DIRECT DRIVE STEREO TURNTABLE SYSTEM

MODEL AP-2500H,EE,UK

AIWA®

[SERVICE MANUAL]

ISO

Set using ISO screws

DATE OF ISSUE 30/11/1977

SPECIFICATIONS

Type:	Direct Drive Stereo Turntable System
Circuitry:	
Power Supply:	AP-2500H,EE: AC 120 V/220 V (switchable) 50/60 Hz AP-2500UK: AC 120 V/240 V (switchable) 50/60 Hz
Power Consumption:	13 W
Dimensions:	480 W x 152 H x 404 D mm.
Weight:	10.5 kg

TURNTABLE

Type:	Direct drive type
Motor:	FG Servo 3-phase, 8-pole, 24-slot DC Direct Drive motor
RPM:	33 1/3 rpm, 45 rpm
RPM range:	±4% (45 rpm)
Platter:	Die-cast aluminum, 314 mm diameter
S/N ratio:	More than 60 dB (IEC B Curve)
Wow/flutter:	Less than 0.03% (WRMS)

TONE ARM

Type:	Static balanced
Effective length:	237 mm
Overhang:	15 mm
Tracking error:	+2.1°, -1.6°
Off-set angle:	22°
Stylus pressure range:	0 – 3 grams
Acceptable cartridge weight:	3 – 14 grams 11 – 22 grams (with auxiliary weight)
Maximum acceptable cartridge-headshell weight:	32.5 grams (with auxiliary weight)

ACCESSORIES

Head shell
45 rpm adaptor

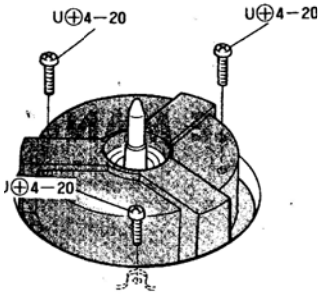
The specifications and external appearance of this set are subject to change without prior notice.

AIWA

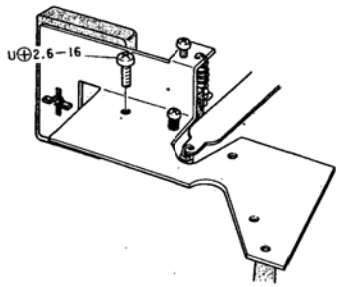
ASSEMBLY INSTRUCTIONS

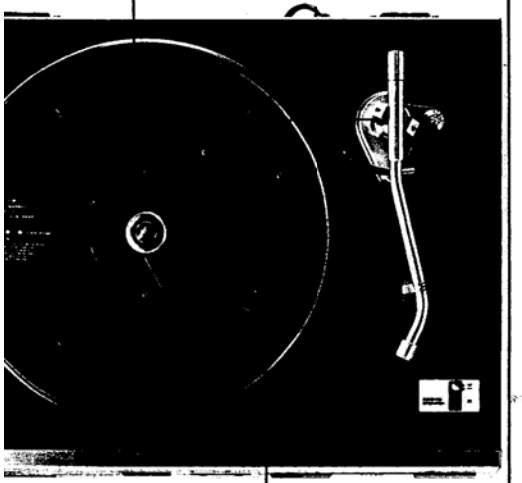
Remove Back Cover
Remove 4 rubber foots and 9 screws.

Remove Motor
Remove 3 screws.

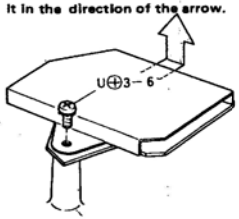


To Remove Micro Switch Fitting
Remove mounting screw.

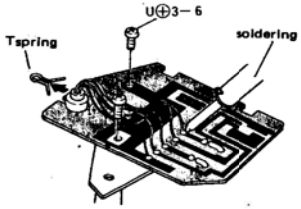




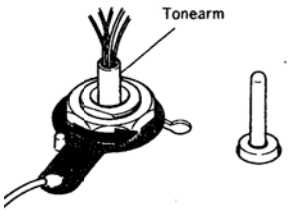
To Remove Relay Circuit Board
1) Remove mounting screw of the shield plate A, and this plate can then be removed by pulling it in the direction of the arrow.



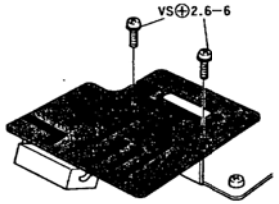
2) Remove the T spring and detach the lead wires of the tonearm with a soldering iron.



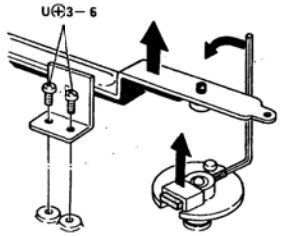
Remove Tonearm
Remove 1 hexagon nut.



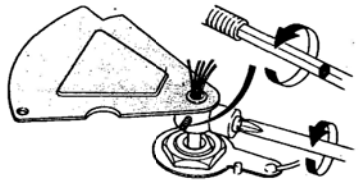
To Remove Lamp Circuit Board
Remove 2 screws.

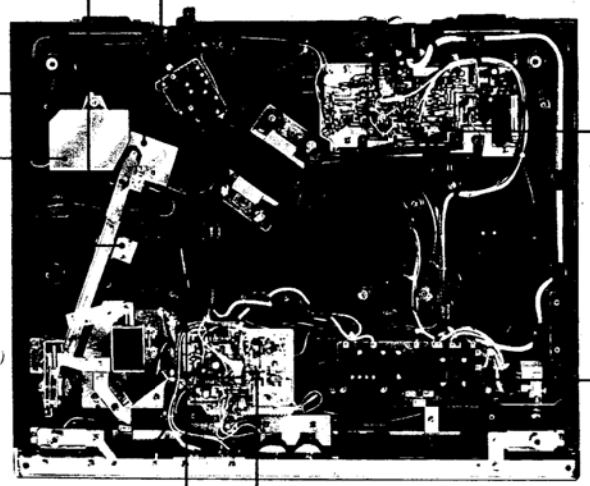


To Remove Seesaw Ass'y and Holder L
1) Remove 2 screws.
2) Remove mounting setscrew.

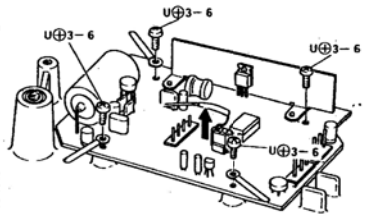


To Remove Detection Plate Ass'y
1) Remove mounting screw.
2) Remove mounting setscrew.

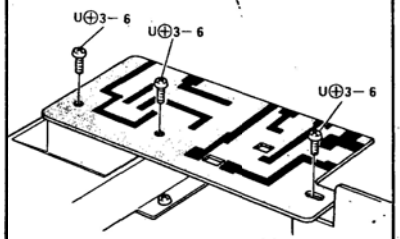




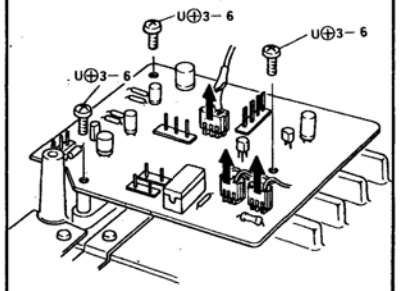
To Remove Main Circuit Board
1) Disconnect 1 connector.
2) Remove 4 screws.



To Remove Power Circuit Board
Remove 3 screws.



To Remove Touch Circuit Board
1) Disconnect 3 connectors.
2) Remove 3 screws.



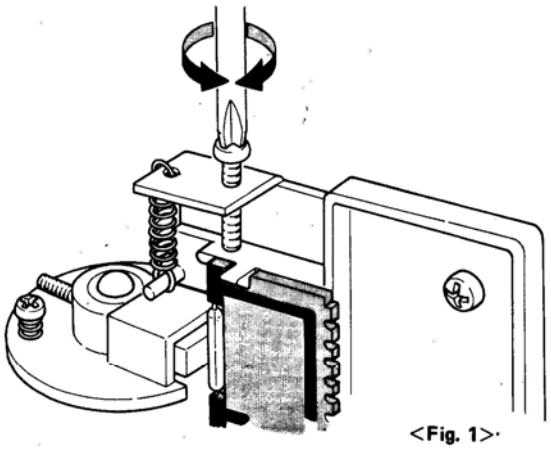
ADJUSTMENTS

1. Sync rate operation adjustment

Place an LP (30 cm diameter) record on the platter and adjust as follows so that the sync rate operation starts when the stylus makes contact with the surface of the record. (Refer to Fig. 1)

1) Rotate the adjust screw to the right if the sync rate operation is too slow.
2) Rotate the adjust screw to the left if the sync rate operation is too fast.

Note: When adjusting the sync rate, connect to a product provided with a (PLAYER SYNC) jack and then proceed.

