Supplement to Electrical and Electronic Trader
7 March 1969

Decca RP199 "Capri" & RP200 "Majorca"

Portable transistored record players

Introduction

Two Decca mains powered transportable record players are covered by this *Service Sheet.* They both incorporate a five transistor amplifier employing complementary symmetry, but are in most other respects dissimilar. Information contained on this page relates to the RP199, while the RP200 is covered overleaf.

RP199 "Capri"

he Capri is designed for operation from a 00-240V 50c/s mains power supply, and providing .he supply is within this range no adjustment is necessary. The manufacturers state that in no circumstances should this equipment be connected to either a.c. supplies outside the stated range or to a d.c. supply. The amplifier provides an output power of 2W driving a 25Ω 7in by 3½in front facing elliptical loudspeaker.

Transistor analysis

Transistor voltages quoted in the table col. 2 were obtained from information supplied by the manufacturers. They are all positive with respect to chassis but for these voltages to apply the voltage across **L3** should be 18V r.m.s.

Record changer

This is a Garrard Model 1025 automatic turntable and is fitted with an Acos GP91/1 p.u. cartridge, for which a stylus pressure of 6-8gm is recommended.

Dismantling

To remove chassis from the cabinet, first pull off the control knobs, then remove the chassis ventilation panel from inside the cabinet (2 screws) Unscrew and remove four 4BA nuts securing front panel, after which it can be eased forward. Note colour code and connecting points of mains, motor and p.u. leads then unsolder to disconnect. The front panel complete with loudspeaker and printed panel can now be removed complete.

Manufacturer's service department

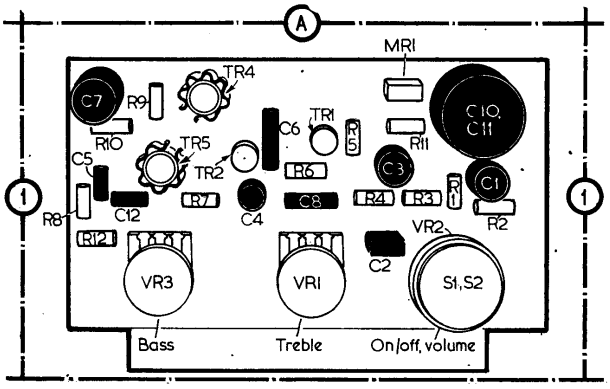
Decca Radio and Television
Ingate Place,
Queenstown Road,
London, S.W.8.

Telephone: 01-622 6677.

Transistor table

Transistor		Emitter (V)	Base (V)	Collector (V)
TR1	U17220	—	10·3	3·7
TR2	U17221	3·1	3·7	24·0
TR3	U17222	0	0·6	11·4
TR4	U17223	12·0	11·4	0
TR5	U17224	12·0	12·5	24·0

Three-quarter view of model RP199 which features a simulated teak baffle. Some models are fitted with a retractable plastics handle instead of the suitcase type as shown.



Component layout on printed panel. The heat sinks associated with the output transistors are sprung on and supported by the transistors.

Resistors

R1	22kΩ
R2	18kΩ
R3	180Ω
R4	10kΩ
R5	2·2kΩ
R6	15kΩ
R7	3·9kΩ
R8	1kΩ
R9	56Ω
R10	820Ω
R11	5·6Ω
R12	470kΩ
VR1	1MΩ
VR2	1MΩ
VR3	2MΩ

Capacitors

C1	125μF
C2	0·1μF
C3	500μF
C4	125μF
C5	400pF
C6	120pF
C7	400μF
C8	4,700pF
C10	1,000μF
C11	1,000μF
C12	400pF

Coils

L1	25Ω	†
L2	—	**
L3	—	

Miscellaneous

MR1	G63D/1
S1, S2	—
Stylii	GP91/1

† *Loudspeaker.*
** *Motor assembly.*

All the above components are to be found in location ref. A1.

