

UNIVERSAL POWER PENTODE TYPE 7D.3

The 7D.3 is an indirectly heated high efficiency output pentode for use in A.C. Universal receivers.

The valve is capable of giving a generous output with 90 volts on anode and screen, rendering the valve extremely useful for receivers intended for use on 110 volt mains.

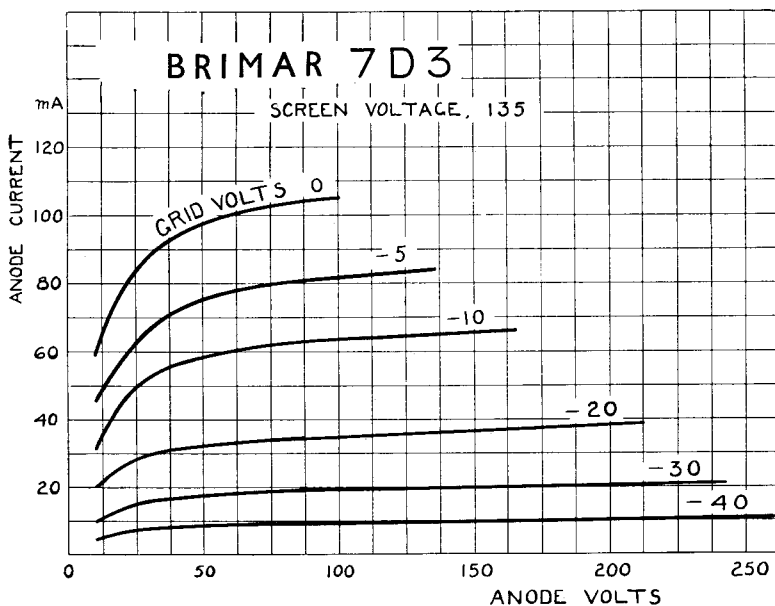
The maximum anode and screen voltage is 150, so that in receivers designed for the 200/250 volt mains the speaker field may still be used for smoothing purposes, thus simplifying and reducing the cost of this unit.

When automatic bias is employed, the resistor should be shunted with a condenser of at least 4 mfd. or a suitable filter network in order to utilise the full gain of the valve and preserve the lower register.

Operation details and characteristics are given overleaf. The valve is fitted with a seven-pin base, the connections being as shown on page 51.

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CHARACTERISTICS



Heater Voltage	40.0 volts
Heater Current	0.2 amps
Anode Voltage (maximum)	150 volts
Screen Voltage (maximum)	...	...	...	...	150 volts
*Mutual Conductance	...	...	...	...	3.8 mA./V.
†Mutual Conductance	...	...	...	...	2.5 mA./V.
†Impedance	...	...	...	...	37,000 ohms
†Amplification Factor (M)	...	...	...	...	85
†Load Impedance	...	...	...	...	4,000 ohms

* Taken at anode and screen volts 100, grid volts 0

† Taken at anode and screen volts 135, grid volts -20.

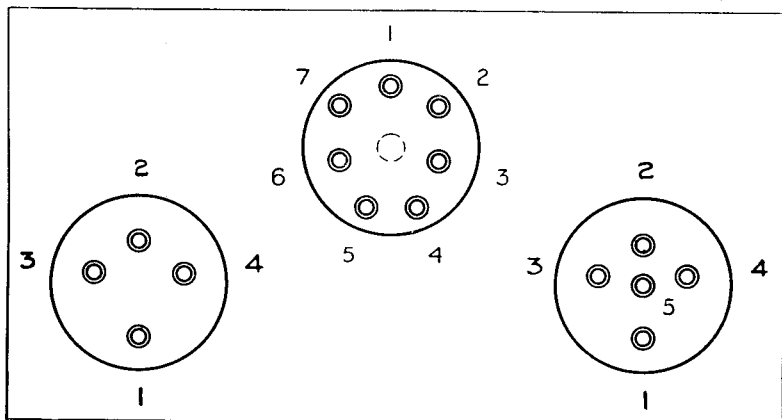
OPERATING DATA

Anode Voltage	...	...	...	150	135	100
Screen Voltage	...	...	...	150	135	100
Anode Current (mA.)	...	...	...	40	35	20
Grid Bias (volts)	...	...	...	-22.5	-20	-15
Auto Bias Resistor (ohms)	450	500	600
Load Impedance (ohms)	3,750	4,000	4,500

VALVES

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BASE CONNECTIONS OF VALVES



UNDERSIDE VIEW OF BASES
4-PIN VALVES

TYPE	1	2	3	4
HLB.1, PB.1	A	G	F.M	F
R.1, R.2, R.3, 1A.7	A1	A2	H	H.C
4037A.	A	—	F	F

5-PIN VALVES

TYPE	1	2	3	4	5	Top Cap
8A.1, 9A.1 ...	G2	G1	H	H	C.M	—
HLA.2, PA.1 ...	A	G	H	H	C.M	—
PenB.1, PenA.1 ...	A	G1	F	F	G2	—
4039A ...	A	G	H	H	C	—
ID5 ...	A	—	H	H	C	—

7-PIN VALVES

TYPE	1	2	3	4	5	6	7	Top Cap
4D.1 ...	—	—	—	H	H	C	A	G
7A.3, 7D.8, 7D.6, 7A.2, & 7D.3 ...	—	G1	G2	H	H	C	A	—
9D.2 ...	—	A	G3	H	H	C	G2	G1
11A.2, 11D.3	D1	M	D2	H	H	C	A	G1
15A.2, 15D.1	G2	G1	G3.G5	H	H	C	A	G4

A. Anode. G1, G2, G3, G4, 1st, 2nd, 3rd and 4th Grids.
F. Filament. H. Heater. C. Cathode. D1, D2, Diodes.
M. Metallising.

VALVES