

LISSEN VALVE, Type AVC2.

L.N. 4016.

This valve is a combined diode and variable- μ pentode and is specially designed for use in the Lissen Pentode Amplified Automatic Volume Control System. It is also suitable for a variety of other AVC circuits.

SPECIFICATION.

Filament Volts	2
Filament Current	0.15
Anode Volts (max.)	150
Auxiliary Grid Volts (max.)	100
Amplification Factor	500
*Mutual Conductance	1 mA/V
* ($V_a = 100$; $V_{aux} = 100$; $V_g = \text{zero}$).	
Recommended Aux. Grid Volts	60
Anode Current for $aux = 60$	2 mA

CONNECTIONS.

The connections to the base are shown in Fig. 1, which is a view of the underside of the valve base.

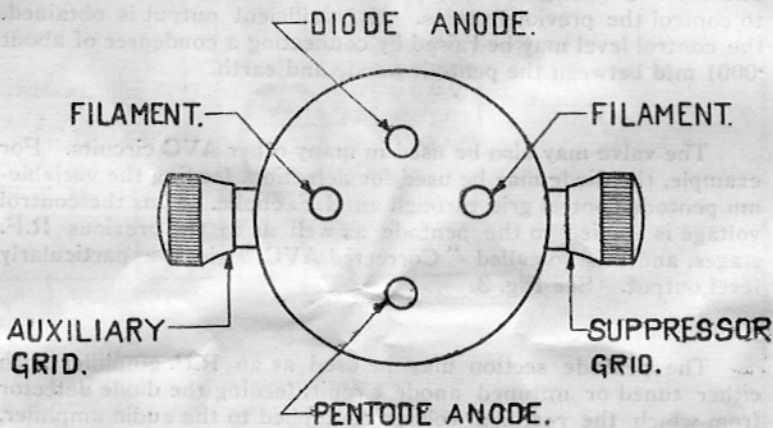


FIG. 1.

The control grid is brought out to a terminal on the top of the bulb, and by this and other precautions the capacities between the control grid and the anodes of the diode and pentode have been kept very low thus avoiding the Miller effect. For the convenience of the serious experimenter the suppressor grid is brought out to a side terminal, but this will be earthed in the normal use of the valve.

METHOD OF USE.

The recommended circuit is shown in Figure 2. This applies to the superheterodyne and is not generally suitable for a straight R.F. receiver. With this arrangement for amplified AVC, an input to the detector valve of only .25 to .5 volts H.F. provides a sufficient control voltage to give as satisfactory an AVC curve with two controlled valves, as ordinary AVC would give with three controlled valves and a correspondingly high detector input. The output from the AVC2 is particularly suitable for feeding the driver valve of a Class "B" Stage. The pentode works as a leaky grid detector and amplifies both the H.F. and the L.F. signals applied to the control grid. The amplified H.F. signal is fed through a .0001 mfd condenser to the anode of the diode where it is rectified and the D.C. voltage developed across the .5 megohm leak is used to control the previous stages. If insufficient output is obtained, the control level may be raised by connecting a condenser of about .0001 mfd between the pentode anode and earth.

The valve may also be used in many other AVC circuits. For example, the diode may be used for detection, feeding the variable-mu pentode control grid through an H.F. choke. Thus the control voltage is applied to the pentode as well as to the previous R.F. stages, and this so called "Corrected AVC" gives a particularly level output. See Fig. 3.

The pentode section may be used as an R.F. amplifier with either tuned or untuned anode circuit, feeding the diode detector from which the rectified voltage is applied to the audio amplifier, and the control voltage to the previous R.F. stages. See Fig. 4.

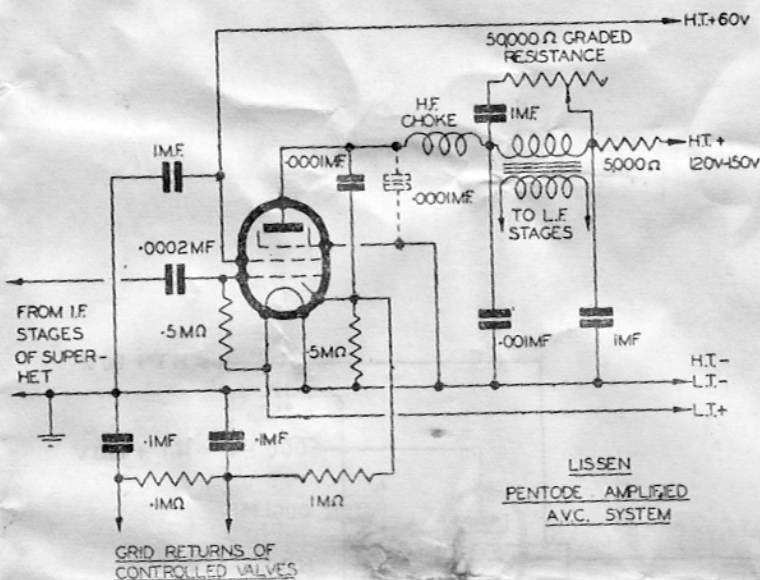


Fig. 2.

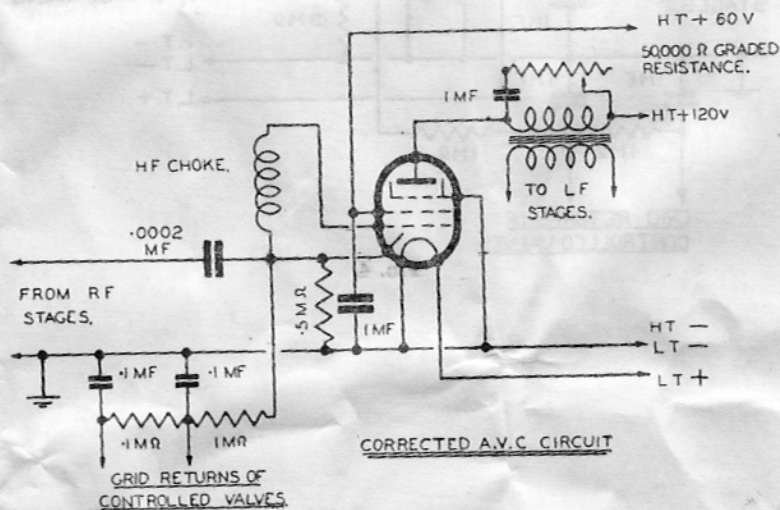


Fig. 3.



IMPORTANT NOTICE.

The Valve in this carton has been thoroughly tested. In the event of any complaint, please return it to:—

Valve Examination Dept.,
LISSEN, Ltd.,
Lissenium Works,
Worple Road,
ISLEWORTH, MIDDXX.

accompanied by this slip duly completed.

Sender's Name.....

Sender's Address.....

Date of Purchase.....

Date of Return.....

Address of Dealer
from whom purchased.....

Number of hours in use.....

Nature of complaint.....

The return of this Valve for examination is only accepted subject to the following conditions:—

- (1) That it is forwarded at sender's risk and expense.
- (2) That if it is necessary to open the Valve for inspection, this is done without any obligation to replace or return it.

Should our examination indicate any manufacturing defect a new valve will be sent direct to sender's address as above,

LISSEN LIMITED,