

SERVICE MANUAL

YP-D4

STEREO TURNTABLE



SINCE 1887



YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

004381

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■ CONTENTS

SPECIFICATIONS	2
INTERNAL VIEW	
1. TOP VIEW	3
2. BOTTOM VIEW	3
DISASSEMBLY PROCEDURES	4
ADJUSTMENTS	
1. MECHANISM ADJUSTMENTS	6
2. CIRCUIT BOARD ADJUSTMENTS	7
PACKAGE INSTRUCTION	7
PARTS LIST	8
SCHEMATIC DIAGRAM	12
WIRING/PRINTED CIRCUIT BOARDS	13

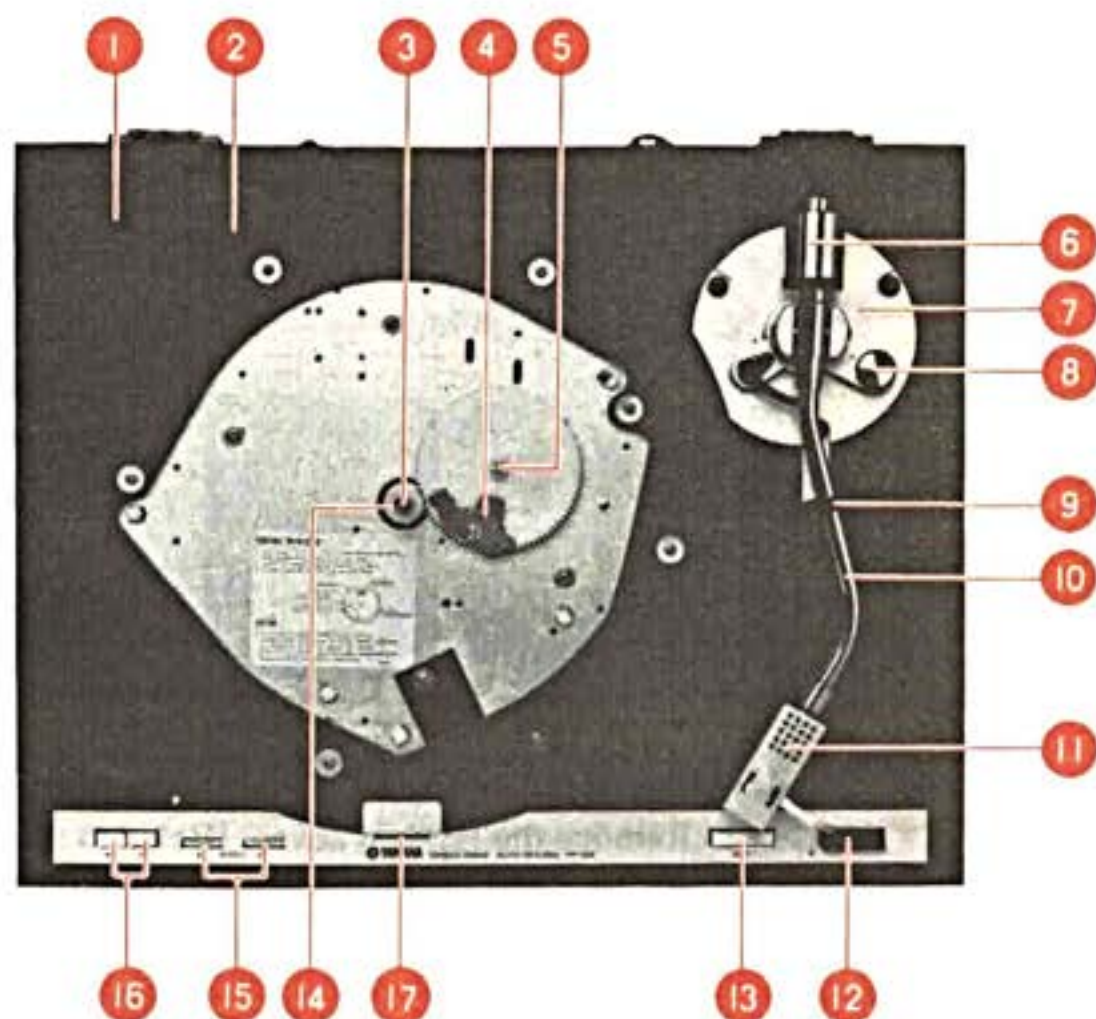
■ SPECIFICATIONS

TURNTABLE SECTION	
Motor	8 Pole coreless DC servo Motor
Turntable Platter	30 cm (12") die-cast aluminum 1.1 kg
Speeds	33-1/3 and 45 rpm (2-speeds)
Drive System	Direct drive
Signal-to-Noise Ratio	77 dB (IEC 98A weighted)
Wow and Flutter	± 0.055 % Peak (IEC 98A weighted), 0.04 % Wrms
Speed Variation	±4% (Independent for each speed)
TONEARM SECTION	
Type	S-shaped static balanced
Effective length	215 mm (8-1/2")
Overhang	16 mm
Suitable Cartridge Weight	4 to 10 grams
Headshell	Plug-in type to EIA standard
Cartridge	CG6600 (General and Australian model)
GENERAL	
Power Supplies	120 V AC, 60 Hz USA and Canadian
	220 V AC, 50 Hz European , Germany
	240 V AC, 50 Hz British, Australian
	110 – 130/220 – 240 V AC, 50/60 Hz General
Power Consumption	6 Watts
Dimensions (W x H x D)	435 x 140 x 360 mm (17-1/8" x 5-1/2" x 14-1/4")
Weight	8 kg (17.6 lb)
Accessories	EP adaptor
Exterior Finish	Cartridge-retaining screws, Overhang gauge
	YP-D4 [Ebony] USA and Canadian
	YP-D4 [Century walnut] European, British, Australian and General

Specifications subject to change without notice.

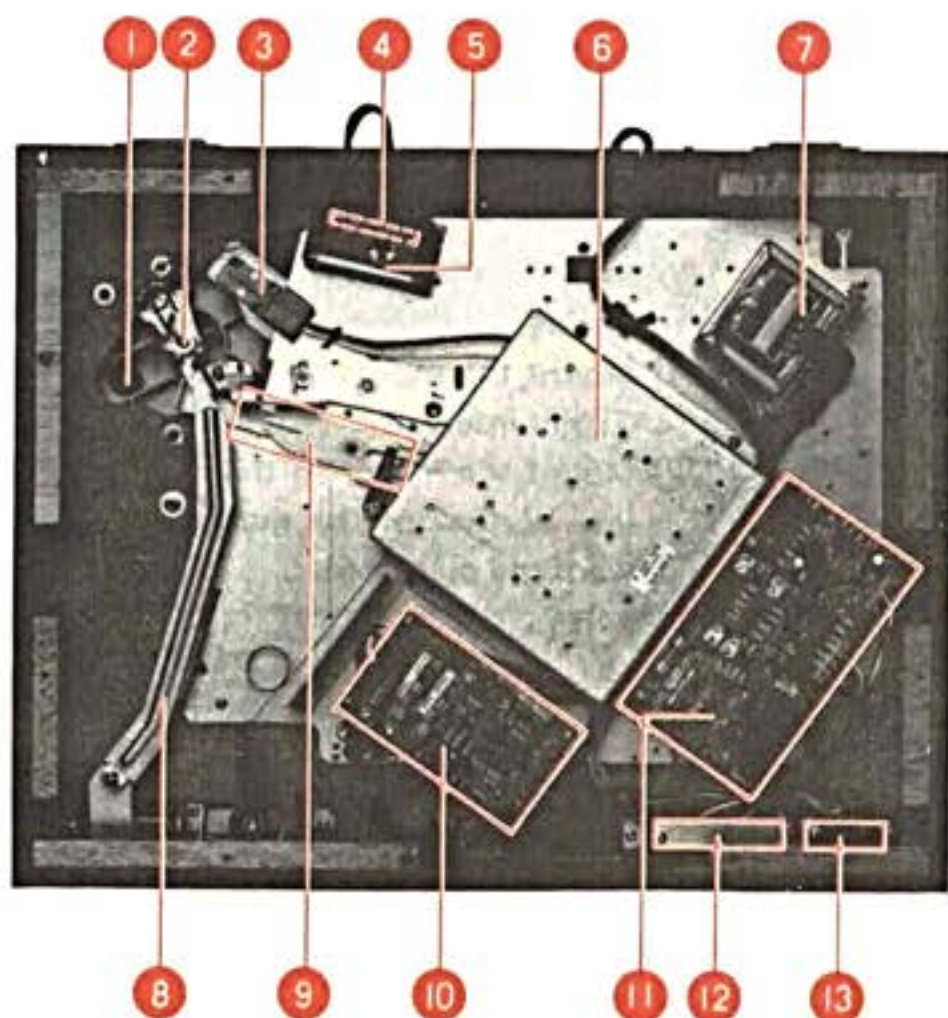
INTERNAL VIEW

1. TOP VIEW



- 1 EP ADAPTOR HOLDER
- 2 CABINET
- 3 CENTER SHAFT
- 4 CLUTCH PLATE
- 5 MAIN GEAR
- 6 COUNTER WEIGHT
- 7 ARM BASE
- 8 INSIDE FORCE CANCELER
- 9 ARM REST
- 10 TONE ARM
- 11 HEAD SHELL
- 12 CUEING LEVER
- 13 CUT PUSH SWITCH
- 14 TURN TABLE GEAR
- 15 SPEED ADJUSTING KNOBS
- 16 SPEED SELECTOR SWITCHES
- 17 STROBE LAMP

2. BOTTOM VIEW



- 1 FEED ARM
- 2 TONEARM CENTER
- 3 MICRO SWITCH
- 4 5P LUG TERMINAL BOARD
- 5 SHIELD COVER
- 6 MOTOR
- 7 POWER TRANSFORMER
- 8 CUE SEESAW
- 9 REJECT LEVER
- 10 POWER CIRCUIT BOARD
- 11 CONTROL CIRCUIT BOARD
- 12 VARIABLE RESISTORS
(5 cor x 2)
- 13 SPEED SELECTOR SWITCHES
MOUNTING BOARD

■ DISASSEMBLY PROCEDURES

Before disassembling the unit, remove the platter, dust cover and cartridge, and securely tie the arm to the arm rest with string, etc. Then, gently turn the unit upsidedown and place it on books, etc. piled up on both sides to protect the arm and cabinet from damage.

