SERVICE MANUAL

YP-511

STEREO TURNTABLE

SINCE 1887 YAMAHA

NIPPON GAKKI CO., LTD. HAMAMATSU, JAPAN

① 19 Printed in Japan 10-76

CONTENTS

SPECIFICATIONS

■ **PHONOMOTOR**

Driving system	Direct drive
Motor	DC servo motor
Turntable	30 cm aluminum die casting (weight 1.6 kg), attached with stroboscope
No. of revolutions	33-1/3, 45 rpm, 2 speeds
Regulating range of no. of revolutions	Not less than ±6%, each no. of revolutions to be regulated independently
SN ratio	−55 dB
Wow flutter	Not more than 0.04% (W.R.M.S)

■ **TONEARM**

Type	S static balance type
Tracking error angle	+2.7°, −1°
Effective length	222 m/m
Total length	295 m/m
Overhang	17 m/m
Offset angle	23°
Net weight range of cartridge	4 ∼13g
Head shell	EIA removable and attachable
Needle pressure regulating mechanism	Direct reading method 0 — 3g (0.5g step)
Regulating range of arm height	+3, −1.5 m/m
Inside force canceller	Direct reading method by spring

■ **AUXILIARY MECHANISMS**

Large size rubber insulator
Turntable with stroboscope
Freestop attachable acryl cover
Armlifter

■ **POWER SOURCE AND OTHERS**

Supplied electric power	AC 120V ∼ 240V, 50/60 Hz
Consumed power	3W (120V, 220V, 240V)
Outer dimensions (W x H x D)	470 x 150 x 378
Weight	7.5 kg

■ **ACCESSORIES**

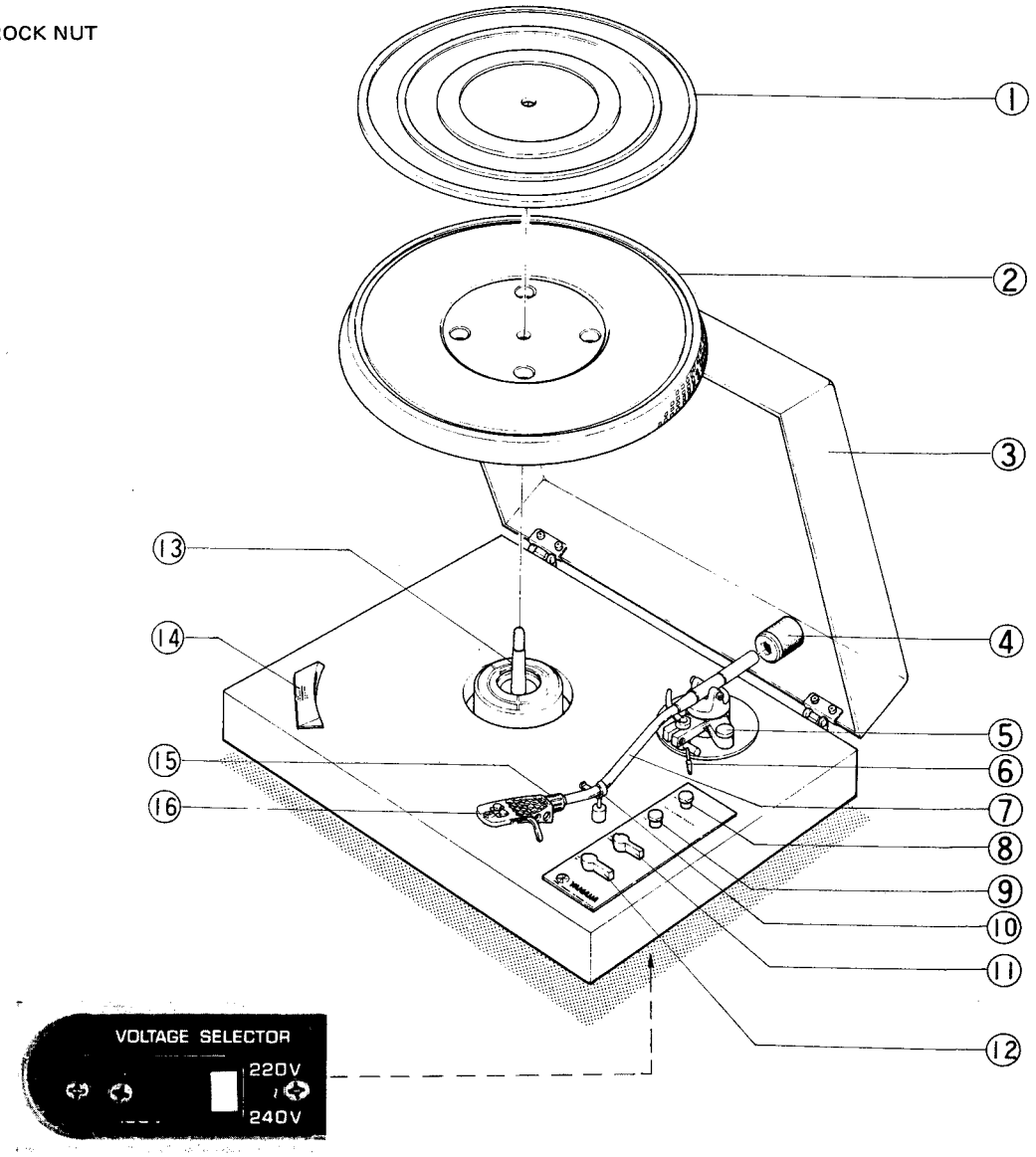
EP adaptor
Hexagonal wrench

—The above specifications and dimensions are subject to change without notice for improvement.