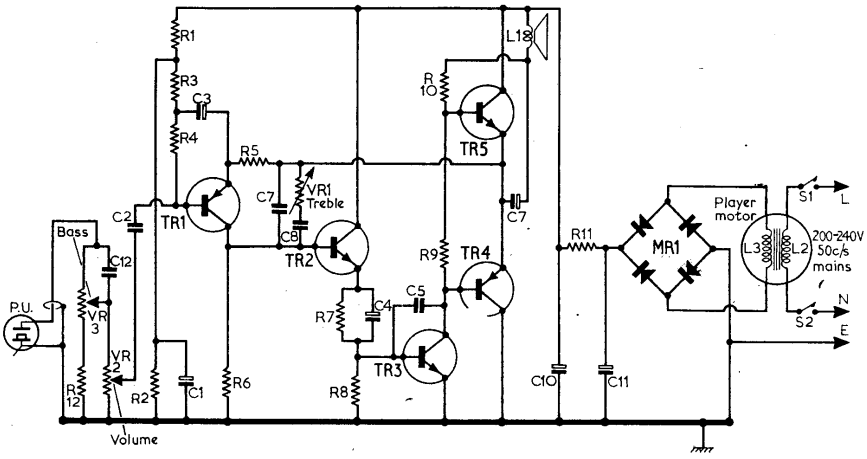


Diagram of the circuit used in model RP199.

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Decca RP199 & RP200

RP200 "Majorca"

The Majorca is designed for operation from 200-240V 50c/s mains power supplies, with the same limitations that apply to model RP199 (see overleaf).

This reproducer has a miniature jack fitted enabling a tape recorder to be connected (via a 3·5mm long shank jack plug) for both record and playback. It presents an impedance of approximately 20kΩ and a sensitivity of approximately 100mV for both conditions.

A forward facing 8in by 5in elliptical loudspeaker handles an audio output power of 3W.

Transistor analysis

Transistor voltages shown in the table below were obtained from information supplied by the manufacturers and they are all negative with respect to positive line.

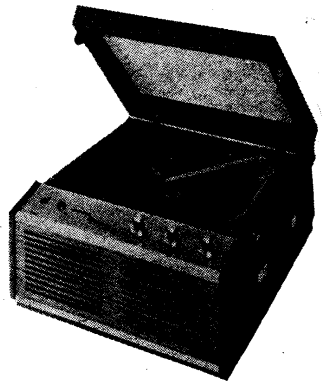
Record changer

The automatic record changer is the Garrard model 2025 which is fitted with a 10¼in dia. turntable. An Acos GP91/1SC p.u. cartridge is fitted, the recommended stylus pressure being 6-8gm. The p.u. is mono/stereo compatible and will track satisfactorily on both mono and stereo records without damage to either.

Dismantling

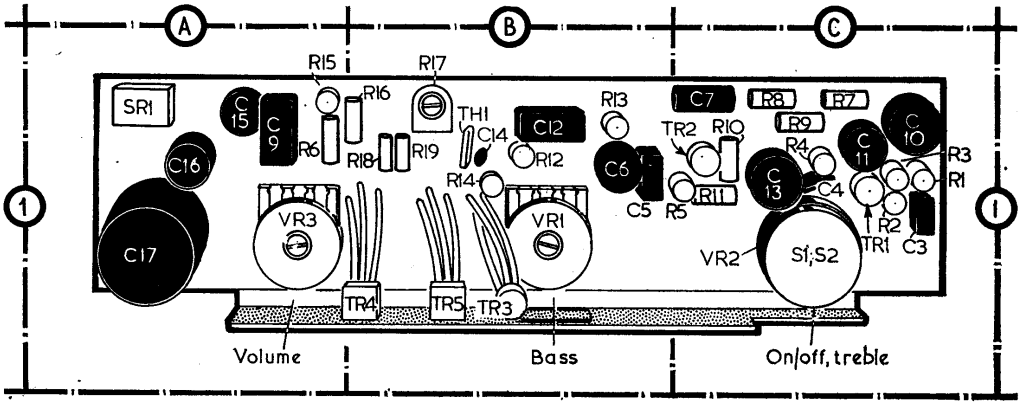
To gain access for servicing, first remove loudspeaker and printed panel cover from inside cabinet (4 screws), then pull off knobs. Unscrew four screws securing motor board to cabinet, draw motor board forward out of recess in cabinet rear and with the left-hand side tilted upwards slightly, lift motor board out to the extent of connecting leads. Unscrew and remove two binder screws located at the top right-hand end of cabinet cross-member behind control knobs.

