MULLARD RANGE OF 4 VOLT MAINS VALVES.

S.4.V—(m = 1,000), S.4VA—(m = 1,500) S.4.VB—(m = 900), Screened Grid Valves for H.F. Amplification.
904V—(m = 85), Detection, H.F. and L.F. Amplification.
484V—(m = 48), Detection, H.F. and L.F. Amplification.
354V—(m = 35), Detection, H.F. and L.F. Amplification.
244V—(m = 25), Detection, H.F. and L.F. Amplification.
164V—(m = 16), Detection and L.F. Amplification.
104V—(m = 10), L.F. and Power Amplification.
054 V—(m = 5), Power Amplification.
A.C.104—(m = 10), L.F. and Power Amplification.
A.C.064—(m = 6), Power Amplification.
A.C.044—(m = 4), Power Amplification.
P.M.24A, P.M.24B, Five Electrode Valves.

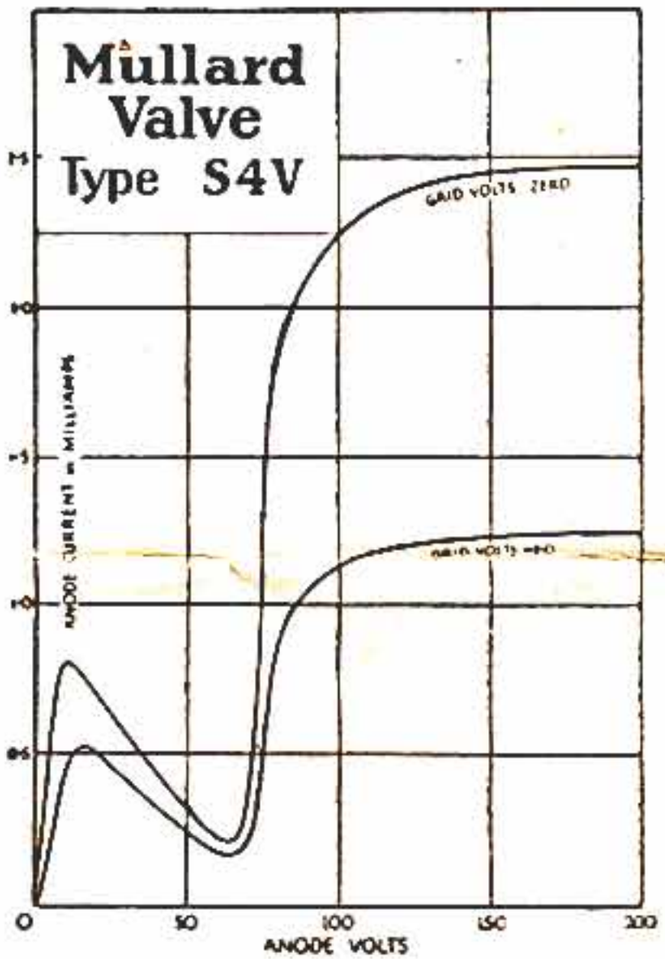
All Mullard P.M. Valves can be supplied in British or American Bases.

IMPORTANT NOTICE
as to return of Mullard Valves

The valve in this carton has been thoroughly tested. If returned to the makers owing to alleged defect it will be accepted only on the following conditions :-

1. That it is forwarded at the sender's risk and expense.
2. That if the Manufacturers decide it is necessary to break open the valve for inspection they are at liberty to do so without obligation to return or replace it.

MULLARD VALVE S.4.V
INSTRUCTIONS FOR USE



WORKING CONDITIONS.

Heater Voltage	4·0 volts.
Heater Current	1·0 amp.
Max. Anode Voltage	200 volts.
Screen Voltage	75 volts.

Characteristics at Anode Volts 100, Screen Volts 75 Grid Volts Zero.

Amplification Factor	1,000.
Mutual Conductance	1·1 mA/volt.
Anode Impedance	·9 megohm.

CONNECTIONS.

The screen is connected to the anode pin of the base; the anode to the terminal on top of the bulb; the grid as usual to the normal grid pin; the cathode to the centre pin of the base, while the heater is connected to the normal filament pins.