Net weight range of cartridge attached to YP-511 is 4∼13g. Weight of attached head shell is 8g so that gross weight up to 21g can be applicable. When using other head shell, determine needle position to fulfill the above and the specified over-hang of YP-511.
(Note) Weights of Yamaha head shells separately vended are:
HS-700 . . . . . 8g
HS-600s 9.6g

INTERNAL VIEW

❶ RUBBER SHEET
❷ TURNTABLE
❸ DUST COVER
❹ MAIN WEIGHT
❺ INSIDE FORCE CANCELLER
❻ ARM LIFTER
❼ TONE ARM
❽ SPEED CONTROL (45 r.p.m)
❾ SPEED CONTROL (33-1/3 r.p.m)
❿ ARM REST
⓫ SPEED SELECTOR LEVER
⓬ PLAY LEVER
⓭ CENTER SHAFT (MOTOR)
⓮ STROBOSCOPE
⓯ HEAD SHELL ROCK NUT
⓰ HEAD SHELL



PARTIAL DISASSEMBLY

1. METHOD OF REMOVING POWER SOURCE SHEET

a. Remove bottom plate by removing screws 1 through 8 of Photo 1 attached on the rear side of the turntable.

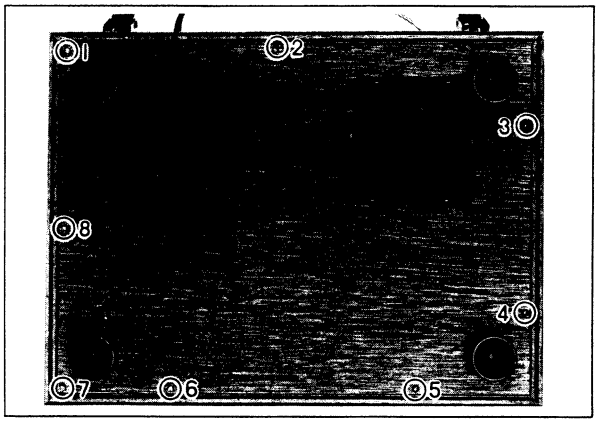


Photo 1

b. Remove sheet by removing sheet securing screws 1 through 4 of Photo 2. At this time, be careful not to mis-connect leads connected to the sheet.

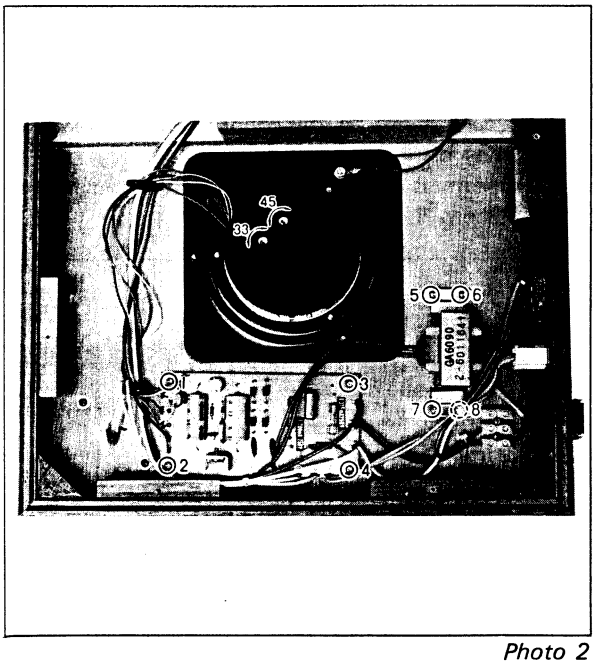


Photo 2

2. METHOD OF REMOVING POWER TRANSFORMER

a. Remove bottom plate (refer to step 1.a).

b. Remove power transformer by removing screws 5 to 8 of Photo 2.

3. METHOD OF REMOVING MOTOR ASSEMBLY

a. Draw out rubber sheet and turntable from center shaft.

b. Remove leads connecting power source sheet to motor portion previously.

c. Remove securing screws 1 through 3 on the front side of motor assembly as shown in Photo 3. (Photo 3, 4)

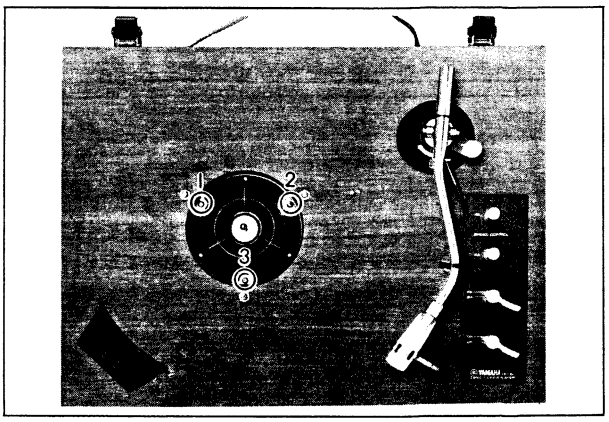


Photo 3

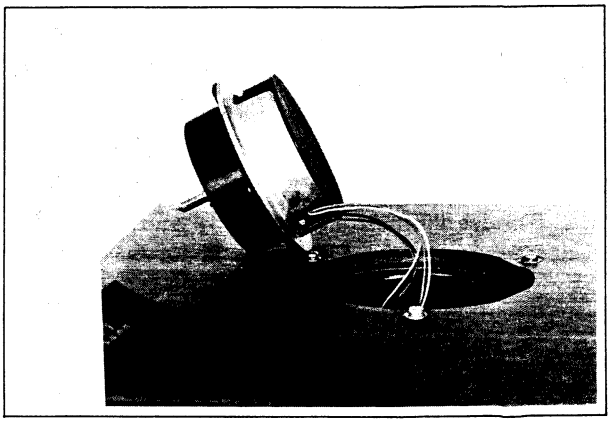


Photo 4

4. METHOD OF REMOVING CONTROL PANEL ASSEMBLY

a. Remove bottom plate (refer to step 1.a)

b. Remove control assembly by removing screws 1 and 2 in Photo 5.

