

## DECCA

## DECCALIAN

## Model 81

**General Description :** Portable, dual-speed ( $33\frac{1}{3}$  and 78 r.p.m.), record player with self-contained amplifier and loudspeaker in laminated wood case covered with leather cloth. Weight 33 lb.

**Power Supply :** A.C. mains, 200–250 volts (three adjustment taps), 50 c/s.

**Valves :** (V1) 6SL7; (V2) 6V6G; (V3) 5Z4G.

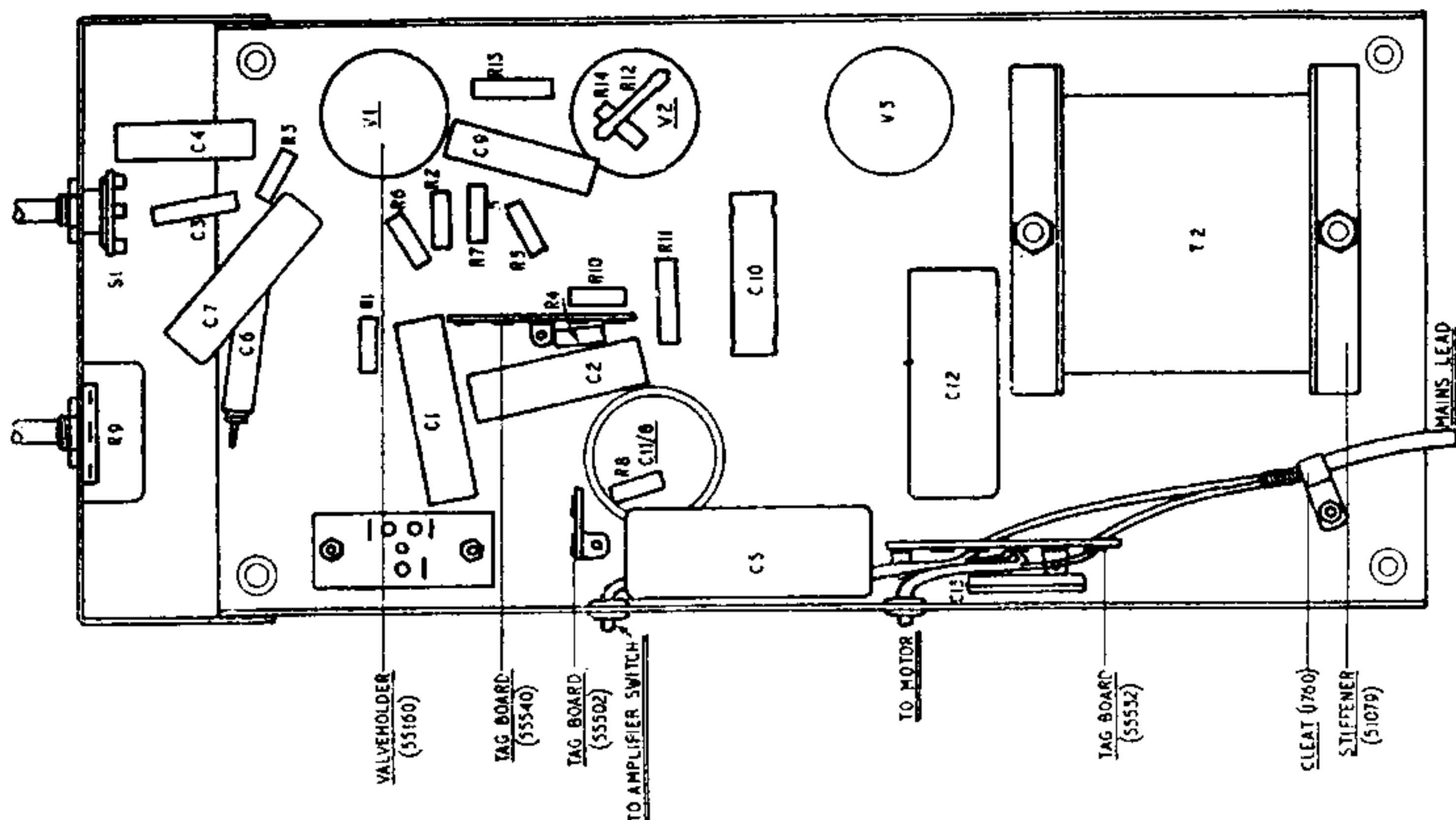
**Motor :** Constant-speed induction motor with dual-speed drive.

**P.U. :** Two interchangeable plug-in heads with sapphire styli: red for  $33\frac{1}{3}$  r.p.m.; brown for 78 r.p.m. Automatic weight and circuit compensation when changing speed. Spring-balanced arm.