1. Bottom cover Removal

Remove 9 screws then take the rear panel out. (Photo 1)

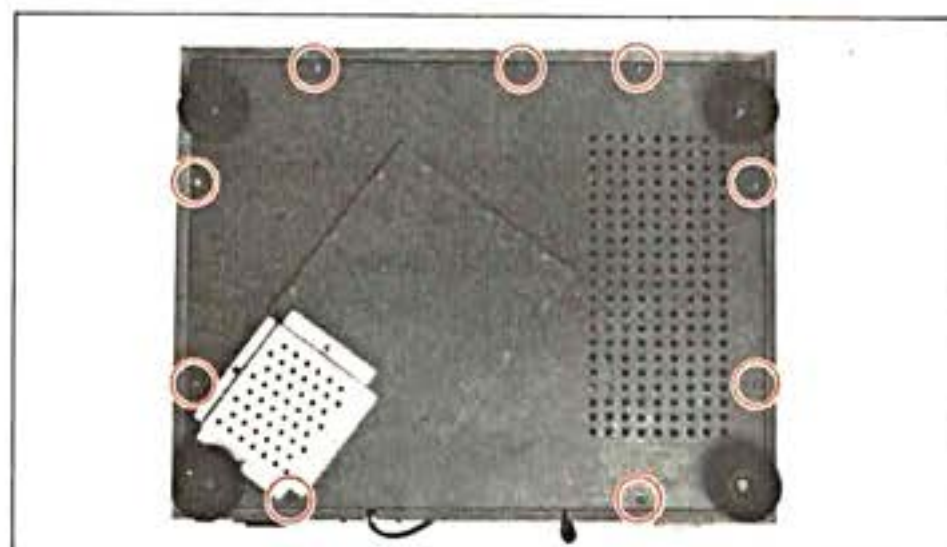


Photo 1

2. Tonearm Removal

- Remove the bottom cover. (refer to step 1)
- Remove the lead wires connected to the 5P lug terminal as shown in Fig. 1.

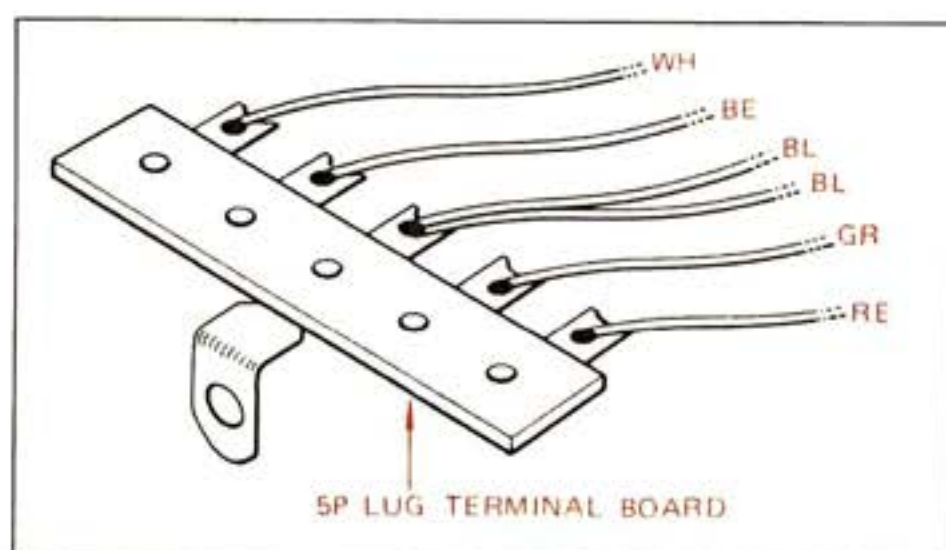


Fig. 1

- Feed arm ass'y is taken off by removing screws ① and ②.

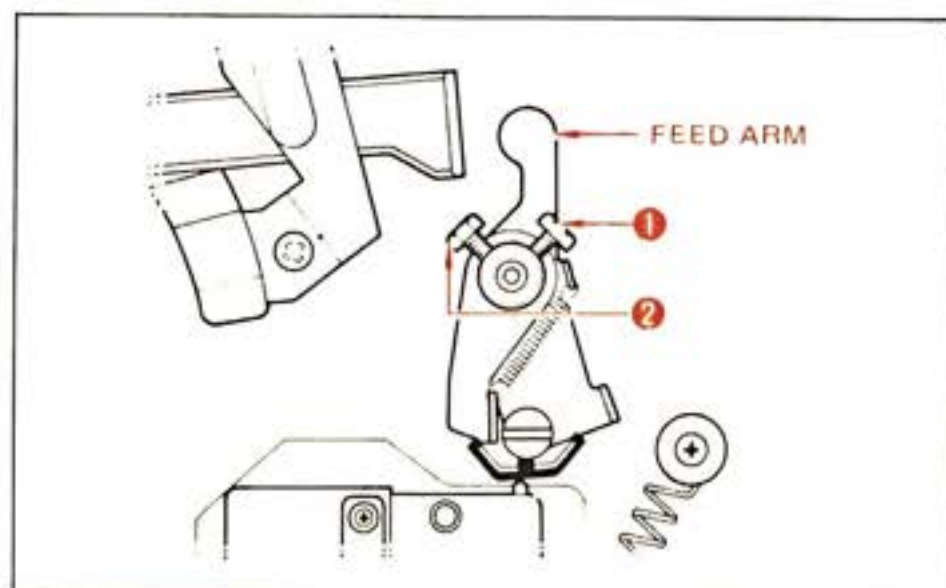


Fig. 2

- Remove the bolts ① to ③ in photo 2 with a hexagonal wrench (4mm) and remove the tonearm.

When you have changed the tonearm, do adjust the tonearm return and up and down. (Refer to Page 6).



Photo 2

3. Motor Removal

- Remove the bottom cover. (Refer to step 1)
- Remove the lead-wires connected to the control circuit board.
- Remove the screws ① to ④ and remove the motor.

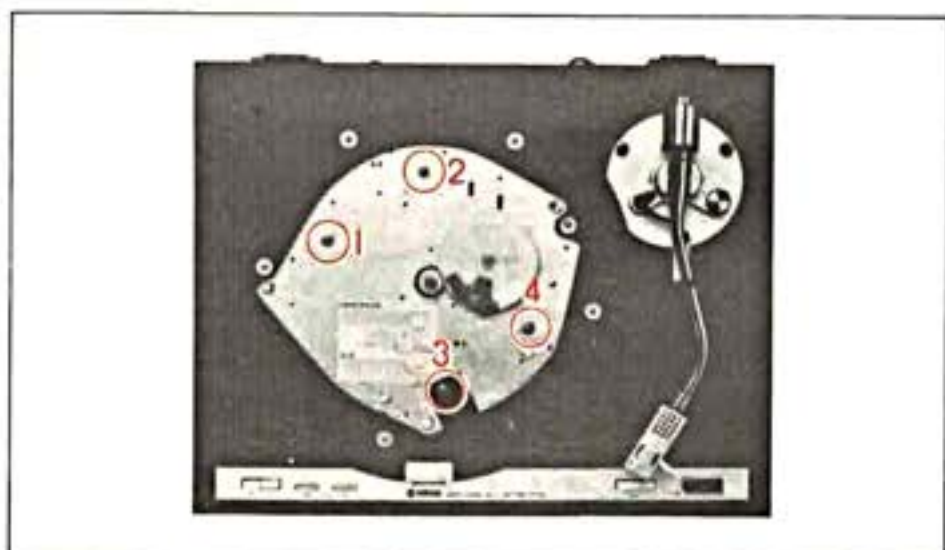


Photo 3

When mounting the motor, be careful to the followings.

- Mount the motor so that the two gears are at 47mm intervals.
- Mount the motor so that the center of toothless portion of the main gear is directed toward the platter gear.