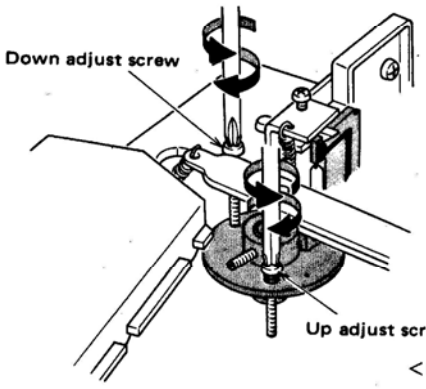


<Fig. 1>

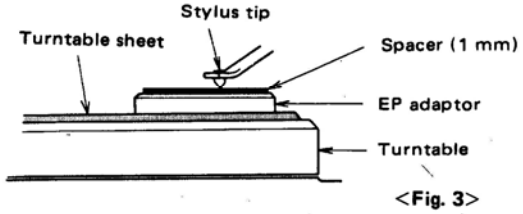
2. Stylus height position adjustment

Adjust the height of the stylus at UP and DOWN settings as follows. (Refer to Fig. 2)

1) **Up height adjustment of stylus**
   - * **When the stylus is too high** — Rotate the DOWN adjust screw to the right and adjust so that the stylus comes into contact with the spacer. (Refer to Fig. 2 and Fig. 3)
   - * **When the stylus is too low** — Rotate the DOWN adjust screw to the left and adjust so that the stylus is at the same height as the spacer. (Refer to Fig. 2 and Fig. 3)

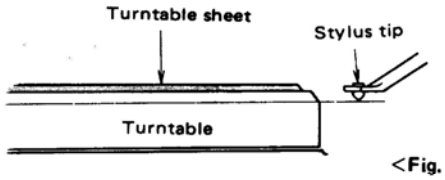


<Fig. 2>



<Fig. 3>

2) **DOWN height adjustment of stylus**
   - * When the stylus is too high — Rotate the UP adjust screw to the right and adjust the stylus to the position in the figure. (Refer to Fig. 2 and Fig. 4)
   - * When the stylus is too low — Rotate the UP adjust screw to the left and adjust the stylus to the position in the figure. (Refer to Fig. 2 and Fig. 4)

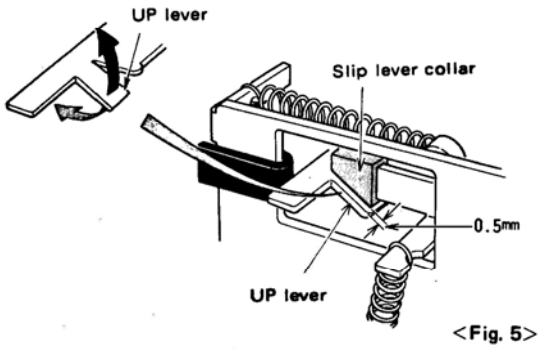


<Fig. 4

3. Free stop position adjustment

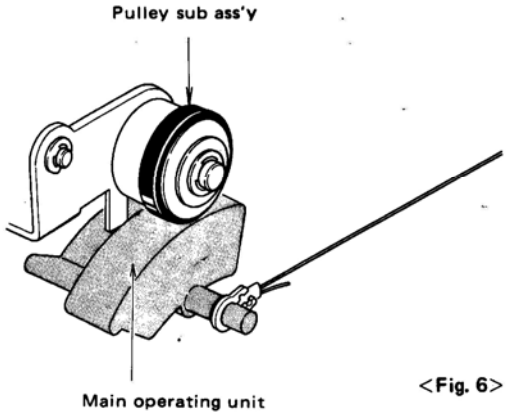
Adjust the free stop as follows if it is defective.

1) Check that the clearance between the slip lever collar and the UP lever is 0.5 mm. If there is no clearance, bend the UP lever and adjust. (Refer to Fig. 5)



<Fig. 5>

2) The pulley sub ass'y and the contact section of the main operating unit sometimes slip and so wipe these parts clean. (Refer to Fig. 6)

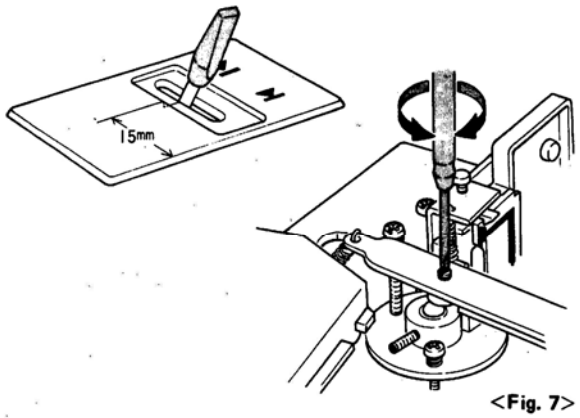


<Fig. 6>

4. Free start position adjustment

Set the operating lever to the free start mode and adjust as follows if it cannot be set to the free stop mode.

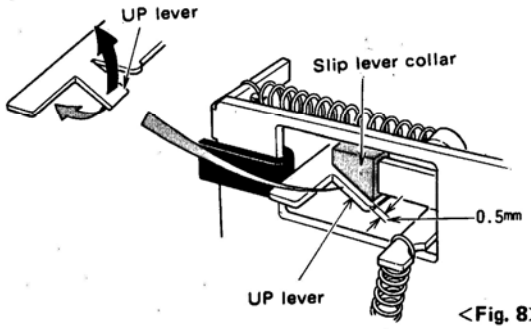
1) Rotate the seesaw thrust screw horizontally and then adjust so that it will be actuated at the 15 mm rating. (Refer to Fig. 7)



<Fig. 7>

5. Plunger UP adjustment

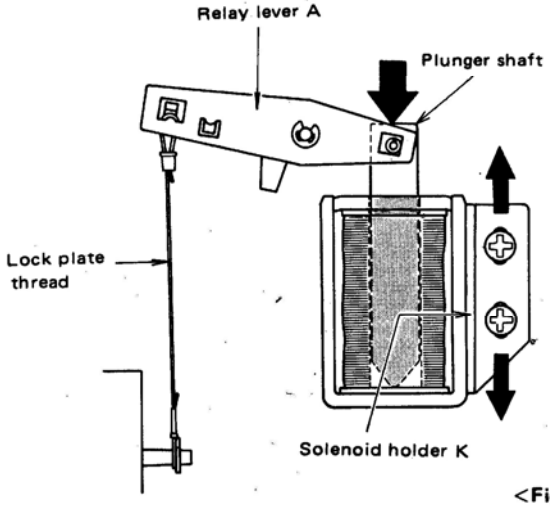
If the plunger UP operation is defective, adjust the UP lever by bending it up or down so that the clearance between the slip lever collar and the UP lever is kept to 0.5 mm. (Refer to Fig. 8)



<Fig. 8>

6. Plunger position adjustment

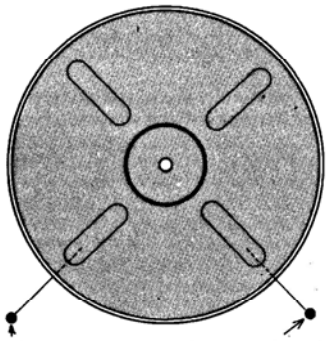
Attach the lock plate thread to the relay lever A, push down on the plunger shaft, and with the parts in the positions illustrated in the figure below, secure the solenoid holder K screw when the lock plate thread is stretched taut. (Refer to Fig. 9)



<Fig. 9>

7. Adjustment with motor replacement

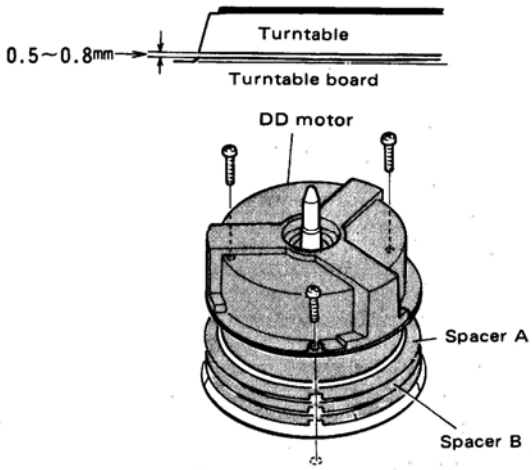
Check that the clearnace between the turntable board and the platter is 0.5 ~ 0.8 mm. (Refer to Fig. 10)



Measure the clearance at the two locations marked with a round dot (•).

<Fig. 10>

If it is not possible to obtain the above specification, adjust the spacer A (0.3 mm) and spacer B (0.5 mm). (Refer to Fig. 11)



<Fig. 11>

PRECAUTIONS WITH PARTS REPLACEMENT

1. Replacement of plunger

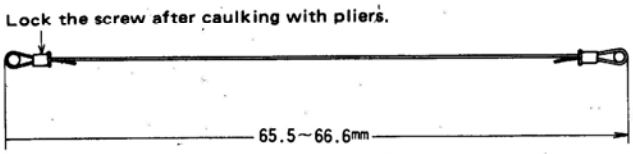
1) Apply silicon oil #10,000 uniformly all around the plunger shaft.

Note: The sound emitted by the operation of the plunger will increase in volume if there is not enough silicon oil. Conversely, the shaft will case to maintain its rated position if too much silicon oil is applied.

2. Lock board thread replacement

1) Arrange the lock board thread so that it meets the specifications illustrated in the figure below.