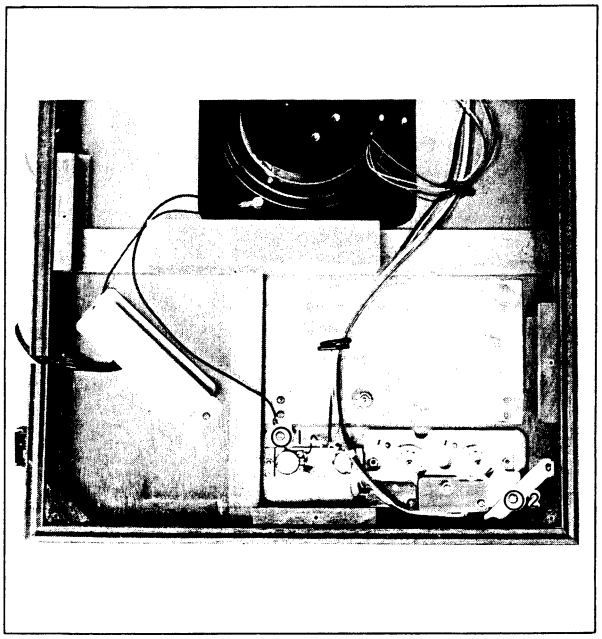


Photo 5

5. METHOD OF REMOVING STROBOSCOPE ILLUMINATING LAMP

a. Remove illuminating lamp with securing cover by removing screws 1 and 2 of Photo 6.

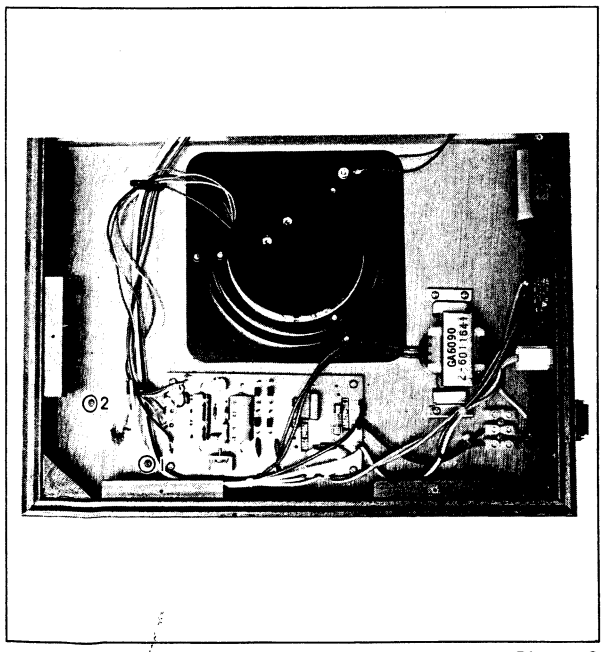


Photo 6

6. METHOD OF REMOVING TONEARM

a. Remove shield cover by removing screws 1 and 2 of the rear side of the turntable as shown in Photo 7.

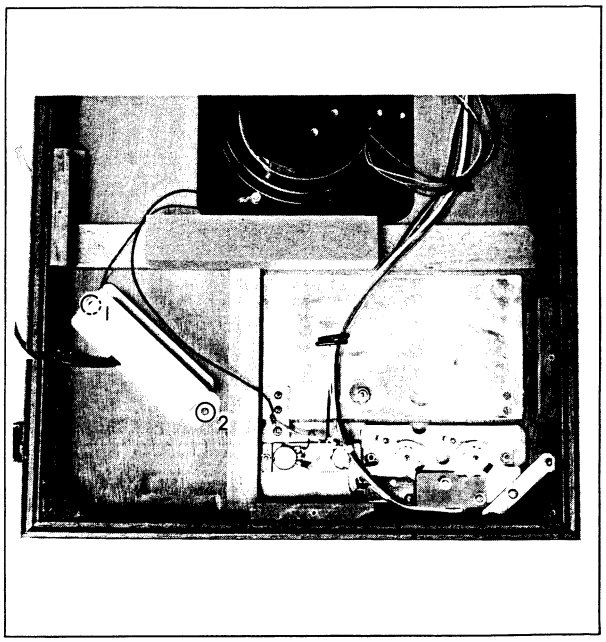


Photo 7

b. Disengage soldering of terminal plate in Photo 8. Be careful not to mis-connect leads in terms of mating colors.

c. Tonearm is ready for removal by removing nut of Photo 8.