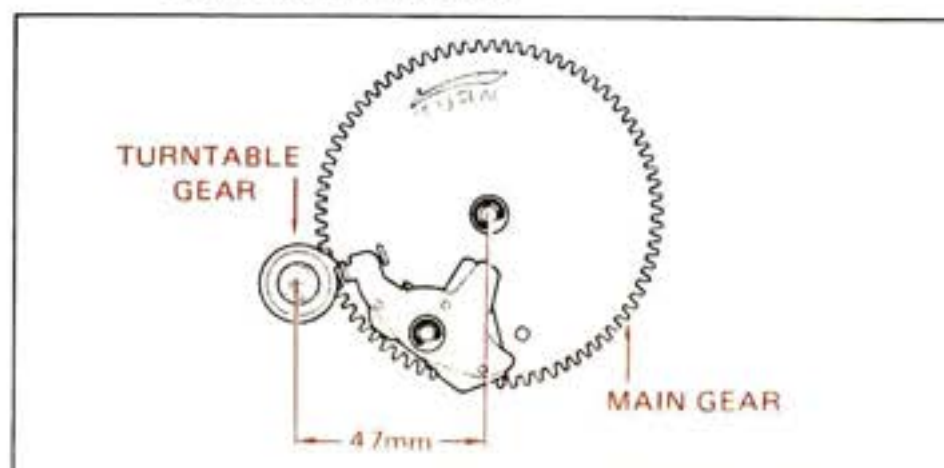


Fig. 3

4. Control Circuit Board Removal

- Remove the bottom cover. (Refer to step 1)
- Put the circuit holders ❶ to ❸ between a long nose plier in Fig. 4 and remove the control circuit board.

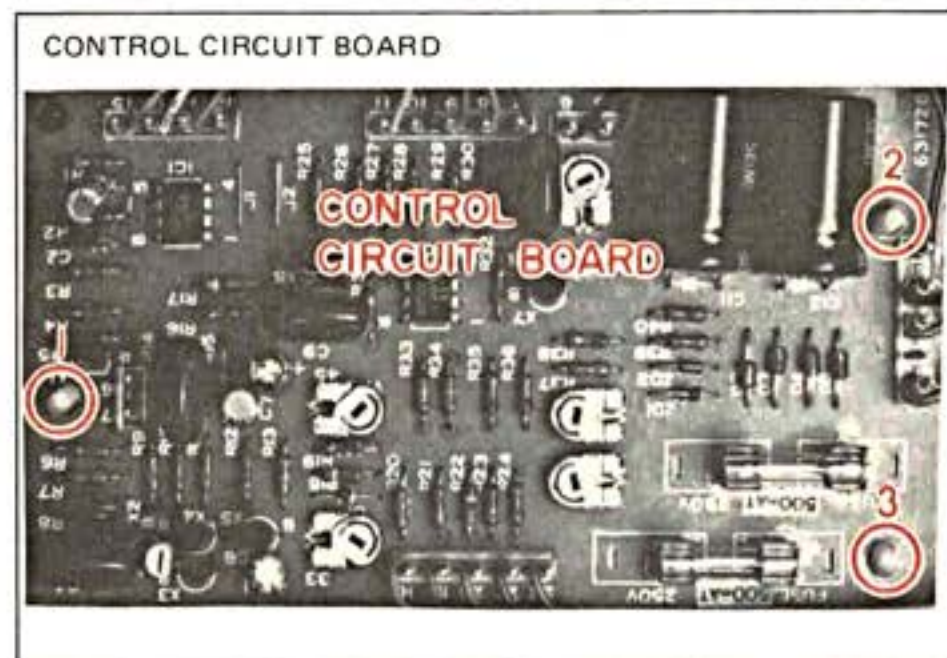


Photo 4

5. Power Circuit Board Removal

- Remove the bottom cover (Refer to step 1)
- Put the circuit holders ❶ to ❸ in photo 5 between a long nose plier in Fig. 4 and remove the power circuit board.

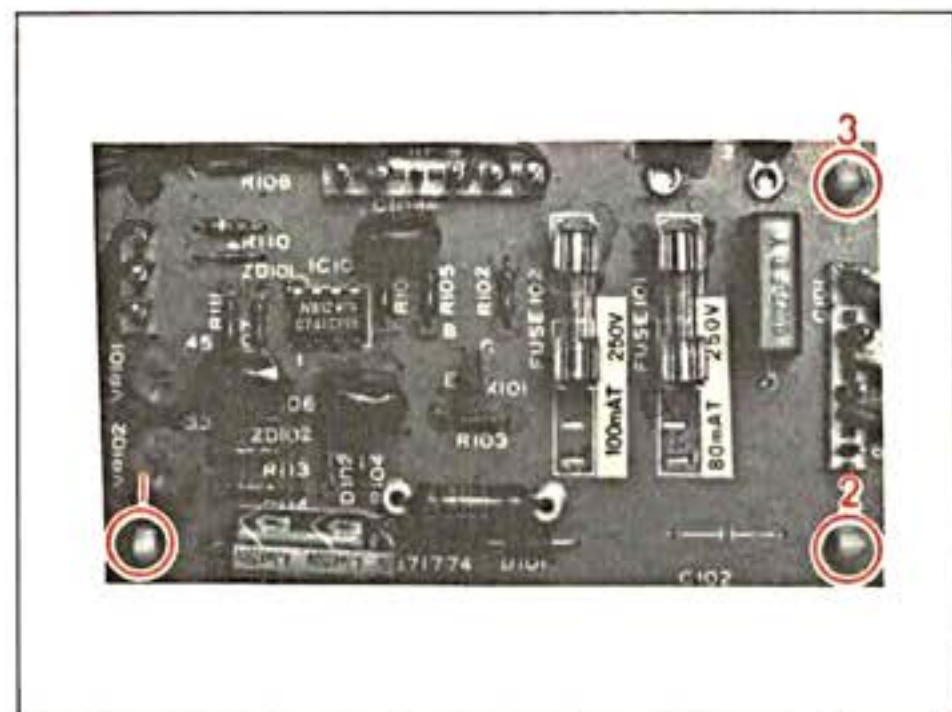


Photo 5

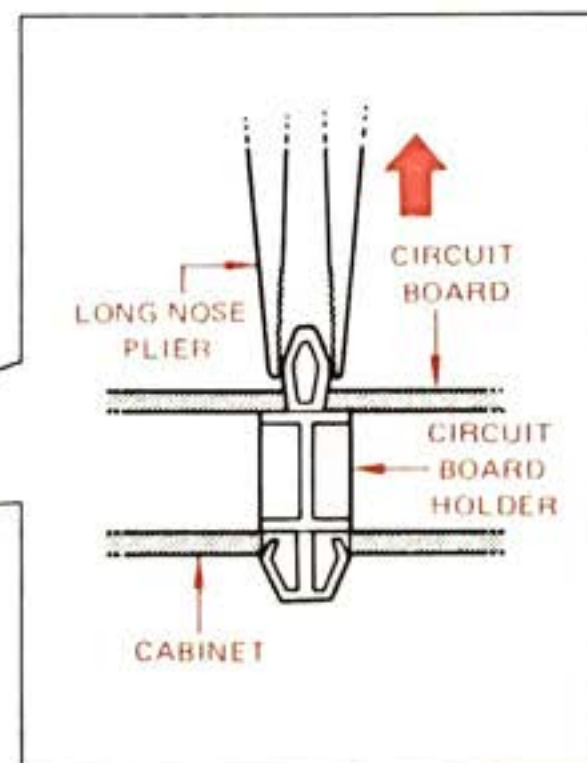


Fig. 4

6. Controls Removal

- 6-1. Removal of switch mounting board take off the screws ❶, ❷ shown in photo 6.
- 6-2. Removal of variable resistors take off the screws ❸, ❹ shown in photo 6.

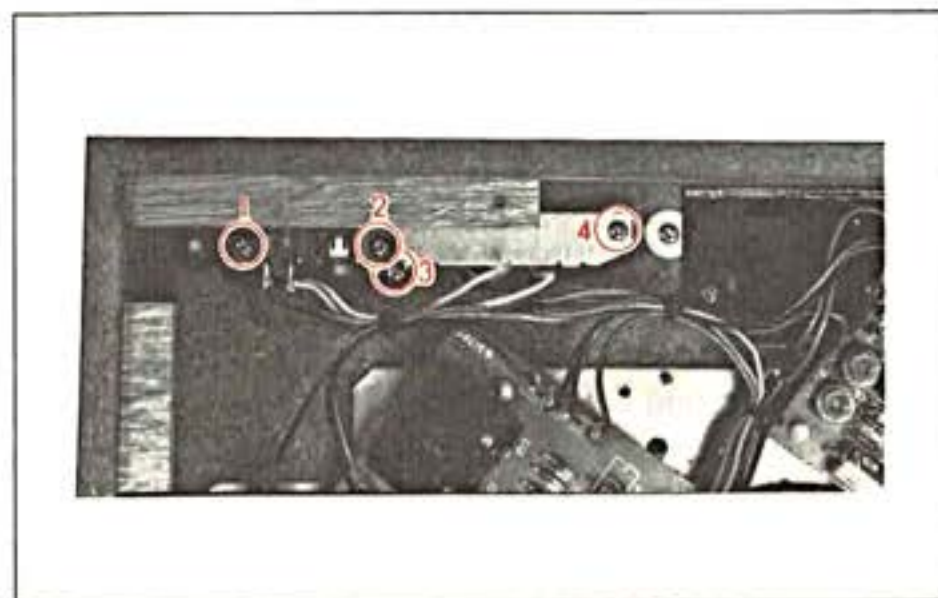


Photo 6

7. Power Transformer Removal

Remove the screws ❶ and ❷ and remove the transformer with a fixture metal.