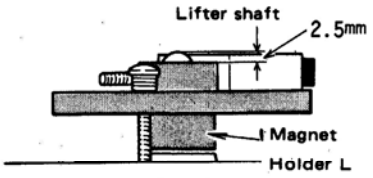
Note: After caulking the grommet, lock using the lock screw. (Refer to Fig. 12)



<Fig. 12>

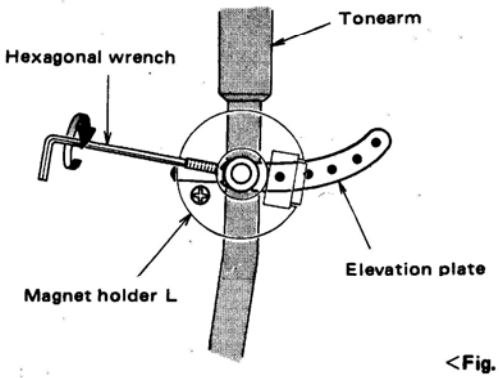
3. Lifter shaft replacement

1) When attaching the magnet holder L to the lifter shaft, secure where the lifter shaft projects 2.5 mm from the magnet holder. (Refer to Fig. 13)



<Fig. 13>

2) Along with the above adjustment, perform the following adjustment, too. Place the elevation plate in the position illustrated in the figure below and then secure the magnet holder L. (Refer to Fig. 14)



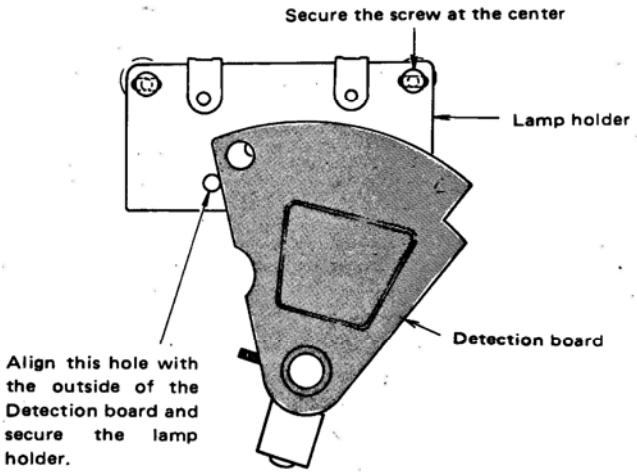
<Fig. 14>

3) Along with the lifter replacement, use the #10,000 as the silicon oil which is applied.

Note: When attaching the elevation plate, take care not to allow it to move.

4. Tonearm replacement

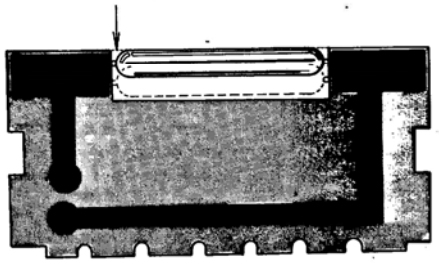
1) After the tonearm has been mounted, attach the arm's lead wires, bearing in mind the following two points.
   - Attach the lead wires so that they do not come into contact with the inner side of the tonearm.
   - Do not stretch the lead wires too much or leave them too loose.
2) The screw of the lamp holder should be secured in the center. (Refer to Fig. 15)
3) Attach the detection board to the standard position illustrated in the figure. (Refer to Fig. 15)



<Fig. 15>

5. Reed switch replacement

1) When replacing the reed switch, secure the new switch with a soldering iron in the position marked in the figure. (Refer to Fig. 16)



<Fig. 16>

CHECKING AND ADJUSTING THE AUTO STOP UP MECHANISM

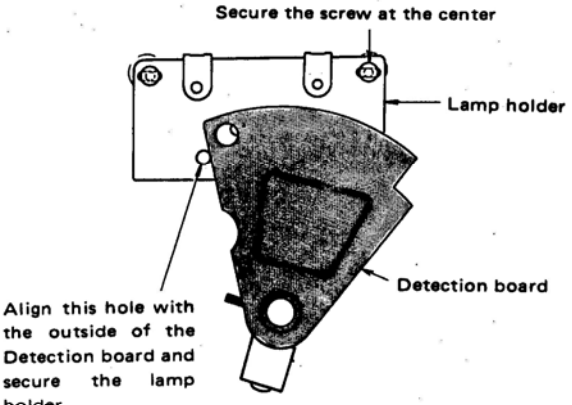
OPERATION CHECKS

1) **Operation check using test record (TRA-001)**
   - There should be no auto operation with band 1 of the P=4 groove.
   - There should be no auto operation with bands 2 and 3 of the P=4 groove.
     Note: The speed shall be set to 33-1/3 rpm.
   - There should be no operation with all bands of the P=1 groove.
     Note: The speed shall be set to 45 rpm.

2) **Operation check using record available on market**
   - The pitch of the lead-out groove on an LP is narrow and so use a record upon which a program has been recorded right up to the internal circumference. Check that the auto operation is being performed properly.
     Note: The speed shall be set to 33-1/3 rpm for this test.
   - Use the EP adaptor that comes with the AP-2500 for a record without a middle, and there should be no auto operation while the record is playing.
     Note: The speed shall be set to 45 rpm.

ADJUSTMENTS

Check that the detection borad ass'y and the lamp holder are in their regular positions. (Refer to Fig. 17)
Turn semi-fixed resistor SFR1 which is used to adjust the CdS sensitivity and adjust the auto operation.

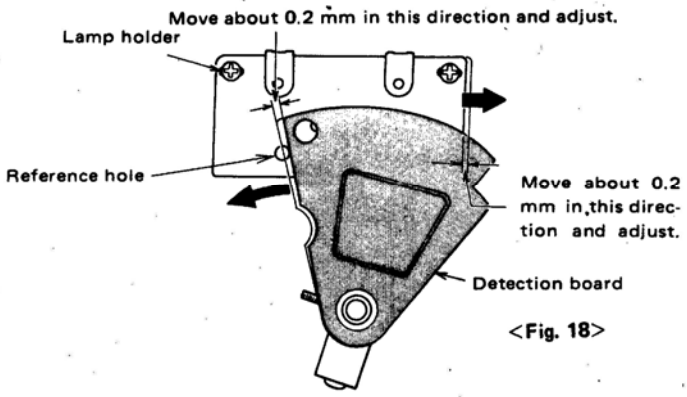


<Fig. 17>

* **When it is not possible to adjust any more with SFR1**

Note: Return SFR1 to its original position.

- When there is auto operation with band 3 but not with band 2:
  Move the lamp holder 0.2 mm in the direction of the arrow and adjust.
  When it is no longer possible to perform the adjustment with the lamp holder, move the detection board ass'y 0.2 mm in the direction of the arrow and adjust.
  (Refer to Fig. 18)

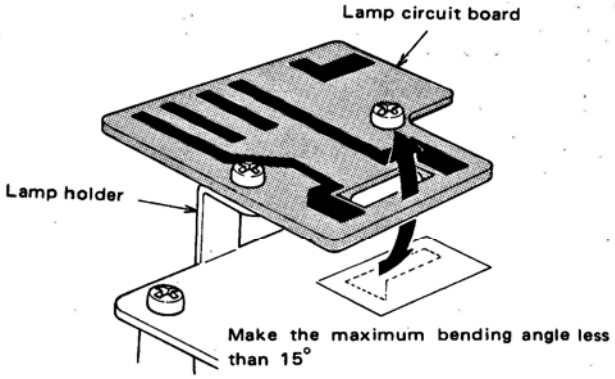


<Fig. 18>

- When there is auto operation with bands 1 and 2 but not with band 3:
  Move the lamp holder or the detection board in the opposite direction to that indicated by the arrow, and adjust.
  Note: Move the parts 0.2 mm at a time when adjusting. Do not greatly exceed this value for each move. Make absolutely sure that the adjust screw is locked. Do not bend the detection board ass'y.

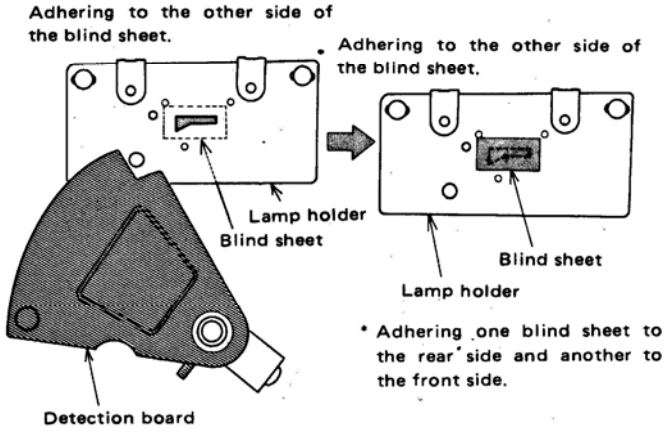
ADJUSTMENTS WHEN REPLACING THE CdS

* **When there is no auto operation with bands 1, 2 and 3 of the P=4 groove (insufficient sensitivity):**
  - Peel off a blind sheet which is attached to the lamp holder and then check the auto operation.
  - If adjustment is still required and if there is a blind sheet from the first, bend the lamp holder so that it is brought close to the CdS. The angle of the bend should be not more than 15°.(Refer to Fig. 19)



<Fig. 19>

* **Auto operation with the P=1 groove (excessive sensitivity)**
  - Check whether two blind sheets are attached. If there is only one, add another and then check the auto operation. (Refer to Fig. 20)
  - If adjustment is still required, bend the lamp holder away from the CdS. The angle of the bend should not be more than 15°.



