



## A.C.2/HL

### A.C. MAINS TRIODE

#### RATING.

|                               |     |     |     |     |     |        |
|-------------------------------|-----|-----|-----|-----|-----|--------|
| Heater Voltage                | ... | ... | ... | ... | ... | 4.0    |
| Heater Current (Amps.)        | ... | ... | ... | ... | ... | 1.0    |
| Maximum Anode Voltage         | ... | ... | ... | ... | ... | 200    |
| *Mutual Conductance (mA/V)    | ... | ... | ... | ... | ... | 6.5    |
| *Amplification Factor         | ... | ... | ... | ... | ... | 75     |
| *Anode A.C. Resistance (ohms) | ... | ... | ... | ... | ... | 11,500 |

\*Taken at  $E_a=100$ ;  $E_g=0$ .

#### TYPICAL OPERATION.

|                       |            |          |                |               |     |
|-----------------------|------------|----------|----------------|---------------|-----|
| Anode Voltage         | ...        | ...      | 100            | 150           | 200 |
| Grid Bias (Anode-bend |            |          |                |               |     |
| Detector)             | -1.5 to -3 | -3 to -6 | -4.5 to -7.5   |               |     |
| Grid Bias Amplifier   | ...        | -1.0     | -1.25 to -1.75 | -1.5 to -2.25 |     |

#### INTER-ELECTRODE CAPACITIES.

|                  |     |     |     |     |                       |
|------------------|-----|-----|-----|-----|-----------------------|
| Anode to Cathode | ... | ... | ... | ... | 6.0 $\mu\mu\text{F.}$ |
| Grid to Cathode  | ... | ... | ... | ... | 9.0 $\mu\mu\text{F.}$ |
| Anode to Grid    | ... | ... | ... | ... | 6.5 $\mu\mu\text{F.}$ |

#### DIMENSIONS.

|                        |     |     |     |     |         |
|------------------------|-----|-----|-----|-----|---------|
| Maximum Overall Length | ... | ... | ... | ... | 115 mm. |
| Maximum Diameter       | ... | ... | ... | ... | 45 mm.  |

#### GENERAL.

The AC2/HL is an indirectly heated triode for A.C. Mains operation. It has a very high operating mutual conductance and amplification factor. The bulb is metallised, and the valve is fitted with a standard 5-pin base. the connexions to which are given overleaf.

#### APPLICATION.

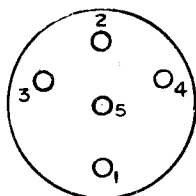
The low impedance of this valve, together with its high mutual conductance, makes it suitable for use as an anode-bend detector. The table above may be used as a rough guide when choosing the required value for bias, though the actual amount depends mainly on the amplitude of the applied signal.

The valve may be used as a low-frequency amplifier with either transformer choke or resistance-capacity coupling. With resistance coupling an anode coupling resistance of 50,000-100,000 ohms will be found satisfactory. By keeping the anode coupling resistance down to these values



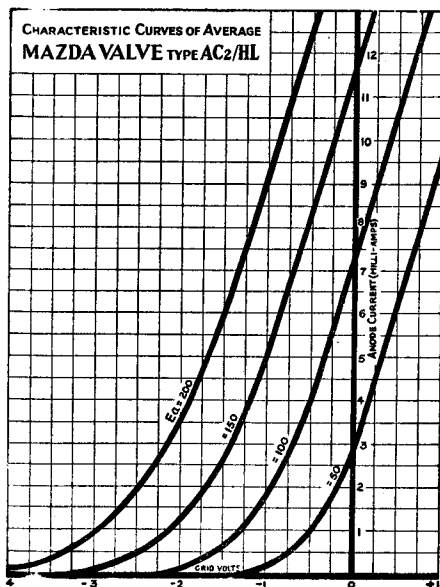
it is assured that the higher audio-frequencies are produced without attenuation. When using transformer or choke coupling, the primary inductance need not be high, the anode A.C. Resistance of the AC2/HL being exceptionally low for this class of valve.

### BASING.



- Pin No. 1. Anode.  
 2. Control Grid.  
 3. Heater.  
 4. Heater  
 5. Cathode and Metallising.

Viewed from the free end of the base.



Mazda Radio Valves are manufactured in Great Britain for the British Thomson-Houston Co., Ltd., Letcham and Rugby, and distributed by

THE EDISON SWAN ELECTRIC CO., LTD.,  
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