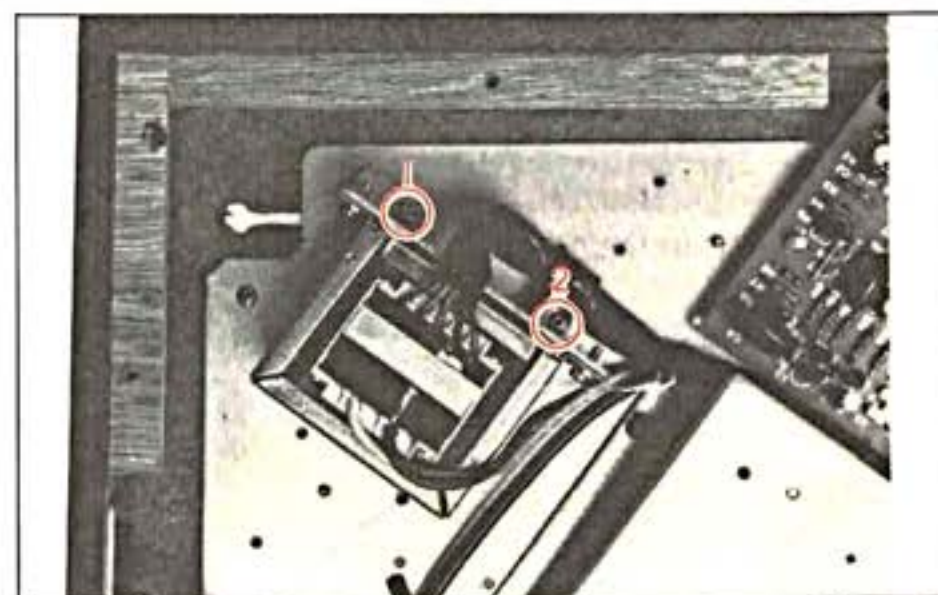


Photo 7

■ ADJUSTMENTS

I MECHANISM ADJUSTMENTS

1. Adjustment of Auto Return

If there is an excessive gap between the feed arm and the REJECT Lever, adjust the gap. (Refer to Fig. 1)

A) When there is a small gap

B) When there is an excessive gap.

1. Adjust the eccentric shaft at middle point.
2. Loosen the set screw of the feed arm and the gap between the feed arm and Reject lever becomes about 7mm and tighten the screw softly.
3. Turn the eccentric shaft and adjust the return operation.

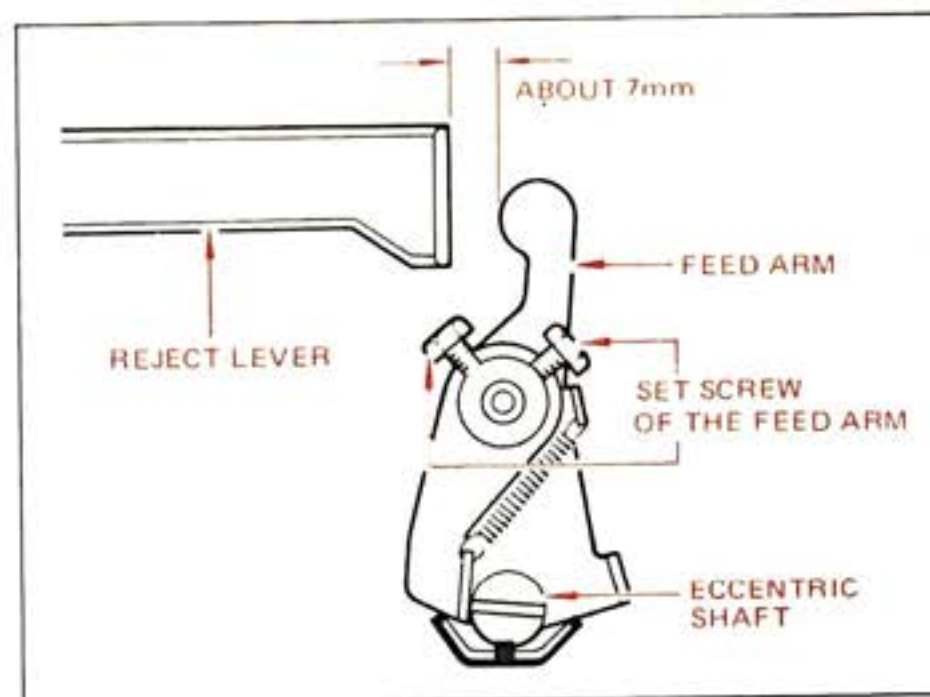


Fig. 1

2. Arm Lifter Height Adjustment

1. Remove the tonearm from the arm rest and putting it on the elevation plate, turn the main gear in 45° range adjust the set screw of the cue seesaw so that the gap between the record surface and the stylus tip becomes about 6mm.

a) Raising the stylus tip

Turn the set screw clockwise.

b) Lowering the stylus tip.

Turn the set screw counter-clockwise.

2. Turn the main gear counter-clockwise and return at the original point. Turn the screw so that the stylus tip is 4 to 10mm from Record surface.

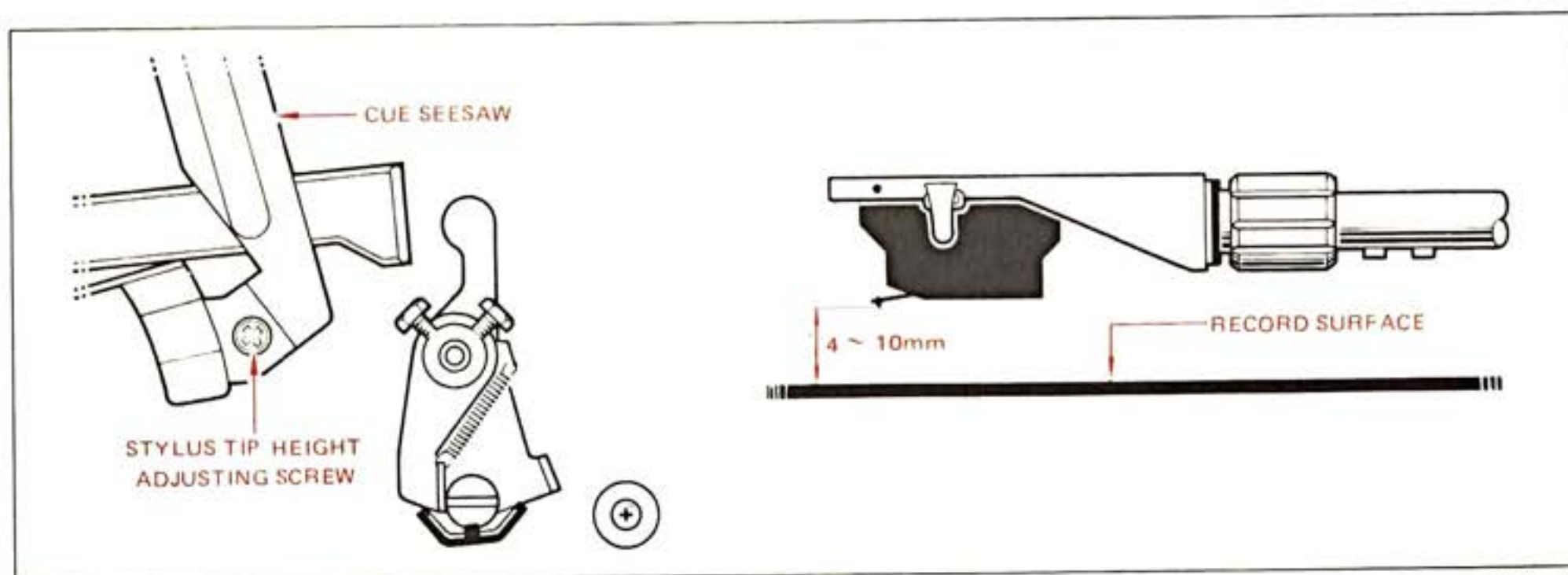


Fig. 2

II CIRCUIT BOARD ADJUSTMENTS

1. Rotational Speed Adjustment

First set the speed controls "33" and "45" on the upper surface of the body to the center of the variable range. Then, adjust VR2 and VR1 in that order so as to make the specified stroboscope stop at the respective rational speed. Adjust again, using the speed controls.

VR1 : 33 r.p.m.

VR2 : 45 r.p.m.

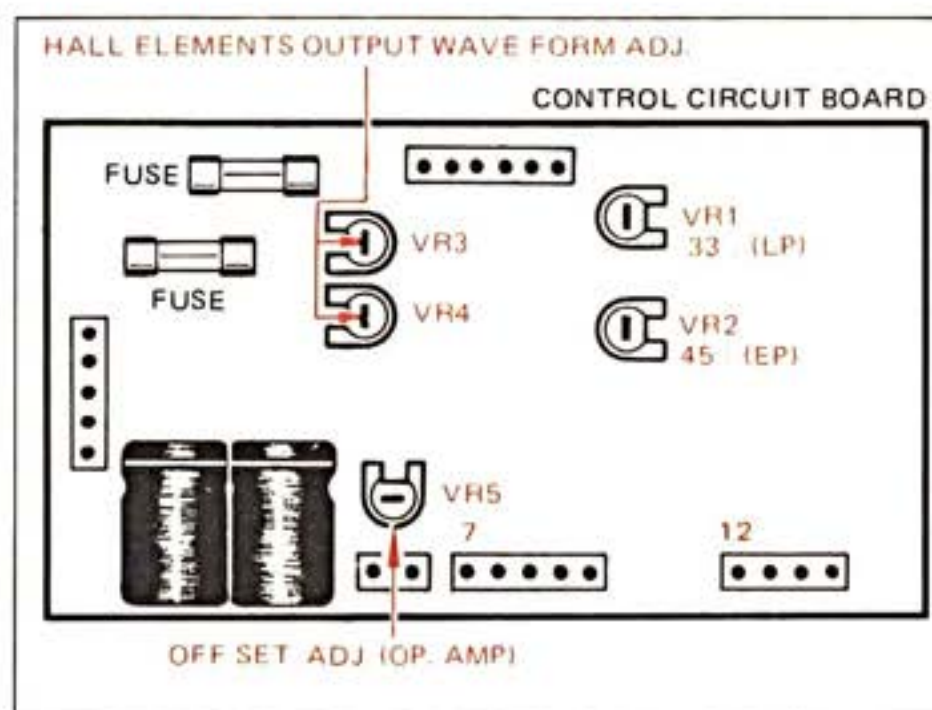


Fig. 3

2. Motor DRIVING wave from Adjustment

Adjust VR3 and VR4 in Fig. 3, connecting the oscilloscope to 7 and 12 terminals on the Control Circuit Board as shown in Fig. 3.

