

SERVICE INFORMATION FOR THE

PHILIPS

RECORD PLAYER TYPE AG4000

GENERAL DESCRIPTION

The AG4000 is a portable, battery-operated record player with a printed circuit transistor amplifier with the loudspeaker housed in the lid. The three-speed player units suitable for use with all standard sizes of records.

Both motor and amplifier are switched on by moving the pick-up arm to the right. At the end of each record the instrument is automatically switched off and the idler wheel withdrawn from contact with the turntable.

A dual turn-over crystal pick-up head type AG3306 is fitted for use with microgroove or coarse groove recordings.

TECHNICAL DATA

Turntable speeds:	33 $\frac{1}{3}$, 45 and 78 r.p.m.
Motor:	Low consumption D.C. commutator motor with governor speed stabilisation
Pick-up head:	AG3306
Transistors:	T1 AC126 Amplifier T2 AC125 Driver T3 & T4 2 x AC128 Push-pull output
Output power:	500 mW
Loudspeaker:	3 Ω impedance type AD3417Y
Consumption:	50-70 mA (no signal)
Battery types:	6 x 1.5V Eveready No. 1050 Size D or 950
Cabinet dimensions:	11" x 6 $\frac{1}{2}$ " x 4"
Weight (including batteries)	5 lbs.

UNCASING

To release the cabinet lid, slide the two side catches towards the handle. Remove the two screws recessed in the cabinet base and the single screw from inside the battery compartment, then withdraw the plastic mounting from the cabinet,

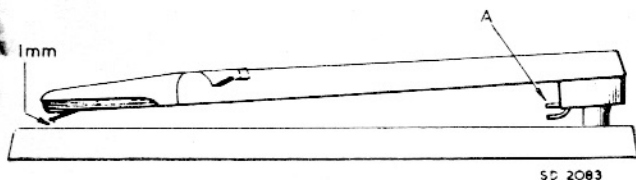


Fig. 1

PICK-UP ADJUSTMENTS

The clearance between the pickup arm clamping bracket and the upper surface of the bearing in the mounting plate should lie between 0.1 and 0.3mm. when the pick-up arm is lifted as in Fig. 2. The stylus pressure for the AG3306 pick-up head should be 4-6 grams. This can be set with the adjusting plate 73 Fig. 6.

The needle point of the pick-up head should clear the moulded mounting plate by 1mm. To adjust, bend the bracket 'A' Fig. 1.

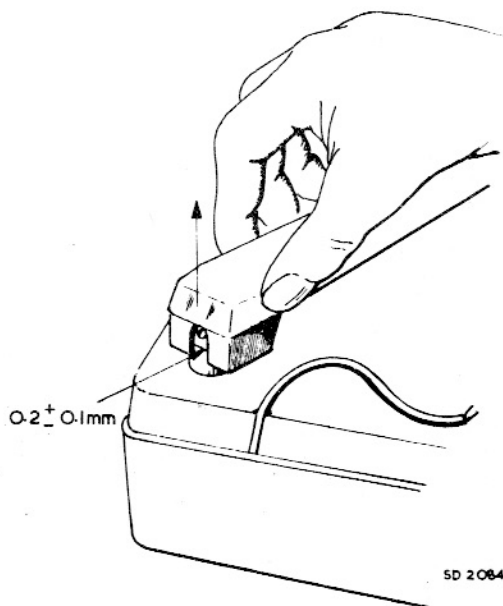


Fig. 2

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PHILIPS ELECTRICAL INDUSTRIES (N.Z.) LTD.

P.O. BOX 2097

SERVICE DIVISION

WELLINGTON

MECHANICAL CHECKS AND ADJUSTMENTS

Trip lever.

In the off position and with the P.U.-arm on the rest, trip lever 14 should be held against the projecting stop in the T.T. well.

Adjustment is made by bending lip 'B' on locking bracket 15. (See Fig. 3).

Trip bracket.

