

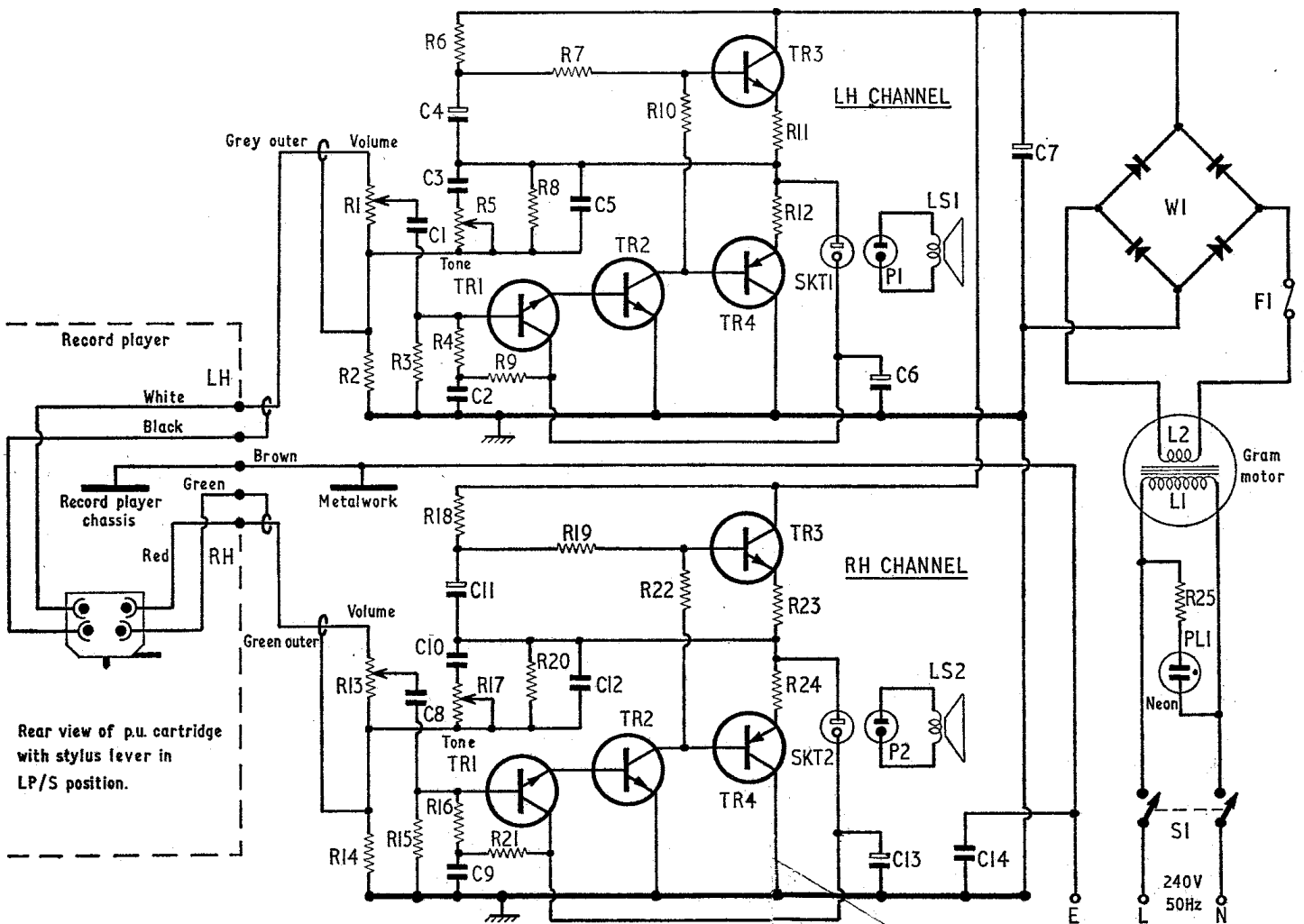
Marconiphone 4031

3004

Stereophonic record player

Resistors		R9		330kΩ		E2		R19		470Ω		C2		C2		0.1μF		E2		C12		680pF		C2		Miscellaneous	
R1	2MΩ	F1	R10	15Ω	F2	R20	15kΩ	C2	C3	0.022μF	F2	C13	250μF	B2	F1	500mA	E3										
R2	1.5kΩ	F2	R11	2.2Ω	F2	R21	330kΩ	B2	C4	40μF	F2	C14	1000pF	A1	PL1	Neon	C3										
R3	120kΩ	E2	R12	2.2Ω	F2	R22	15Ω	C2	C5	680pF	F2	Inductors		W1	G1	B40	C1000	E2									
R4	470kΩ	E2	R13	2MΩ	C1	R23	2.2Ω	C2	C6	250μF	E2	L1	320Ω	G2													
R5	250kΩ	E2	R14	1.5kΩ	C2	R24	2.2Ω	C2	C7	1500μF	D2	L2	6Ω	H2													
R6	150kΩ	F3	R15	120kΩ	B2	R25	220kΩ	A2	C8	0.1μF	B1	LS1	15Ω	—													
R7	470Ω	F2	R16	470kΩ	B2	Capacitors			C9	0.1μF	B2	LS2	15Ω	—													
R8	15kΩ	F2	R17	250kΩ	B1	C1	0.1μF	E1	C10	0.022μF	C2																
			R18	150Ω	C3	C11			C11	40μF	C2																

C		1	2	3	4		5					6		7		C	
				8	9	10	11		12			13		14			
R		1	2	3	4	5	6	9	8	7		10		11	12		
				13	14	15	16	17	18	21	20	19		22	23	24	
																	25



3004

MARCONIPHONE 4031

Introduction

Marconiphone, model 4031, stereo record player features loudspeakers fitted into detachable half-lids.

Two identical audio amplifiers incorporate four transistors in each, and produce 2½W speech and music rating at 5 per cent distortion per channel.

The lid enclosures each house an elliptical 7 x 4in 15Ω loudspeaker which are terminated in two-pin DIN plugs.

A BSR four-speed motor and turntable assembly, type M100, is fitted and the turnover stylus is for microgroove and 78r.p.m. records.

Separate volume and tone controls are provided for each channel, the on/off switch being ganged with the right hand channel tone control.

Transistor analysis

Transistor voltages given in the table were obtained from information supplied by the manufacturers. They were measured under quiescent conditions with a 20 000Ω/V meter and are positive with respect to the negative chassis line except where indicated otherwise.

Dismantling

Access for service. – Unscrew and remove four screws securing motor board. Lift motor board at rear, just sufficient to clear case, and move it slightly to