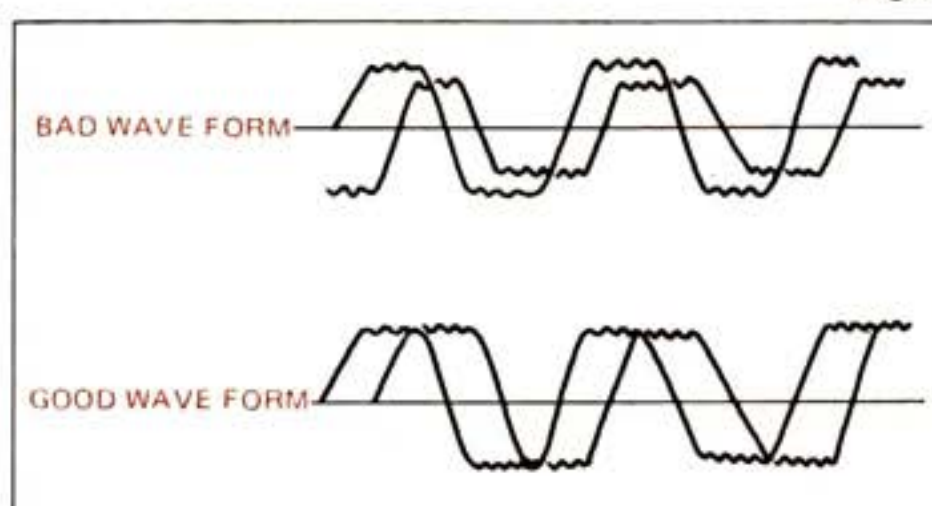
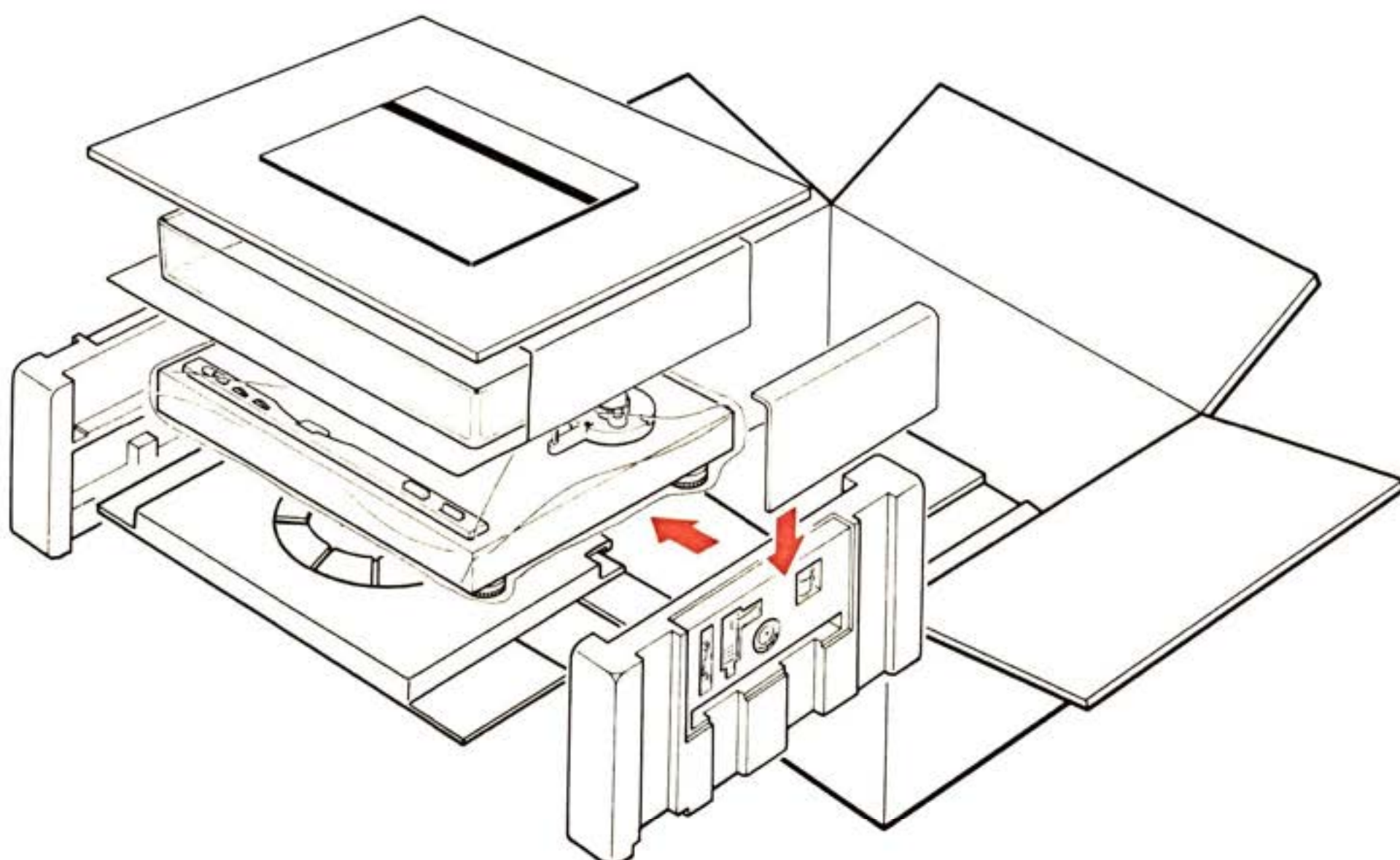
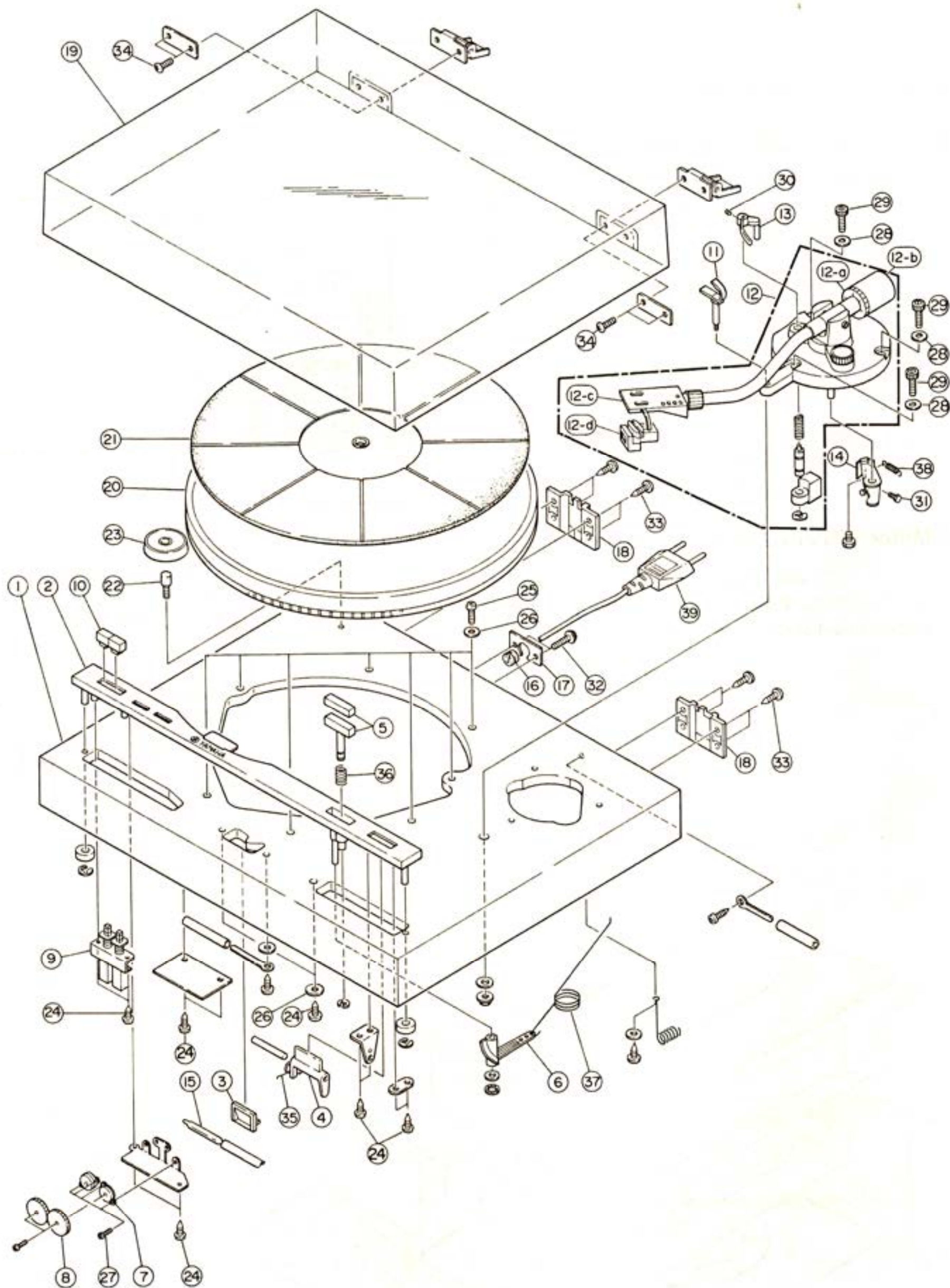