If the arm trips before the end of the record, bend the longer tongue of trip bracket 29 away from trip lever 14; and vice-versa.

Motor Speed.

The set screw on the rotating contact breaker inside the motor, should be turned clockwise to increase speed and vice-versa; lock in place with locking paint.

OILING AND GREASING

Light machine oil to the spindles of positions 41, 55, 56, 57, 49, 50, 36, 16.

Light grease to position 8.

Graphite grease between position 47 and 100
position 15 and 24
position 24 and 1

Please quote both code and position numbers when requesting Spare Parts in order to expedite despatch.

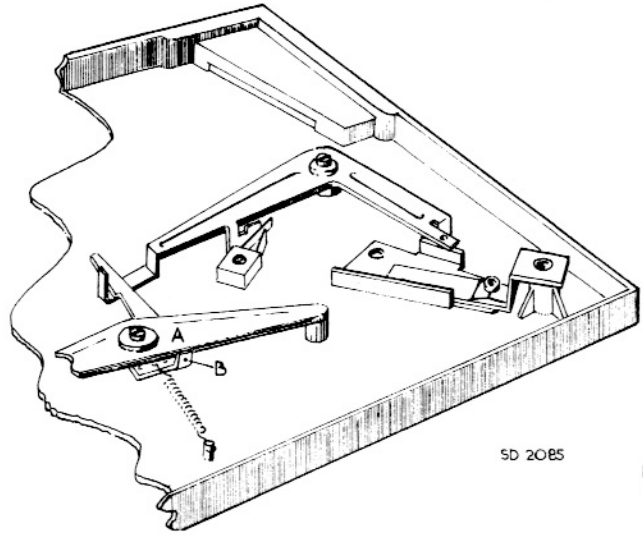


Fig. 3

SPARE PARTS LIST

RECORD PLAYER ASSEMBLY

1. Moulded top plate	4822 175 01003	39. Retaining spring	TD 050 76
2. Turntable	AE 606 92	40. Washer for idler wheel	TD 300 49
3. Spring clip for above	TD 700 48	41. Idler wheel	TD 801 27
4. Switch S.1	AE 571 78	44. Leaf spring } For speed selector	TD 700 51
7. Nut for below	B020EE/3	46. Ball Bearing } For speed selector	89 205 02
8. Turntable spindle	TD 700 50	47. Speed selector plate	AE 606 96
10. Mat for turntable—Red	P7 520 76	48. Operating rod for position 23	TD 700 29
—Blue	P7 520 77	49. Pivot bracket for below	TD 050 78
—Green	P7 520 78	50. Idler wheel bracket	AE 606 94
—Brown	TD 650 17/KW	53. Washer	TD 300 49
11. Tension spring for below	TD 700 60	55. Pulley 33½ r.p.m.	TD 801 38
12. Operating rod for Position 49	TD 500 29	56. Pulley 45 r.p.m.	TD 801 39
13. Tension spring	TD 700 61	57. Pulley 78 r.p.m.	TD 801 37
14. Trip lever	4822 206 00263	58. Washer	4822 175 01037
15. Locking Bracket	TD 050 71	61. Motor assembly	JW 525 09
16. Bush for above	TD 100 19	62. Main drive belt	AE 016 16
17. Washer	TD 000 18	64. Grommet (3)	TD 650 16
18. Pivot Screw	B054ED/2x4	65. Washer (3)	B050CD/3
23. Speed change lever	TD 300 48	67. Circlip	B108 AF/3.2
24. Operating lever for S.1	TD 050 72	68. Pick-up arm assembly	TD 801 32
Spring for above	WT 742 08	Pick-up head—Sapphire	AG 3306
29. Trip bracket	AE 606 95	Diamond	AG 3310
30. Washer for above	TD 600 04	Dual Stylii for pick-up heads—	
31. Leaf spring	TD 700 58	Sapphire	AG 999 46/SS50
32. Washer	B050CD/3	Diamond	AG 999 46/DS51
36. Bracket with Spindle for pick-up		70. Main drive pulley	TD 801 42
arm	TD 801 31	71. Drive belt for speed pulleys	AE 016 17
37. Leaf Spring for arm rest	TD 700 59	72. Tension spring for pick-up arm	AE 014 74
38. Pick up arm rest	4822 163 00927	73. Adjusting strip	AE 014 75