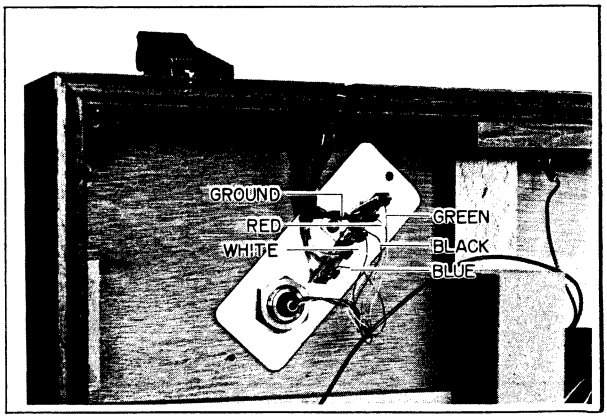
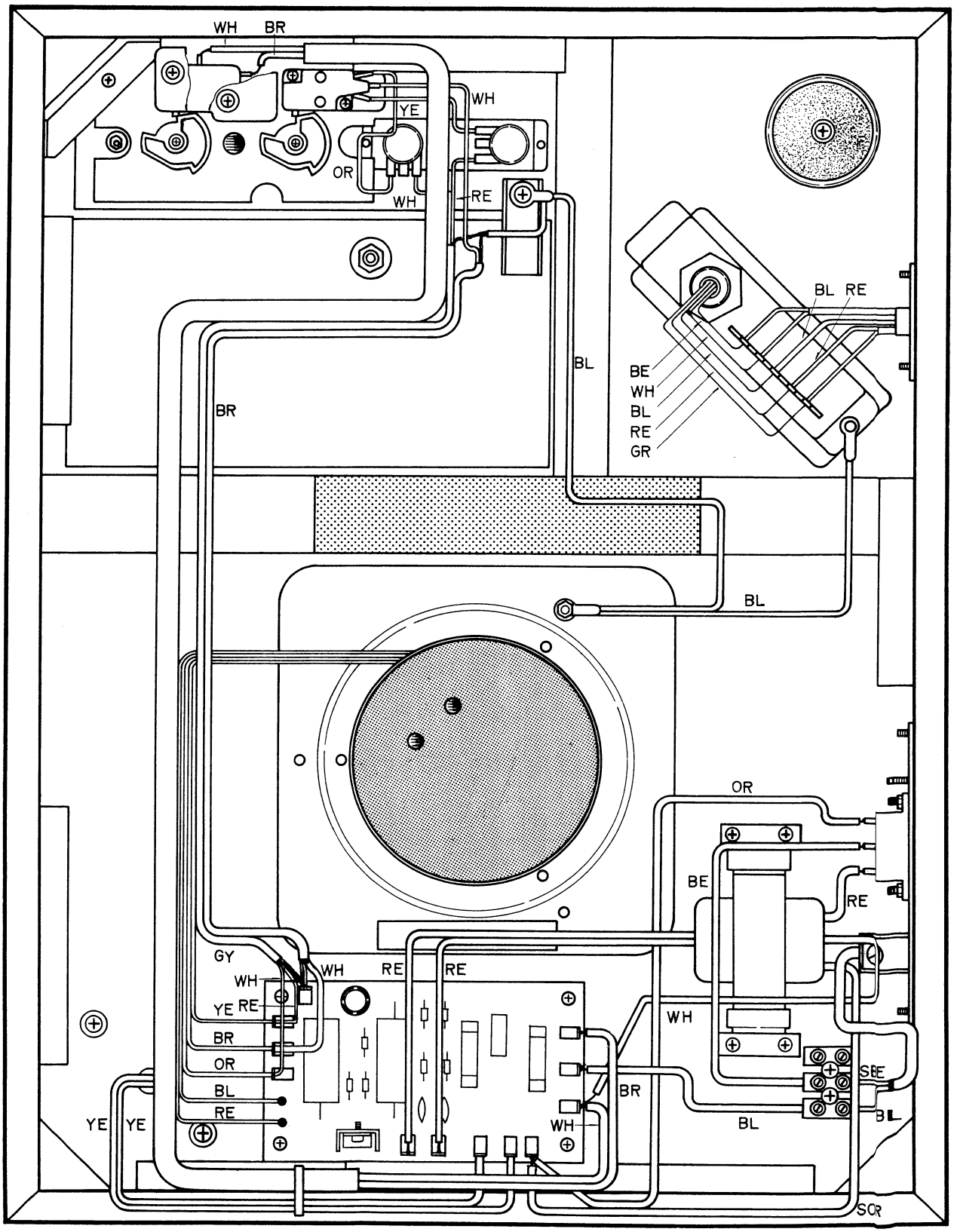


Photo 8

WIRING DIAGRAM



ADJUSTMENT

1. SPEED ADJUSTMENT

Motor revolution can be changed within ±6% by regulating SPEED CONTROL knob. When returning to normal speed, regulate CONTROL knob observing stroboscope.

2. CHECK OF POWER SOURCE VOLTAGE

Check applied voltage to motor whether being 18±1V between +B and E of power source sheet. Provided that AC 100V should be kept within ±3V (refer to Fig. 1).

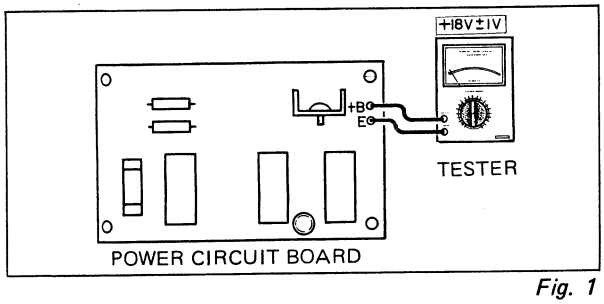


Fig. 1

3. MOTOR ADJUSTMENT

Regulate motor by each speed regulating resistor attached at the bottom of motor, when motor is changed or motor speed is excessively shifted. This regulation will determine center position of allowable SPEED CONTROL range ±6% (refer to Fig. 1).

* This regulation shall be made after Clause 2. Check of Power Source Voltage.

i) Turn power source switch (PLAY lever) on.
ii) Position SPEED CONTROL knob at the mechanical neutral.
iii) Regulate semi-fixed VR situated at the bottom of motor such that stroboscopic stripes become stationary.

* In regulating pitch by stroboscope, note that pitch fluctuates under the following condition;

1) At the time of PLAY, whether needle is placed on the disk or not.
2) When needle is placed, whether it is on outer or inner position.

As the above, stroboscopic stripes may fluctuate depending on a load, but the tolerance of 0.2% (12 divisions on stroboscope scale) is allowed to be within the specified limit.