Fig. 4

■ PACKAGE INSTRUCTION





DESTINATION ABBREVIATIONS

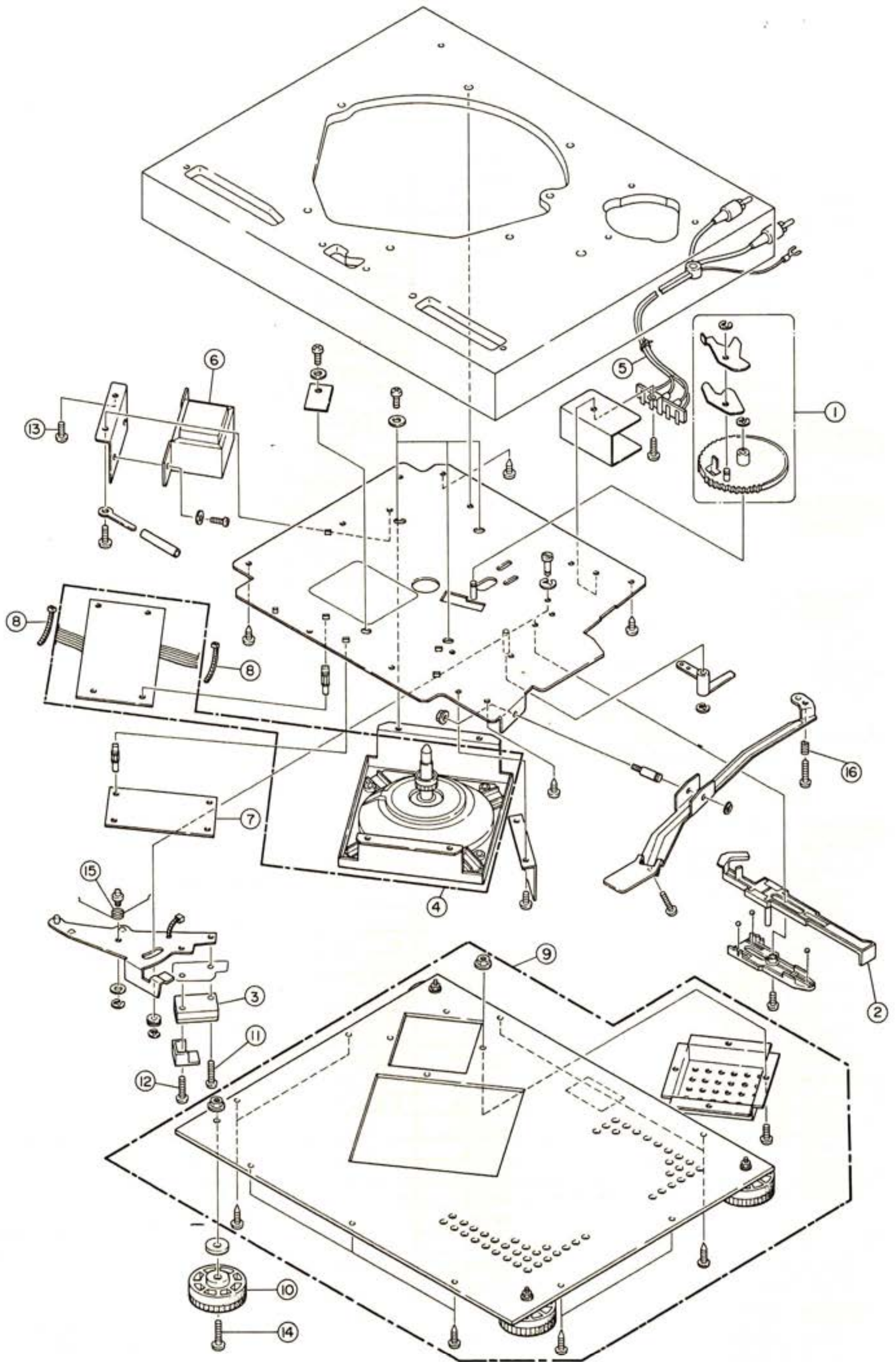
R : General G : North European A : Australian C : Canadian
U : USA B : British

※ New Parts

Ref No.	Part No.	Description		部 品 名	Markets	Remarks
※ 1	42 00 00 SX 97 20 50	Cabinet (Ebony)	846905	キャビネット	U,C	
※ 1	42 00 00 SX 97 20 60	- do. - (Century Walnut)	846905-5	"	G,R,A,B	
※ 2	42 00 00 SX 97 20 70	Control Panel	851554	コントロールパネル		

※ New Parts

Ref No.	Part No.	Description	部 品 名	Markets	Remarks
※ 3	42 00 00 SX 97 20 80	Lamp Cover 897208	ランプカバー		
※ 4	42 00 00 SX 97 20 90	Selector Lever 896646	切換えレバー		
※ 5	42 00 00 SX 97 21 00	Reject Button Assembly 896641	リゼクトボタンAss'y		
※ 6	42 00 00 SX 97 21 10	Reject Lever 896655	リゼクトレバー		
※ 7	42 00 00 SX 97 21 20	Variable Resistor 897205	ボリューム		
※ 8	42 00 00 SX 97 21 30	Knob VR 897204	V R ツマミ		
※ 9	42 00 00 SX 97 21 40	Push Switch 897209	プッシュスイッチ		
※ 10	42 00 00 SX 97 21 50	SP Botton Assembly 897202	S P ボタンAss'y		
※ 11	42 00 00 SX 97 21 60	Rest Stand 894195-2	レストダイ		
※ 12	42 00 00 SX 97 21 70	PU Assembly 851430	P U Ass'y		
※ 12-a	42 00 00 SX 97 21 80	Counter Ring	カウンターリング		
※ 12-b	42 00 00 SX 97 21 90	Main Weight	メインウエイト		
※ 12-c	42 00 00 SX 97 22 00	Head Shell	ヘッドシェル		
12-d	42 00 00 SQ 06 02 10	Cartridge CG-6600	カートリッジ	Only Rand A markets	
※ 13	42 00 00 SX 97 22 20	Elevation Plate 896090	エレベーションプレート		
※ 14	42 00 00 SX 97 22 40	Feed Arm Assembly 2 896839	送りアームAss'y 2		
※ 15	42 00 00 SX 97 23 70	Neon Lamp 895719-2	ネオンランプ		
※ 16	42 00 00 SX 97 23 90	SR Bushing 891568-0	S R ブッシング		
※ 17	42 00 00 SX 97 24 00	AC Cord Stopper 892624-2	電源止め金具		
18	42 00 00 SX 97 14 00	Lock Plate 895259	ロックプレート		
19	42 00 00 SX 97 14 10	Dust Cover Assembly 851134-4	ダストカバーAss'y		
※ 20	42 00 00 SX 97 24 40	Turn Table 620044	ターンテーブル		
※ 21	42 00 00 SX 97 24 50	Turn Table Seat 871293-1	ターンテーブルシート	U	
※ 21	42 00 00 SX 97 24 60	— do. — 871293	〃	C,G,R,B,A	
※ 22	42 00 00 SX 97 24 70	Adaptor Shaft 890097	アダプター軸		
※ 23	42 00 00 SX 97 24 80	EP Adaptor 890876	E P アダプター		
24	42 00 00 Ei 03 00 80	Screw BT + 3 x 8			
25	42 00 00 Ei 03 01 60	Screw BT + 3 x 16			
26	42 00 00 EV 90 03 20	Washer FW $\phi 3.2 \times \phi 13 \times t0.8$			
27	42 00 00 EA 02 00 40	Screw FM + 2 x 4			
28	42 00 00 SX 97 15 00	Washer BW $\phi 4.5 \times \phi 9.8 \times t0.5$			
29	42 00 00 EZ 00 04 80	Bolt M4 x 18	六角孔付ボルト		
30	42 00 00 SX 97 15 10	Screw FT — 2.6 x 4			
31	42 00 00 EZ 00 08 70	Bolt M3 x 6			
32	42 00 00 SX 97 15 40	Screw TPM + 3 x 14			
33	42 00 00 SX 97 15 50	Screw WM + 3.1 x 16			
34	42 00 00 ED 34 00 80	Screw Truss + 4 x 8			
35	42 00 00 SX 97 12 50	Click Spring 896707	クリックバネ		
36	42 00 00 SX 97 13 10	Button Spring 892084	ボタンスプリング		
※ 37	42 00 00 SX 97 25 10	REJ Spring 890364-2	REJ スプリング		
※ 38	42 00 00 SX 97 25 20	ARM Spring E801553	アームバネ		
※ 39	42 00 00 SX 97 23 00	Power Cord 892435-5	電源コード	U,C,R	
※ 39	42 00 00 SX 97 23 10	— do. — 895617	〃	G	
※ 39	42 00 00 SX 97 23 20	— do. — 870193	〃	B	
※ 39	42 00 00 SX 97 23 30	— do. — 897772	〃	A	
	42 00 00 KB 00 10 10	Fuse 0.5A, 250V 704395	ヒューズ 0.5A、250V	U,C	
	42 00 00 KB 00 07 10	— do. — 893791-8	〃	G,B,A	
	42 00 00 KB 00 03 10	— do. — 897790	〃	R	
	42 00 00 SX 97 25 30	Fuse 0.1A, 250V 704395-1	ヒューズ 0.1A、250V	U,C	
	42 00 00 KB 00 06 10	— do. — 893791-7	〃	G,R,B,A	
※	42 00 00 SX 97 23 40	Spark Killer Cap. 893088	スパークキラーコンデンサ	U	
※	42 00 00 SX 97 23 50	— do. — 895097	〃	C	
※	42 00 00 SX 97 23 60	— do. — 892428-2	〃	G,R,B,A	