TRANSISTORS

T1	Amplifier	AC 126
T2	Driver	AC 125
T3/4	Push Pull Output	2 x AC 128

CABINET ASSEMBLY

201.	Catch (2)	4822 163 01039
202.	45 r.p.m. Adaptor	P5 515 79/31
204.	Countersunk casing screw	B055GM/3x10
205.	Loudspeaker grille	AE 606 76
206.	Lid—red	AE 606 84
	—blue	4822 163 00925
	—green	P5 512 98/LN
	—brown	P5 512 98/KX
207.	Tray	4822 125 00318

208.	Screw	B055GM/3x10
209.	Volume control knob	4822 163 01048
210.	Screw in knob	B061ED/3x10
211.	Flat nut for above	B 018 AE/3
212.	Handle	4822 175 01049
213.	Cheesehead casing screw (2)	B 054 ED/3x8
214.	Battery contact—large	AE 016 13
215.	Battery contact—small	AE 016 14
216.	Battery cover	
	Speaker lead	R367 KA/03AA13

TRANSFORMERS, ETC.

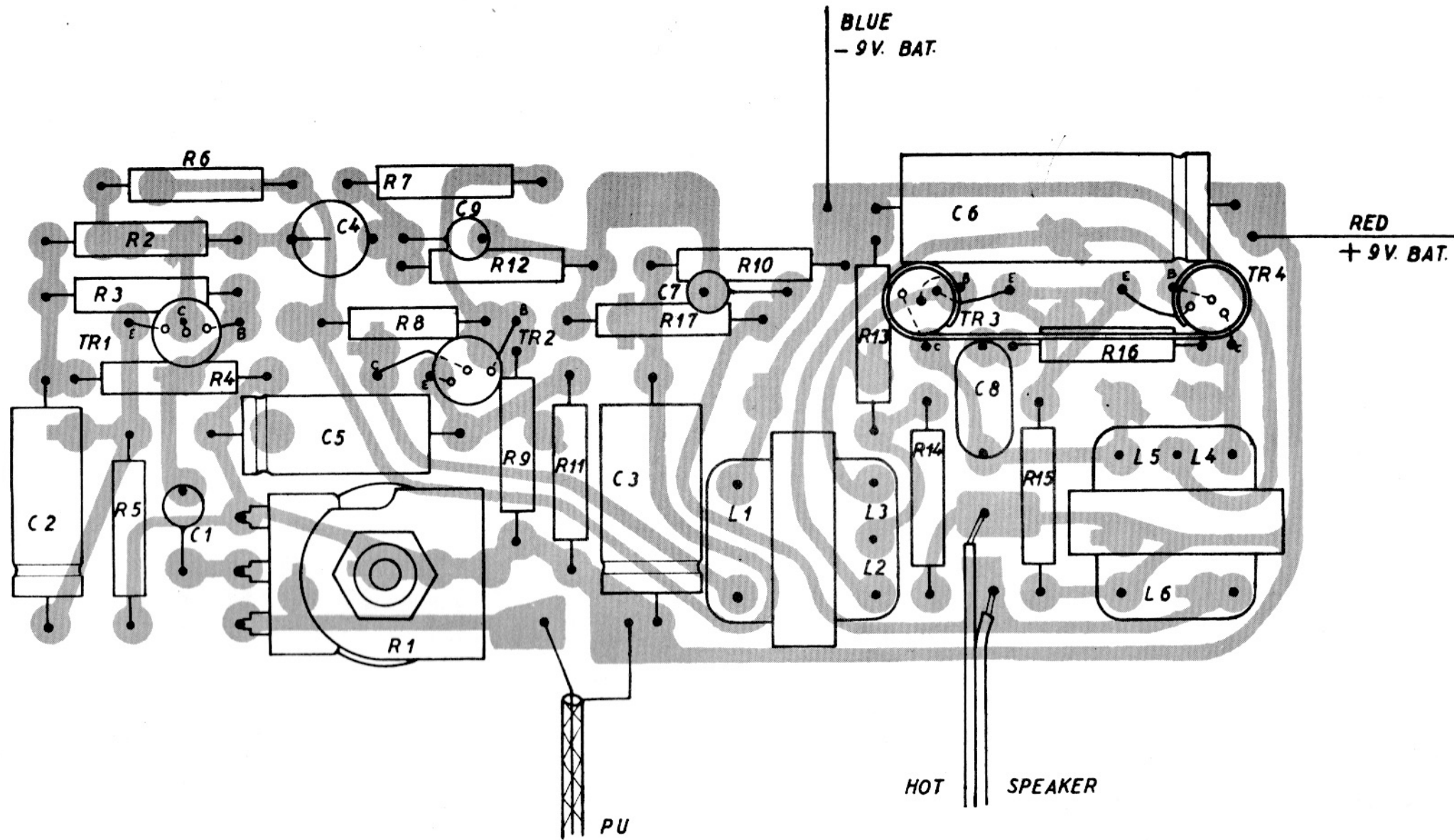
L1-3	Driver transformer	A3 278 22
L4-6	Output transformer	A3 278 23
L7	Loudspeaker 3 ohms	AD3417Y

