

Private and Confidential



For Trade Use Only

"His Master's Voice"

SERVICE MANUAL

for

CHASSIS TYPE CI

A.C. Mains-operated Gramophone Amplifier

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THE GRAMOPHONE COMPANY LIMITED

(Incorporated in England)

HOME BUSH - - - N.S.W.

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Part No. 682 - 3391

TECHNICAL SPECIFICATIONS

POWER SUPPLY:

200 to 250 volts
at 40-50 c.p.s.

VALVE COMPLEMENT:

6AB8 — A.F. Amp.—Power Amp.
6V4 — Rectifier.

CONSUMPTION:

16 Watts.

OUTPUT IMPEDANCE:

4 ohms at 400 c.p.s.

CIRCUIT DESCRIPTION

This model incorporates a 2-valve A.C. mains-operated Audio-Frequency Amplifier.

The input cable is connected direct to the volume control, which is coupled to the triode grid of the 6AB8 triode-pentode valve. The output of the triode section is resistance-capacitance coupled to the pentode section, which functions as power amplifier. Transformer T1 provides coupling for a 4 ohm. loudspeaker load. Tone control is by means of potentiometer VR2, connected in series with capacitor C5, across the primary of transformer T1.

The H.T. circuit employs an indirectly heated rectifier, the output of which is filtered by Resistor R6 and Capacitors C2B and C2C.

Bias for the amplifier stages is provided by the voltage drops across resistors R2 and R3.

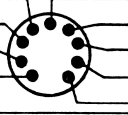
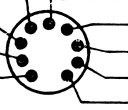
ADDITIONAL DATA

Any further service information may be obtained by addressing an enquiry to "The Service Division, E.M.I. (Aust.) Pty. Limited, 575-577 Parramatta Road, Leichhardt" (phone LM 1491).

During the course of production of this chassis the Company reserves the right, without notice, to make any modifications or improvements in design which may be necessary to meet prevailing conditions.

VOLTAGE TABLE

- VOLTAGE READINGS TAKEN WITH METER RESISTANCE OF 1,000 OHMS PER VOLT
- VOLTAGE AND CURRENT READINGS WITHIN $\pm 15\%$
- RESISTANCE READINGS ARE APPROXIMATE

VOLTS TO CHASSIS	CURRENT mA	RESISTANCE TO CHASSIS	VALVE ELECTRODE	BOTTOM VIEW OF VALVE SOCKET	VALVE ELECTRODE	VOLTS TO CHASSIS	CURRENT mA	RESISTANCE TO CHASSIS
V1 6AB8 A. F. AMPLIFIER.								
6.3 A.C.	300 A.C.	0	HEATER		HEATER	—	—	—
0	25	0	CATHODE		PENTODE PLATE	228	20.0	INFIN.
—	—	0.47M Ω	TRIODE GRID		SUPP. GRID	0	—	0
60	0.7	INFIN.	TRIODE PLATE		SCREEN	214	4.0	INFIN.
—	—	—	—		PENTODE GRID	—	—	0.47M Ω
V2 6V4 RECTIFIER.								
—	—	—	HEATER		HEATER	6.3 AC	600 AC	0
237	25	INFIN.	CATHODE		NO CONN	—	—	—
—	—	—	NO CONN		PLATE No.2	235 A.C.	—	660 Ω
235 AC	—	660 Ω	PLATE No.1		NO CONN	—	—	—
—	—	—	—		NO CONN	—	—	—

REMARKS

BIAS VOLTAGES

6AB8 TRIODE GRID —3.8 VOLTS
6AB8 PENTODE GRID —7.6 VOLTS

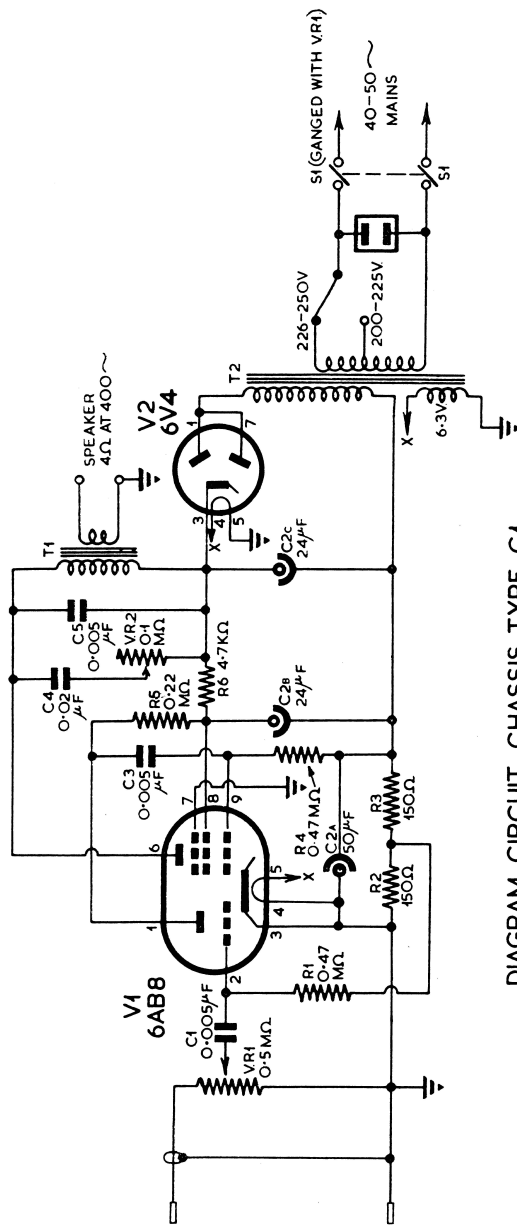


DIAGRAM CIRCUIT. CHASSIS TYPE C1

682 - 3401

PARTS LIST — TYPE C1

RESISTORS

REF.	PART No.	DESCRIPTION	REF.	PART No.	DESCRIPTION
R1	740-0182	470,000 ohms \pm 10% $\frac{1}{2}$ watt	R4	740-0182	470,000 ohms \pm 10% $\frac{1}{2}$ watt
R2	740-0272	150 ohms \pm 10% $\frac{1}{2}$ watt	R5	742-0132	220,000 ohms \pm 10% 1 watt
R3	740-0272	150 ohms \pm 10% $\frac{1}{2}$ watt	R6	742-0022	4,700 ohms \pm 10% 1 watt

CAPACITORS

REF.	PART No.	DESCRIPTION	REF.	PART No.	DESCRIPTION
C1	279-0031	0.005 mF \pm 20% 600V.	C3	279-0031	0.005 mF \pm 20% 600V.
C2	269-0281	3 section electrolytic	C4	279-0091	0.02 mF \pm 20% 400V.
C2A	Part of C2	50 mF 40 P.V.	C5	279-0031	0.005 mF \pm 20% 600V.
C2B	Part of C2	24 mF 350 P.V.			
C2C	Part of C2	24 mF 350 P.V.			

MISCELLANEOUS

REF.	PART No.	DESCRIPTION	REF.	PART No.	DESCRIPTION
VR1/S1	677-0012	Potentiometer, 500,000 ohms with switch	T2	904-0081	Transformer, mains
VR2	677-0071	Potentiometer, 100,000 ohms	V1	932-0421	Valve, 6AB8
T1	905-0025	Transformer, output	V2	932-0351	Valve, 6V4.