✦ New Parts

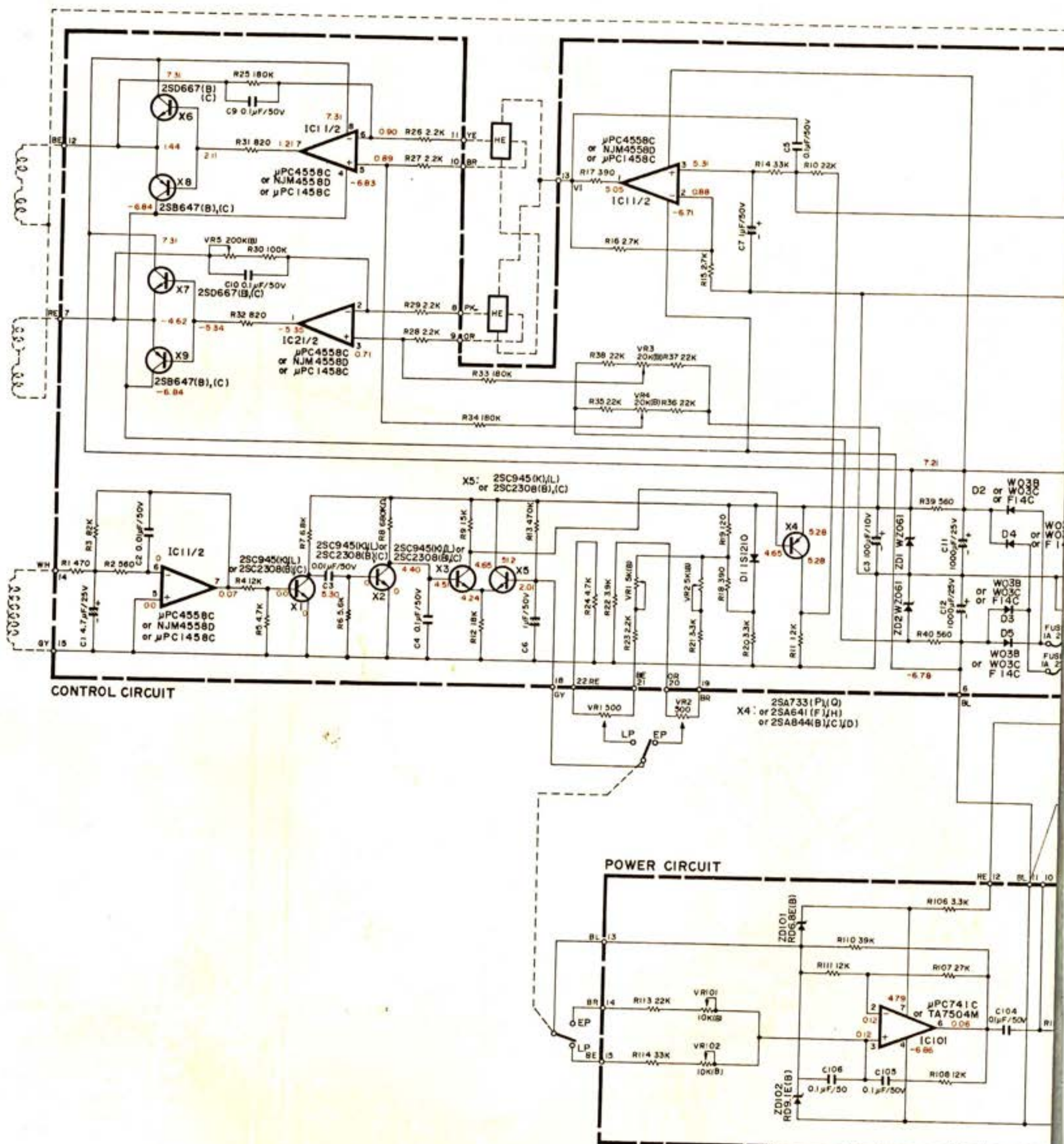
Ref No.	Part No.	Description	部 品 名	Markets	Remarks
✦ 1	42 00 00 SX 97 20 10	R Gear Assembly 2 895249	RギヤーAss'y 2		
✦ 2	42 00 00 SX 97 20 20	Operation Arm 870933-1	作動アーム		
✦ 3	42 00 00 SX 96 11 80	Micro Switch 891340-1	マイクロスイッチ	U,C	
✦ 3	42 00 00 SX 97 20 30	- do. - 895430	"	G,R,A	
✦ 4	42 00 00 SX 97 20 40	D. D. Motor DDM-5U-F32	D. D モーター		
✦ 5	42 00 00 SX 97 22 30	5P Lug Terminal Assembly 896528	5 P ラグバンAss'y		
✦ 6	42 00 00 SX 97 22 50	Power Transformer 871724	電源トランス	U,C	
✦ 6	42 00 00 SX 97 22 60	- do. - 871725	"	G	
✦ 6	42 00 00 SX 97 22 70	- do. - 871726	"	B,A	
✦ 6	42 00 00 SX 97 22 80	- do. - 871727	"	R,E	
✦ 7	42 00 00 SX 97 22 90	Power Circuit Board 871775	パワーシート	U	
✦ 7	32 00 00 NA 99 01 80	- do. - 871983	"	C	
✦ 7	32 00 00 NA 99 01 90	- do. - 871988	"	G	
✦ 7	32 00 00 NA 99 02 00	- do. - 871989	"	B	
✦ 7	32 00 00 NA 99 02 10	- do. - 871990	"	R	
✦ 7	32 00 00 NA 99 02 20	- do. - 871991	"	A	
✦ 8	42 00 00 SX 97 23 80	Cord Stopper 894408	ワイヤーファスナー		
✦ 9	42 00 00 SX 97 24 10	Bottom Plate Assembly 871889	底板Ass'y		
✦ 10	42 00 00 SX 97 24 20	Foot 896732-1	フット	U	
✦ 10	42 00 00 SX 97 24 30	- do. - 896732	"	C,G,R,B,A	
✦ 11	42 00 00 EA 02 61 40	Screw FM ⊕ 2.6 x 14			
✦ 12	42 00 00 EA 02 61 60	Screw FM ⊕ 2.6 x 16			
✦ 13	42 00 00 Ei 03 00 80	Screw BT ⊕ 3 x 8			
✦ 14	42 00 00 EA 23 01 40	Screw FM ⊕ 3 x 14			
✦ 15	42 00 00 SX 97 24 90	Spring (1) 895251	スプリング(1)		
✦ 16	42 00 00 SX 97 25 00	Lock Spring E813681	ロックバネ		
	42 00 00 SX 97 22 90	Power Circuit Board			
✦ IC101	42 00 00 iG 00 10 40	IC TA7504M		Universal service part	
✦ TR101	42 00 00 iC 99 01 60	Transistor 2SC1278		- do. -	
D101	42 00 00 iH 99 00 10	Diode F14C		- do. -	
D101	42 00 00 iH 00 03 30	Diode 1S1887		- do. -	
D102	42 00 00 iF 99 00 40	Diode 1S953		- do. -	
D102	42 00 00 iF 00 00 40	Diode 1S1555		- do. -	
✦ ZD101	42 00 00 iF 99 04 30	Zener Diode RD 6.8E (B)			
ZD102	42 00 00 iF 99 01 80	Zener Diode RD 9.1E (B)			
	32 00 00 NA 99 01 60	Control Circuit Board		U,C	
	32 00 00 NA 99 01 70	- do. -		C,G,R,B,A	
IC1 IC2	42 00 00 iG 99 00 40	IC NJM4558D		Universal service part	
TR1, 2 TR3, 5	42 00 00 iC 09 45 00	Transistor 2SC945		- do. -	
TR4	42 00 00 iA 08 44 00	- do. - 2SA844			
TR4	42 00 00 iA 07 33 00	- do. - 2SA733			
TR4	42 00 00 iA 06 41 90	- do. - 2SA641			
TR6, 7	42 00 00 iD 06 67 10	- do. - 2SD667			
TR8, 9	42 00 00 iB 06 47 10	- do. - 2SB647			
ZD1, 2	42 00 00 iF 00 03 20	Zener Diode WZ061			
✦ D1	42 00 00 iF 99 04 40	Diode 1S1210			
D2, 3 4, 5	42 00 00 iH 99 00 10	Diode F14C			