RESISTORS

		Ohms	Wattage	Tolerance	
R1	Volume	0.5M Ω			E 088 CG/20B13
R2		0.12M Ω	1/2	5	B8 305 05B/120K
R3		33,000 Ω	1/2	5	B8 305 05B/33K
R4		18,000 Ω	1/2	5	B8 305 05B/18K
R5		1,200 Ω	1/2	5	B8 305 05B/1K2
R6		2,700 Ω	1/2	5	B8 305 05B/2K7
R7		10,000 Ω	1/2	5	B8 305 05B/10K
R8		22,000 Ω	1/2	5	B8 305 05B/22K
R9		5,600 Ω	1/2	5	B8 305 05B/5K6
R10		560 Ω	1/2	5	B8 305 05B/560E
R11		470 Ω	1/2	5	B8 305 05B/470E
R12		33,000 Ω	1/2	5	B8 305 05B/33K
R13		1,800 Ω	1/2	5	B8 305 05B/1K8
R14		33 Ω	1/2	5	B8 305 05B/33E
R16		4.7 Ω	1/2	5	B8 305 05B/4E7
R17		100 Ω	1/2	5	B8 305 05B/100E
R18		47,000 Ω	1/2	5	B8 305 05B/47K

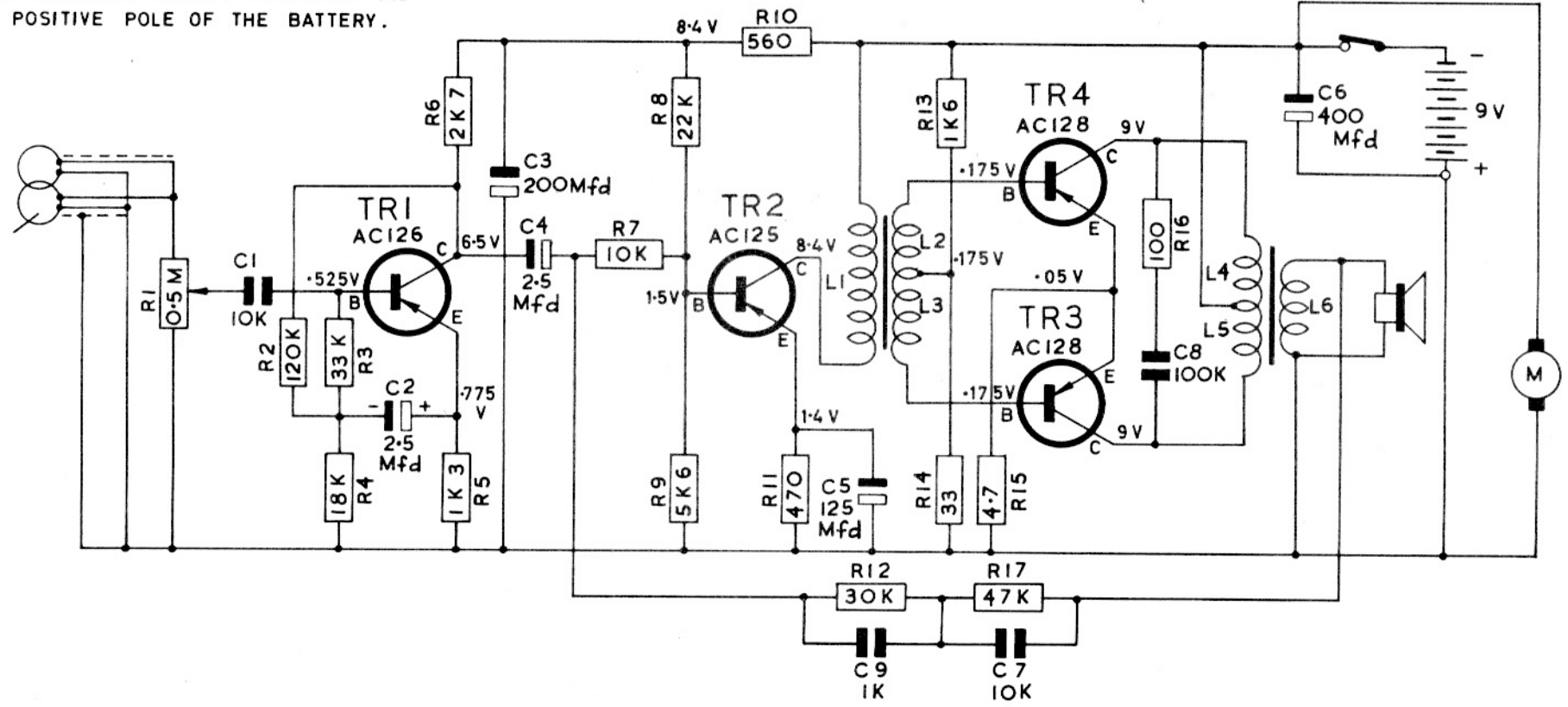
CAPACITORS

		Value	Working Voltage	
C1	Pinup	10,000pF	500V	C322BA/H10K
C2	Electrolytic	2.5uF	16V	C426AS/E2.5
C3	Electrolytic	200uF	10V	C426AR/D200
C4	Electrolytic	2.5uF	16V	C426AS/E2.5
C5	Electrolytic	125uF	4V	C426AR/B125
C6	Electrolytic	400uF	16V	C426AR/E400
C7	Pin-up	10,000pF	500V	C322BA/H10K
C8	Polyester	0.1uF	250V	C280AE/P100K
C9	Pin-up	0.001	500V	C322BA/H1K