HEATER SUPPLY.

It is recommended that a transformer be used to provide heater power. The transformer should be designed to give exactly 4·0 volts at full load (i.e.—1 amp. per 4V valve).

A heater control resistance is a source of danger to the valve and **should not** be used.

AS H.F. AMPLIFIER.

An anode voltage of 100 to 200 volts should be used with about 75 to 100 volts on the screen. Grid bias of 0·9 to 1·5 volts should be used as shown in Fig. 1.

CIRCUIT DESIGN.

The impedance of this valve is comparatively high and it is essential that the H.F. coupling in the anode circuit shall have a very high impedance. Hence it is preferable to use the "tuned anode" (or "tuned grid") systems.

Although the internal screen of the valve avoids retro-active coupling through anode-grid capacity it is essential to screen the various circuits as completely as possible in order to avoid any stray electro-magnetic or electrostatic coupling external to the valve which would introduce instability.

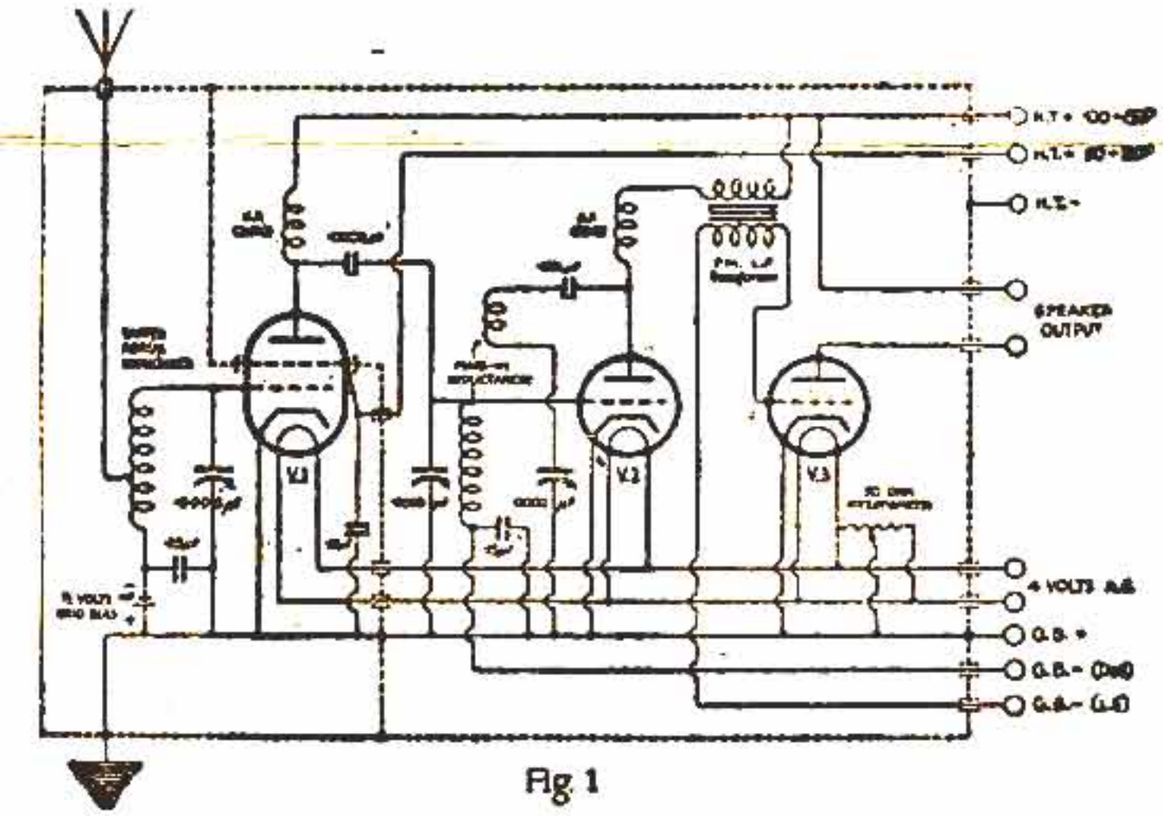


Fig 1