

# COSSOR M.P./PEN.

## 4-VOLT 1 AMP. INDIRECTLY HEATED PENTODE

The M.P./PEN. is a medium sensitivity indirectly heated output pentode having a maximum anode dissipation of 8 watts. Such pentode valves have one great advantage as compared with triodes of the same class; this lies in the fact that their efficiency is very much higher. For a given anode voltage, the ratio of watts given out to watts of high tension energy expended is very much higher. Very much larger volume is to be obtained from the M.P./Pen., therefore, than from the 41 M.X.P.

The quality to be obtained from such pentodes has sometimes been adversely criticised. This criticism usually has its origin in the use of an inadequate corrector circuit. This corrector circuit is very simple, consisting only of a condenser of .01 mfd. and a resistance of 10,000 ohms joined in series across the speaker terminals. The exact values depend on the characteristics of the loud speaker, but those given are reasonably satisfactory in all cases.

### TECHNICAL DATA

|   |                |  |     |
|---|----------------|--|-----|
| Heater Voltage  | .. ..          | 4  |     |
| Heater Current (Amps.)  | .. ..          | 1  |     |
| Mutual Conductance  | 3.5 m.a./v. at | $\left\{ \begin{array}{l} V_a. 100 \\ V_{ag}. 100 \\ V_g. 0 \end{array} \right.$ |     |
| Maximum Anode Voltage   | .. ..          |  | 250 |
| Maximum Screen Voltage  | .. ..          |  | 250 |
| Grid Bias for 250 Screen Volts  | .. ..          | -16 v.   |     |
| Grid Bias for 200 Screen Volts  | .. ..          | -10 v.   |     |
| Bias Resistance for 250 Screen Volts                                      | .. ..          | 450 ohms   |     |
| Anode Current for 250 Volts with 250 Screen Volts and -16 Volts Grid Bias | .. ..          | 30 m.a.  |     |
| Optimum Load  | .. ..          | 10,000 ohms  |     |
| (The Screen Voltage should never exceed the Anode Voltage).               |                |  |     |