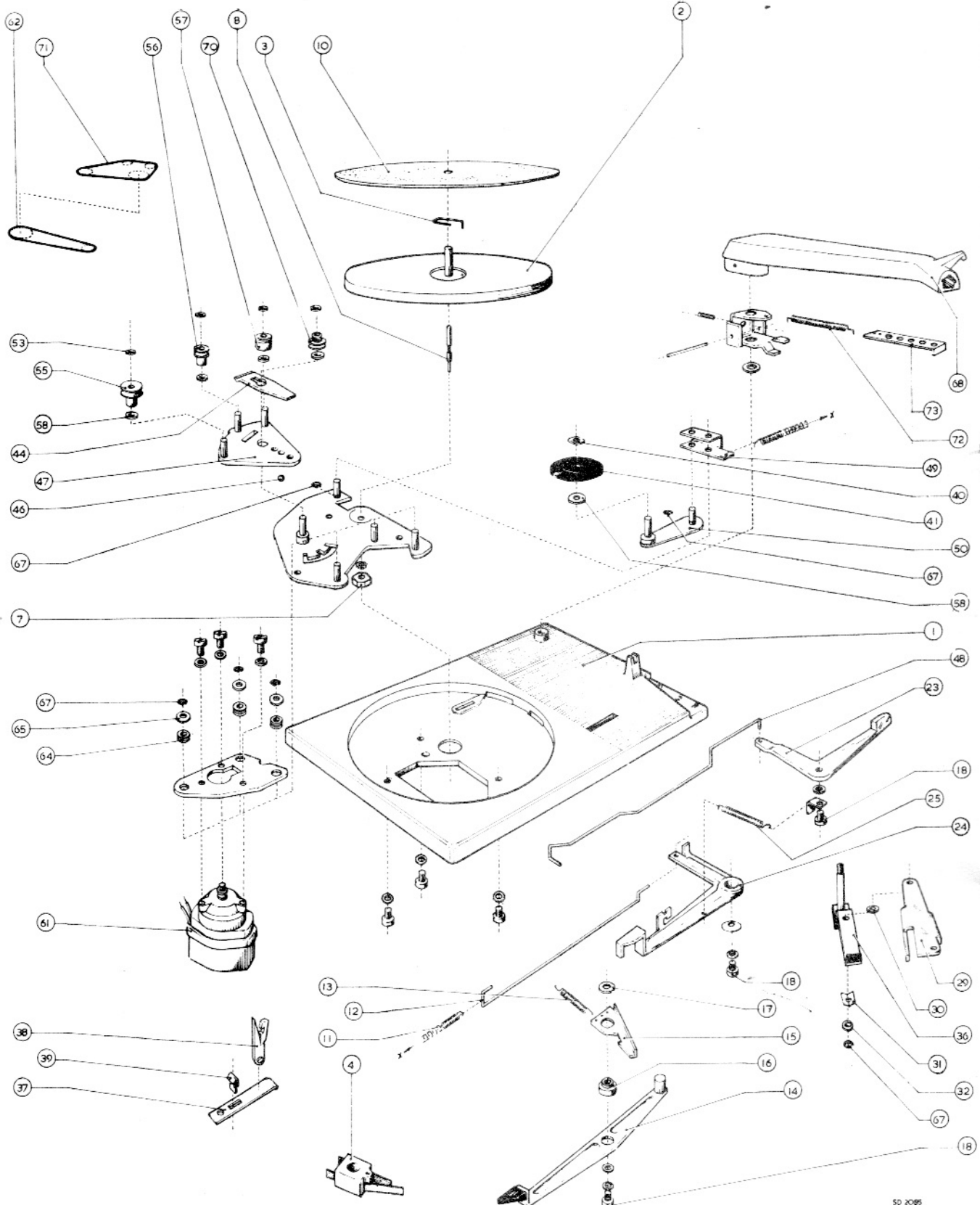
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C		1.	2.	3.4.		5.9.	7.	8.								6.
R		1.	2. 3.4.	5.6.	7. 8.9.	10.11.	12.	13.14.15.17.							16.	

ALL VOLTAGES ARE MEASURED WITH A VOLTMETER HAVING A SENSITIVITY OF 20,000 OHMS PER VOLT. READINGS ARE TAKEN BETWEEN POINTS INDICATED AND THE POSITIVE POLE OF THE BATTERY.