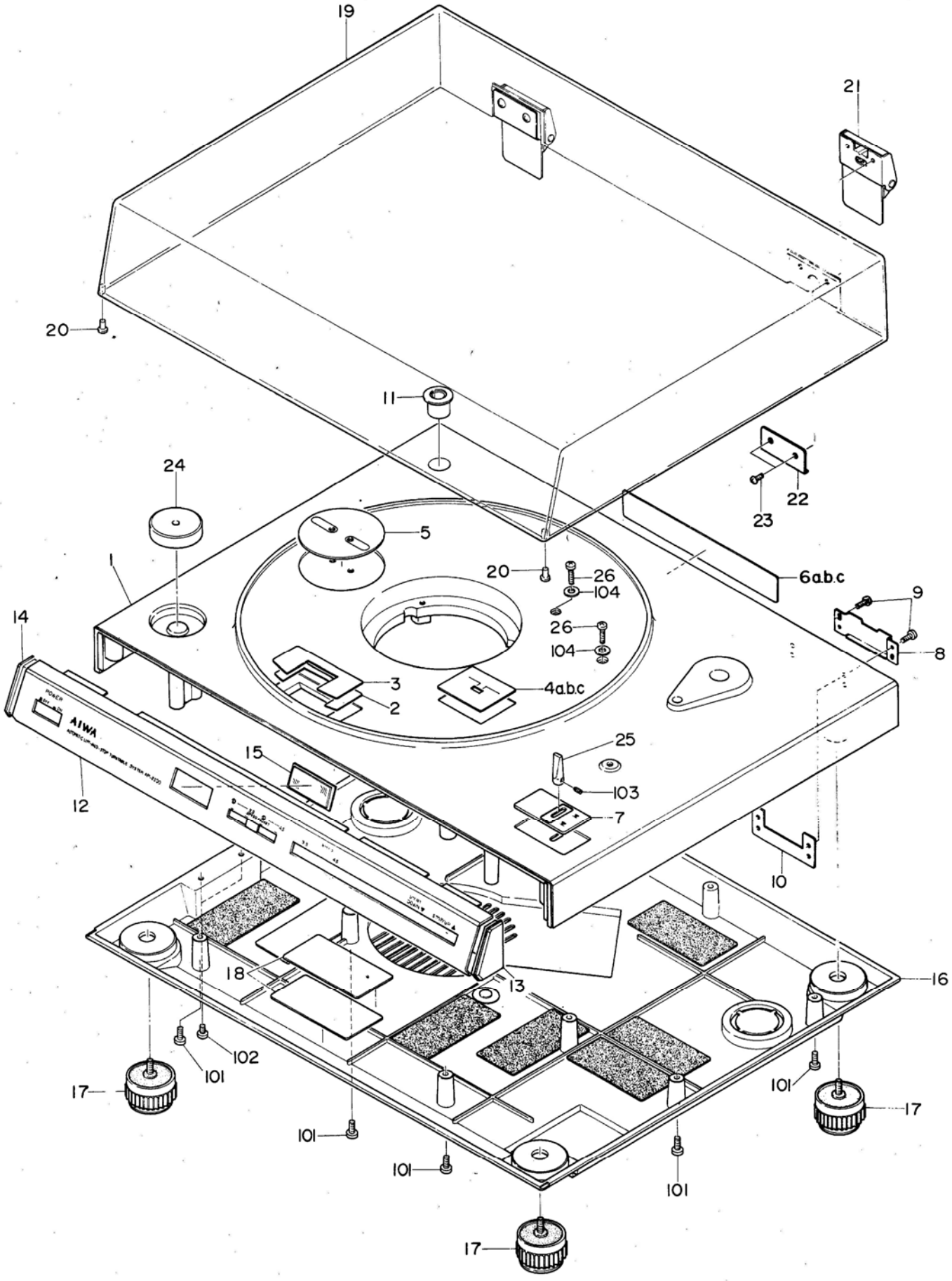
* Adhering one blind sheet to the rear side and another to the front side.

<Fig. 20>

Notes

- For fine adjustments, rotate semi-fixed resistor SFR1 which is used for adjusting the CdS sensitivity.
- After the CdS has been replaced, make sure that there are no gaps when the CdS holder is bonded to the lamp holder.

EXPLODED VIEW-1



PARTS LIST

MECHANICAL PARTS

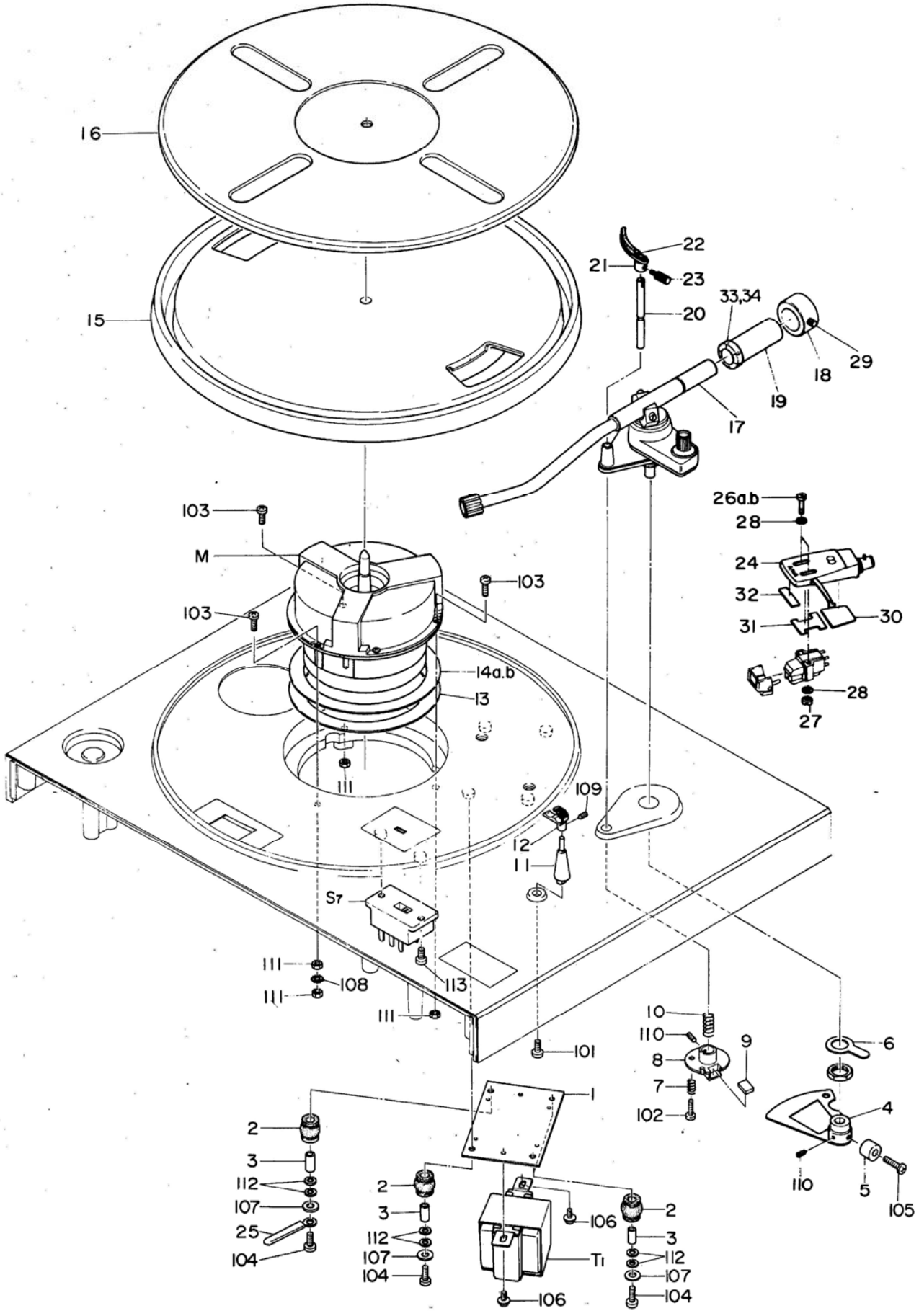
■ * mark in this part list shows exclusive part (which is used) for only Model AP-2500.

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
1-1	09-047-075-01		Cabinet case ass'y		1	
1-2	84-184-047-01		Adhesive paper	*	1	
1-3	84-184-048-01		Label, Strobo	*	1	
1-4a	84-184-109-01		Name plate, Voltage selector (H model only)	*	1	
1-4b	84-184-105-01		Name plate, Voltage selector (EE model only)	*	1	
1-4c	84-184-106-01		Name plate, Voltage selector (UK model only)	*	1	
1-5	84-184-064-01		Name plate C, Motor	*	1	
1-6a	84-184-107-01		Name plate, Spec. (H model only)	*	1	
1-6b	84-184-101-01		Name plate, Spec. (EE model only)	*	1	
1-6c	84-184-102-01		Name plate, Spec. (UK model only)	*	1	
1-7	84-184-062-01		Rifter plate A	*	1	
1-8	84-184-070-01		Lock plate	*	2	
1-9	87-257-097-01		U + 3-12 (Black)		8	
1-10	84-184-380-01		Holder F, Hinge	*	2	
1-11	84-184-074-01		Stand, Shell	*	1	
1-12	84-184-025-01		Panel, Front	*	1	
1-13	84-184-018-01		Panel L, Side	*	1	
1-14	84-184-026-01		Panel R, Side	*	1	
1-15	84-184-014-01		Window, Strobo	*	1	
1-16	84-184-002-01		Bottom cabinet	*	1	
1-17	84-184-027-01		Rubber foot ass'y	*	4	
1-18	84-184-073-01		Dumping sheet	*	10	
1-19	84-184-022-01		Dust cover	*	1	
1-20	84-184-092-01		Dumper	*	2	
1-21	84-184-023-01		Hinge ass'y	*	2	
1-22	84-184-024-01		Plate	*	2	
1-23	87-229-170-01		P + 4-8 (Black)		4	
1-24	84-184-953-01		Adaptor, 45	*	1	
1-25	84-184-075-01		Control knod ass'y	*	1	
1-26	87-081-582-01		U + 3-14 (Red)		2	

Ref. No.	Part No.	Description	Q'ty	
1-101	87-253-096-11	U + 3-10	9	
1-102	87-253-094-11	U + 3-6	2	