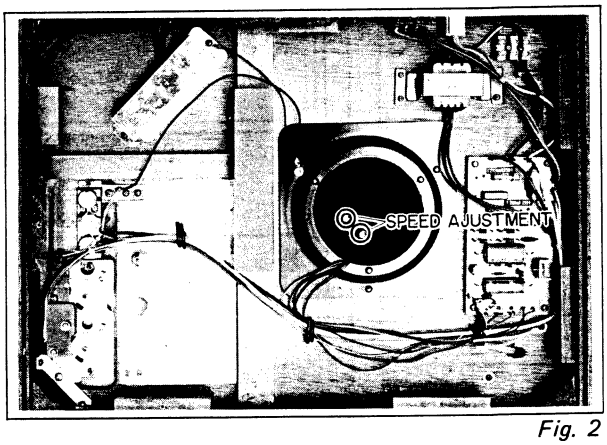
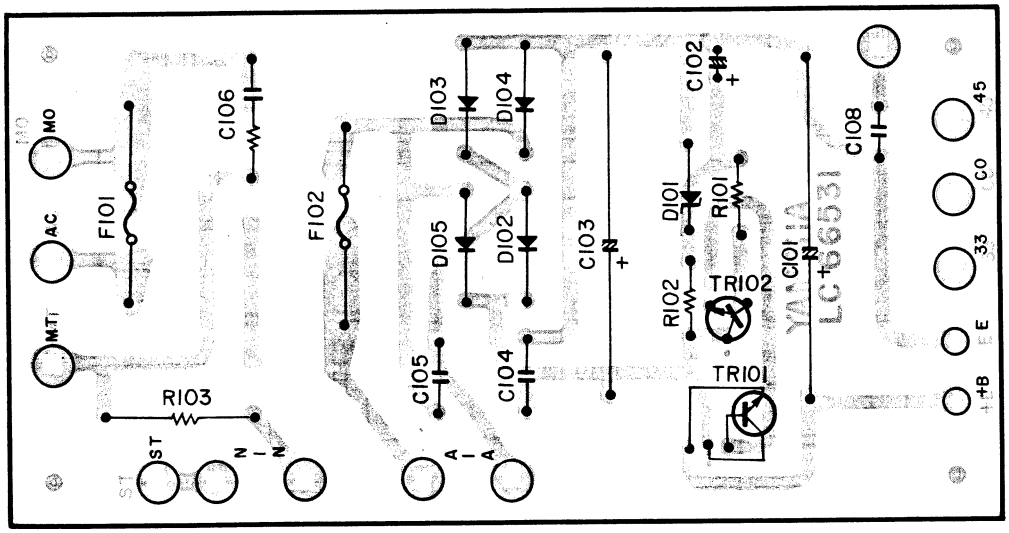
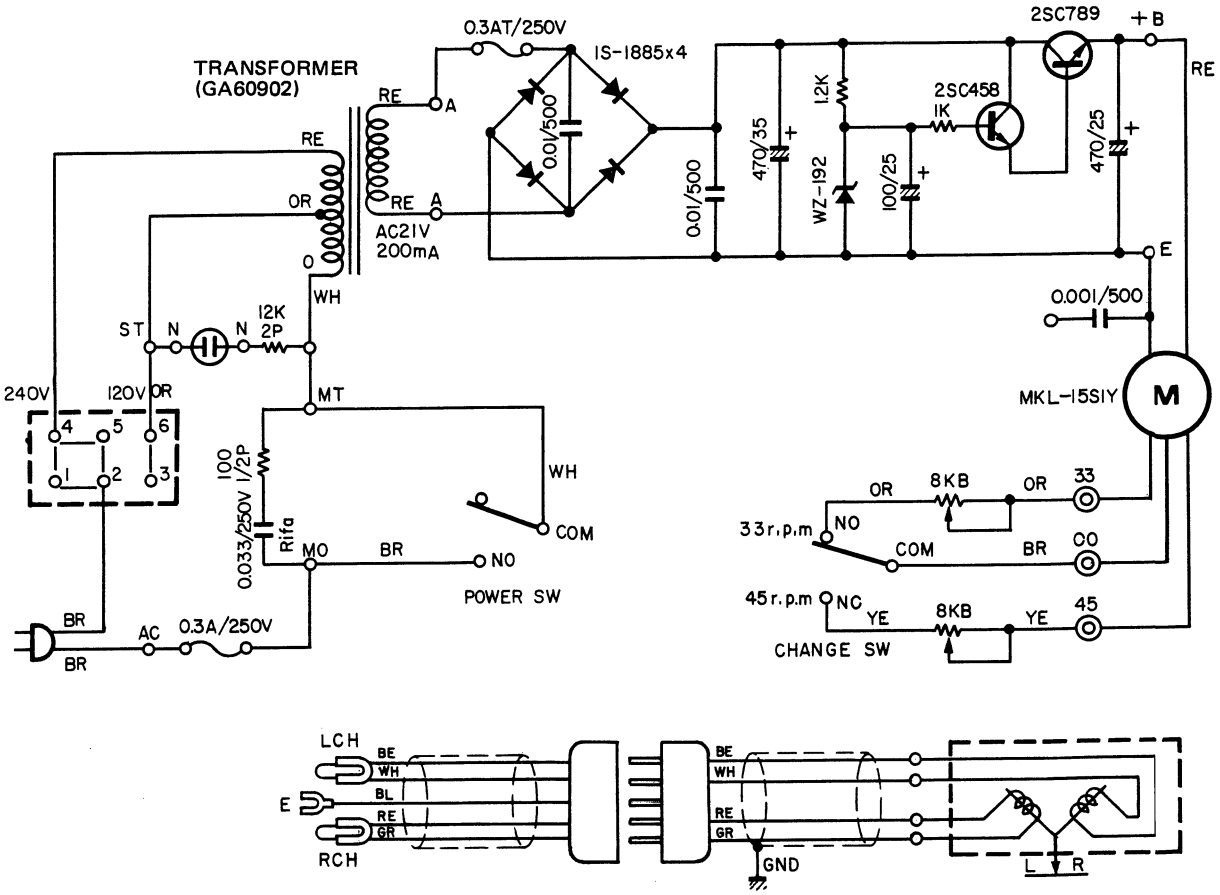