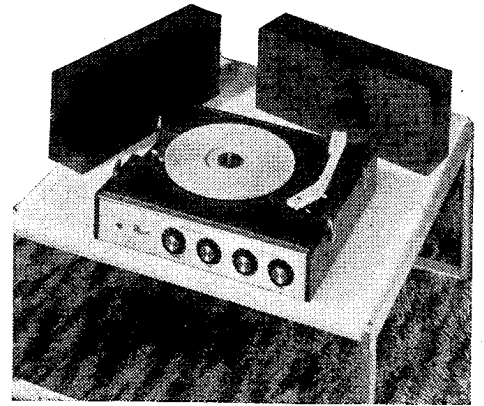
the rear so that it clears the lip at the front of the case. Placing the motor board on edge across the case base gives access to the chassis and 500mA anti-surge fuse.

Chassis removal. – Pull off control knobs, then unscrew and remove two nuts and washers securing chassis to case – *do not lose two spacing pillars.* Release neon lamp from holder and the complete chassis can be removed from the case to the extent of the loudspeaker leads. If necessary these may be unsoldered from the tags on the printed panel.

Motor and turntable assembly removal. – Pull off pick-up leads from tag panel on motor board, note connections for correct reassembly. Unsolder motor power supply lead from tag panel on right hand channel circuit panel, also low tension leads from tag panel on left hand channel circuit panel.

Release leads from cleat on motor board and unscrew and remove three nuts and washers to enable turntable and motor to be separated from case.

To remove turntable, lift 45r.p.m. spindle adaptor and gently press the location lugs inward to free from turntable. Take off circlip securing turntable and lift turntable clear of motor unit. When



replacing turntable ensure that the circlip engages into a slot on the motor spindle, then replace 45r.p.m. adaptor.

General notes

Replacement transistors. – Suitable Mullard types for replacement of BRC types used in this equipment are as follows: **TR1** BC148, **TR2** BC107, **TR3** AC176, **TR4** AC128.

Transistor table

Transistor	Emitter (V)	Base (V)	Collector (V)
TR1 L/R AF18	0.6	1.2	10.5
TR2 L/R AF6	0	0.6	10.4
TR3 L/R OP2B	10.4*	10.5	22.0
TR4 L/R OP2A	10.4*	10.4	0

* Measured at junctions **R11/R12** and **R23/R24**
 A.c. volts across bridge rectifier **W1** 18V.
 P.d. across **R6/R18** 2.75V.
 Quiescent current 74mA.
 Current at maximum output 320mA.

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Component locations viewed from component side of circuit panel