Ref. No.	Part No.	Description	Q'ty	
1-103	87-360-070-01	SSH2.6-3	1	
1-104	87-081-017-01	FW3-8-1	2	

EXPLODED VIEW–2

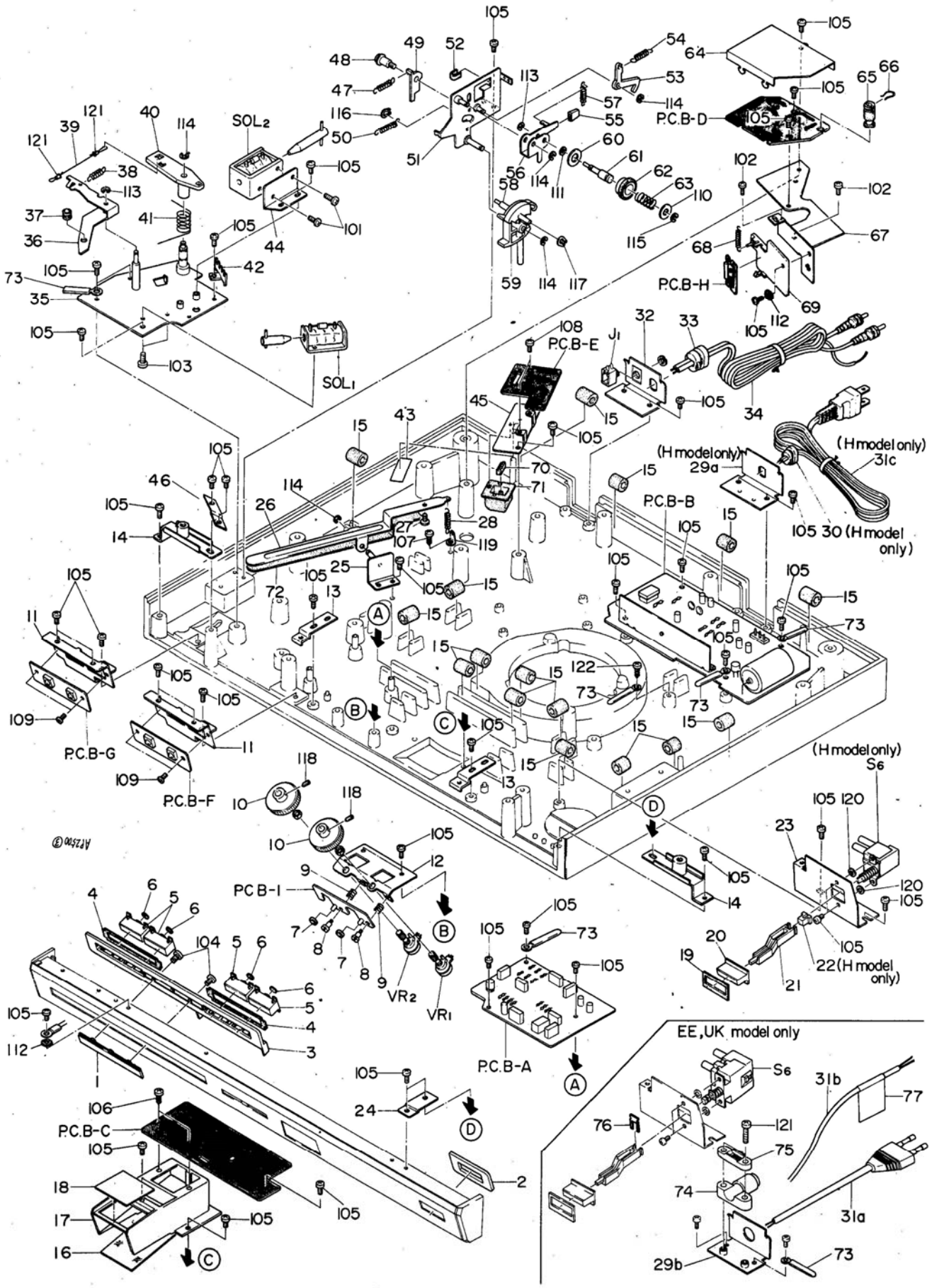


Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
2-1	84-184-301-01		Holder, Power transform	*	1	
2-2	84-184-299-01		Rubber, Motor	*	4	
2-3	84-184-345-01		Collar, Motor rubber	*	4	
2-4	84-184-296-01		Detection plate ass'y	*	1	
2-5	84-184-365-01		Balance weight	*	1	
2-6	84-184-411-01		Arm, Lug terminal	*	1	
2-7	84-184-418-01		Spring, Holder L	*	2	
2-8	84-184-396-01		Holder L, Magent	*	1	
2-9	84-184-643-01		Magnet L	*	1	
2-10	84-184-398-01		Spring, Rifter	*	1	
2-11	84-184-071-01		Base, Rest	*	1	
2-12	84-184-066-01		Arm rest ass'y	*	1	
2-13	84-184-417-01		Spacer C	*	1	
2-14a	84-184-363-01		Spacer A	*	1	
2-14b	84-184-364-01		Spacer B	*	1	
2-15	84-184-201-01		Turntable	*	1	
2-16	84-184-003-01		Rubber, Sheet	*	1	
2-17	84-184-079-01		Tonearm ass'y	*	1	
2-18	84-184-084-01		Main weight	*	1	
2-19	84-184-094-01		Shaft, Counter	*	1	
2-20	84-184-276-01		Shaft, Rifter	*	1	
2-21	84-184-016-01		Elevation plate ass'y	*	1	
2-22	84-184-017-01		Elevation rubber	*	1	
2-23	84-184-090-01		Screw	*	1	
2-24	84-184-952-01		Head shell ass'y	*	1	
2-25	87-038-039-01		Wire binder		1	
2-26a	84-184-954-01		Screw, Cartridge stopper (H model only)	*	2	
2-26b	84-184-974-01		Screw, Cartridge stopper (EE, UK model only)	*	2	
2-27	84-184-955-01		Nut	*	2	
2-28	84-184-956-01		Washer	*	4	
2-29	84-184-093-01		Weight metal fitting ass'y	*	1	
2-30	84-184-425-01		Dumper, Shell	*	1	
2-31	84-184-426-01		Spacer, Cartridge	*	1	
2-32	84-184-424-01		Dumper, Front shell	*	1	
2-33	84-184-082-01		Ring, Counter	*	1	
2-34	84-184-083-01		Ring, Stopper	*	1	

Ref. No.	Part No.	Description	Q'ty	
2-101	87-253-096-11	U + 3-10	1	
2-102	87-163-081-11	U + 2.6-20	1	
2-103	87-263-177-11	U + 4-20	3	
2-104	87-253-103-11	U + 3-25	4	
2-105	87-253-076-01	U + 2.6-12	1	
2-106	87-500-169-11	VF + 4-6	2	
2-107	87-410-318-01	W3-15-0.8	4	

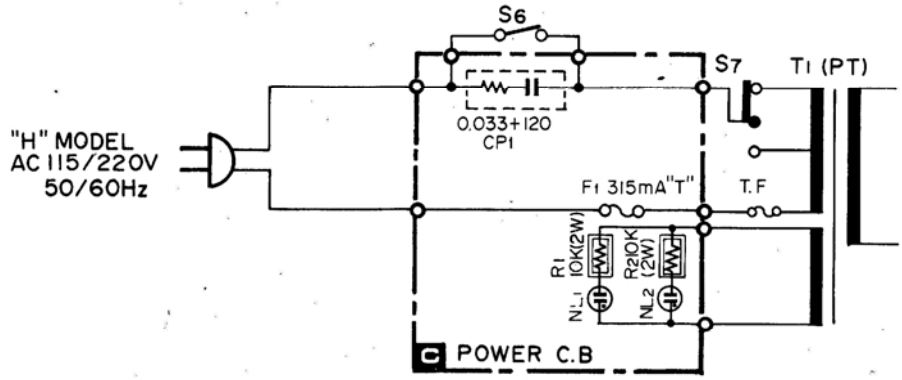
Ref. No.	Part No.	Description	Q'ty	
2-108	87-433-906-01	WTIE-4	1	
2-109	87-360-032-01	SSH2-3	1	
2-110	87-360-075-01	SSH2.6-10	2	
2-111	87-391-036-11	N-4	4	
2-112	87-422-305-01	SW-5	8	
2-113	87-253-094-11	U + 3-6	2	