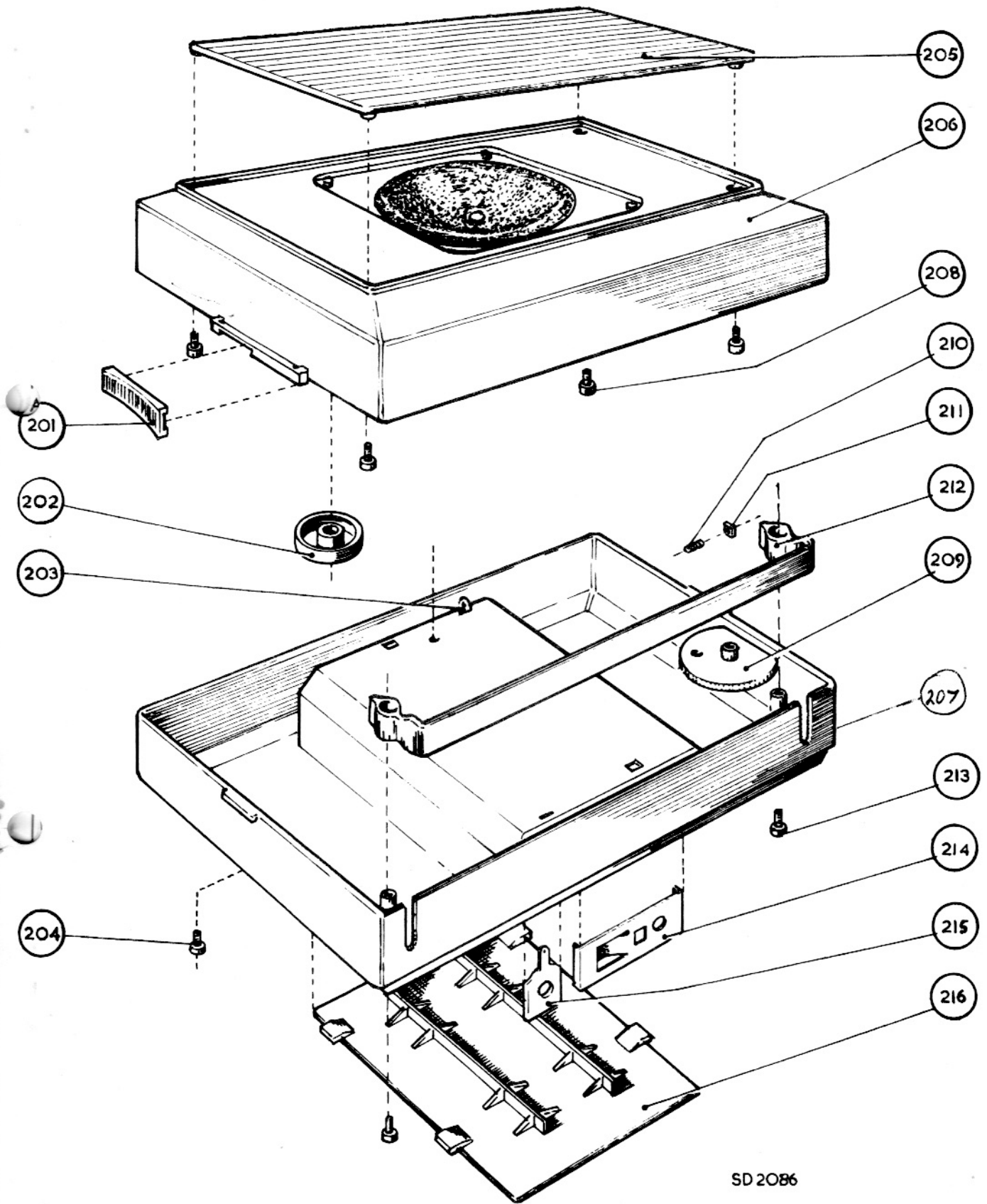
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Fig. 6



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Fig. 7