Fig. 2

POWER CIRCUIT BOARD

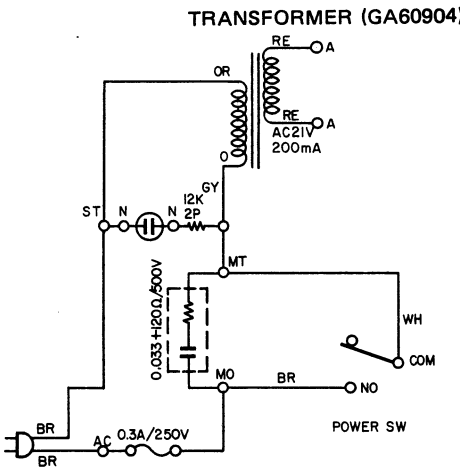


SCHEMATIC DIAGRAM

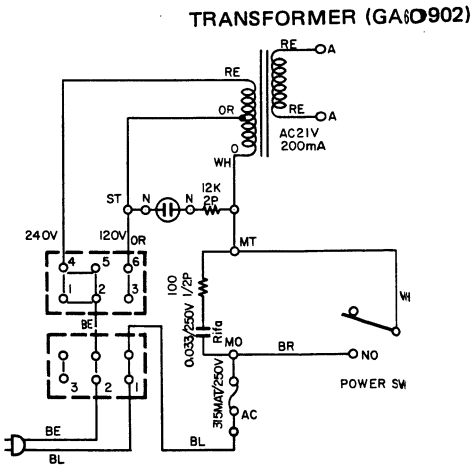


PARTIAL DISASSEMBLY

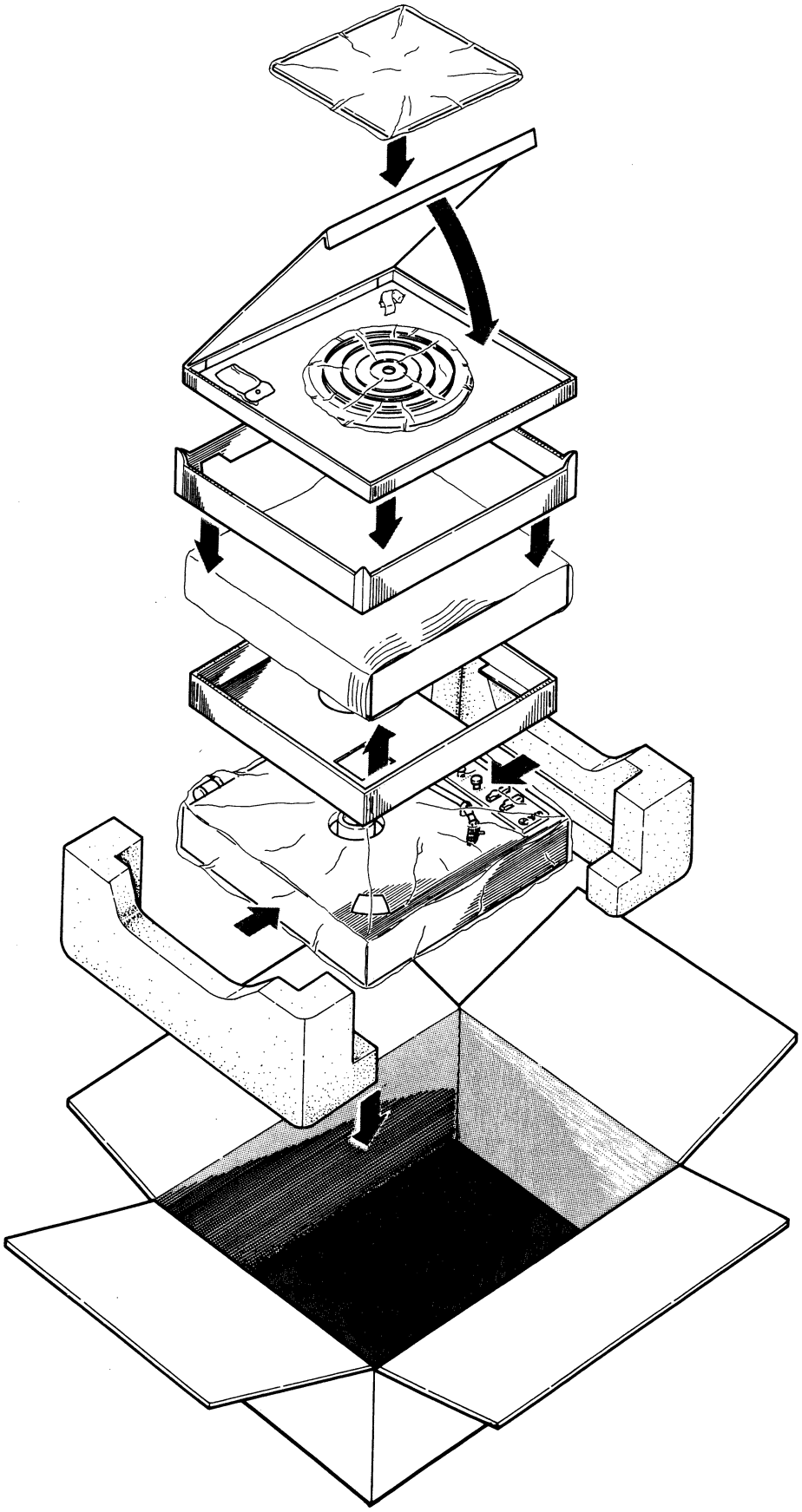
▼CANADIAN MODEL

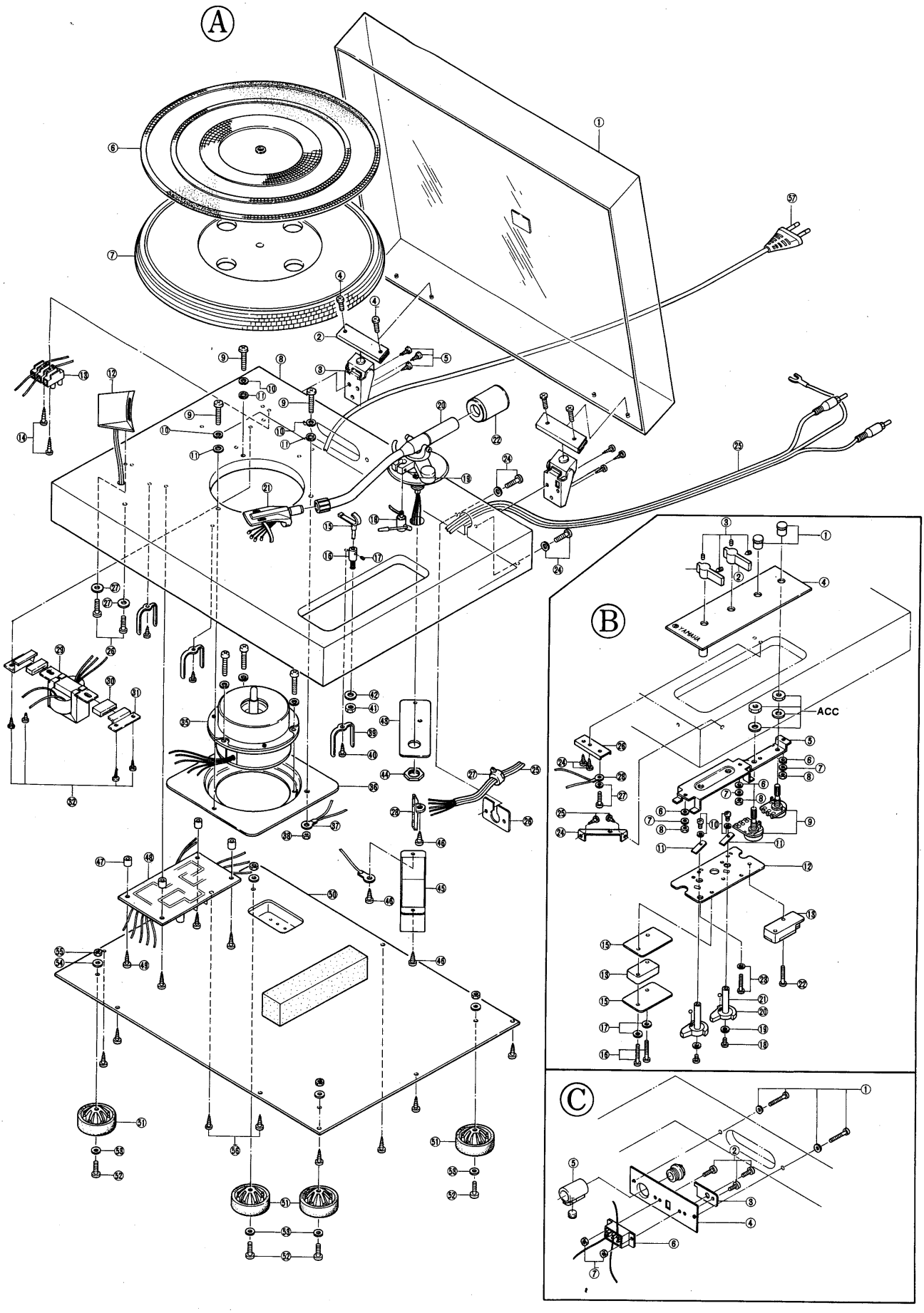


▼EUROPIAN MODEL



PACKEGE




A
B
C
ACC

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Ref. No.	Parts No.	Description		Remarks	Common Models	
1	32 00 00 NB 07 49 00	Acril Cover Ass'y	上　蓋ASS'Y			
2	32 00 00 AA 07 98 50	Lock Plate	ヒンジ当板			
3	32 00 00 NB 07 32 90	Hinge Ass'y	オートヒンジASS'Y			
4	42 00 00 ED 23 00 80	Bind Head Screw	バインド小ネジ			
5	42 00 00 EQ 03 11 60	Round Wooden Screw	丸木ネジ			
6	32 00 00 CB 07 30 50	Sheet for Turn Table	ターンテーブルシート			
7	32 00 00 BA 06 94 00	Turn Table	ターンテーブル			
8	32 00 79 2O 61 34 10	Cabinet	外装本体			
9	42 00 00 EH 04 25 50	Double Pan Head Cums Screw M4 x 25	Wカムスナベ小ネジ			
10	42 00 00 EV 30 04 00	Spring Washer 4φ	スプリングワッシャー			
	42 00 00 EV 20 04 00	Press Pan Washer 4φ	プレスパンワッシャー			
12	32 00 00 NB 07 90 30	Strobo Ass'y	ストロボASS'Y	C		
	32 00 N NB 07 58 10		〃	R.E.BS A		
13	32 00 00 LA 00 10 40	Connecting Terminal	ボイボ端子	El BS.		
14	42 00 00 EQ 03 12 00	Round Wooden Screw, Fe. ZMC2-Y	鉄丸木ネジ			
15	42 00 C CB 07 05 40	Aum Rest	アームレスト			
16	42 00 00 BA 06 69 00	Stand for Arm Rest	レストスタンド			
17	42 00 00 EV 10 04 00	Hexagonal Nut M4	6角ナット			
18	32 00 00 PB 06 04 00	Arm Lifter	アームリフター			
19	42 00 E EA 02 01 00	Pan Head Screw M2 x 10	ナベ小ネジ			
20	32 00 00 SS 06 00 70	Tone Arm Ass'y	アームASS'Y			