EXPLODED VIEW–3

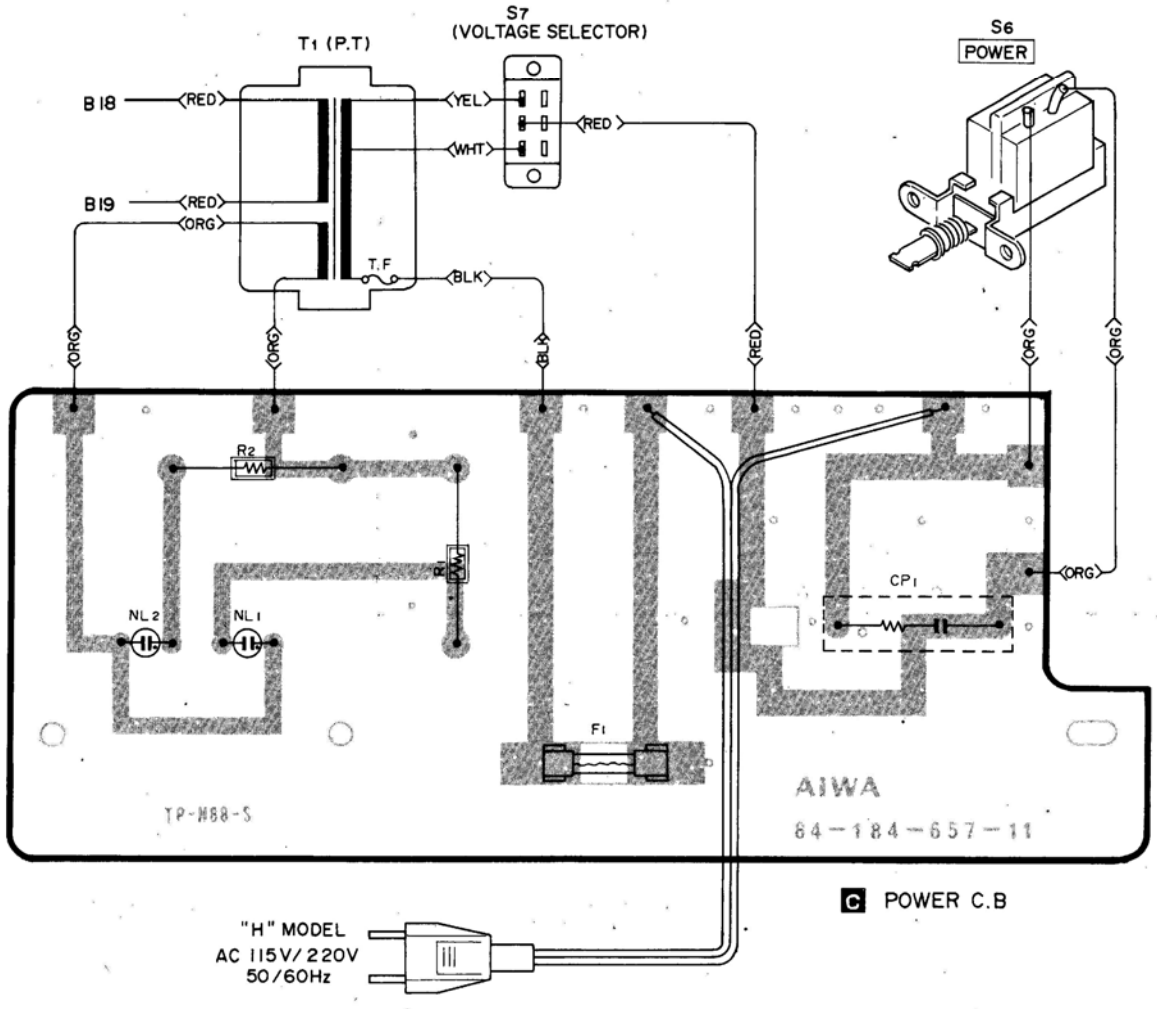


Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty	
3-1	84-184-061-01		Strip, Decorative	*	1	
3-2	84-184-377-01		Guide B, Button	*	1	
3-3	84-184-376-01		Guide A, Button	*	1	
3-4	84-184-389-01		Cushion B, Selector	*	2	
3-5	84-184-060-01		Push button A, Selector	*	4	
3-6	84-184-373-01		Cushion	*	4	
3-7	84-184-395-01		Rubber cushion, Light emitting diode	*	2	
3-8	84-184-394-01		Screw, Light emitting diode	*	2	
3-9	84-184-361-01		Spring	*	2	
3-10	84-184-069-01		Adjuster knod ass'y	*	2	
3-11	84-184-374-01		Holder E, Circuit board	*	2	
3-12	84-184-375-01		Holder, Volume	*	1	
3-13	84-184-355-01		Holder B	*	2	
3-14	84-184-243-01		Rubber foot metal fitting ass'y	*	2	
3-15	84-184-336-01		Holder, Cord	*	17	
3-16	84-184-274-01		Plate, Pilot	*	1	
3-17	84-184-273-01		Guide, Strobo	*	1	
3-18	84-184-038-01		Acryl mirror	*	1	
3-19	84-184-400-01		Cushion C, Power	*	1	
3-20	84-184-065-01		Push button B	*	1	
3-21	84-184-379-01		Push rod	*	1	
3-22	84-184-416-01		Holder Q (H model only)	*	1	
3-23	84-184-378-01		Holder J, Switch	*	1	
3-24	84-184-381-01		Holder G, Front panel	*	1	
3-25	84-184-263-01		Seesaw brass post ass'y	*	1	
3-26	84-184-266-01		Seesaw	*	1	
3-27	82-331-107-01		Screw for thrust		1	
3-28	84-184-279-01		Spring, Rifter	*	1	
3-29a	84-184-317-01		Holder D, Cord (H model only)	*	1	
3-29b	84-184-433-01		Holder D cord ass'y (EE, UK model only)	*	1	
3-30	87-085-101-01		Cord bushing (H model only)		1	
3-31a	87-034-835-01		AC cord (EE model only)		1	
3-31b	87-034-848-01		AC cord (H model only)		1	
3-31c	87-034-826-01		AC cord (UK model only)		1	
3-31	87-034-866-01		AC cord D		1	
3-32	84-184-382-01		Holder H, Cord	*	1	
3-33	84-184-649-01		PU cord holder	*	1	
3-34	84-184-618-01		Pin cord	*	1	
3-35	84-184-366-01		Sub-chassis ass'y	*	1	
3-36	84-184-332-01		Up lever	*	1	
3-37	84-184-385-01		Rubber C	*	1	
3-38	84-184-337-01		Spring, Up lever	*	1	
3-39	87-096-083-01		String, Lock plate		1	
3-40	84-184-370-01		Relay lever A	*	1	
3-41	84-184-372-01		Relay T spring	*	1	
3-42	87-032-860-01		5P terminal		1	
3-43	84-184-390-01		Blind sheet	*	1	
3-44	84-184-383-01		Holder K, Solenoid	*	1	
3-45	84-184-342-01		Holder, Lamp	*	1	
3-46	84-184-423-01		Holder R	*	1	
3-47	84-184-360-01		Spring, Lock plate D	*	1	
3-48	87-081-483-01		Motor screw, M2.6		1	
3-49	84-184-308-01		Lock plate D	*	1	
3-50	84-184-291-01		Spring, Control lever	*	1	
3-51	84-184-300-01		Lifter metal fitting ass'y	*	1	
3-52	84-184-422-01		G cushion	*	1	
3-53	84-184-306-01		Lock plate B	*	1	
3-54	84-184-357-01		Spring, Lock plate B	*	1	
3-55	84-184-419-01		Cover, Slip lever	*	1	
3-56	84-184-235-01		Slip lever	*	1	
3-57	84-184-290-01		Spring, Slip lever	*	1	
3-58	84-184-420-01		Collar, Control case proper	*	1	
3-59	84-184-305-01		Control case proper ass'y	*	1	
3-60	82-392-310-01		Felt	AD-6550	1	
3-61	84-184-236-01		Shaft, Slip Roller	*	1	
3-62	82-392-306-01		FF pulley sub ass'y	AD-6550	1	
3-63	84-184-241-01		Plate spring,	*	1	
3-64	84-184-619-01		Shield plate A	*	1	
3-65	84-184-393-01		Holder, Lead	*	1	
3-66	84-184-421-01		Spring, Lead holder	*	1	
3-67	84-184-320-01		Micro switch metal fitting ass'y	*	1	
3-68	84-184-399-01		Spring, Lead	*	1	
3-69	84-184-397-01		Holder M, Lead	*	1	
3-70	84-184-388-01		Cover, CDS	*	1	
3-71	84-184-343-01		Holder C, CDS	*	1	
3-72	80-180-427-01		Cushion D		1	
3-73	87-038-039-01		Wire binder		6	
3-74	87-085-094-01		Holder A, AC cord (EE, UK model only)		1	
3-75	87-085-095-01		Holder B, AC cord (EE, UK model only)		1	
3-76	82-385-383-01		Stopper, Rod (EE, UK model only)		1	
3-77	87-056-016-01		Tag, Main voltage (UK model only)		1	

