowest speaker impedance. The transferred speaker load is the speech coil impedance multiplied by the square of the transformer ratio.

HEATER SUPPLY.

It is recommended that the voltage across the heater pins should be 4 volts ±5% under working conditions.



CONNECTIONS TO BASE.



Pin 1.—Blank.
Pin 2.—Control Grid.
Pin 3.—Aux. Grid.
Pins 4 & 5.—Heater.
Pin 6.—Cathode.
Pin 7.—Anode.

BRITISH RADIO VALVE MANUFACTURERS' ASSOCIATION BVA