21	32 00 N NB 07 27 00	Head Shell Ass'y	ヘッドシェルASS'Y			
22	32 00 00 NB 99 30 00	Main Weight	メインウエイト			
24	42 00 00 EH 33 01 80	Pan Head Cums Screw M3 x 18 ZMC2-Bl	ナベ小ネジ(平座金付)			
25	32 00 00 MZ 06 77 50	Pick Up Cord Ass'y	P.uコード ASS'Y			
26	32 00 A AA 08 26 60	Fixture for Pick Up Cord	P.uコード　取付板			
27	42 00 00 CB 07 27 50	Cord Stopper for Pick Up Cord	P.U ユートストッパー			
28	42 00 00 LA 00 01 10	Lug Plate, 4P				
29	42 00 00 GA 60 90 40	Tranceformer, Power	電源トランス	C		
29	42 00 00 GA 60 90 20	— do. —	〃	R. E. BS. A.		
30	32 00 00 CB 07 58 50	Cushion for Tranceformer	トランスクッション	C		
30	32 00 00 CB 07 72 80	— do. —	〃	R. E. BS. A.		
31	32 00 00 AA 08 26 70	Tixture for Tranceformer	トランス固定金具			
32	42 00 00 EQ 03 11 00	Round Wooden Screw, Fe 3.1 x 10 ZMC2-Y	鉄丸木ネジ			
33	42 00 00 EO 04 01 20	Pan Head Cums Screw M4 x 12 ZMC2-Y	カムスナベ小ネジ			
35	42 00 00 JC 00 02 10	Motor	モーター			
36	32 00 00 AA 08 26 80	Fixture, Motor	モーター取付金具			
37	42 00 00 LA 00 02 90	Earth Lug 4φ	アースラグ			
38	42 00 00 EV 10 04 00	Hexagonal Nut M4	六角ナット			
39	42 00 00 AA 07 39 20	Cord Cramper	側線止メ			
40	42 00 00 EQ 03 11 00	Round Wooden Screw 3.1 x 10 ZMC2-Y	丸木ネジ			
41	42 00 00 EV 10 00 60	Hexagonal Nut M6 x 0.75	六角ナット			
42	42 00 00 EV 41 06 00	Theethed Looked Washer φ6	歯付座金			
43	32 00 00 AA 08 27 20	Holder for Shaft	シャフト受金具			
44	32 00 00 BB 06 47 20	Fixture Nut for Arm	アーム固定ナット			
45	32 00 00 AA 07 95 30	Isolation Cover	シールドカバー			
46	42 00 00 EQ 03 11 00	Round Wooden Screw 3.1 x 10	鉄丸木ネジ			