SCHEMATIC DIAGRAM – H MODEL



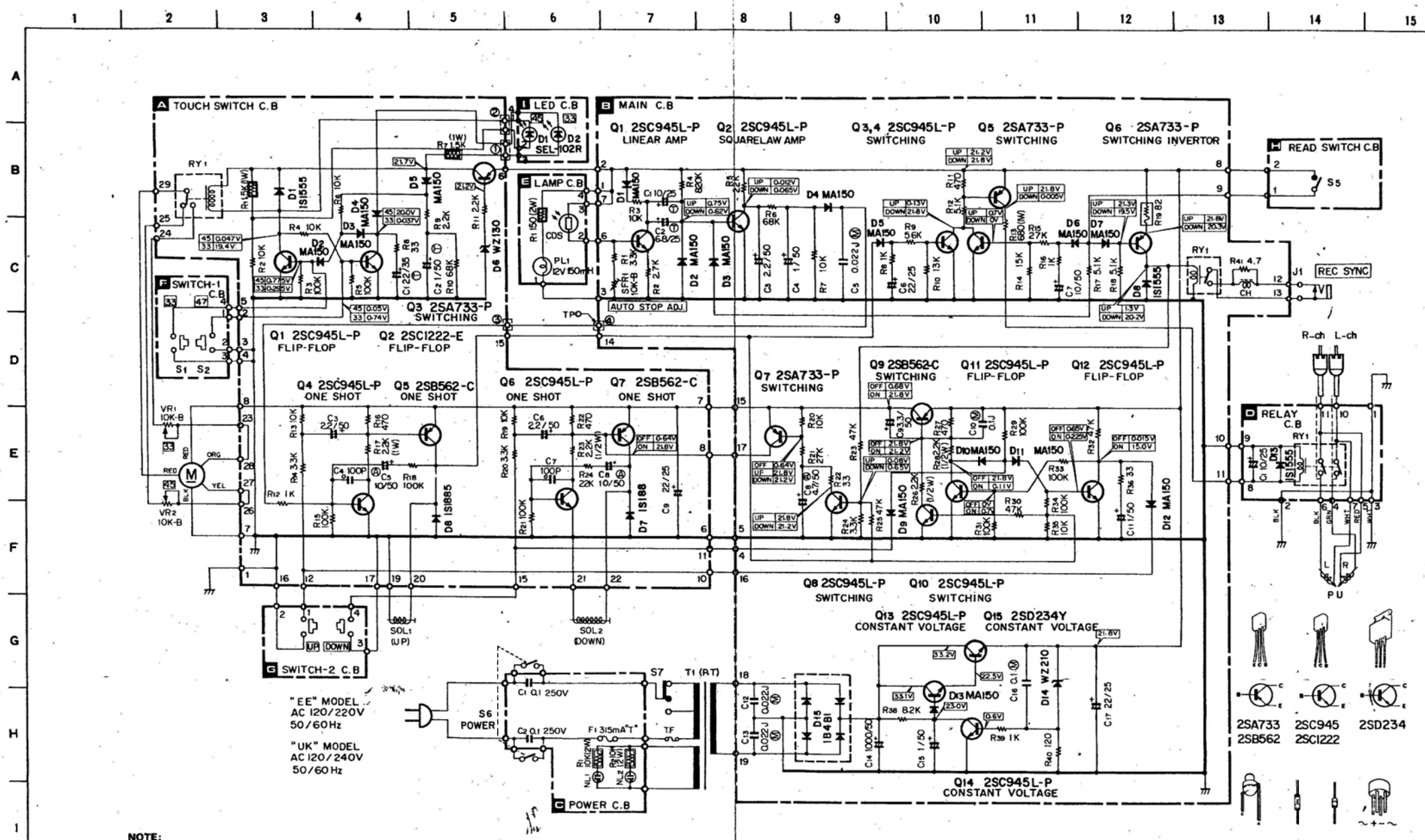
WIRING – H MODEL



ELECTRICAL MAIN PARTS LIST

Symbol No.	Part No.	Description
≪TOUCH SWITCH CIRCUIT BOARD SECTION≫		
PCB-A	84-184-624-11	Touch switch circuit board
Q1,4,6	89-309-456-01	Transistor, 2SC945L (P)
Q2	89-312-222-01	Transistor, 2SC1222 (E)
Q3	89-107-336-01	Transistor, 2SA733 (P)
Q5,7	89-205-623-01	Transistor, 2SB562 (C)
D1	87-027-097-01	Diode, 1S1555
D2,3,4,5	87-027-219-01	Diode, MA150
D6	87-027-215-01	Zener diode, WZ-130
D7,8	87-027-083-01	Diode, 1S1885
RY1	84-184-626-01	Relay
Pin-1,2,3	87-032-773-01	Pin, 3P
	87-032-863-01	Pin, 2P
	87-032-862-01	Pin, 3P
	87-032-861-01	Pin, 4P
		< **Resistor** >
R1,7	87-025-098-01	1.5kΩ 1W Nonflammable resistor
		< **Capacitors** >
C5,8	87-015-291-01	10μF 50V Aluminum solid
C1	87-015-360-01	22μF 35V Tantalun
≪MAIN CIRCUIT BOARD SECTION≫		
PCB-B	84-184-603-21	Main circuit board
Q1,2,3,4,8, 9,10,11 12,13,14	89-309-456-01	Transistor, 2SC945L (P)
Q5,6,7	89-107-336-01	Transistor, 2SA733 (P)
Q9	89-205-623-01	Transistor, 2SB562 (C)
Q15	89-402-344-01	Transistor, 2SD234 (Y)
D1,2,3,4, 5,6,7,9, 10,11,12,13	87-027-219-01	Diode, MA150
D8	87-027-097-01	Diode, 1S1555
D14	82-385-622-01	Zener diode, WZ-210
D15	87-027-163-01	Diode, 1B4B1
L1	82-346-611-31	Choke coil
RY1	84-184-626-01	Relay
Pin-4	87-032-773-01	Pin, 3P
SFR1	87-021-366-01	Semi-fixed resistor, 10kΩ-B
	87-032-863-01	Pin, 2P
	87-032-862-01	Pin, 3P
	87-032-861-01	Pin, 4P
		< **Resistors** >
R13	87-025-068-01	680Ω 1W Metal film resistor
R19	87-025-099-01	82Ω 1/4W Fuse resistor
		< **Capacitors** >
C8	87-015-290-01	4.7μF 50V Aluminum solid
C7	87-015-360-01	10μF 50V Aluminum solid
C2	87-015-344-01	6.8μF 25V Tantalun
C1	87-015-345-01	10μF 25V Tantalun
≪POWER CIRCUIT BOARD SECTION≫		
PCB-C	84-184-657-11	Power circuit board (H model only)
PCB-C	84-184-646-01	Power circuit board(EE, UK model only)
NL1,2	84-184-602-01	Neon lamp
F1	87-035-107-01	Fuse, 315mA "T" (H, EE model only)
F1	87-035-187-01	Fuse, 315mA "T" (UK model only)
	87-098-011-01	Fuse label, 315 mA "T" (UK model only)
	87-032-527-01	Fuse clamp
CP1	87-019-081-01	Combination parts (H model only)
		< **Resistor** >
R1,2	84-184-621-01	10kΩ 2W ±5% Nonflammable resistor
		< **Capacitor** >
C1,2	84-190-622-01	0.1μF 250V PME (EE, UK model only)
≪RELAY CIRCUIT BOARD SECTION≫		
PCB-D	84-184-614-01	Relay circuit board
D1	87-027-097-01	Diode, 1S1555
RY1	84-184-612-01	Relay
≪LAMP CIRCUIT BOARD SECTION≫		
PCB-E	84-184-625-11	Lamp circuit board
CDS	84-184-615-01	CDS, MKY-7C38AW
PL1	84-184-617-01	Pilot lamp 12V 150mA
		< **Resistor** >
R1	87-025-107-01	150Ω 5W Cement resistor
≪SWITCH-1 CIRCUIT BOARD SECTION≫		
PCB-F	84-184-623-01	Switch-1 circuit board
S1,2	87-031-394-01	Push switch (33, 45)
≪SWITCH-2 CIRCUIT BOARD SECTION≫		
PCB-G	84-184-623-01	Switch-2 circuit board
S3,4	87-031-394-01	Push switch (STOP/UP, START/DOWN)
≪READ SWITCH CIRCUIT BOARD SECTION≫		
PCB-H	84-184-647-11	Read switch circuit board
S5	84-184-642-01	Read switch *
≪LED CIRCUIT BOARD SECTION≫		
PCB-I	84-184-611-01	LED circuit board
D1,2	87-026-089-01	Light emitting diode, SEL-102R (RED) (45, 33)
≪MISCELLANEOUS≫		
T1	84-184-662-01	Power transformer (H model only)
T1	84-184-641-01	Power transformer (EE model only)
T1	84-184-660-01	Power transformer (UK model only)
J1	82-422-612-11	Jack 2.5φ (REC SYNC)
S6	87-031-400-01	Push switch (POWER) (H model only)
S6	87-031-408-01	Push switch (POWER) (EE, UK model only)
S7	87-031-364-01	Slide switch (VOLTAGE SELECTOR)
VR1,2	84-184-610-01	Volume, 10kΩ-B (45, 33) (SPEED ADJUST)
SOL1	84-184-616-21	Plunger (UP)
SOL2	84-184-661-01	Plunger (DOWN)
M	84-184-609-01	Motor, DC-EG
CON-1	84-184-648-01	Connector ass'y, 3P
CON-2	84-184-636-01	Connector ass'y, 3P
CON-3,4	84-184-632-11	Connector ass'y, 3P