SCHEMATIC DIAGRAM

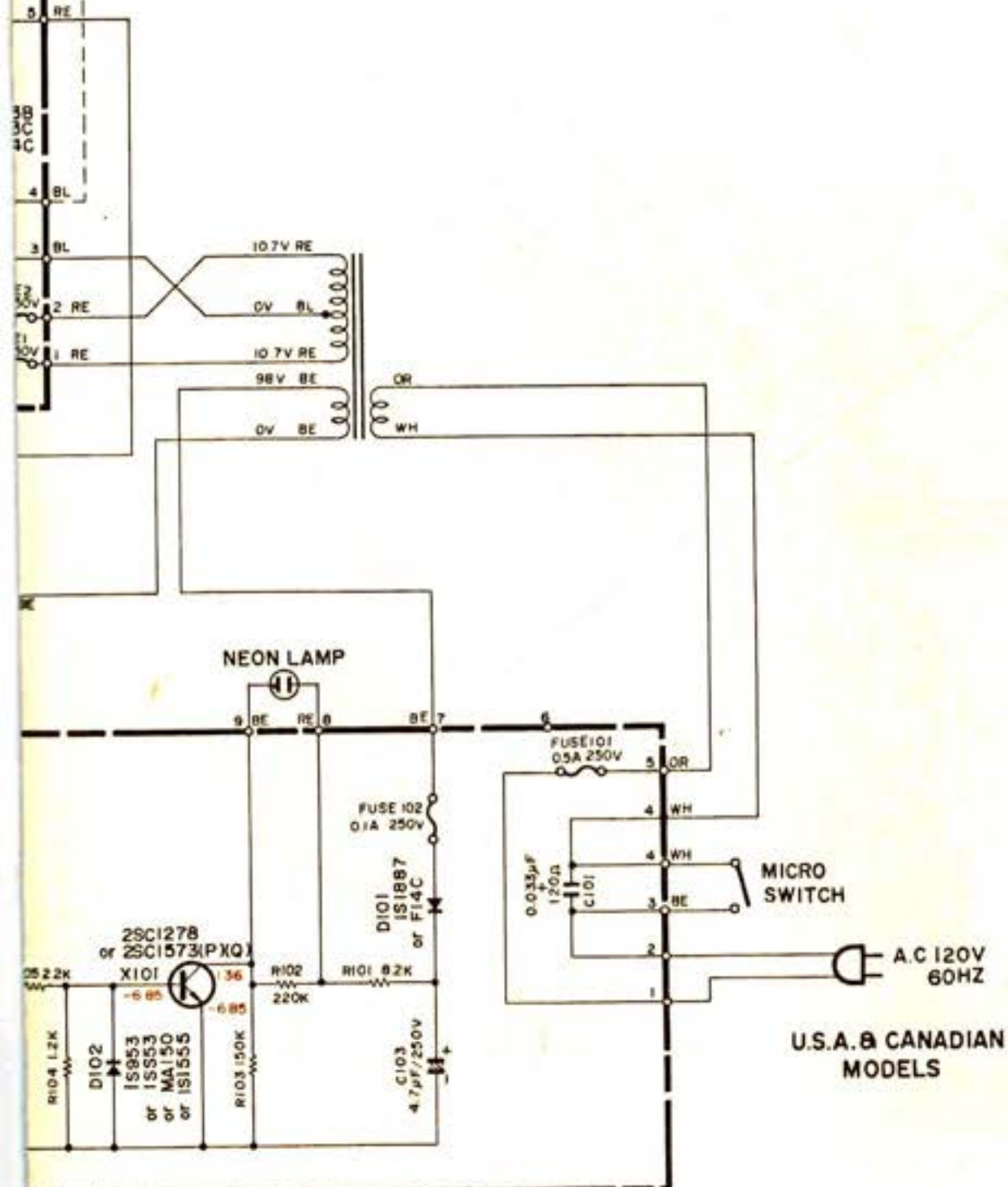
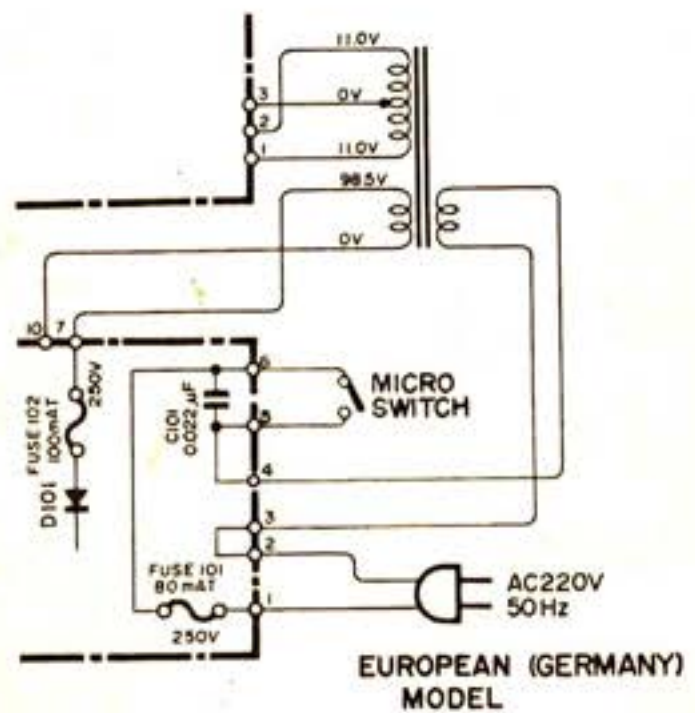
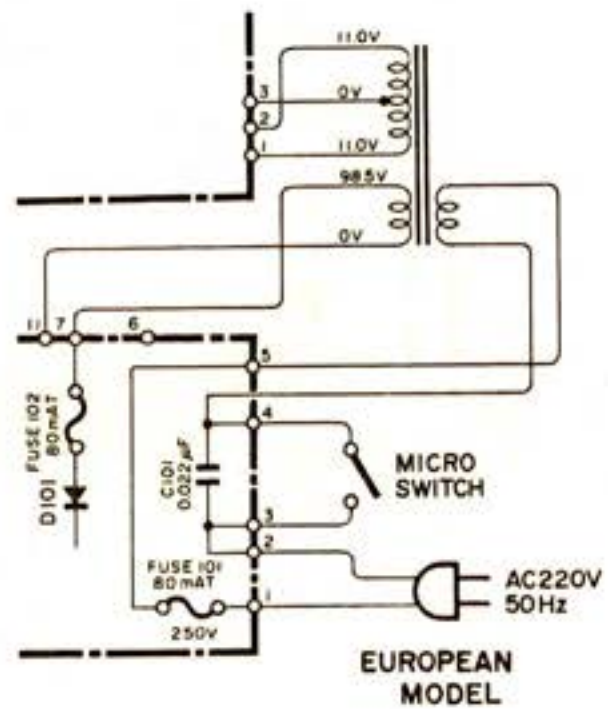
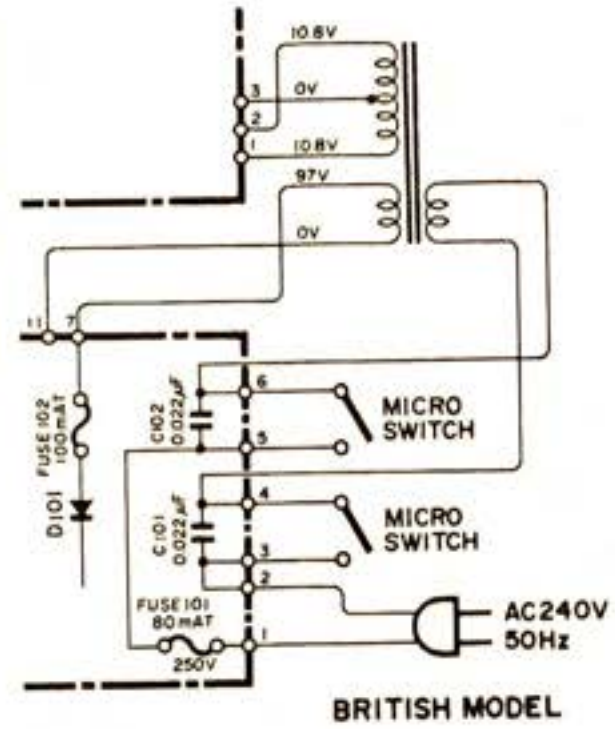
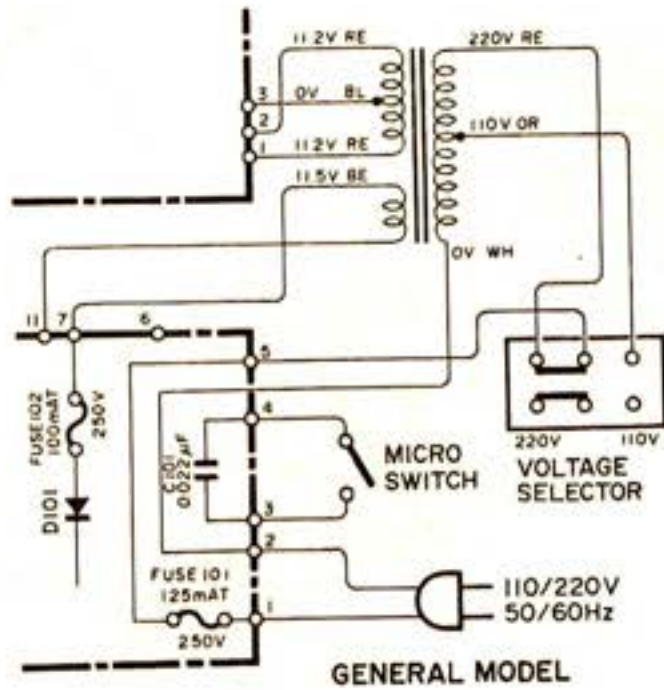
A

B

C



D E F G



1

2

3

4

5

■ WIRING/PRINTED CIRCUIT BOARDS