Ref. No.	Parts No.	Description		Remarks	Common Models	
47	32 00 00 CB 01 09 80	Spacer for Power Suplly C. B	スペーサー			
48	32 00 00 NA 06 77 50	Power Suplly C. B	電源シート	C		
48	32 00 00 NA 06 77 40	— do. —	〃	R. A		
48	32 00 00 NA 06 77 60	— do. —	〃	E. BS		
49	42 00 00 EQ 03 11 60	Round Wooden Screw 3.1 x 16 ZMC2-Y	鉄丸木ネジ			
50	32 00 79 OO 01 24 00	Botton Cover Ass'y	底板ASS'Y			
51	32 00 00 NB 07 57 90	Insulator Ass'y	インシュレーターASS'Y			
52	42 00 00 EA 04 01 60	Pan Head Screw M4 x 16 ZMC2-Y	ナベ小ネジ			
53						
54	42 00 00 EV 20 04 00	Flat Washer 4φ ZMC2-Y	平座金			
55	42 00 00 EV 10 04 00	Hexagonal Nut 4φ ZMC2-Y	六角ナット			
56	42 00 00 EQ 03 11 30	Round Wooden Screw Fe 3.1 x 13 ZMC2-Y	鉄丸木ネジ			
57	42 00 00 MG 00 02 20	Cord, A. C. Power	電源コード	C. R		
	42 00 00 MG 00 02 90	— do. —	〃	E. BS		
	42 00 00 MG 00 05 00	— do. —	〃	A		
58	42 00 00 CB 07 40 20	Cushion Rubber	クッションゴム			

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Ref. No.	Parts No.	Description		Remarks	Common Models	
1	32 00 00 BA 06 70 70	Knob for Speed Control	速度調整ツマミ			
2	32 00 00 BA 06 70 80	Knob for Speed & Power Selector	切換ノブ			
3	42 00 00 EZ 00 02 30	Hexagonal Set Screw				
4	32 00 00 AA 08 38 70	Control Panel	コントロールパネル			
5	32 00 00 AA 08 12 10	Holder Control Unit	コントロールユニットホルダー			
6	42 00 00 EV 20 03 00	Flat Washer 3φ ZMC2-Y	平座金			
7	42 00 00 EV 41 02 60	Theethed Looked Washer 2.6φ ` ZMC2-Y	歯付座金			
8	42 00 00 EV 10 03 00	Hexagonal Nut M3 ZMC2-Y	六角ナット			
9	42 00 00 HS 11 01 50	Variable Resistor V16 L4N 20KCB 8KΩ	ソリッドボリューム			
10	42 00 00 EH 03 00 60	Pan Head Cums Screw M3 x 6 ZMC2-Y	カムスナベ小ネジ			
11	32 00 00 AA 08 03 30	Spring for Ball Retaining	ボール押えバネ			
12						
13	42 00 00 KA 60 00 70	Miclo Switch	マイクロスイッチ			
15	32 00 00 CB 07 59 20	Isolation Plate	絶縁板			
16	42 00 00 EA 03 01 60	Pan Head Screw M3 x 10 ZMC2-Y	ナベ小ネジ			
17	42 00 00 EV 20 03 00	Flat Washer φ3 ZMC2-Y	平座金			
18	42 00 00 EA 02 60 60	Pan Head Screw M2.6 x 6	ナベ小ネジ			
19	42 00 00 EV 20 02 60	Flat Washer φ2.6	平座金			
20	32 00 00 CB 07 35 20	Switch Cum	スイッチカム			
21	32 00 00 BB 06 45 40	Control Shaft	コントロールシャフト			
22	42 00 00 EA 03 01 60	Pan Head Screw M3 x 16	ナベ小ネジ			
23	42 00 00 EH 04 01 60	Pan Head Cums Screw M4 x 16	カムスナベ小ネジ			
24	32 00 00 AA 08 26 90	Fixture, Control Panel A	コントロールパネル取付板A			
25	42 00 00 EQ 03 11 00	Round Wooden Screw 3.1 x 10 ZMC2-Y	鉄丸木ネジ			
26	32 00 00 AA 08 26 50	Fixture, Control Panel B	コントロールパネル取付板B			
27	42 00 00 EH 04 01 20	Pan Head Cums Screw M4 x 12 ZMC2-Y	カムスナベ小ネジ			
28	42 00 00 LA 00 02 90	Earth Lug φ4	アースラグ			
29	42 00 00 EQ 03 11 00	Round Wooden Screw 3.1 x 10 ZMC2-Y	鉄丸木ネジ			

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Ref. No.	Parts No.	Description		Remarks	Common Models	
1	42 00 00 EH 33 00 80	Pan Head Cums Screw M3 × 8 ZMC2-BI	カムス小ネジ			
2	42 00 00 EA 33 00 80	Pan Head Screw M3 × 8 ZMC2-BI	ナベ小ネジ			
3	32 00 00 CB 07 78 50	Plate for Voltage Selector	電圧切換板			
4	32 00 00 AA 08 26 20	Rear Panel	リアパネル	C		
4	32 00 00 AA 08 26 40	— do. —	〃	R		
4	32 00 00 AA 08 26 30	— do. —	〃	E. BS		
4	32 00 00 AA 08 42 80	— do. —	〃	A		
5	42 00 00 CB 06 86 30	Cord Stopper	コードストッパー	C. R		
5	42 00 00 CB 07 06 90	— do. —	〃 〃	E. BS. A		
6	42 00 00 KA 40 03 50	Slide Switch	スライドSW	R. E. BS		
7	42 00 00 EV 10 03 00	Hexagonal Nut M3 ZMC2-Y	六角ナット			