SCHEMATIC DIAGRAM

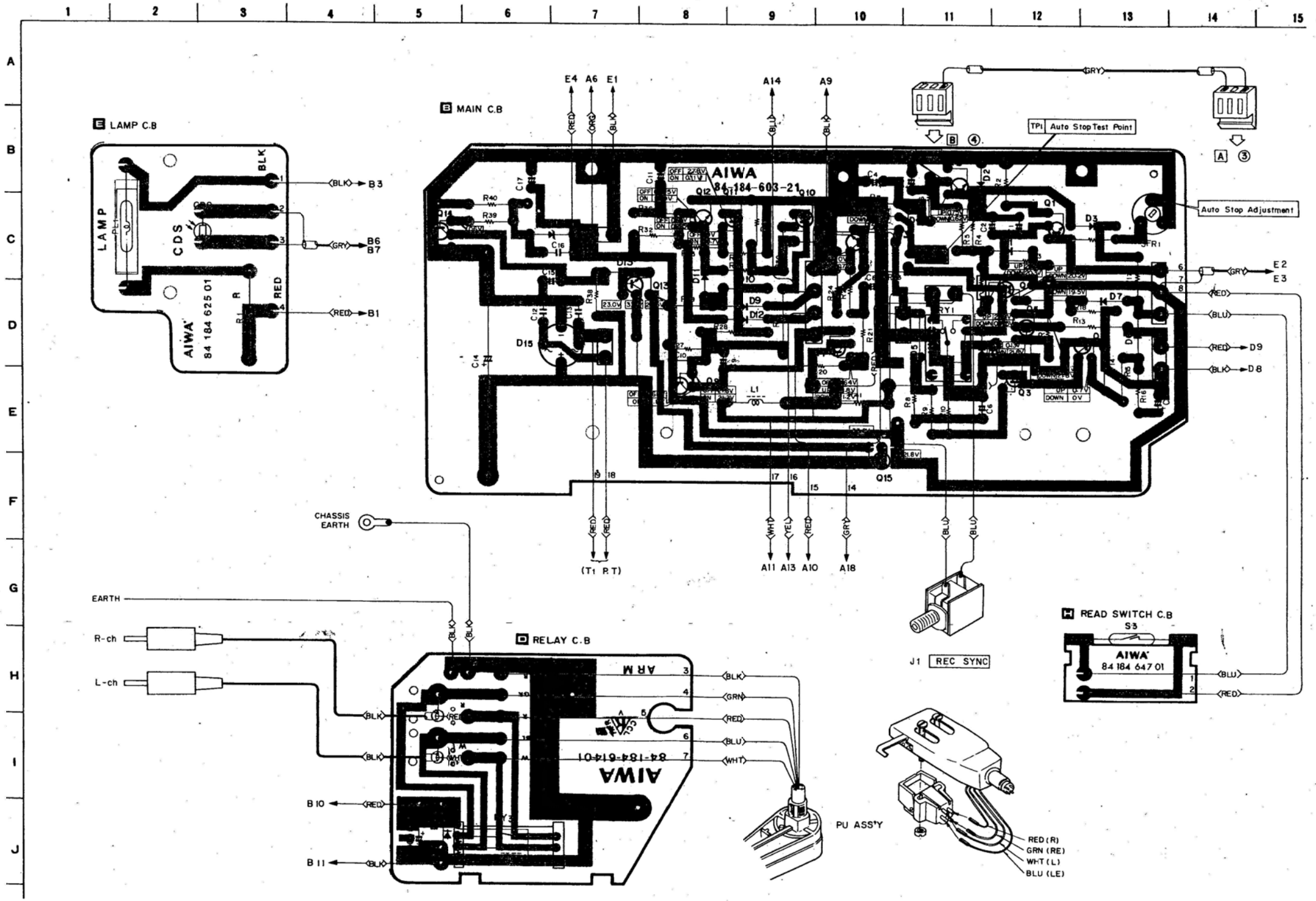


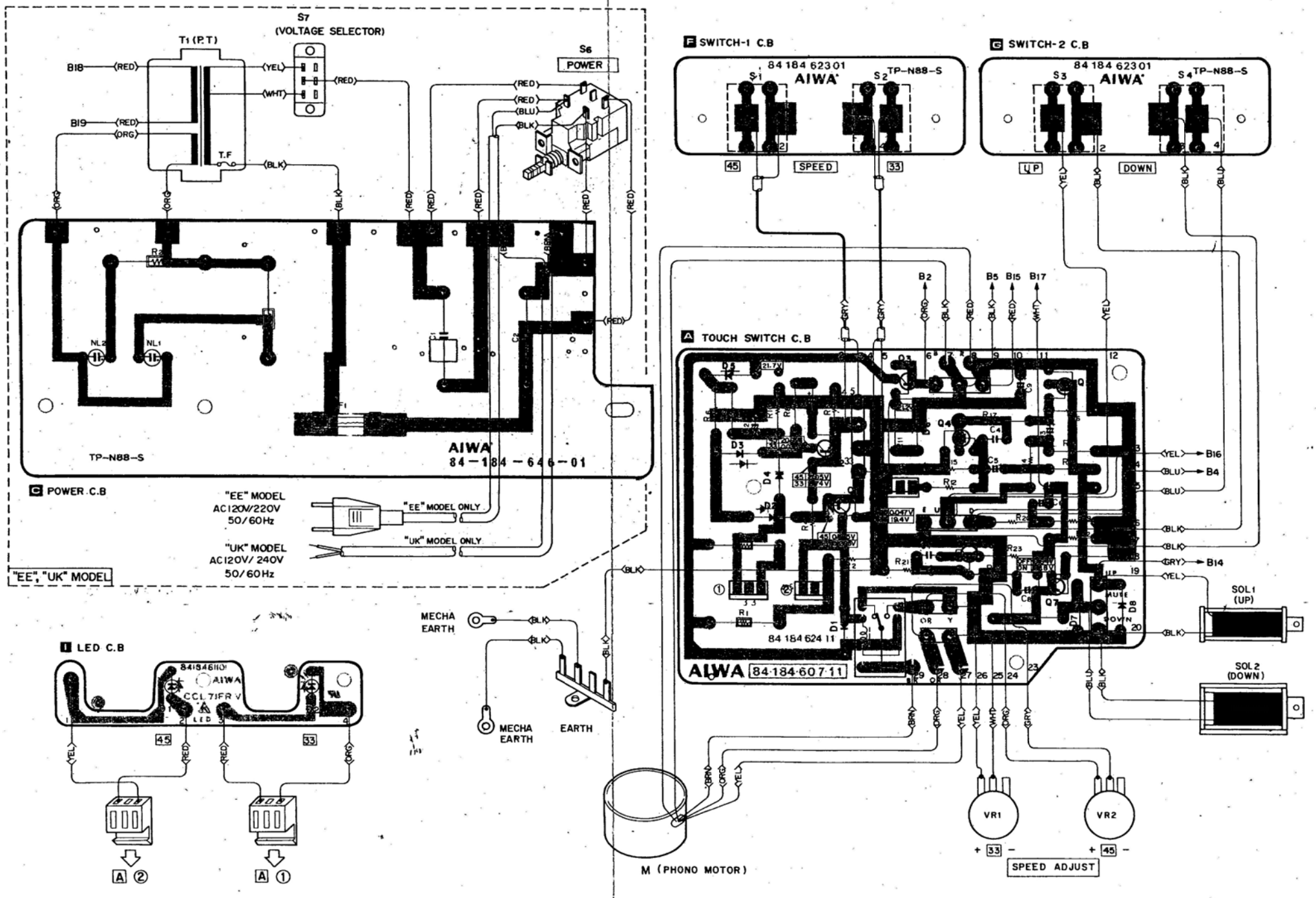
NOTE:

1) The voltage is the reference value which has been measured with a tester (50 k-ohms/V, DC). However, it should be borne in mind that there are numerous switching circuits and so the voltage often fluctuates noticeably in accordance with the operation state.
   The voltage display indicates the following operation states:
   ON . . . . . Platter is rotating
   OFF . . . . . Platter has stopped (POWER-ON)
   UP . . . . . Arm lifter is "UP" when the platter is rotating
   DOWN . . . . Arm lifter is "DOWN" when the platter is rotating
   "33" . . . . Platter is rotating at speed of 33-1/3 rpm
   "45" . . . . Platter is rotating at speed of 45 rpm
2) Resistors with no designation have a rated power of ¼W and a tolerance of ±5%.
3) Capacitors with no designation have a dielectric strength of less than 50WV.
4) Ceramic capacitor symbols:
   ⊣⊢ For temperature compensation (SL)
5) The only capacitor tolerances indicated are ±5% (J) and ±10% (K).
6) Explanation of symbols
   Ⓜ Mylar capacitor
   Ⓣ Tantalum capacitor
   Ⓐ Aluminum solid capacitor

This schematic diagram is subject to change without notice in the interests of improved performance.

S1 SPEED (33)
S2 SPEED (45)
S3 STOP/UP
S4 START/DOWN
S5 DETECTION SWITCH
S6 POWER
S7 VOLTAGE SELECTOR


E LAMP C.B
LAMP
CDS
AIWA
84 184 625 01
BLK
RED
B3
B6
B7
B1
B MAIN C.B
AIWA
84-184-603-21
E4 A6 E1
A14
A9
TP1 Auto Stop Test Point
Auto Stop Adjustment
GRY
E2
E3
D9
D8
(T1 P.T)
A11 A13 A10 A18
CHASSIS EARTH
EARTH
R-ch
L-ch
D RELAY C.B
ARM
AIWA
84-184-614-01
B10
B11
PU ASS'Y
RED (R)
GRN (RE)
WHT (L)
BLU (LE)
J1 REC SYNC
H READ SWITCH C.B
S3
AIWA
84 184 647 01


S7
(VOLTAGE SELECTOR)
T1 (P.T)
S6
POWER
B18
B19
(RED)
(ORG)
(YEL)
(WHT)
(BLK)
(BLU)
T.F
R2
NL2
NL1
C1
C2
F1
TP-N88-S
AIWA
84-184-646-01
C POWER C.B
"EE" MODEL
AC120V/220V
50/60Hz
"UK" MODEL
AC120V/ 240V
50/60Hz
"EE" MODEL ONLY
"UK" MODEL ONLY
"EE", "UK" MODEL
F SWITCH-1 C.B
G SWITCH-2 C.B
84 184 62301
AIWA
S1
S2
TP-N88-S
S3
S4
45
SPEED
33
UP
DOWN
A TOUCH SWITCH C.B
B2
B5
B15
B17
B16
B4
B14
84 184 624 11
AIWA 84-184-607-11
SOL1
(UP)
SOL2
(DOWN)
I LED C.B
84184611
AIWA
LED
MECHA
EARTH
EARTH
M (PHONO MOTOR)
VR1
VR2
+ 33 –
+ 45 –
SPEED ADJUST
A ②
A ①

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