

FERRANTI
V.H.F. DOUBLE TRIODE

A double triode, with common cathode, designed for use as an R.F. power amplifier or oscillator.

PHYSICAL DETAILS.

Base	...	...	B7G.
Max. Overall Length	...	...	54.5 mm. (2 $\frac{1}{2}$ in.).
Max. Seated Height	...	...	47.5 mm. (1 $\frac{3}{4}$ in.).
Max. Diameter	...	...	19 mm. ($\frac{3}{4}$ in.).
Mounting Position	...	...	Any.

BASE CONNECTIONS.

Pin 1—Anode Triode 2.	Pin 4—Heater.
Pin 2—Anode Triode 1.	Pin 5—Grid Triode 1.
Pin 3—Heater.	Pin 6—Grid Triode 2.
Pin 7—Cathode.	

HEATER.

Heater Voltage	...	...	6.3 volts.
Heater Current	...	...	0.45 amp.

RATINGS.‡

Max. Anode Voltage	...	...	300 volts.
Max. Anode Current	...	...	15 mA.
Max. Anode Dissipation	...	...	1.5 watts.
Max. Negative Grid Voltage	...	...	40 volts.
Max. Grid Current	...	...	8 mA.
Max. V_{h-k}	...	...	100 volts.
Max. R_{g-k} (Cathode Bias)	...	...	1.0 M Ω

TYPICAL OPERATION.§

Class A1 Amplifier.

Anode Voltage	...	...	100 volts.
Anode Current	...	...	8.5 mA.
*Auto-bias Resistor	...	...	50 ohms†
Mutual Conductance	...	...	5.3 mA/V.
Amplification Factor	...	...	38
Anode Impedance	...	...	7100 ohms.

R.F. Power Amplifier. Class C Telegraphy**

Anode Voltage	...	...	150 volts.
Anode Current	...	...	15 mA.
†Grid Voltage	...	...	-10 volts.
‡Auto Bias Resistor	...	...	220 ohms.
Grid Resistor	...	...	625 ohms.
Grid Current	...	...	8 mA.
Driving Power (both sections)	...	...	0.35 watts (approx.).
Power Output (both sections)	...	...	3.5 watts (approx.).

CAPACITANCES.§

C_{in}	...	...	2.2 pF.
C_{out}	...	...	0.4 pF.
C_{a-g}	...	...	1.6 pF.

§Each Section, unless otherwise indicated.

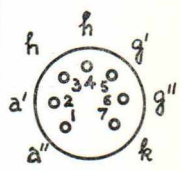
*Fixed bias operation is not recommended.

†Value is for both units operating at the specified conditions.

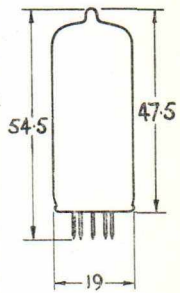
‡Obtained from a fixed supply or from a grid or cathode resistor of the value shown.

**An output of 1 watt may be obtained from an ECC91 in a push-pull oscillator at 250 Mc/s. with $V_a=150$ volts, and maximum rated anode dissipation, and with a common grid resistor of 2000 ohms.

ECC91



Base Connections
Underside View of Base



All dimensions shown are in millimetres.



ECC91