The printed panel may now be removed to the extent of the loudspeaker leads.



Appearance of model RP200. The tape jack and neon indicator lamp are clearly seen on the left of the upwards facing control facia, not apparent is the lid which is upholstered in vinyl.

Plan view of component side of printed panel. The output transistors of this model are bolted on to the heat sink, which also assists in maintaining the printed panel rigid.



Transistor table

Transistor		Emitter (V)	Base (V)	Collector (V)
TR1	BC268	16·0	14·5	7·5
TR2	BC268	11·5	7·5	0·2
TR3	AC142	0	0·2	11·8
TR4	AC142K	12·0*	12·2	24·0
TR5	AC141K	12·0*	11·8	0

* *Measured between the junction of* **R18/R19** *and chassis.*

Resistors

R1	150kΩ	C1	R11	15Ω	C1
R2	1MΩ	C1	R12	1·5kΩ	B1
R3	10kΩ	C1	R13*	1kΩ	B1
R4	56kΩ	C1	R14	390Ω	B1
R5	1·5kΩ	C1	R15	100Ω	A1
R6	68kΩ	C1	R16	330Ω	B1
R7	33kΩ	C1	R17	100Ω	B1
R8	39kΩ	C1	R18	2·2Ω	B1
R9	390kΩ	C1	R19	2·2Ω	B1
R10	270kΩ	C1	R20	1·2kΩ	**
			VR1	20kΩ	B1
			VR2	100kΩ	C1
			VR3	50kΩ	A1

Capacitors

C1	0·04µF	**
C3	0·1µF	C1
C4†	5,000pF	C1
C5	0·1µF	B1
C6	40µF	B1
C7	0·047µF	C1
C9	0·22µF	A1
C10	170µF	C1
C11	50µF	C1
C12	0·47µF	B1
C13‡	170µF	C1
C14	820pF	B1
C15	40µF	A1
C16	400µF	A1
C17	2,000µF	A1

Coils

L1	—	††
L2	—]	§
L3	—]	

Miscellaneous

SR1	BY122	A1
TH1	VA1077	B1
S1, S2	—	C1
Stylii	GP91/1SC	—

* *May be 680Ω.*

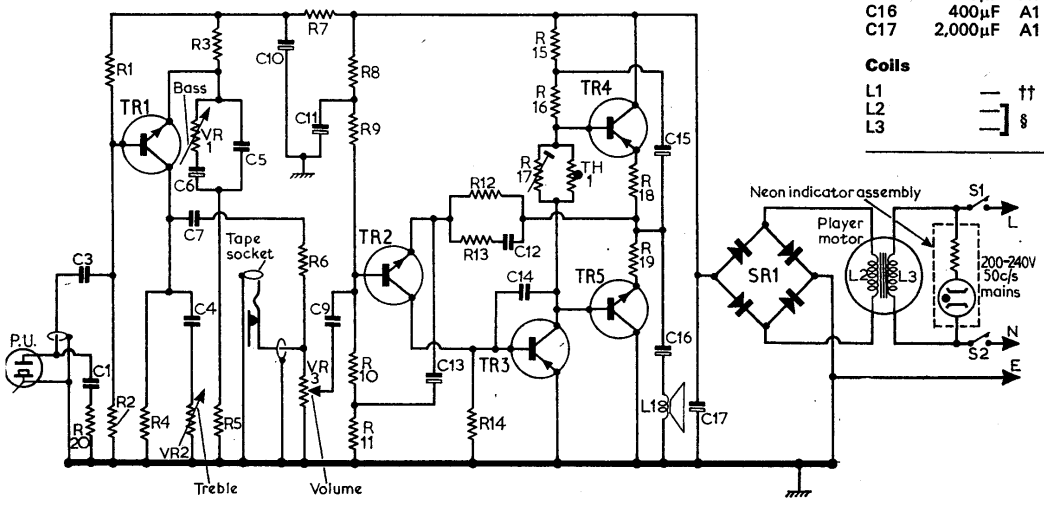
† *May be 4,700pF.*

‡ *May be 160µF.*

** *Wired on record player assembly.*

†† *Loudspeaker.*

§ *Motor assembly.*



Circuit diagram of model RP 200 "Majorca".

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