**Ext. Loudspeaker :** Impedance 3 ohms.

**Circuit Notes :** The 78-r.p.m. pick-up head has a connecting link that joins C1 to chassis to provide correct bias compensation. S1 forms a three-position top-cut tone control. The first section of the double-triode V1 forms a conventional voltage amplifier, while the second section has negative feedback applied by the absence of by-passing on the cathode-bias resistors, and by the feedback link through R10. The power amplifier (V2) has an anode stopper (R14) and reduced screen voltage by the action of R11. The secondary voltage of the output transformer is connected to the internal loudspeaker via a jack socket: inserting a jack plug for an external loudspeaker automatically disconnects the internal one. The secondary voltage of T1 is also reduced and applied as negative feedback to V1 by R10/R4.

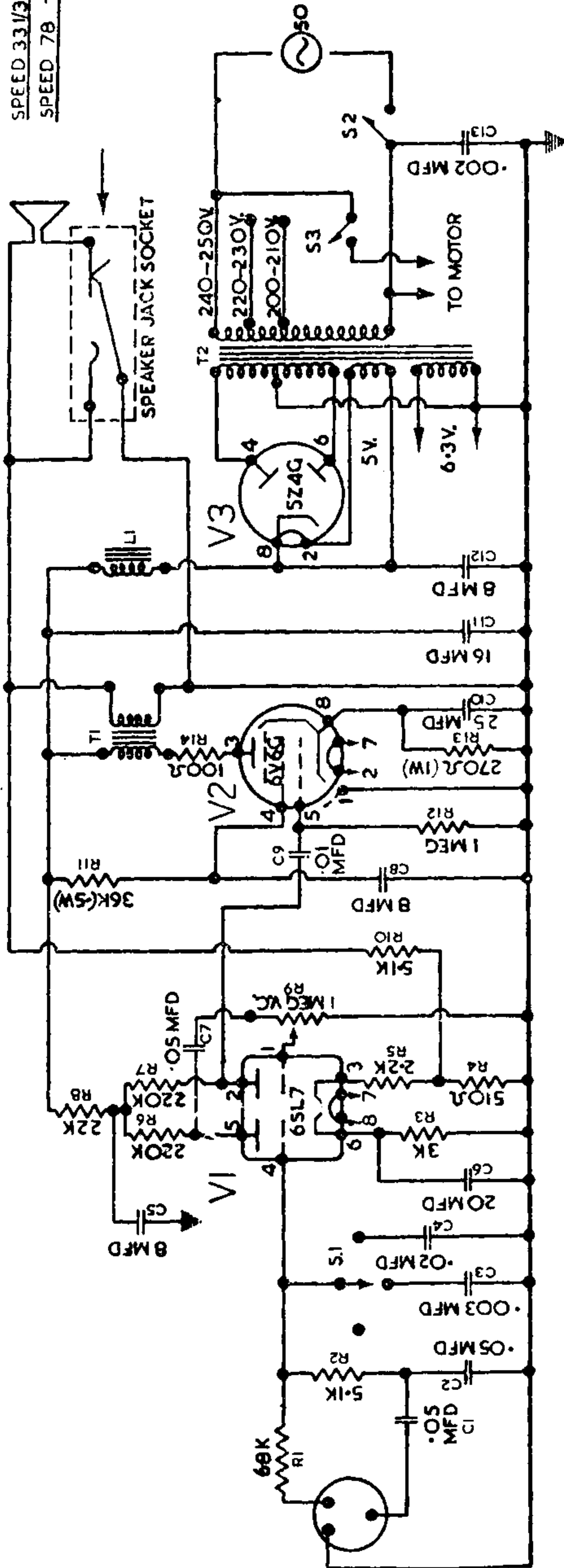
**Modifications :** The 22-kilohm decoupling resistor (R8) is now connected to C8 instead of to C11 in order to improve stability.



UNDER VIEW OF CHASSIS

# DECCA

SPEED 33 1/3 - TYPE D PICK UP  
 SPEED 78 - TYPE C PICK UP



ALL RESISTORS .25WATT EXCEPT WHERE OTHERWISE DENOTED  
PICK-UP INPUT SOCKET IS VIEWED FROM OUTSIDE OF CHASSIS

CIRCUIT DIAGRAM—DECCALIAN MODEL 81

All resistor values and wattage ratings are shown on the circuit diagram. Capacitor details are as follows :

C1	0.05	350-v. wkg.	(paper tubular)
C2	0.05	350-v. wkg.	(paper tubular)
C3	0.003	350-v. wkg.	(midget tubular)
C4	0.02	1000-v. wkg.	(paper tubular)
C5	8	500-v. wkg.	(electrolytic)
C6	20	12-v. wkg.	(electrolytic)
C7	0.05	350-v. wkg.	(paper tubular)
C8	8	500-v. wkg.	(electrolytic)
C9	0.01	350-v. wkg.	(paper tubular)
C10	25	25-v. wkg.	(electrolytic)
C11	16	450-v. wkg.	(electrolytic)
C12	8	450-v. wkg.	(electrolytic)
C13	0.002	—	(moulded mica)